

Compilation of submissions of views on additional elements to be considered in the review of the Gothenburg Protocol as amended

Submission of the EU and its Member States on the additional proposals to the list of potential elements for the review of Gothenburg Protocol

The EU and its Member States bring the attention to the main conclusions of the thirty-ninth session of the Executive Body (EB 39) (see para. 27(c) of the EB 39 Report and the decision 2019/4 with the list of elements in the Annex to this decision with regard to the “*List of potential elements that could inform the scope and content of the review of the Protocol to Abate Acidification, Eutrophication and Ground-Level Ozone*”.

The EU and its Member States (and other Parties) proposed additional elements to expand the list of potential elements for review (see annex to this submission) and in the EB 39 Report para. 27(c) it is stated that the Executive Body:

“(c) Took note of the proposed additions to the list of potential elements that, in addition to those contained in annex I to the report of the Working Group on Strategies and Review at its fifty-seventh session, would provide the basis for defining the scope and content of the review of the Gothenburg Protocol, and forwarded the list to the Working Group on Strategies and Review for consideration and continued elaboration at its fifty-eighth session, notably further discussion on ratification barriers;”.

In 2019, the EU and its Member States provided input on the future review of the Gothenburg protocol on two occasions. At the WGSR 57 the EU and its Member States provided proposals for inclusion in the policy discussions to inform the future review of the Gothenburg protocol (see informal document 1 to the WGSR 57) and at the EB 39 the EU and its Member States provided additional elements to the agreed WGSR list of potential elements that could inform the scope and content of the review of the Gothenburg protocol (see §25 of the EB 39 Report). The EU and its MS still subscribe to their input delivered at the WGSR 57 and the EB 39.

The EU and its Member States reiterate the comments provided to the WGSR 57 and EB 39, reproduced in the Annex to this Submission.

In addition, the EU and its Member States have additional elements and inputs to propose to the *List of potential elements that could inform the scope and content of the review of the Protocol to Abate Acidification, Eutrophication and Ground-Level Ozone as well as*

proposals on prioritisation of the items already on the list of potential elements for the Gothenburg Protocol review.

These additional elements have to some extent been submitted and discussed at the sessions of the WGSR and EB in 2019, but are not included as such in the current list of elements (see Annex to decision 2019/4) and seem worth repeating.

In summary and in line with priorities identified in the Long-Term Strategy, the policy review group report and the 2016 scientific assessment report, and also largely reiterating elements already covered in the list of elements in annex to Decision 2019/4, the EU and its Member States want to stress that in particular due priority and consideration should be given to ammonia, black carbon and methane emissions and to agricultural emission sources, shipping and residential solid fuel combustion when establishing the work plan and timelines for the review.

Priority elements:

1. In section D, “scientific and technical inputs”, **the WHO review of the air quality guidelines**, if time permits, should be added. This report (to be released end of 1st semester 2021 (?)), further assessing the health effects of air pollutants, is a key element for the development of future scenarios in the framework of an integrated approach -multi-pollutant, multi effect approach. This should be considered as a priority. However, any delay in the release of the report should not cause a delay of the Gothenburg Protocol review process.
2. A decision whether **condensable particles** should ultimately be included in or excluded from future PM inventories implies a decision on the definition, calculation methods and inventory methodology, including emissions factors, to ensure harmonization. Inputs from appropriate task forces on these aspects should be considered as a priority for the review work plan.
3. In section D, to improve the **definition of BC** for use in an air pollution context should be considered as a priority for emissions reporting, modelling, further control scenarios and for ambient air and effects monitoring purposes.
4. With respect to D (i) in relation to C (c): besides the expected input on ozone, ozone precursors and PM, the PRG recommended to apply cost-effective control options in modelling (including, in particular, cost-effective measures to reduce methane) to see what effect those control options have on the relative contributions of each pollutant to hemispheric pollution and how it affects the UNECE region with and without further greenhouse gas mitigation policy.

With respect to D (i) it is also important that the dynamics of ozone and its specific formation mechanisms are further explored. This very relevant topic should in our view also be explicitly mentioned under this section.

- 5 In section D “Scientific and technical inputs”, (d) update of critical loads for the analysis of the effectiveness of policies, should be completed by “and as a **basis for calculation of new reduction objectives**”. Rationale: the relation between critical loads and reduction of their exceedances should be an input for modelling and future reduction scenarios in the framework of an integrated approach through a multi-pollutant, multi effect approach.
- 6 In section C “Elements meant to address gaps” **PAHs emissions control measures** should be included, given the potential measures on residential solid fuel combustion to reduce PM emissions and PAH emissions at the same time.
- 7 In section D “Scientific and technical inputs”, an item should be added concerning the availability of reliable data on **shipping emissions**. The PRG report recommended to link emissions from shipping, being relevant locally, regionally and globally and occurring primarily near the coasts in the UNECE region, more explicitly to existing inventories of land-based emissions. It also recommended assessing how international shipping emissions are contributing to the background levels of ozone and PM that affect the UNECE region. If the global models cannot accurately represent international shipping emissions, the PRG recommends that the TFHAP, in coordination with other subsidiary bodies, report on appropriate next steps to improve global models (and regional models, if appropriate). In connexion with the IMO, it is also useful to identify potential emission limit values associated with BAT on emissions of black carbon.

ANNEX

Informal document no. 1

Fifty-seventh session of the Working Group on Strategies and Review

Agenda item 4

Policy discussions to inform any future review of the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone

Convention on Long-Range Transboundary Air Pollution (CLRTAP)

***57th session of the Working Group on Strategies and Review (Geneva, 21-24 May 2019)
EU and its Member States Submission of views on issues for policy discussions pursuant to
item 2.1.3 of the 2018-2019 workplan for the Convention***

1. Gothenburg Protocol

For consideration by the WGSR:

For policy discussion in the framework of the 57th WGSR session, May 2019, in order to prepare for a future review of the Gothenburg Protocol pursuant to article 10, the European Union and its Member States propose:

- *To discuss the process and modalities for the review of the Gothenburg Protocol which will be launched once the 2012 amendment enters into force, in line with the Long-Term Strategy, notably paragraphs 48 and 49. This would include:*
 - *clarifying that the mandate for this review will be to look in a first stage at the entire text of the amended Gothenburg Protocol, including black carbon and ammonia as specifically mentioned by Article 10 of the Protocol;*
 - *underlining that the review will take into account and investigate all priorities identified in the Long-Term Strategy, the policy review group report and the 2016 scientific assessment report;*

To ask Secretariat to make the necessary preparations for a review process to be launched soonest upon the 2012 amendment entering into force.

2. Black Carbon

For consideration by the WGSR:

Black carbon particulate matter is harmful to human health: WHO reports on evidence that links black carbon particles with cardiovascular health effects and premature mortality, for both short-term (24 hours) and long-term annual exposures (e.g. REVIHAAP, 2013). In addition, black carbon is a climate forcer with particularly strong impact on the Arctic region, accelerating the melting of ice.

The EU and its Member States have underlined black carbon as a priority issue within the new NEC Directive of 2016, mirroring the agreed emphasis on black carbon reduction in the 2012 amendment to the Gothenburg Protocol.

Considering both the urgency of the negative health impact and the climate change aspects of black carbon, it would be relevant to now accelerate the policy discussions on these emissions.

For discussion in the framework of the 57th WGSR session, May 2019, and with the amended Gothenburg Protocol article 10 paragraph 3 in mind, the European Union and its Member States therefore, propose to initiate discussions on possible policy options for further improving black carbon reporting and abatement techniques under CLRTAP. Notably:

- ***To invite EMEP and its Task Forces and Centres to present the current reporting and inventory situation in more detail, to inform the WGSR. Is the current reporting sufficiently detailed, coherent and of sufficient quality to inform policy decisions on***

cost-efficient reduction measures? Within the CLRTAP framework, what could be done to improve the situation further?

- ***To invite EMEP to consider and assess further improvements of the available black carbon inventory methods and the possible need for revision of the EMEP/EEA Guidebook in this regard.***

Improvement in methods would provide CLRTAP parties with better tools to develop and/or improve their black carbon emissions inventories and thereby to ensure efficient policies for emission reductions. An initiative to further develop methods for estimating black carbon emissions as well as subsequent emission reduction techniques and potentials should focus in particular on increasing the extent to which relevant black carbon source sectors are provided with higher Tier emission coefficients. Assessment of the emission factors/black carbon fractions could be done with an aim to reduce uncertainties in these parameters.

- ***To discuss ways for enhanced cooperation between CLRTAP and the Arctic Council to expand and harmonise black carbon emissions reporting by countries whose black carbon emissions impact the Arctic region; and to harmonise, where needed, the reporting within these two frameworks.***
- ***To further develop control strategies that focus PM emission abatement on the reduction of BC emissions.***

This activity should build on existing material such as Guidance Documents to the Gothenburg Protocol, take into account the proposed Code of good practice for solid fuel burning and small combustion installations, and be developed in close cooperation with the Arctic Council, CCAC and other relevant fora.

Additional proposal:

For discussion in the framework of the 57th WGSR session, May 2019, the European Union and its Member States propose to raise for discussion the timescales under Article 3 as defined in Annex VII, with a view to examining any potential need for updating this Annex per the expedited procedure provided for in Article 13bis, §6 and 7 of the revised Gothenburg Protocol, in order to avoid unnecessary barriers for ratification.

Convention on Long Range Transboundary Air Pollution (CLRTAP)
39th session of the Executive Body (EB 39)
(Geneva, 9–13 December 2019)
The EU+MS Position

Agenda item 5: Review of the implementation of the 2018–2019 workplan

5(b) Policy

The EU and its Member States welcome the work by TFTEI on preparing the draft Code of good practice on wood burning and small combustion installations. We urge the EB to adopt the Code and propose that the Secretariat should publish the document on the Convention website.

The EU and its Member States welcome and support the outcome of the 57th session of the Working Group on Strategies and Review and greatly appreciate the work done, especially in regard to the preparatory discussions for the initiation of the review of the Gothenburg Protocol, with a view to Article 10 of the amended protocol.

We welcome the formal initiation of the review process at this EB and the proposal to request the WGSR to further elaborate the workplan and more detailed scope of the exercise, based on the list of review elements compiled as input to this meeting.

The review process should be, in its initial stages, a broad consideration of the topics of relevance to the Air Convention. To discuss a broader range of issues does not commit any parties to a specific outcome or conclusion of the review.

Additionally, we would like to add the following elements to the list of topics:

- *Under section B “Elements in the existing protocol”, we would like to add “Condensable part of emissions from residential heating and their implications for compliance and the set reduction commitments”*
- *Under the same section, add also “Current mechanisms and criteria for adjustment procedures in relation to emission inventories and reduction commitments”*
- *Air pollution effects on marine ecosystems.*

Finally, we welcome and support the draft decision prepared for the launch of the review.

Submitted by the European Environmental Bureau (EEB) to the fifty-eight session of the Working Group on Strategies and Review, to be held in Geneva 26-29 May 2020.

In December 2019 the Executive Body decided to start the review process of the 2012 Gothenburg Protocol, and by decision 2019/4 it invited Parties, subsidiary bodies, observers and other interested groups and organizations to submit views before 15 March 2020 on additional elements to be considered in that review.

The 2012 Gothenburg Protocol sets binding national caps for five air pollutants (SO₂, NO_x, NH₃, NM-VOCs and PM_{2.5}), to be achieved by 2020. However, already at the time of signing the amended Gothenburg Protocol in 2012, it was clear that the national emission reductions commitments for 2020 were inadequate to achieve the Protocol's objective of reducing air pollutant emissions to ensure that atmospheric depositions or concentrations do not exceed the critical loads and critical levels¹.

The European Environmental Bureau (EEB) underlines the importance of arriving quickly to a decision to revise and strengthen the Protocol. A revised Gothenburg Protocol shall:

- Continue to be based on the **multi-pollutant and multi-effect** approach;
- Introduce a long-term vision of **zero-pollution**;
- Set a clear objective that emissions of air pollution – by 2030 at the latest – come down to levels that provide a high level of protection for health and the environment, i.e. **no exceedance of the World Health Organization's guidelines for health protection and no exceedance of critical loads and levels for environmental protection**;
- Elaborate new national Emission Reduction Commitments (ERCs) for 2030 and future years with the help of integrated assessment modelling that uses **emission scenarios based on up-to-date projections of energy use and activity levels that are compliant with the Paris Agreement**, i.e. where emissions of greenhouse gases are reduced to levels that are needed to secure that global warming stays

¹ Annex I of the Protocol describes the critical loads and critical levels, including critical loads for acidity and nutrient nitrogen (eutrophication) and critical levels for ozone, particulate matter and ammonia. According to Annex I, the critical levels for health impacts of ozone and PM_{2.5} are determined in accordance with the World Health Organization (WHO) air quality guidelines

below 1.5°C;

- **Establish binding national ERCs for 2030, as well as indicative national ERCs for 2035 and 2040**, that are needed to move towards the zero-pollution vision;
- Expand the number of air pollutants covered by binding ERCs from the current five to eight, by **adding methane (CH₄), black carbon (BC) and mercury (Hg)**. The need to ensure further reductions in methane and black carbon are highlighted repeatedly in the Convention's Long-Term Strategy for 2020-2030. In order to further reduce mercury exposure, it is necessary not only to apply emission limit values for various source sectors (such as coal power plants) but also to ensure that the total emissions of mercury are reduced, and this can be done by establishing binding ERCs.
- Include **mandatory technical annexes that set binding minimum requirements** (e.g. emission limit values and emission abatement measures) for the main source-sectors. Examples of "laggard" source-sectors that are mentioned in the Long-Term Strategy are agriculture, residential solid-fuel burning and international shipping.
- Focus on achieving further **significant reductions in agricultural emissions** of ammonia and methane;
- Include a **mechanism for review and revision**, so that the indicative national ERCs for 2035 and 2040 are reviewed/revised and made binding by 2030 and 2035 respectively at the latest;
- **Remove the current adjustment procedure and the three-year averaging option**. The Long-Term Strategy says that the review "should also include a reflection on the flexibility provisions included in the amended version of the Gothenburg Protocol and their effectiveness."

Clearly there are close and important links between air pollution policies and climate policies. Reducing fossil fuel combustion through improvements in energy efficiency and increased use of less - or non - polluting renewable energy sources will result in significantly lower emissions of SO₂, NO_x and PM, as well as cutting emissions of the main greenhouse gas, carbon dioxide.

Not only will the implementation of necessary climate policies help to achieve air quality targets. The significant co-benefits from air pollution reductions also help to motivate a much higher level of ambition for climate policy, as well as a higher share of domestic

carbon dioxide reductions.

The gravity of the current air pollution situation calls for a revised Gothenburg Protocol that establishes a very high level of ambition. It is not acceptable that air pollution will continue to cause several hundreds of thousands of premature deaths among European citizens each year, and that millions of hectares of sensitive ecosystems will still be exposed to pollutant depositions in excess of their critical loads and levels