

# Webinar: Tracking progress of the mitigation commitments of nationally determined contributions under the ETF

Presentation: Definitions and development of NDC indicators

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# Indicators in the MPGs

## **C. Information necessary to track progress made in implementing and achieving its nationally determined contribution under Article 4 of the Paris Agreement**

65. Each Party shall identify **the indicator(s)** that it has selected to track progress towards the implementation and achievement of its NDC under Article 4. Indicators shall be relevant to a Party's NDC under Article 4, and may be either qualitative or quantitative.



# Progress Indicators

## Quantitative Progress Indicators

Based on **quantitative measurements or statistics** of a certain condition tracked over time. These often relate to the inputs for the mitigation initiatives, the activities carried out, and their intermediate or along the way effects.

- Measuring aggregate emissions reduction from mitigation actions;
- Identifying co-benefits of mitigation actions, policies and measures for sustainable development and for economic and social growth.

## Qualitative Progress Indicators

Qualitative indicators can also be used to track the progress of mitigation initiatives. These include **non-numerical or subjective assessments** of progress towards a specific impact goal. They tend to be useful where parameters are difficult to quantify, often the case for non-GHG effects.

# Sources of Indicators

United Nations

E/CN.3/2022/17



**Economic and Social Council**

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**Statistical Commission**

**Fifty-third session**

1–4 March 2022

Item 3 (m) of the provisional agenda\*

**Items for discussion and decision**

**Climate change statistics**

**Report of the Secretary-General**

In total: **158** indicators to report Climate Change:

Emissions,  
Concentration,  
Mitigation, Vulnerability  
and Adaptation

# Sources of indicators

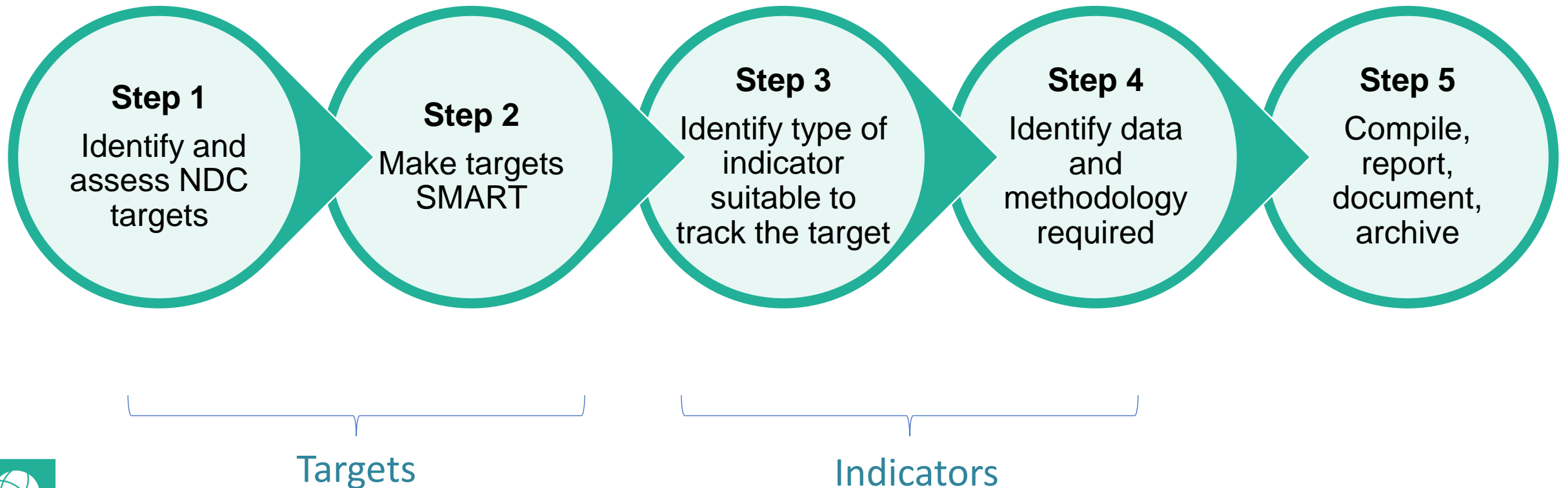
Indicators classified under: Total greenhouse gas emissions

Source: Climate change statistics, UN Economic and Social Council

## ***Total greenhouse gas emissions:***

- 1 Total greenhouse gas emissions per year
- 2 Total emissions of indirect greenhouse gases
- 3 Greenhouse gas emissions from land use, land use change and forestry
- 4 Total greenhouse gas emissions from the national economy
- 5 Greenhouse gas emissions per capita
- 6 Greenhouse gas emissions in gross fixed capital formation of direct investment
- 7 Greenhouse gas emissions in value added of foreign-controlled multinational enterprises
- 8 Carbon footprint

# Identifying and compiling NDC indicators - Step by step approach



# Step 1: Identify and assess NDC targets

**What to do.** As a starting point, identify all mitigation targets included in the most recent NDC. List them in a tabular format, including

- The target or effort.
- The target value (if quantitative) or description (if qualitative).
- The scope of the target or effort (e.g., sectors, gases).
- The unit of the target value (if quantitative).
- The target timeframe.
- The baseline value (if available).



# Step 1: Identify and assess NDC targets - GHG related targets

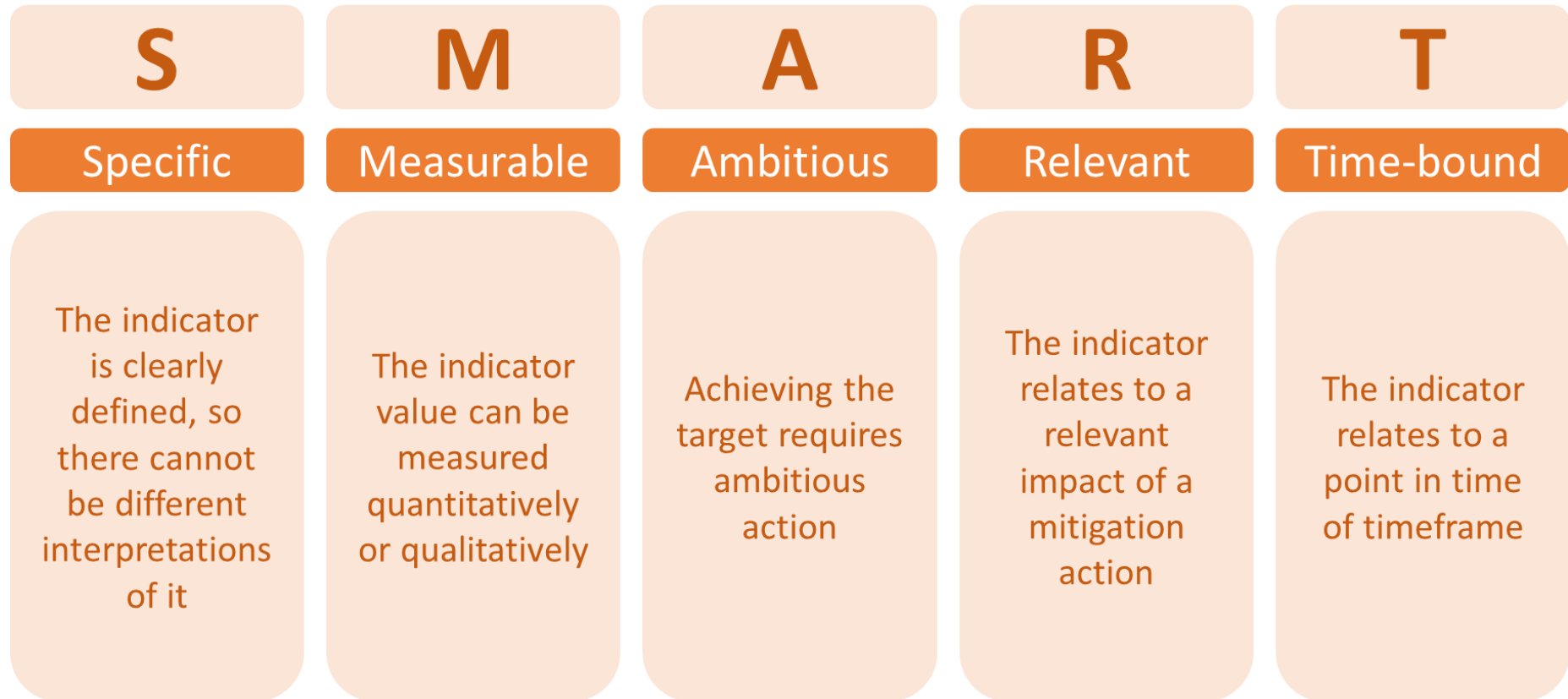
NDC target type	Country Examples	Scope	Target value	Target unit	Target timeframe	Value in reference / Base period / BAU
<b>Absolute emission reduction or limitation target relative to a base year</b>	Brazil NDC commits 'to reduce its greenhouse gas emissions in 2025 by 37%, compared with 2005'.	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and SF <sub>6</sub>	37	%	2025	Base year emission estimation in the fourth BUR is around 2.4 Mio. kt of CO <sub>2</sub> eq. May be updated according to the latest inventory.
<b>Emission reduction target below a BAU level</b>	Morocco's NDC unconditional) reduction target, '18.3% below BAU emissions by 2030'.	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O and HFCs	18.3	%	2030	The BAU scenario is projected approx. 1.4 Mio. kt CO <sub>2</sub> eq in 2030
<b>Fixed-level target</b>	Argentina's 's fixed-level target, will not exceed net emissions of 359 Mt CO <sub>2</sub> eq by 2030	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs and PFCs	359	Mt CO <sub>2</sub> eq	2030	<u>No reference value is used.</u> But in its NDC submission Argentina compares the level of ambition to its 2016 emissions, which were around 364 Mt CO <sub>2</sub> eq.



# Step 1: Identify and assess NDC targets – Non GHG related targets

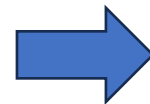
NDC target type	Country Examples	Scope	Target value	Target unit	Target timeframe	Value in reference / Base period / BAU
<b>Sectoral non-greenhouse gas targets</b>	China has pledged to 'increase the share of non-fossil fuels in primary energy consumption to around 25%.	N/A	25	%	2030	N/A
<b>Mitigation actions</b>	<u>Bangladesh</u> aims to implement renewable energy projects, enhance efficiency of existing power plants, improve technology for power generation.	N/A	Implementation of actions	MW	2030	N/A

# Step 2: Make targets SMART



# Step 2: Make targets SMART: Exercise 1

**Target 1: achieving a share of 28% of renewable power by 2030**

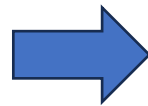


This is not a fully SMART target yet.

- What should the 28% refer to – e.g., power generation (including or excluding imports and exports?) or capacities installed?
- Which technologies should be counted as renewable power technologies?

# Step 2: Make targets SMART: Exercise 2

**Target 2: to increase public awareness of climate changes effects and impacts on general health**



- How do you tell whether or not the indicator has been achieved?
- What types of climate change impacts will be addressed?
- What mechanism will be used to engage with the public?
- Under which conditions will public awareness be considered as increased?
- What are the current levels of public awareness, have these been defined?
- Finally, has a timeframe been established for when the target must be reached?

# Step 2: Make targets SMART – Mitigation targets issues – GHG related targets

Type of mitigation target	Elements to consider for a SMART target	Unit
<b>Absolute emission reduction or limitation target relative to a base year</b>	<ul style="list-style-type: none"> <li>• Base year clearly agreed?</li> <li>• Gases included agreed?</li> <li>• Sectors / GHG inventory categories agreed</li> <li>• Target year agreed?</li> </ul>	kt CO <sub>2</sub> eq
<b>Emission reduction target below a BAU level</b>	<ul style="list-style-type: none"> <li>• As for absolute emission reduction target</li> <li>• BAU level clearly defined? Data and methods available?</li> </ul>	%
<b>Intensity target</b>	<ul style="list-style-type: none"> <li>• As for absolute emission reduction target</li> <li>• Intensity-relevant factor and source / methodology to be used clearly defined, e.g., GDP, population?</li> </ul>	kt CO <sub>2</sub> eq / capita or GDP / etc. % (if compared to BAU or base period)

# Step 3: Identify type of indicator suitable to track the target

**What to do.** Once the NDC targets have been made SMART, identify indicators which allow understanding whether these targets have been met or not.

- With quantitative targets, once they are made SMART, the most relevant indicator can be identified from the target itself.
- With qualitative targets the intervention logic framework (Logframe) provides a helpful approach to identifying suitable progress indicators.

Further indicators, e.g., related to implementation, could of course be chosen to support the understanding of progress, e.g., afforested surface area, area for which forest management plans have been improved, etc.

The MPGs leave the choice of indicators to the Parties, as long as the indicators are relevant to their NDC. The use of such implementation-related progress indicators can surely be considered beneficial at the national level. Parties might however decide not to include such information in their BTRs.

# Step 3: Identify type of indicator suitable to track the target – GHG target

Type of mitigation target	Relevant indicators	Unit
<b>Absolute emission reduction or limitation target relative to a base year</b>	<p>GHG emissions</p> <ul style="list-style-type: none"> <li>as reported in the national GHG inventory adapted to the specific scope of the target (e.g., gases and sectors covered),</li> <li>including use of market-based mechanisms, and</li> <li>adapted to the specific timeframe of the target (e.g., where a multi-year target-period applies).</li> </ul>	kt CO <sub>2</sub> eq
<b>Emission reduction target below a BAU level</b>	<p>Relationship (e.g., difference in %) between</p> <ul style="list-style-type: none"> <li>GHG emissions in the BAU target year / period (updated, where applicable) and</li> <li>GHG emissions as reported in the national GHG inventory adapted to the specific scope of the target (e.g., gases and sectors covered), including use of market-based mechanisms, and adapted to the specific timeframe of the target (e.g., where a multi-year target-period applies)</li> </ul>	%
<b>Peaking Target</b>	<p>GHG emissions in all years leading to the current year,</p> <ul style="list-style-type: none"> <li>as reported in the national GHG inventory adapted to the specific scope of the target (e.g., gases and sectors covered),</li> <li>including use of market-based mechanisms</li> </ul>	kt CO <sub>2</sub> eq

# Step 4: Identify data and methodology required

**What to do. Once indicators have been defined, identify the data and methodology required to compile the indicator.**

For each indicator, a data collection plan needs to be developed. This will provide a complete overview for each indicator of what is being measured, the baseline, the targets, data sources and methods. It also specifies who will be collecting data, with what frequency and to whom it will be reported. In the case of NDC indicators, much relevant information or sometimes even the indicator data itself is likely to be already available from data collection for the compilation of other sections of the BTR.



# Step 4: Identify data and methodology required

In considering the data and potential methodology required, the following questions might be helpful:

1. What information is required for the indicator?
2. Where can that information be found – has it already been compiled for other purposes, e.g., national statistics, SDG reporting?
3. For which years is the information available?
4. Does the information available have the necessary quality, e.g., is the approach to data collection / calculation consistent over time, is the data sufficiently accurate?
5. Is the information already available with the correct scope and in the correct units? Or are adjustments to scope / units necessary?
6. Is a calculation necessary to compile the indicator (e.g., GHG emissions, GHG emission reductions or removals?) If so, is there an internationally accepted practice that should be used, e.g. the 2006 IPCC Guidelines for National GHG Inventories, the World Resource Institute Policy and Action Standard, Progress indicators for mitigation and/or adaptation actions as agreed for reporting to donors.

# Step 4: Identify data and methodology required – GHG target

Mitigation target categories	Relevant data sources
<b>Absolute emission reduction or limitation target relative to a base year</b>	<ul style="list-style-type: none"><li>• National GHG inventory data from the BTR under preparation</li></ul>
<b>Emission reduction target below a BAU level</b>	<ul style="list-style-type: none"><li>• National GHG inventory data from the BTR under preparation</li><li>• BAU projections from the most recent NDC or from the BTR under preparation in case the BAU projections are updated over time</li></ul>
<b>Peaking Target</b>	<ul style="list-style-type: none"><li>• National GHG inventory data from the BTR under preparation</li></ul>
<b>Intensity target</b>	<ul style="list-style-type: none"><li>• National GHG inventory data from the BTR under preparation</li><li>• Depending on specific target: GDP, population typically available from the national statistical offices</li></ul>

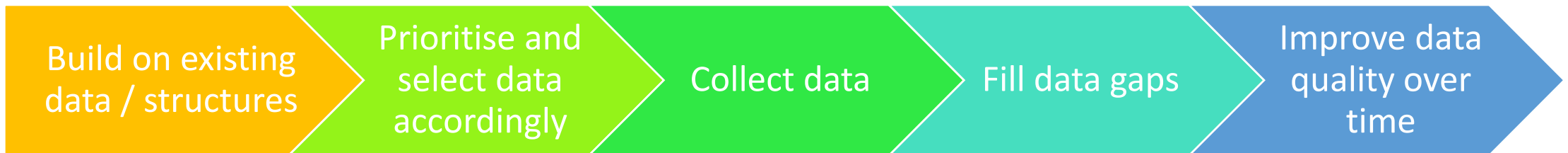


# Step 5: Compiling, reporting, documenting, archiving

**What to do.** The assessment of available data sources in the previous step will show that many progress indicators can be compiled with data already available from BTRs and National Communications (NCs).

The timing – when such data, e.g., national GHG inventory estimates, information on actions, becomes available – will be important to consider for the overall BTR compilation process.

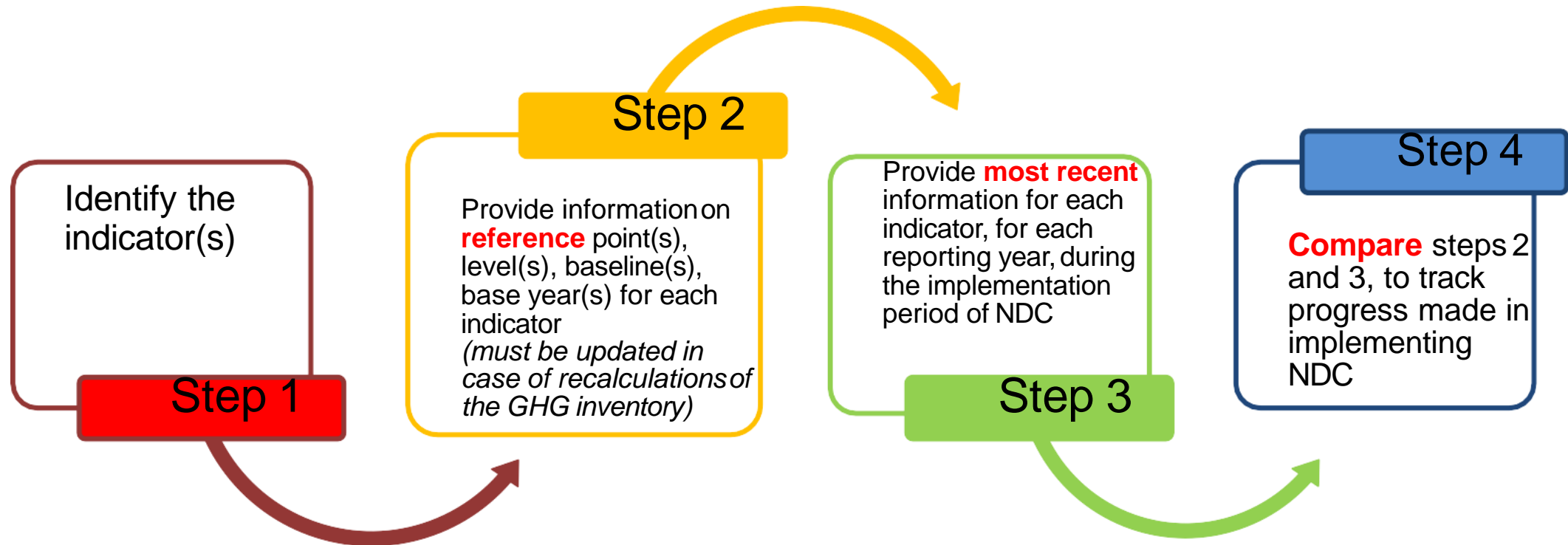
Where additional data needs to be collected, assess whether such data collection can be integrated into existing data collection processes or can be built up together with data collection processes which need to be established for BTR reporting.



# Step 5: Compiling, reporting, documenting, archiving – data gaps

Type of data gap	What to do	What to report in the BTR
<b>Relevant input data not available at all</b>	<p>Identify</p> <ul style="list-style-type: none"> <li>activities enabling the collection of relevant data (e.g., research, studies, new statistics)</li> <li>entities responsible for these activities</li> <li>necessary preconditions, e.g., budget / staff, legal framework, MoUs, etc.</li> </ul>	<p>Report</p> <ul style="list-style-type: none"> <li>the fact that the indicator data is currently not available and why that is the case</li> <li>action taken to make the indicator data available in the future</li> <li>When you expect to be able to report on the indicator</li> <li>What international support is required to do so (if applicable)</li> </ul>
<b>Relevant input data not available for all years, all sectors, all regions, etc.</b>	<ul style="list-style-type: none"> <li>Where possible, use gap-filling approaches (e.g., overlap, surrogate data, interpolation, and trend extrapolation) to estimate the indicator value for the full scope / all relevant years</li> <li>Use approaches suggested under “relevant input data not available at all” to collect missing data in the future</li> </ul>	<p>Report,</p> <ul style="list-style-type: none"> <li>what information was not available / for which years?</li> <li>What gap filling approaches have been deployed?</li> <li>actions taken to make indicator data available in the future</li> <li>When would you expect to be able to report the indicator?</li> <li>What international support is required to do so (if applicable)?</li> </ul>
<b>Data is not available as a relevant mitigation or adaptation action has not started yet</b>	<ul style="list-style-type: none"> <li>Put data collection and compilation processes in place before the action starts</li> </ul>	<p>Report</p> <ul style="list-style-type: none"> <li>The fact that the implementation has not yet started and</li> <li>When it is planned to start?</li> </ul>

# Overview of steps for Parties to track progress of their NDCs by indicators:



# Common tabular formats (CTF)

- Common tabular formats for the electronic reporting of the information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement

## Decision 5/CMA.3

### Guidance for operationalizing the modalities, procedures and guidelines for the enhanced transparency framework referred to in Article 13 of the Paris Agreement

#### Annex II\*

#### Common tabular formats for the electronic reporting of the information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement

##### I. Structured summary: Description of selected indicators

<i>Indicator(s) selected to track progress<sup>a</sup></i>	<i>Description</i>
{Indicator}	
	Information for the reference point(s), level(s), baseline(s), base year(s) or starting point(s), as appropriate <sup>b</sup>
	Updates in accordance with any recalculation of the GHG inventory, as appropriate <sup>b</sup>
	Relation to NDC <sup>c</sup>

*Notes:* (1) Pursuant to para. 79 of the MPGs, each Party shall report the information referred to in paras. 65–78 of the MPGs in a narrative and common tabular format, as applicable. (2) A Party may amend the reporting format (e.g. Excel file) to remove specific rows in this table if the information to be provided in those rows is not applicable to the Party's NDC under Article 4 of the Paris Agreement, in accordance with the MPGs. (3) The Party could add rows for each additional selected indicator and related information.

<sup>a</sup> Each Party shall identify the indicator(s) that it has selected to track progress of its NDC (para. 65 of the MPGs).

<sup>b</sup> Each Party shall provide the information for each selected indicator for the reference point(s), level(s), baseline(s), base year(s) or starting point(s), and shall update the information in accordance with any recalculation of the GHG inventory, as appropriate (para. 67 of the MPGs).

<sup>c</sup> Each Party shall describe for each indicator identified how it is related to its NDC (para. 76(a) of the MPGs).

*Custom footnotes:*

Documentation box:

# Contents of Common tabular formats

In total, the Common tabular formats comprise **12 Tables** and one Appendix, covering the **7 parts** of Section III of the MPG:

**Section III:** Information necessary to track progress made in implementing and achieving NDC

## NDC definition and methods

- **Appendix:** Description of a Party's NDC
- **Table 1:** Description of selected indicators
- **Table 2:** Definitions needed to understand the NDC
- **Table 3:** Methodologies and accounting approaches

## Current mitigation status and tracking progress

- **Table 4:** Tracking progress
- **Table 5:** Mitigation policies, measures, actions and plans (Achieved)
- **Table 6:** Inventory summary

## Projections and expected emissions reduction

- **Table 5:** Mitigation policies, measures, actions and plans (expected)
- **Table 7:** Projections “with measures” scenario
- **Table 8:** Projections “with additional measures” scenario
- **Table 9:** Projections “without measure” scenario
- **Table 10:** Projections of key indicators
- **Table 11:** Key underlying assumptions and parameters of projections

## Response measures

- **Table 12.** Information necessary to track progress on the social and economic consequences of response measures









**CBIT-GSP**  
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Thank you for your attention!

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