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**SUBMISSION BY THE  
GREENHOUSE GAS MANAGEMENT INSTITUTE**

**Further guidance on: (a) features of nationally determined contributions, as specified in paragraph 26; (b) information to facilitate clarity, transparency and understanding of nationally determined contributions, as specified in paragraph 28; and (c) accounting for Parties' nationally determined contributions, as specified in paragraph 31**

The Greenhouse Gas Management Institute (GHGMI) is pleased to provide its views on the informal note by the co-facilitators on agenda item 3 of the Ad Hoc Working Group on the Paris Agreement (APA) titled “Further guidance in relation to the mitigation section of decision 1/CP.21”<sup>1</sup>. We appreciate the continued support of the APA in inviting admitted observers to provide views and proposals on the work of the APA before each session<sup>2</sup>. GHGMI is a non-profit organization dedicated to training tomorrow’s experts on the principles, concepts and techniques to manage and credibly account for greenhouse gas (GHG) emissions and removals.

## I. Introduction.

In line with the call for submission, we are focusing our views on the elements and issues outlined in the informal note at the conclusion of the APA 1-3 session in May 2017. Before providing feedback on the specific questions related to “features”, “information” and “accounting”, we highlight important concepts that underline our views on all three areas under negotiation.

1. **There should be no re-negotiation of the Paris Agreement (PA).** This agenda item 3 is in response to the request for the APA to “develop further guidance” (paras. 26 and 28 of decision 1/CP.21) and “elaborate...guidance” (para. 31 of decision 1/CP.21). This agenda item should not be seen as an opportunity to re-negotiate what Parties (or countries) have already agreed to.
2. **The PA has built-in flexibility provisions; these flexibilities should not be expanded beyond those already agreed.** The ultimate flexibility of the PA is that it allows each country to submit a nationally determined contribution (NDC) that is appropriate for its national circumstances (Articles 4.2 and 4.3<sup>3</sup>). In addition, the PA calls for the use of the Intergovernmental Panel on Climate Change (IPCC) Guidelines to account for emissions and removals (para. 31(a) of decision 1/CP.21 and Article 13.7) which provide different tiers to calculate emissions and removals to reflect the different data availability in countries. Finally, the PA provides flexibility for least developed countries and small island developing states in terms of their communication (Article 4.6) and in the

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<sup>1</sup> Available at [http://unfccc.int/files/meetings/bonn\\_may\\_2017/in-session/application/pdf/informal\\_note\\_apa\\_3\\_for\\_publication\\_final.pdf](http://unfccc.int/files/meetings/bonn_may_2017/in-session/application/pdf/informal_note_apa_3_for_publication_final.pdf).

<sup>2</sup> FCCC/APA/2017/2, para. 34.

<sup>3</sup> Unless otherwise specified, the articles in this submission refer to the articles of the Paris Agreement.

enhanced transparency framework (Article 13.3).

3. **Further guidance should be consistent with the overall goals of the PA.** The implementation of the PA should always be guided by its overarching objective: to hold the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels (Article 2.1 (a)). This becomes particularly relevant when we consider what information is to be provided in the NDC.
4. **Measurement, reporting and verification (MRV) is a foundation of the PA.** This agenda item is extremely important, as the ability for countries to identify goals, estimate GHG emissions and removals, track progress towards those goals, and for external groups to review that progress is at the heart of the Agreement. Data transparency is essential for global confidence in the progress being made as it helps demonstrate that all countries are doing their part.
5. **It is understood and accepted that significant capacity building will be needed over time to facilitate implementation of the Agreement.** The PA is built on the notion that the world is evolving, and procedures are put in place for Parties to enhance ambition over time (Article 4.3). The Agreement also highlights the importance of capacity building to help all countries realize continual improvements in meeting their obligations (Article 11.1, Article 11.3), including through the establishment of the Paris Committee on Capacity Building and the Capacity-building Initiative for Transparency. Para. 92 of decision 1/CP.21 requests the APA, in developing guidelines, to take into account facilitating improved reporting and transparency over time. The fact that not all Parties can fully implement something today should not be a reason to streamline the guidance to such a level that it becomes meaningless.

GHGMI looks forward to working with other groups to support capacity building under the PA.

## II. Features of NDCs (para. 26 of 1/CP.21)

“Features” is not defined in the PA. In our view, the features of the NDC refers to the types of information that should be included in the NDC. It is essentially the “table of contents” reflecting the types of information to be provided in the NDC, and extends beyond mitigation. Further guidance on the specific information to be included in each section of the NDC for the purpose of clarity, transparency and understanding of the mitigation target is the topic of paragraph 28 of decision 1/CP.21 (next section).

Developing guidance on features will ensure comparability across NDCs. While the structure of the NDC should look similar across Parties, the information to be included in each section could differ depending on the national circumstances of each Party.

The following “features”, among others, should be included in the NDC outline:

- National circumstances,

- Planning processes (from decision 1/CP.21, para. 27),
- Mitigation target (including information from decision 1/CP.21, para. 27: quantifiable information on the reference point (including, as appropriate, a base year), time frames and/or periods for implementation, scope and coverage, and assumptions and methodological approaches),
- Adaptation,
- How the Party considers that its nationally determined contribution is fair and ambitious, in the light of its national circumstances, and how it contributes towards achieving the objective of the Convention as set out in its Article 2<sup>4</sup>,
- Capacity building, technology transfer, finance needs.

GHGMI encourages Parties to clearly elaborate the table of contents of the NDCs, in a standardized format, to ensure comparability of information across Parties. Currently, many NDCs are submitted in a tabular format, mirroring the information called for in para. 27 of decision 1/CP.21, but others are not organized in such a manner. Parties could also invite the secretariat to develop an “annotated outline for NDCs” similar to the one developed for reporting GHG inventories under the first commitment period of the Kyoto Protocol<sup>5</sup> guiding the type of information to be reported in NDCs.

Having a similar structure to NDCs would also enhance comparability when reviewing information uploaded to the UNFCCC NDC registry<sup>6</sup>. This would allow the NDC registry to be queried based on the fields of information reported.

### III. Information to facilitate clarity, transparency and understanding of NDCs (para. 28 of decision 1/CP.21)

National determination is at the heart of the PA. However, once a Party has chosen its contribution, there should be minimal information that must be reported in the NDC to help explain the Party’s goals, so other Parties and the international community understand the commitment made and how it contributes to the objective of the PA.

We would like to stress that the comments below apply strictly to the ex-ante information to be submitted in the NDC, and not the subsequent, ex-post evaluation as to whether the goals as contained in the NDCs are actually met.

1. As discussed above, there should be a **standardized table of contents for the NDCs**. Not all information may be applicable to all NDCs (in such cases a Party would simply indicate “not applicable”), but a common structure is the first step in promoting clarity, transparency and understanding in a Party’s NDC.
2. **A minimum level of information should be required to be reported by all Parties, regardless of the type of NDC submitted.** The purpose of this is simple: if the actual goal

<sup>4</sup> [http://unfccc.int/files/essential\\_background/background\\_publications\\_htmlpdf/application/pdf/conveng.pdf](http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf)

<sup>5</sup> [https://unfccc.int/files/national\\_reports/annex\\_i\\_ghg\\_inventories/reporting\\_requirements/application/pdf/annotated\\_nir\\_outline.pdf](https://unfccc.int/files/national_reports/annex_i_ghg_inventories/reporting_requirements/application/pdf/annotated_nir_outline.pdf)

<sup>6</sup> <http://www4.unfccc.int/ndcregistry/Pages/Home.aspx>

being communicated by a country is not clear from the start, it will not be possible to assess progress towards achieving of the goal. Article 4.8 clearly states that Parties shall provide the information necessary for clarity, transparency and understanding. Decision 1/CP.21 indicates that guidelines ensure consistency between the communication and implementation of the NDC, thereby requiring specificity in the communication itself to enable tracking of progress in implementation. The lack of clearly defined contributions in the NDC would undermine the entire transparency framework. If reviewers do not know what they are assessing, review reports hold less value, and Parties will not know if they are on track to meet the objective of the PA.

Para. 27 of decision 1/CP.21 includes a starting list of information to be provided by all countries (and this should be included in the table of contents/features). We include additional information to that contained in para. 27, believing that is essential for understanding a contribution (and noting para. 27 indicates this list is not exhaustive by the use of the word “inter alia”.) Only in exceptional cases where the information is not relevant should a Party not report that information.

- ***Quantifiable information on the reference point.*** What is the base year or the business-as-usual scenario? Although not as direct, this is also relevant for policy-based NDCs, as Parties should provide information on the current policy context.
- ***Time frames and/or periods for implementation.*** What is the target year or years for achieving the goal/policy? To the extent that interim milestones could be provided in the NDC, this would facilitate internal and external efforts to track progress in future communications.
- ***Scope and coverage.*** It is important to include not only the categories and gases covered, but also how this information relates to the GHG inventory. The GHG inventory will be a primary means of tracking progress, so it is important to show how the various targets (whether multi-sectoral or subnational) match and can be tracked through the GHG inventory. In addition, in accordance with para. 31 of decision 1/CP.21, information should be provided on those categories excluded from the NDC, including an explanation for their exclusion.
- ***Planning processes.*** This could include information on the institutional arrangements in place to implement the NDC, as well as planned timelines for adoption of any domestic legislation. Article 4.2 specifically requires Parties to “pursue domestic mitigation measures with the aim of achieving the objectives” of the contribution. These domestic mitigation measures should be described in the NDC.
- ***Assumptions and methodological approaches used to quantify goals, identify policies and to assess progress.*** Although the PA requires the use of the IPCC Guidelines, additional clarity on assumptions and methods used to generate the contribution should be provided for all types of NDCs. For example, a basic discussion of the assumptions and projections related to GDP, population, and/or business-as-usual emissions/removals would be needed in the NDC.

- *How the Party considers that its nationally determined contribution is fair and ambitious, in the light of its national circumstances and contributes towards achieving the objective of the Convention as set out in its Article 2.* In the first NDC, it is understandable that for many countries this assessment was qualitative. However, going forward, and recognizing the need for subsequent communications to be increasingly ambitious, Parties could strive to include quantitative information to demonstrate the enhanced ambition. This could be in terms of GHG emissions, percentage of the economy covered, intensity reductions, etc.
3. **Encourage reporting of country-specific indicators to track progress in the NDCs by all Parties.** There is a large diversity in the NDCs reported to date. It is doubtful that negotiations can deliver the necessary specificity to mandate the full range of information that is to be provided in the NDC to enable clarity, transparency and understanding. The guidelines could require Parties to list specific quantified indicators they will use to track progress, providing any necessary assumptions, verifiable data sources and methodological approaches that will be used. These indicators will also be important inputs to the review process under the enhanced transparency framework.

Table 1 provides suggested indicators to be reported in NDCs. As the NDCs are reported every five years, the NDC would include some basic information that is necessary to understand the context of the contribution (e.g. information to understand the quantitative nature of the target and baselines) as well as basic indicators relevant to the contribution that can also be reported and tracked over time in subsequent national communications to assess the progress being made.

Table 1. Suggested indicators to be reported in NDCs.

Common minimum indicators and accompanying information relevant for all NDCs	
<ul style="list-style-type: none"> <li>✓ Information on projected economy-wide GHG emissions for a given time series, ensuring the same future years are included by all Parties (e.g., 2025, 2030) to enable assessment of the aggregate effects of NDCs</li> <li>✓ Projected annual emissions and removals from key economic sectors, and the anticipated peak year for these sectors (e.g. electricity generation and transport)</li> <li>✓ The quantified impact of all mitigation components of the NDC</li> <li>✓ If NDC contains a conditional component, specific information to quantify the conditions upon which the country will enact its commitment (e.g., funds received, number of professionals trained)</li> <li>✓ If international mitigation outcomes/offsets are included, estimates of current and projected use</li> <li>✓ How land use is accounted for in the NDC? If included, proposed land use changes and any national incentives to implement them</li> </ul>	
Indicators of progress by type of NDC	
Minimum indicators in addition to GHG inventory submission	Accompanying information
<b>Absolute reduction target</b>	

<ul style="list-style-type: none"> <li>✓ Base year /period emissions</li> <li>✓ Current and projected emissions and removals for the economy/sector</li> </ul>	<ul style="list-style-type: none"> <li>✓ Geographic coverage; if sector specific, definition of categories/sectors, if different than the GHG inventory</li> <li>✓ Gases covered</li> </ul>
<b>Emissions reductions below BAU</b>	
<ul style="list-style-type: none"> <li>✓ Emissions in the BAU (taking into account all policies and measures currently planned, adopted and implemented)</li> <li>✓ Current value of key parameter(s) driving BAU (e.g., GDP, population, fuel demand, fuel prices, other)</li> <li>✓ Current and projected emissions/removals compared to BAU</li> <li>✓ Updated BAU if baseline is considered dynamic (can be changed)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Transparent information on the methods, assumptions and models used to develop the BAU scenario (including the policies included in the BAU and treatment of LULUCF)</li> <li>✓ Indication on whether the BAU is static (doesn't change from the original NDC) or dynamic. If dynamic, what triggers a change?</li> </ul>
<b>Intensity Target</b>	
<ul style="list-style-type: none"> <li>✓ Base year /period emissions/removals</li> <li>✓ Base year/ period GDP or population, depending on the metric</li> <li>✓ Current year emissions/removals and GDP/population</li> <li>✓ Projected emissions/removals and GDP/population</li> </ul>	<ul style="list-style-type: none"> <li>✓ Describing the numerator and denominator of the intensity metric</li> <li>✓ Data source for the metric chosen, as well as assumptions about trends in the metric</li> </ul>
<b>Peaking Target</b>	
<ul style="list-style-type: none"> <li>✓ Emissions/removals projections for the peaking year and for a certain period after the peaking year</li> <li>✓ Projections for GDP, population and emissions/removals per GDP/capita</li> </ul>	<ul style="list-style-type: none"> <li>✓ What is the peaking year and how will the country demonstrate that emissions will decline thereafter?</li> <li>✓ Is LULUCF included/excluded from peaking target and if so, how?</li> </ul>
<b>Policies &amp; Measures (PAMs)</b>	
<ul style="list-style-type: none"> <li>✓ Describe current situation absent the policy (e.g., percent of renewable generation capacity, area of land deforested, penetration rate of specific technology, current fuel subsidies, energy use per square meter) in terms of emissions/removals and expected mitigation impact.</li> <li>✓ Has the PAM been implemented? If not, in what stage of planning, adoption, implementation is the activity?</li> </ul>	<ul style="list-style-type: none"> <li>✓ Description of the specific policy (including reference to literature if available). For example, a goal to install 500 MW of renewable energy by a certain date or remove coal subsidies.</li> </ul>
<b>Carbon Neutrality</b>	



<ul style="list-style-type: none"> <li>✓ Base year /period emissions/removals</li> <li>✓ Current and projected emissions and removals for the economy/sector</li> <li>✓ Projected mitigation offsets</li> </ul>	<ul style="list-style-type: none"> <li>✓ The accounting approach used to demonstrate carbon neutrality</li> <li>✓ How emissions/removals from the land sector are accounted</li> </ul>
<b>Adaptation actions with mitigation co-benefits</b>	
<ul style="list-style-type: none"> <li>✓ See indicators for PAMs</li> </ul>	<ul style="list-style-type: none"> <li>✓ Provide a description of the expected mitigation co-benefit</li> </ul>

*References:* (1) IEA 2016 (Enhancing transparency of climate change mitigation under the Paris Agreement: lessons from experience. Climate Change Expert Group. Paper No. 2016(4). (2) UNFCCC aggregate information report (3). Formal submissions by Parties to the UNFCCC and (4). Ricca Slone, Northwestern University in response to a survey from GHGMI.

## IV. Guidance for Accounting (para. 31 of decision 1/CP.21)

Parties shall account for their NDCs (Article 4.13), and in doing so shall promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting. The use of the term “shall” makes accounting mandatory. It is important to note that the principles of transparency, accuracy, consistency, completeness and comparability have been defined by the IPCC and have been incorporated into the UNFCCC reporting guidelines for both developed and developing countries for well over a decade. These terms should not be re-defined for the purpose of the accounting guidance.

Under the Kyoto Protocol, accounting was a relatively straightforward concept. Parties had an absolute target and accounting was a mathematical exercise based on the quantification of emissions and removals as reported in the annual GHG Inventory compared to a base year. Accounting under the Kyoto Protocol should continue to serve as the model under the PA for those Parties whose NDC is in the form of an absolute target.

Unlike Kyoto Protocol commitments, however, NDCs come in a wide diversity of forms. Many are not in terms of total national GHG emissions/removals, but are instead based on other structures such as specific policies, sectors, or intensity rates. So, national GHG inventories alone (as currently submitted) are not sufficient to assess progress made to meet a target.

We believe that there is a strong role for the reporting and review of indicators as a means of accounting for an NDC. We discuss above in section III the need to report some level of minimum information in the NDC. Some of the information reported in the NDC would be for the purpose of baseline setting, while a country may also include in the NDC, reporting of specific indicators that it intends to use to monitor implementation of the NDC within the country. Updated information on those indicators should continue to be reported as part of a Party’s periodic communications under the enhanced transparency framework of the PA (Article 13). The reporting of indicators in the NDCs and updating them in subsequent communications



forms an essential part of the information necessary to track progress made in implementing and achieving the NDC (Article 13.7).

In summary, there must be continuity in the information that is provided in the NDC (guidance called for in paras. 26 and 28 of decision 1/CP.21) and the information reported in subsequent communications and which is used as the basis of accounting (guidance in para. 31 of decision 1/CP.21). The information reported must be transparent, accurate, complete, consistent over time and comparable across Parties, principles that have stood the test of time in GHG inventory reporting. Only if the communications achieve these principles it is possible to ensure the environmental integrity the goals and the avoidance of double counting.

Thank you for the opportunity to provide input to the negotiations on further guidance related to paragraphs 26, 28 and 31 of decision 1/CP.21.