## Voluntary submission for SBSTA 52

## Agenda Item 8(b) Methodological issues under the convention: Common metrics to calculate equivalence of greenhouse gases

We are very grateful for the opportunity to make input on the above Agenda Item. To summarise our submission:

- It is important that we use greenhouse gas (GHG) metrics that are well-aligned with policy goals;
- There has been significant new research on metrics since the Paris Agreement (PA) was signed this indicates that the use of some metrics might lead to perverse incentives, and outcomes that are not well-aligned with achieving the PA's long-term temperature goal;
- We strongly encourage SBSTA to initiate and conclude a review of common metrics, via a dialogue between policymakers and the research community.

1. We note that SBSTA has long considered the issue of common metrics. We recall that SBSTA34 (June 2011) acknowledged that while Global Warming Potentials (GWPs) "are a well-defined metric based on radiative forcing that continues to be useful in a multigas approach", they "were not designed with a particular policy goal in mind and, depending on the specific policy goals, alternative metrics may be preferable"; it further acknowledged "the limitations in the use of GWPs based on the 100-year time horizon [GWP100] in evaluating the contribution to climate change of emissions of GHGs with short lifetimes". The item has remained on SBSTA's agenda ever since. We note that SBSTA51, like its predecessors, was unable to conclude its considerations on the issue.

2. We also recall that IPCC's First Assessment Report (1990) stated that "there is no universally accepted methodology for combining all the relevant factors into a single [metric] . . . A simple approach [i.e. the GWP] has been adopted ... to illustrate the difficulties inherent in the concept". IPCC continues to assess such metrics; its Fifth Assessment Report (2013) refrained from making a specific recommendation on the suitability of different metrics in the context of their use in policy. Its ongoing Sixth Assessment will include further discussions of metrics.

3. The GWP (and specifically GWP100) was adopted for the Kyoto Protocol, and is widely considered to have contributed to enabling its multi-gas perspective. However, because the PA has specific temperature-based aims, we consider that it is important to return to a detailed consideration of the fit between metrics and specific policy goals.

4. The signatories to this Submission are active in the assessment and development of such metrics; they have focused on the issue of comparing the climate impact of emissions of long- and short-lived climate pollutants and alignment with the aims of the PA. This Submission does not to press a particular perspective, but we consider that the risk of perverse outcomes, if certain metrics are adopted, could hinder the achievement of the PA aims.

5. We feel that this recent activity, and the resulting debate and discussion, indicates that there is an urgent need for a review that includes a dialogue between policymakers and the research community. We urge SBSTA to give serious consideration to initiating and concluding such a review. The review would need to account for (i) scientific developments, (ii) the changing policy landscape that resulted from the PA, and (iii) the impacts of possible alternative frameworks on both individual Parties (including distributional and ethical considerations), and the interpretation of each of the Articles of the PA. A wider issue that could be considered is whether it may be more transparent to consider long-lived and short-lived emissions separately in both reporting and specifying emission targets, rather than aggregating them into a single measure.

6. Some commentators have questioned the preparedness of governments to adopt alternative metric frameworks. However, decisions under the PA already allow for some use of metrics other than GWP100. Further, Parties to the UNFCCC have been willing to adopt updated GWP100 values presented in successive IPCC assessments, even when these updates have been substantial. A SBSTA-led review, which includes both policymakers and researchers, would provide important clarity on this issue and allow for a more informed discussion within the wider community.

## Respectfully

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