

IGES Issue Briefs on Future Climate Regime

A Process for Making Nationally-determined Commitments More Ambitious

[Climate and Energy Area, IGES]

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Key messages

- Mainstreaming scientific information into the policy-making process could enhance social or peer pressure to make nationally-determined mitigation contributions more ambitious. Such information should be provided by a respected actor, be comparative and/or infused with prescriptive guidance.
- To this end we propose that a consortium of respected research institutes is established with a view to providing benchmarks to which Parties can refer when proposing their initial commitments and against which each Party's relative contribution to the 2°C target will be assessed.
- To enhance *ex-ante* clarity and comparability of Parties' commitments, the Consortium will also provide a common and clear template for information on mitigation commitments that Parties will complete *ex-ante*.
- A limited number of Parties—for example the G20 member countries—will be requested to complete the common template and go through an international consultation process with a view to amending commitments to meet the required aggregate contribution for the 2°C target.

01 Introduction

Recently, negotiations have intensified over a post-2020 framework to address climate change. This framework is applicable to all the Parties to the UN Framework Convention on Climate Change (UNFCCC) and one of the most contentious issues is how diverse Parties with different national circumstances should contribute to the mitigation of greenhouse gas (GHG) emissions. In the course of discussions, a concept of “nationally determined commitments or contributions” to mitigate climate change has been increasingly gathering attention. While this concept has variations proposed by different Parties, there are several common elements which include: internationally agreed rules to enable *ex-ante* clarity of nationally determined commitments and a process or framework to ensure that Parties’ commitments are ambitious as well as equitable. However, as co-chairs of the Ad Hoc Working Group on the Durban Platform (ADP) pointed out, “[g]reater clarity is needed on how this vision could be realized including on possible steps and time frames”.¹ In particular, since the concept of nationally determined commitments is largely a bottom-up approach there is a risk that the sum of Parties’ commitments may not be sufficient to achieve the 2°C target. Finding a way to increase the level of mitigation commitments submitted in an equitable manner is very challenging.

The U.S. special envoy to climate change, Todd Stern, took an optimistic stance on this when he said that “countries will be more ambitious if they have confidence that their peers are also genuinely acting” (Stern, 2013). To this end he suggested requesting Parties to submit their proposed commitments, for example, six months in advance so that other Parties and the broader public would have time to scrutinise the submission and offer comments. The core of this approach is the process of generating information on nationally determined commitments and ensuring their *ex-ante* clarity gives rise to peer pressure or social pressure to make mitigation commitments more ambitious.

However, the lessons learnt from the mitigation pledges submitted after the Copenhagen Accord and the following clarification process show that the current institutional arrangements for mitigation pledges did not generate enough of such peer pressure. As theories on international relations have emphasised, one of the important functions of an international regime is the provision of information (Keohane, 1984). Furthermore, information could constitute a form of social pressure only under certain circumstances, for example when information is provided by a respected actor, when it is imbued with normative significance and when it is comparative (Kelley & Simmons, 2013). Thus, it is important to take more care in the design of a process where information can play a more substantive role.

Against this backdrop, this issue brief proposes specific steps and time frames that mainstream necessary information into the policy-making process with a view to contributing to the formulation of social pressure for enhancing the level of mitigation action. Other than the provision of information, of course, other functions or mechanisms of international regimes could contribute to the enhanced implementation of mitigation action. For example, some argue that some form of compliance and enforcement system is still important in light of the trend for a broader reliance on market-based mechanisms and the threat of trade measures (Brunnée, Doelle, & Rajamani, 2012). Others emphasise that an incentive mechanism for providing material interests is key to wider participation and successful implementation (Barrett, 2003). These functions or mechanisms need to be considered in an overall picture of institutional design, which requires another set of analysis and goes beyond the scope of this issue brief. The focus is rather on a process that, through information on nationally determined commitments to climate change mitigation, could contribute to the formulation of social pressure for enhancing levels of mitigation ambition.

This issue brief below provides a gist of the current institutional arrangements for improving information on mitigation commitments and actions. It then goes on to propose concrete steps and describes rationales for these specific features, and concludes with a discussion on the advantages and caveats of the approach proposed.

¹ Note on progress, prepared by the Co-Chairs of the ADP, 13 August 2013.

02 Current Institutional Arrangements for Information on Mitigation Commitments and Actions

Under the UNFCCC, there are three institutional arrangements for generating, exchanging and, in some cases, reviewing information on mitigation commitments. First arrangements are the “clarification and understanding” process for mitigation pledges under the Copenhagen Accord/Cancun Agreements. These arrangements continue up to 2014. The Cancun Agreements initiated a process to clarify the assumptions and conditions of mitigation pledges by developed countries and a process to understand the diversity of mitigation pledges by developing countries.² Developed country Parties were invited to use a common template to guide their submission of relevant information.³ Figure 1 shows the information contained in the common template. Ten Parties and one region have submitted information.⁴ All the Parties except Japan used the template, but the detailed information provided by the countries was quite varied.⁵ In particular, many Parties did not provide information on emissions per capita and per GDP in the target year, nor on conditions/assumptions related to the ambition level of the pledges. Such limited adherence to the common format makes it difficult to compare the information provided.

Similarly, developing countries were also invited to submit more information on their mitigation pledges, including assumptions and methodologies, sectors and gases covered, potential values used for global warming, support needs for implementation and estimated mitigation outcomes. Unlike in the case of developed countries, however, a common template was not developed. Only four Parties and one group of Parties provided any additional information,⁶ but their format and contents differed significantly thereby making it impossible to make comparisons.

Another set of institutional arrangements is an enhanced reporting system along with national communications—biennial reports (BRs) and international assessment and review (IAR) for developed countries, and biennial update reports (BURs) and international consultation and analysis (ICA) for developing countries. Developed countries are requested to submit BRs by the beginning of 2014 and developing countries to submit BURs by the end of 2014. The first round of IAR will commence two months after the initial submission of BRs, and the first ICA will commence six months after the initial BURs. BR/IAR aim to review the progress made in achieving emissions reductions and promote the comparability of efforts among all developed countries. On the other hand, BUR/ICA aim to increase the transparency of developing countries’ mitigation actions and their effects but

- ◆ Assumptions and conditions related to target
 - Base year
 - ✓ % reduction from base year
 - ✓ % reduction from 1990 (if base year other than 1990)
 - Period for reaching target
 - Inventory methodology used
- ◆ Coverage of GHG
 - Gases covered
 - Base year for each gas
- ◆ GWP values
- ◆ Coverage of sectors
- ◆ Emission values and anticipated use of emissions/removals from LULUCF and carbon credits
 - Emissions excluding LULUCF in base year
 - Emissions/removals from LULUCF included in base year
 - Emissions in base year used for calculation of target
 - Emissions excluding LULUCF in target year
 - Anticipated emissions/removals from LULUCF included in target year
 - Anticipated use of carbon credits from market-based mechanisms
 - Anticipated carry-over of carbon credits
- ◆ Expected emission reductions in kt CO₂e
 - Relative to base year
 - Relative to 1990 (if different to base year)
- ◆ Role of LULUCF
 - Comprehensive land-based or activity based
- ◆ Carbon credits from market-based mechanisms
 - Mechanism used
 - Total contribution from mechanism used (% of overall target)
- ◆ Assumptions and conditions related to ambition of the pledge
 - Assumed changes in emissions per capita and emissions per GDP etc.

Figure 1. Common format for information on developed countries’ mitigation pledges

² Decision 1/CP.16, paragraphs 38 and 50, respectively.

³ Decision 2/CP.17, paragraph 5.

⁴ The ten countries and one region are Australia, Canada, Iceland, Japan, Kazakhstan, Monaco, New Zealand, Norway, Switzerland, the U.S., and EU.

⁵ Japan did not use the template because it was on the process of revising the previously pledged target.

⁶ The four countries are Egypt, Israel, Malawi, Swaziland, and the one group is the Group of African States.

do not discuss the appropriateness of their domestic mitigation actions (see Figure 2 for information contained in BRs and BURs). Both processes are designed to monitor and report the progress of the current mitigation targets and actions. Neither process explicitly requires information on post-2020 mitigation commitments.

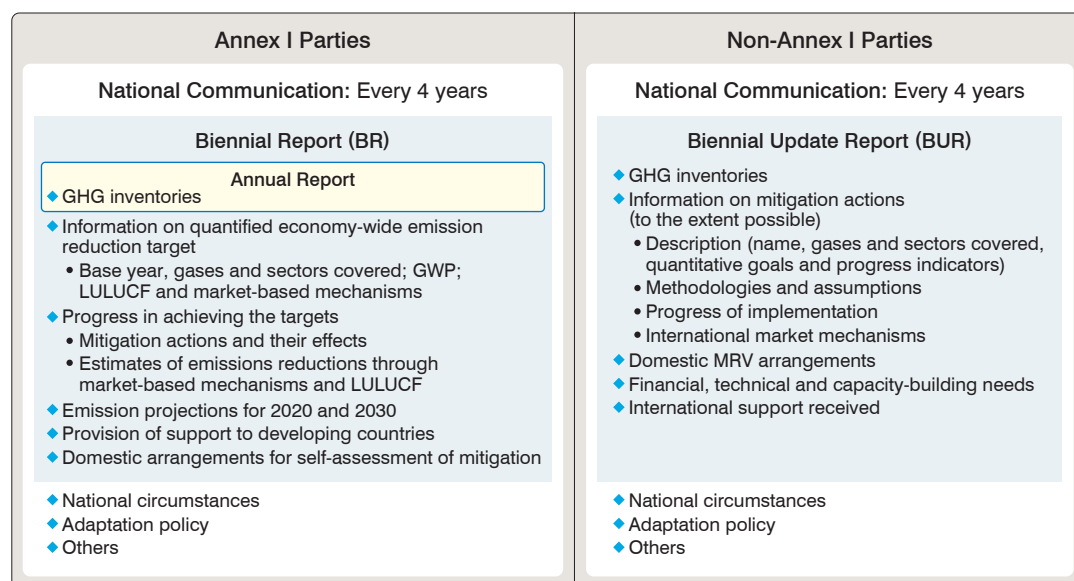


Figure 2. Information contained in biennial report and biennial update reports

The other institutional setting is the 2013-2015 Review.⁷ This Review will assess the adequacy of the 2°C goal in light of the ultimate objective of the UNFCCC and overall progress towards achieving the long-term global goal, including consideration of the implementation of the commitments under the UNFCCC.⁸ The Conference of the Parties (COP) will conduct the Review, with the assistance of a joint contact group established by the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI). An expert dialogue will also support the joint contact group's work with a view to ensuring the scientific integrity of the Review.⁹ COP also decided that the ADP shall be informed of the outcomes of the 2013-2015 Review.¹⁰ The Review could be a process through which scientific knowledge is translated into policy. However, this process is not intended to assess Parties' individual commitments to climate change mitigation, nor new, post-2020 commitments. COP also decided to take appropriate action based on the Review,¹¹ but it is not yet determined what that action would be.

In sum, the current institutional arrangements under the UNFCCC have limitations in terms of generating necessary information on mitigation commitments and then mainstreaming it into the policy-making process. The "clarification and understanding" processes of the Copenhagen pledges neither generate comparative information on developed countries' pledges, due to the implementation problem, nor on developing countries' pledges, due to the design problem. The BR/IAR and BUR/ICA processes are essentially designed to provide a snapshot of the progress made and do not include a requirement for new submissions of new commitments. By design, the 2013-2015 Review addresses the overall progress towards the long-term global goal, rather than the progress and future commitments by individual Parties. More importantly, none of the current institutional arrangements do not generate information which is needed to assess individual Parties' commitments in terms of their relative contributions to the 2°C goal.

⁷ Decision 1/CP.16, paragraphs 4 and 138

⁸ Decision 1/CP.18, paragraph 79

⁹ Decision 1/CP.18, paragraphs 80 and 85

¹⁰ Decision 1/CP.17, paragraph 6

¹¹ Decision 1/CP.16, paragraph 139

The next section will discuss and propose concrete steps and timelines with the view to mainstreaming necessary information into the policy-making process. It should be noted that the process proposed below can be either established as a new process or integrated into one of the current arrangements. For example, the modalities and procedures for ICA and IAR are subject to revision no later than 2016 and 2017 respectively. Earlier revision can provide an opportunity for integrating the proposed process into the BR/IAR and BUR/ICA processes. As another option, additional mandates to incorporate information on new, post-2020 mitigation commitments could be given by COP to either the “clarification and understanding” process or the 2013-2015 Review.

03 Key Steps for Generating, Exchanging and Assessing Information

In order to generate adequate and necessary information, and then mainstream it into the policy-making process with a view to enhancing social pressure for making the level of mitigation action more ambitious, we propose a process with the following features:

- A consortium of research institutes (the Consortium) is established with a view to providing benchmarks to which Parties can refer when proposing their initial commitments, and against which each Party’s relative contribution to the 2°C target is assessed.
- To enhance *ex-ante* clarity and comparability of Parties’ commitments, the Consortium also provides a common and clear template for information on mitigation commitments that Parties will complete *ex-ante*.
- A limited number of Parties—for example, the G20 member countries—are requested to complete the common template and go through an international consultation process with a view to amending commitments to meet the required aggregate contribution for the 2°C target.

As Figure 3 shows, more concretely, the process consists of five steps: (1) Paving the way for the Consortium; (2) the establishment of the Consortium; (3) initial submission of mitigation commitments; (4) *ex-ante* clarification process; and (5) re-submission of commitments. This section provides detailed descriptions of each step.

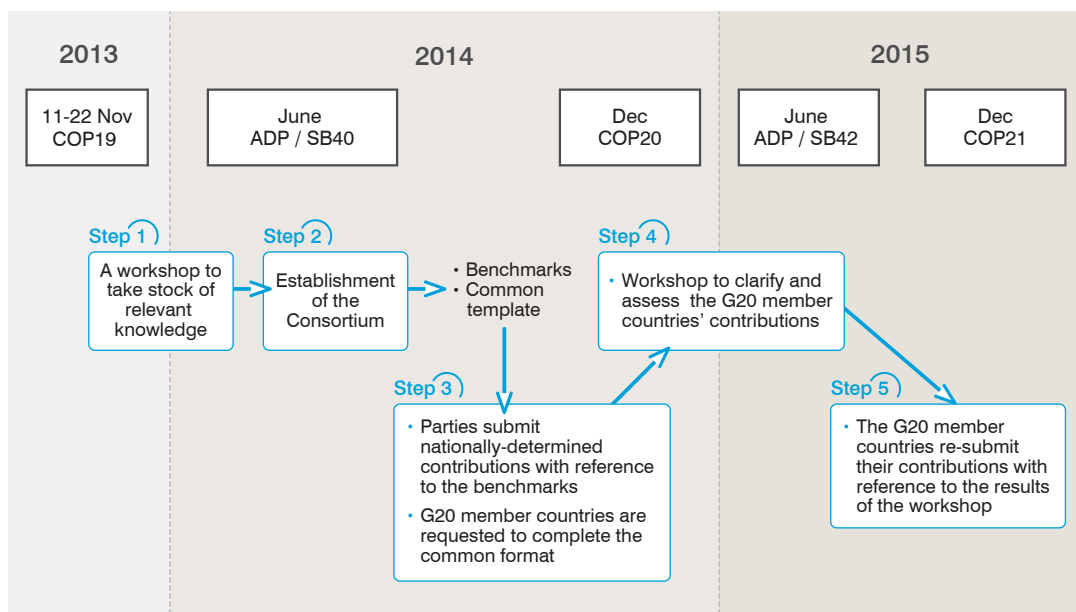


Figure 3. Timeline for the international consultation process

Step 1 - Paving the way for the Consortium: Some benchmarks and a common template are necessary for comparison. Such benchmarks need to be seen as scientifically well-founded and politically non-biased by the international community. Building upon the relevant research outputs in the past, a consortium of research institutes could provide such benchmarks and a common template. It would be useful to start with a workshop to take stock of relevant knowledge and to shed light on the importance of creating a consortium of research institutes for this purpose.

Why is a consortium necessary?

As the lessons from the Copenhagen/Cancun processes show, a pure “pledge and review” system is not enough to raise the level of mitigation ambition. A review or consultation process can give rise to peer pressure through comparisons between countries so there needs to be development and sharing of benchmarks or indicators to compare Parties’ commitments. However, comparisons may produce positive results only when the indicators and methods of comparison are clear and widely accepted. This is why a consortium consisting of a wide range of respected research institutes is necessary.

Who would be members of the Consortium?

There are several options: e.g. 1) The IPCC Working Group’s 3 authors’ institutes; 2) government nomination; and 3) self-nomination. To work under the UNFCCC process, membership and mandates of the Consortium need to be approved by COP or the ADP— one of the ad hoc subsidiary bodies.

Step 2 - Establishment of the Consortium to develop benchmarks and a common template: The Consortium is established with a view to developing benchmarks to which Parties can refer when they develop their mitigation commitments.¹² Some Parties have less capacity to evaluate their relative commitments to the global goal and tend to have a lower quality of data. References such as benchmarks would help them recognise their potential, leading to greater commitments. Each Party’s relative contribution to the 2°C target can also be assessed against such benchmarks. The Consortium also provides a common template for information on the mitigation commitments to be completed by each Party.

¹² While this paper focuses on economy-wide mitigation commitments, this is not to imply that all the Parties should strive to do so.

What would the benchmarks look like?

To date many approaches to calculate “fair” future mitigation commitments across Parties have been proposed,¹³ and future country-level mitigation commitments based on these approaches have been discussed in the academic literature. However, there has been no single approach that was considered fair and acceptable by all Parties and it is very unlikely that such an approach will be developed in the near future. Therefore, the Party-specific benchmark we propose features a range of expected mitigation commitments in the target year (“benchmark range”) to incorporate a wide range of approaches reported in the scientific literature (see Figure 4). This concept is similar to the approach taken by Climate Action Tracker, which derived benchmark ranges for key emitting countries to evaluate the Copenhagen pledges. The benchmark range of a specific country was derived from a number of modelling studies published in 2009 and 2010 that calculated country-specific emissions pathways under various global effort-sharing principles (represented by grey dashed lines in Figure 4). These emissions pathways are consistent with the 2°C goal.

There is one main difference between the benchmark range proposed in this paper and range in the Climate Action Tracker. That is, whereas the Climate Action Tracker’s benchmark ranges are based upon only six studies, the Consortium will gather a far wider range of scientific studies. In addition, members of the Consortium may all contribute to additional emissions reduction pathways if the existing literature covers only a limited number of effort-sharing approaches for a certain Party.

The benchmark ranges for Parties will be provided in terms of absolute emissions. However, it is expected that some Parties will submit their contribution proposals in various metrics other than absolute emissions.¹⁴ Such commitments may include intensity targets (reduction in emissions per unit of GDP or another output) and baseline scenario targets (reduction in emissions relative to a baseline scenario). To make them comparable, these metrics need to be translated into absolute reductions from a base year. To do so, it is necessary to clarify underlying assumptions and conditions for intensity targets and baseline scenario targets, which will be addressed in the next Box.

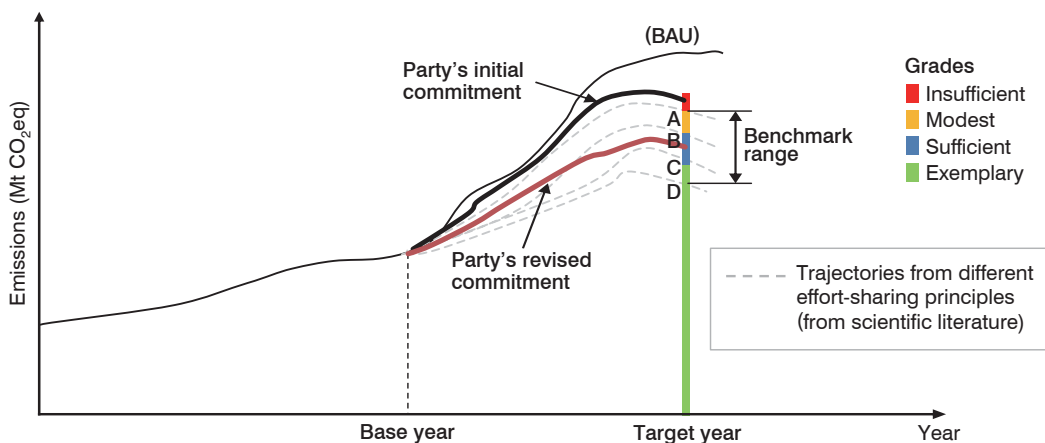


Figure 4. A simplified schematic of the benchmark range of mitigation commitments and country submissions, and a grading of country submissions, based on the concept of the Climate Action Tracker (2013).

¹³ Bodansky (2004) has already covered more than 40 proposals for differentiating commitments.

¹⁴ In the case of the Copenhagen mitigation pledge, for example, China is committed to reduce CO₂ emissions intensity from the base year and Indonesia is committed to reduce economy-wide emissions from BAU.

What would the common template look like?

The common template can be based upon the common tabular format for reporting developed country biennial reports. However, some modifications will be necessary when applying this template to developing countries if they set mitigation commitments relative to the emissions projections under a self-defined baseline scenario rather than relative to absolute emissions. The development of a baseline scenario requires a large number of inputs, some of which are technical (e.g. data availability and methodological approach) while others are influenced by political considerations (e.g. key drivers and underlying assumptions, and the inclusion of policies and measures). These inputs can have a major effect on baseline emissions and thus baseline scenario inputs need to be accurate, relevant, consistent and transparent (WRI, 2013).

One of the guidelines available or currently in preparation that addresses this issue is the Greenhouse Gas Protocol Mitigation Goals Standard developed by the World Resources Institute (WRI). This Standard, which is currently under review, sets out reporting guidelines for a number of key elements underlying the baseline scenario (WRI, 2013). The elements to be reported include the following:

- Scope – Which gases and sectors are covered by the baseline scenario?
- Metric – Which metric will be used to calculate the baseline scenario?
- Historical reference period and timeframe – Which year(s) of GHG inventory are the historical reference for the baseline scenario?
- Modelling framework – Which model will be used to project emissions?
- Key emissions drivers and underlying assumptions – Which key emissions drivers and underlying assumption will be used?
- Data – What are the data needs and sources?
- Policies and measures – How will policies and measures be included in the baseline scenario?
- Emissions reductions beyond the goal boundary – How will emissions reductions beyond the goal boundary (e.g. offsets) be accounted for in the baseline scenario?
- Baseline recalculation – Under what conditions should the baseline scenario be recalculated?
- Uncertainty and sensitivity analysis – How will uncertainty and sensitivity analysis be addressed?

Incorporating the aforementioned reporting guidelines for baseline emissions projections in addition to mitigation targets can significantly improve the transparency of the Parties' contribution proposals. We also propose that individual Parties are requested to provide information on the equity principle(s) that they used to determine whether their commitments are equitable contribution to the long-term global goal.

In addition, Parties that are committed to long-term mitigation goals through national legislations or international agreements are encouraged to describe the relevance of the proposed target to their long-term goals.

Step 3 - Submission of Mitigation Commitments: Referring to the benchmarks provided by the Consortium, each Party submits its own mitigation contribution to the UNFCCC Secretariat. A limited number of Parties, such as G20 member countries, is requested to use the common template to provide information required for *ex-ante* clarity. The information that is provided will then be compiled and uploaded to the UNFCCC website for easy reference.

Why are only a limited number of countries requested to go through a consultation process?

The process needs to be streamlined since there are several review and MRV processes (clarification and understanding of the Copenhagen pledges, BR/IAR, BUR/ICA, the 2013-2015 Review, Review of Annex I Parties' 6th National Communications and the inventory review of the first Commitment Period of the Kyoto Protocol) that will take place in parallel with the ADP and each process can be very resource-intensive. Unlike the current MRV process (BR/IAR and BUR/ICA) for all Parties (except LDCs and SIDS), we propose that the international consultation process should focus on G20 member countries in order to be efficient and complete its work in time (by 2015). As pointed out earlier, with additional mandates, the proposed process can be either established as a new process or integrated into one of the current arrangements, specifically the BR/IAR and BUR/ICA processes or the 2013-2015 Review.

What is the rationale for targeting G20 member countries?

The principle of common but differentiated responsibilities and respective capabilities (CBDR&RC) is key to differentiation under the UNFCCC. However, competing approaches and indicators for assessing the relative distribution of responsibility and capability among countries have been put forward with divergent conclusions. We propose utilising already established groups of countries, like the G20, rather than creating a new category under the UNFCCC process. Of equal importance is how developing countries participating in the G20 already show their interest and capability to supply and manage "global public goods."

Step 4 - Ex-ante Clarification Process: A series of workshops (the Workshop) will be held to clarify commitments made by G20 member countries commitments, as well as any untapped mitigation potential. After all countries have submitted their contribution proposals, the Consortium compiles them and estimates the emissions gap between the total amount of individual mitigation commitments submitted and the 2°C global emissions pathway range. This is a process already being implemented for the UNEP Emissions Gap Report series (UNEP, 2010; 2011; 2012). The submitted commitments will be reviewed against the benchmark range as well as the global emissions gap. By comparing the submitted commitments with the benchmark range, it becomes possible to compare each country's level of ambition in the proposed commitments. The Workshop will consist of presentations by the G20 member countries and the Consortium, followed by Q&A sessions. The Workshop will be open to other Parties, observers and the media. Based upon the *ex-ante* clarification process the Consortium will provide an assessment of the commitments made by G20 member countries commitments.

How does the ex-ante clarification process move forward?

The Workshop is not a top-down process through which the Consortium judges the level of ambition in the proposed commitments behind closed doors. Instead, it will be designed as an inclusive and transparent process. There can a number of options for the function of the Workshop.

- **Option 1:** Limited function —The Workshop serves as a venue for basic information exchange on the benchmark range, the Party's proposed contribution and the global emissions gap. The Consortium asks Parties to provide additional information that is missing from the common template, or otherwise will use default values to complete the template.

Pros: This process is manageable, since it requires limited resources and time. Compared with other options, Parties would be more willing to take part in this process.

Cons: This process could generate the limited level of transparency and clarity, thereby resulting in limited pressure on Parties.

- **Option 2:** Moderate function—The Consortium grades each Party's proposed commitment against the benchmark range as is done by the Climate Action Tracker. As an example of grading, Figure 4 presents four grades: "Insufficient", "Modest", "Sufficient", and "Exemplary." At the Workshop, the Consortium may also provide further guidance, solely based on technical analysis, to possibly achieve emissions reduction beyond the proposal. The consultation process will remain at the economy-wide level.

Pros: This process could contribute to further transparency and clarity. It also provides comparable information, which could give rise to social pressure on Parties.

Cons: This process takes up more resources. Parties are likely to be reluctant to be "officially" graded.

- **Option 3:** Active function—In addition to the functions described above, the Consortium reviews the proposed commitments at the sectoral level and examines whether the mitigation potential of each Party is fully addressed.

Pros: Enhanced transparency and in-depth clarity could be attained. More importantly, information generated through this process is comparative as well as being imbued with normative significance. These could further enhance social pressure.

Cons: This process takes up more resources and requires a high level of technical knowledge compared with the other options. Parties may also find the process too intrusive.

The review of proposed commitments in comparison with the benchmark range would ideally be performed in terms of absolute emissions to maintain transparency and comparability. However, upon request from a Party, the benchmark range will be converted to the metrics the Party used for the proposed commitments.

Regardless of which options are taken, the Workshop will serve as an important interface between science and policy. Global assessment models are used to calculate differentiated mitigation commitments, but these models often do not necessarily take proper account of national circumstances and the future development plans of specific Parties. Therefore, the benchmark range calculated by the models may seem unduly ambitious in the eyes of some Parties. Therefore, Parties are given an opportunity to communicate any assumptions and forecasts underlying their proposed mitigation commitments, beyond the common template.

How is equity treated in this process?

Equity is an integral part of collective climate action under the UNFCCC, and deserves careful consideration. Equity is embedded in our approach. A benchmark range for an individual Party, developed by the Consortium, bundles various global effort-sharing principles, including current and historical emission responsibilities and capabilities. By doing so, rather than pinpointing specific indicator(s) of equity, this proposed process could take into account the multi-faceted nature of equity.

Step 5 - Re-submission of Commitments: Each Party will be encouraged to re-submit their mitigation commitments. The second submission of mitigation commitments should also be closer to the overall global mitigation contribution required. In doing so, more ambitious commitments will be stimulated.

04 Conclusion

If well designed, a process for generating, exchanging and assessing the information on nationally-determined mitigation commitments could contribute to the effort to raise the level of mitigation ambition. To this end we propose the establishment of a Consortium of respected research institutes as well as the following process. The proposed process has several advantages. First, this process can build upon the existing initiatives of research institutions and think tanks. Without this proposed process, these research institutions would independently review and assess nationally-determined commitments in any case. A concerted action in the research community could provide further policy impacts. Second, the proposed process could also be integrated into the current institutional arrangement for generating, exchanging and reviewing information on Parties' mitigation commitments, though additional COP decisions will be required. Being cost effective is important if the proposal is to be taken up. Third, the proposed process could contribute to the mainstreaming of scientific information on mitigation into the target setting process.

There are also caveats. This proposed process focuses on the international consultation process up to 2015. However, it is necessary to consider how the proposed approach can be dynamically applied beyond this period in order to achieve the 2°C goal. It should also be noted that the adequacy of the 2°C goal is under review and the emissions reductions targets may need to be reconsidered as needed. Finally, information is important but not everything. For example, incentive mechanisms to provide Parties with material interests, as well as a compliance and enforcement system, can also play a part. These components should be considered in an overall picture of a post-2020 framework.

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