

# Transparency and Reporting under the Paris Agreement in Bhutan: A discussion on ETFs, MPGs, CRT and CTF Tables

Introduction to NDC tracking and Common Tabular Format (CRF) Tables

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CTF tables for the electronic reporting of the information necessary to track progress made in implementing and achieving NDCs

#### 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 implementation and achievement of the domestic policies and measures implemented to address the social and economic consequences of response measures



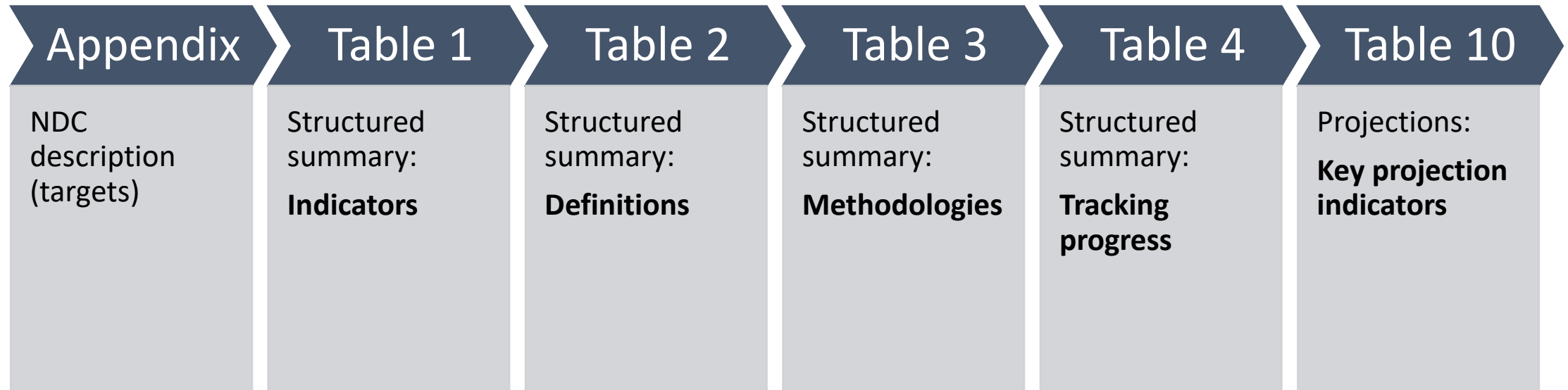
CTF tables

| <b>MPG Section III: Information necessary to track progress made in implementing and achieving NDC</b>   | <b>Related Tables from the Common tabular formats (CTF)</b>  | <b>Reporting requirement</b> | <b>Flexibility, for Parties that need flexibility in the light of their capacities (self-determined)</b>                |
|--|--|------------------------------|---|
| <b>D. Mitigation policies and measures, actions and plans, including those with mitigation co-benefits resulting from adaptation actions and economic diversification plans, related to implementing and achieving a nationally determined contribution under Article 4 of the Paris Agreement</b> | Table 5. Mitigation policies and measures, actions, and plans, including those with mitigation co-benefits resulting from adaptation actions and economic diversification plans, related to implementing and achieving a nationally determined contribution under Article 4 of the Paris Agreement | Shall (80)                   | Encouraged to report estimates of expected and achieved GHG emission reductions for its actions, policies, and measures |

## CTF tables

| <b>MPG Section III: Information necessary to track progress made in implementing and achieving NDC</b> | <b>Related Tables from the Common tabular formats (CTF)</b>   | <b>Reporting requirement</b>   | <b>Flexibility, for Parties that need flexibility in the light of their capacities (self-determined)</b> |
|--|---|--|--|
| <b>E. Summary of greenhouse gas emissions and removals</b>   | Table 6. Summary of greenhouse gas emissions and removals in accordance with the common reporting table 10 emission trends – summary  | Shall for Parties that submit a stand-alone national inventory report. | Not indicated  |
| <b>F. Projections of greenhouse gas emissions and removals, as applicable</b>                          | <p>Table 7. Information on projections of greenhouse gas emissions and removals under a ‘with measures’ scenario</p> <p>Table 8. Information on projections of greenhouse gas emissions and removals under a ‘with additional measures’ scenario</p> <p>Table 9. Information on projections of greenhouse gas emissions and removals under a ‘without measures’ scenario</p> <p>Table 10. Projections of key indicators</p> <p>Table 11. Key underlying assumptions and parameters used for projections</p> | Shall (92), but methodologies Should                                   | encouraged to report projections. Can instead report using a less detailed methodology or coverage.      |
| <b>G. Other information</b>  | Info to be provided not necessarily in tabular format   |  |  |

# CTF tables: NDC indicators



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## Example of a completed CTF table 1 - Description of selected indicators

| Indicator(s) selected to track progress  | Description  |
|--|--|
| GHG emissions covered by the NDC   | Total economy-wide greenhouse gas emissions and removals in the relevant reporting year (t CO <sub>2</sub> e) — <i>Emissions</i>   |
| Information for the reference point(s), level(s), baseline(s), base year(s) or starting point(s), as appropriate | Reference level: 100 Mt CO <sub>2</sub> e<br>Base year: 2005 <i>RefEmissions</i>   |
| Updates in accordance with any recalculation of the GHG inventory, as appropriate                                | Due to recalculations of the national GHG inventory, which were carried out after the communication of the NDC, the reference level changed from 101 Mt CO <sub>2</sub> e to 100 Mt CO <sub>2</sub> e. |
| Relation to the NDC  | The NDC consists of an absolute economy-wide emission reduction target. Hence, total economy-wide greenhouse gas emissions and removals are the most appropriate indicator for this type of NDC.       |

Source: Partnership on Transparency in Paris Agreement, Accounting for National Determined Contributions

## Example of the CTF Table 1 for Tunisia

**1. Structured summary: Description of selected indicators**

| <i>Indicator(s) selected to track progress<sup>a</sup></i>  | <i>Description</i>   |
|---|--|
| Emissions intensity in the energy sector (GHG emissions per unit of GDP)  | Greenhouse gas emissions in the energy sector (expressed in tons of CO <sub>2</sub> eq) and GDP (expressed at constant 2010 prices)  |
| Information for the reference point(s), level(s), baseline(s), base year(s) or starting point(s), as appropriate <sup>b</sup> | Reference level: 0.460 t CO <sub>2</sub> eq/1000 TND 2010  |
|   | Base year:2010   |
| Updates in accordance with any recalculation of the GHG inventory, as appropriate <sup>b</sup>                                | Due to recalculations of the national GHG Inventory, which were carried out after the communication of the NDC, the reference level changed from 0.466 t CO <sub>2</sub> eq/1000TND 2010 to 0.460 t CO <sub>2</sub> eq/1000 TND 2010 |
| Relation to NDC <sup>c</sup>  | The NDC consists of an emissions intensity target. Hence, Emissions intensity is the most appropriate indicator for this type of NDC   |

Linking CTF tables

| NDC description    |   | Table 1: Indicators |   | Table 2: Definitions      |                                  |
|--------------------|---|---------------------|---|---------------------------|----------------------------------|
| Annex II, appendix |   | Structured summary  |   | Structured summary        |                                  |
| Target:            | 30% reduction below BAU   | Indicator:          | GHG emissions   | Indicator:                | GHG emissions using AR5 GWPs     |
| Type:              | Emission reduction below a projected baseline                                   | Reference:          | Starting point 2019: 169 Mt CO <sub>2</sub> e<br>BAU 2030: 215 Mt CO <sub>2</sub> e | Differences to inventory: | Exclusion of emissions from HFCs |
| Year:              | 2030  | Updates:            | No recalculation conducted  | Co-benefits:              | N/A                              |
| Reference:         | BAU emissions 2030: 215 Mt CO <sub>2</sub> e                                    | Relation to NDC:    | The indicator directly relates to the NDC target                                    |                           |                                  |
| Time frame:        | 2020-2030   |                     |   |                           |                                  |
| Scope:             | Economy-wide; all sectors; CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O |                     |   |                           |                                  |

Source: UNFCCC, CGE Training materials -Mitigation Assessment

CTF Table 3. Structured summary: Methodologies and accounting approaches

Methodologies and accounting approaches

Metrics and IPCC guidelines

Assumptions, key parameters, definitions, data sources, models

Consistency (communicated and implemented NDC; accounting for NDC and GHG inventory)

Changes (corrections, improvements, updates)

Inclusion of all relevant categories, and exclusions

Information associated with any cooperative approaches that involve use of ITMOs, if applicable

Table 3. Methodologies and accounting approaches

**Article 4, para 13-14 Paris Agreement**

13. Parties shall account for their nationally determined contributions. In accounting for anthropogenic emissions and removals corresponding to their nationally determined contributions, Parties shall promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting, in accordance with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement.

14. In the context of their nationally determined contributions, when recognizing and implementing mitigation actions with respect to anthropogenic emissions and removals, Parties should take into account, as appropriate, existing methods and guidance under the Convention, in the light of the provisions of paragraph 13 of this Article.

**Accounting approaches:**

Not official definition, but useful to work with Table 3 of the CTF:

In the case of NDC and tracking mitigation

**Accounting approaches**:= how the variety of elements that can be used to estimate numerical values of GHG emissions and mitigation potentials are used, including methodologies (IPCC), metrics (GWP), baselines, definitions..

CTF tables for the electronic reporting of the information necessary to track progress made in implementing and achieving NDCs

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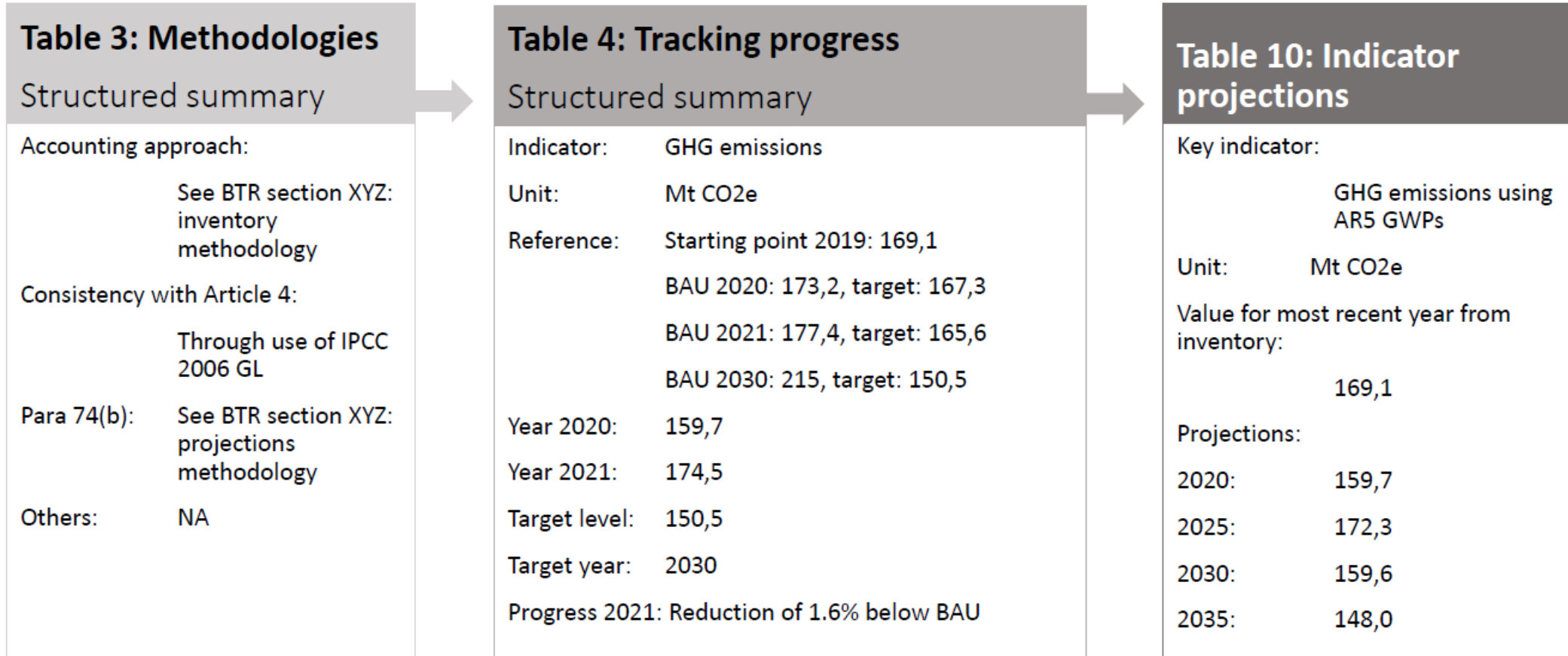
Current mitigation status and tracking progress

- **Table 4:** Tracking progress





Examples of CTF tables 3, 4 and 10



## Example of a completed CTF table 4 for tracking progress

|  | Unit, as applicable   | Reference point(s) [...]   | 2021 | 2022 | ... | 2030 | Target level               | Target year or period | Progress made [...]           |
|--|---|----------------------------|------|------|-----|------|----------------------------|-----------------------|-------------------------------|
| Indicator(s) selected [...]  |   |                            |      |      |     |      |                            |                       |                               |
| GHG emissions covered by the NDC   | Mt CO <sub>2</sub> e  | 100<br><i>RefEmissions</i> | 88   | 86   |     |      | 80<br><i>TargEmissions</i> | 2030                  | 14% below the reference level |
| Where applicable, total GHG emissions and removals consistent with the coverage of the NDC | Mt CO <sub>2</sub> e  | 100                        | 88   | 86   |     |      |                            |                       |                               |
| Contribution from LULUCF [...]   |   |                            |      |      |     |      |                            |                       |                               |
| Each Party that participates in cooperative approaches [...]                               |   |                            |      |      |     |      |                            |                       |                               |
| [...]  | Relevant for Parties using cooperative approaches. See <i>Table 9</i> |                            |      |      |     |      |                            |                       |                               |
| Assessment of the achievement of the Party's NDC under Article 4 of the Paris Agreement    |   |                            |      |      |     |      |                            |                       |                               |
| Relate the target of the Party's NDC:  |   |                            |      |      |     |      |                            |                       |                               |
| [...]  | Relevant after the end of the NDC period. See <i>Table 10</i>         |                            |      |      |     |      |                            |                       |                               |

## CTF table 4

Example of completed table 4  
(after the end of the NDC  
period)

|  | Unit, as applicable  | Reference point(s) [...]   | 2021 | 2022 | ... | 2030 | Target level               | Target year or period | Progress made [...]           |
|--|--|----------------------------|------|------|-----|------|----------------------------|-----------------------|-------------------------------|
| Indicator(s) selected [...]  |  |                            |      |      |     |      |                            |                       |                               |
| GHG emissions covered by the NDC   | Mt CO <sub>2e</sub>  | 100<br><i>RefEmissions</i> | 88   | 86   |     | 79   | 80<br><i>TargEmissions</i> | 2030                  | 21% below the reference level |
| Where applicable, total GHG emissions and removals consistent with the coverage of the NDC | Mt CO <sub>2e</sub>  | 100                        | 88   | 86   |     | 79   |                            |                       |                               |
| Contribution from LULUCF [...]   |  |                            |      |      |     |      |                            |                       |                               |
| Each Party that participates in cooperative approaches [...]                               |  |                            |      |      |     |      |                            |                       |                               |
| [...]  | Relevant for Parties using cooperative approaches.   |                            |      |      |     |      |                            |                       |                               |
| Assessment of the achievement of the Party's NDC under Article 4 of the Paris Agreement    |  |                            |      |      |     |      |                            |                       |                               |
| Relate the target of the Party's NDC:  |  |                            |      |      |     |      |                            |                       |                               |
| Information for reference point(s) [...]   | Mt CO <sub>2e</sub>  | 100                        |      |      |     |      |                            |                       |                               |
| Final information for the indicator [...]  | Mt CO <sub>2e</sub>  |                            | 88   | 86   | ... | 79   |                            |                       |                               |
| Comparison   | The level in the target year is 79 Mt CO <sub>2e</sub> . It is 21% below the reference level and it is below the target level. |                            |      |      |     |      |                            |                       |                               |
| Achievement of NDC   | Yes. The target has been achieved because the level in the target year is below the target level.<br><i>TargAchievement</i>    |                            |      |      |     |      |                            |                       |                               |

Source: Partnership on Transparency in Paris Agreement, Accounting for National Determined Contributions

## CTF table 4

Example of a completed table 4  
(with ITMOs)

| Indicator(s) selected [...]  | Unit, as applicable   | Reference point(s) [...]   | 2021 | 2022 | ... | 2030 | Target level               | Target year or period | Progress made [...]           |
|--|---|----------------------------|------|------|-----|------|----------------------------|-----------------------|-------------------------------|
| GHG emissions covered by the NDC   | Mt CO <sub>2</sub> e  | 100<br><i>RefEmissions</i> | 88   | 86   |     |      | 80<br><i>TargEmissions</i> | 2021 to 2030          | 14% below the reference level |
| Where applicable, total GHG emissions and removals consistent with the coverage of the NDC | Mt CO <sub>2</sub> e  | 100                        | 88   | 86   |     |      |                            |                       |                               |
| Contribution from LULUCF [...]   |   |                            |      |      |     |      |                            |                       |                               |
| Each Party that participates in cooperative approaches [...]                               |   |                            |      |      |     |      |                            |                       |                               |
| [...] indicative trajectory, trajectories or budget [...]                                  |   |                            |      |      |     |      |                            |                       |                               |
| [...] trajectory, trajectories or budget [...]   | Mt CO <sub>2</sub> e  |                            | 89   | 88   |     | 80   |                            |                       |                               |
| [...] emissions/ removals (non-GHG metrics)  |   |                            |      |      |     |      |                            |                       |                               |
| [...] emissions/ removals (PaMs NDC)   |   |                            |      |      |     |      |                            |                       |                               |
| [...] non-GHG indicator  |   |                            |      |      |     |      |                            |                       |                               |
| Annual quantity of ITMOs first transferred   | Mt CO <sub>2</sub> e  |                            | 2    | 2    |     |      |                            |                       |                               |
| Annual quantity of mitigation outcomes authorized  | Mt CO <sub>2</sub> e  |                            | 1    | 1    |     |      |                            |                       |                               |
| Annual quantity of ITMOs used towards achievement of the NDC                               |   |                            |      |      |     |      |                            |                       |                               |
| Net annual quantity of ITMOs   | Mt CO <sub>2</sub> e  |                            | 2    | 2    |     |      |                            |                       |                               |
| [...] cumulative amount of ITMOs [...]   |   |                            |      |      |     |      |                            |                       |                               |
| Total quantitative corresponding adjustments used [...]                                    | Mt CO <sub>2</sub> e  |                            | 2    | 2    |     |      |                            |                       |                               |
| [...] cumulative information   |   |                            |      |      |     |      |                            |                       |                               |
| [...] annual emissions balance   | Mt CO <sub>2</sub> e  |                            | 90   | 88   |     |      |                            |                       |                               |
| [...] annual adjusted indicator  |   |                            |      |      |     |      |                            |                       |                               |
| Any other information  |   |                            |      |      |     |      |                            |                       |                               |
| Assessment of the achievement of the Party's NDC under Article 4 of the Paris Agreement    |   |                            |      |      |     |      |                            |                       |                               |
| Relate the target of the Party's NDC:  |   |                            |      |      |     |      |                            |                       |                               |
| [...]  | Relevant after the end of the NDC period. See <i>Table 10</i> |                            |      |      |     |      |                            |                       |                               |

Source: Partnership on Transparency in Paris Agreement, Accounting for National Determined Contributions

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Current mitigation status and tracking progress

- **Table 5:** Mitigation policies, measures, actions and plans

Mitigation policies and measures, actions and plans

- Each Party **shall** provide information on policies, actions and measures that support implementation of its NDC, focusing on those that have the most significant impact on GHG emissions or removals and those impacting key categories in the national GHG inventory
- To the extent possible, Parties **shall** organize reporting of actions by sector (energy, transport, IPPU, agriculture, LULUCF, waste, other), in a tabular format, including relevant information on mitigation co-benefits, as applicable:

| Name | Description | Objectives | Type of instrument (regulatory, economic, other) | Status (planned, adopted, implemented) | Sectors affected | Gasses affected | Start year of implementation | Implementing entity |
|------|-------------|------------|--|--|------------------|-----------------|------------------------------|---------------------|
|------|-------------|------------|--|--|------------------|-----------------|------------------------------|---------------------|

- Each Party **may** also provide information on related costs, non-GHG mitigation benefits and how these actions interact with each other, as appropriate
- Each Party **shall** provide information on estimates of expected and achieved GHG emission reductions [FX: encouraged]; and methodologies and assumptions used, to the extent possible
- Each Party **should**: identify PAMs no longer in-place and explain why; provide information on how its PAMs are modifying longer-terms trends in GHG emissions and removals

## Key terms to understand

| Mitigation policies or Plans  | Actions or measures  | Mitigation co-benefits  |
|---|--|---|
| <ul style="list-style-type: none"><li>• Refers to a decision or set of decisions that a government takes to achieve certain objectives</li><li>• policies could be defined as instruments (such as regulations, taxes, subsidies, and information instruments) that enable or incentivize concrete actions to be implemented (such as replacement of technology or changes in behavior)</li></ul> | <ul style="list-style-type: none"><li>• Refers to a concrete activity or set of activities taken by a government to implement a policy or plan</li></ul> | <ul style="list-style-type: none"><li>• Results from actions undertaken as part of adaptation and/or economic diversification plans where these generate emissions reductions and thereby contribute to achieving mitigation outcomes</li></ul> |

Parties to the Paris Agreement may implement mitigation policies and measures, actions and plans in any sector of their economy and must report information on those actions, policies and measures that **have the most significant impact on GHG emissions** or removals **and those impacting key categories** in the national GHG inventory



## CTF table 5

### Example of CTF Table 5 for Mauritius

| Name                              | Description   | Objectives   | Type of instrument   | Status  | Sector(s) affected | Gases affected | Start year of implementation | Implementing entity or entities   | Estimates of GHG emission reductions (kt CO2 eq) |                  |
|-----------------------------------|---|--|----------------------|---------|--------------------|----------------|------------------------------|---|--|------------------|
|                                   |   |  |                      |         |                    |                |                              |   | Achieved   | Expected in 2030 |
| Improved fuel economy of vehicles | Improvements in the fuel intensity of vehicles at the rate of 0.5% per year between 2022 and 2030, decreasing to 0.25% per year after 2030. | Technological improvements, better fuel economies. | Regulatory, economic | Planned | Transport          | CO2, CH4, N2O  | 2021                         | MLTLR; TMRSU; Mauritius Standards Bureau (MSB); National Land Transport Authority (NLTA). |  | 6.7              |

## Example of Belize

| Mitigation Action  | Timeframe   | Specific Objectives   | Coverage            |   |                            |              |                 |                  |         | Emissions Reduction Potential | Co-Benefits  |
|--|---|---|---------------------|---|----------------------------|--------------|-----------------|------------------|---------|-------------------------------|--|
|  |   |   | Scope               | Implementing Entity   | Support Entity             | Support Type | Gas             | Funding Provided | Status  |                               |  |
| 1. emPOWER Rural Electrification Project - Caribbean Renewable Energy Fund | November 2018 - February 2020   | Provide renewable energy solutions to assist Belize in achieving universal energy access. | Community Level (3) | Energy Unit, Ministry of Labour, Local Government, Rural Development, Public Service, Energy & Public Utilities | United Arab Emirates (UAE) | Financial    | CO <sub>2</sub> | 2.3M USD         | Ongoing | 319 tCO <sub>2</sub> eq/year  | Access to clean energy to the population of rural villages that currently do not have access to the national grid. Improvement in community livelihood, economic development, increased employment, and quality of jobs. |
| Description  | The emPower Rural Electrification Project plans to install 400kW of solar PV and battery storage in rural villages that currently do not have access to the national grid. These villages are Medina Bank, Golden State, and Indian Creek. This project is in alignment with Belize's Sustainable Energy Action Plan (SEAP), which sets a goal of universal access to energy services by 2030.  |   |                     |   |                            |              |                 |                  |         |                               |  |
| Assumptions  | The estimated grid emission factor is 0.218 tCO <sub>2</sub> /MWh, calculated by splitting the GHG emissions of electricity production (GHG inventory category 1A1) for year 2017 by the MWh produced (data obtained from BEL). The estimation of impact of this policy is made by applying the grid emission factor to the 400kW installed. The value of capacity factor is obtained by multiplying daily isolation hours by 365 days. |   |                     |   |                            |              |                 |                  |         |                               |  |

Estimates of expected and achieved GHG emission reductions as a result of its PAMs

“Shall” requirement

Those developing country Parties that need flexibility in the light of their capacities with respect to this provision are instead encouraged to report such information.

Parties must describe the methodologies and assumptions used to estimate the GHG emission reductions or removals resulting from each PAM.

6. Summary of greenhouse gas emissions and removals

**6. Summary of greenhouse gas emissions and removals in accordance with the common reporting table 10 emission trends –summary**

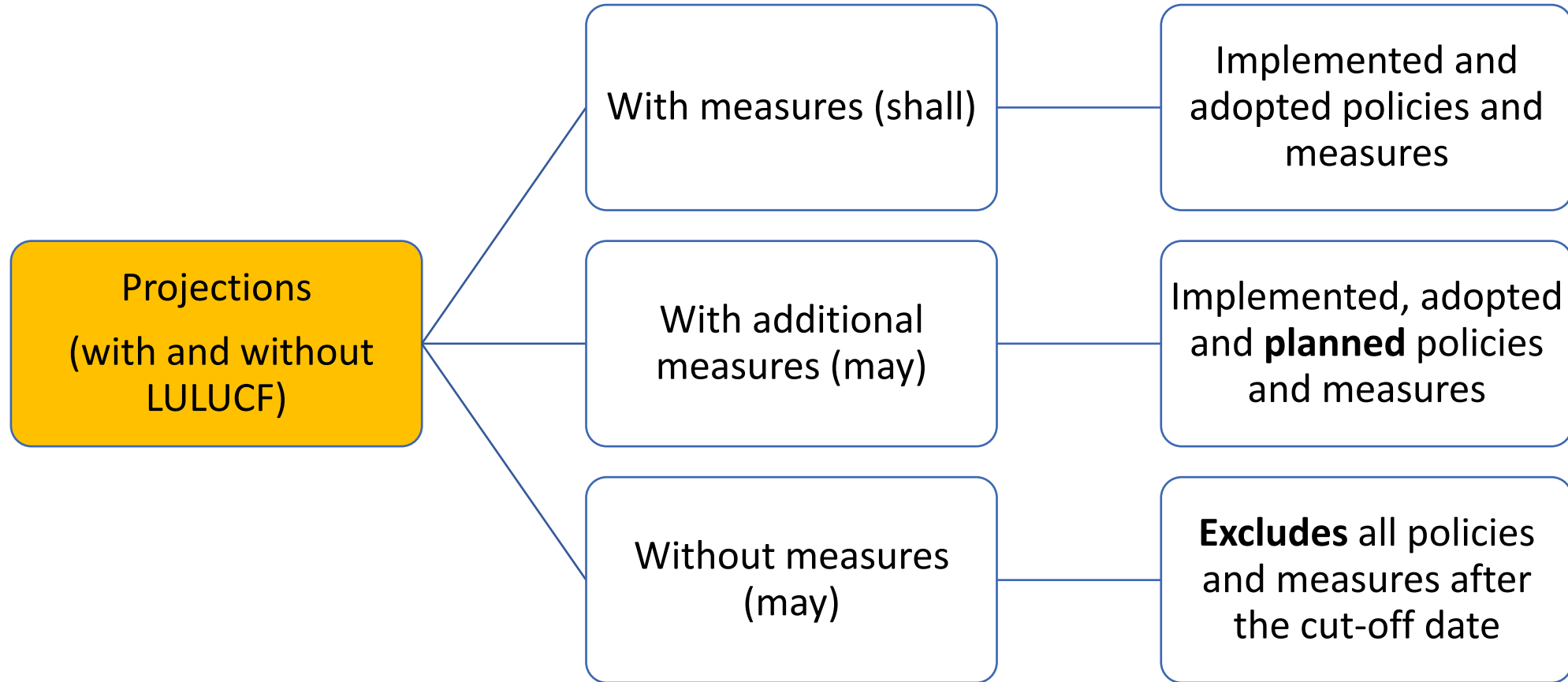
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According to paragraph 91 of the MPGs, each Party that submits a stand-alone national inventory report shall provide a summary of its GHG emissions and removals. This information shall be provided for those reporting years corresponding to the Party's most recent national inventory report, in a tabular format.

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- Each Party, that submits a stand-alone national inventory report, **shall** provide a **summary of its GHG emissions and removals.**

Projections of GHG emissions



## Projections of GHG emissions

- Each Party **shall** report projections for emissions and removals [FX: encouraged]
- Projections will be **indicative on future trends and** will not be used to assess progress towards NDC, unless a Party identified the reported projection as its baseline.
- Projections **shall** begin from most recent year in the Party's inventory report and extend **at least 15 years beyond the next year** ending in zero or five [FX: extend their projections at least to the end point of their NDC]
- Each Party **should** provide information on the methodology used to develop projections:
  - Models, approaches, key assumptions, parameters (GDP rate/level, population growth rate/level, etc.)
  - Changes in methodology since the latest BTR
  - Assumptions on policies and measures included in WM and WAM projections, if included
  - Sensitivity analysis for the projections
- Each Party shall report projections **for key indicators** to determine progress towards its NDC
- Each Party shall include **projections on a sectoral basis and by gas**, as well as for the national total
- Projections shall be presented **relative to actual inventory data** (for preceding years) and be provided with and without LULUCF

[FX: can report using less detailed methodology or coverage]

7. Information on projections of greenhouse gas emissions and removals under a 'with measures' scenario

| 7. Information on projections of greenhouse gas emissions and removals under a ' <b>with measures</b> ' scenario <sup>a,b</sup> |  |      |      |      |
|---|--|------|------|------|
| Sector <sup>d</sup>   | Most recent year in the Party's national inventory report (kt CO <sub>2</sub> eq) <sup>c</sup> |      |      |      |
|   | Projections of GHG emissions and removals, (kt CO <sub>2</sub> eq) <sup>c</sup>                |      |      |      |
|   | 2016   | 2025 | 2030 | 2035 |
| Energy  | 3013   |      | 2005 |      |
| Transport   | 1169   |      | 1385 |      |
| Industrial processes and product use  | 311  |      | 479  |      |
| Agriculture   | 158  |      | 188  |      |
| LULUCF  | -330   |      | -293 |      |
| Waste   | 559  |      | 322  |      |
| Other (specify)   |  |      |      |      |
| <b>Gas</b>  |  |      |      |      |
| CO <sub>2</sub> emissions including net CO <sub>2</sub> from LULUCF   |  |      |      |      |
| CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF   |  |      |      |      |
| CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF   |  |      |      |      |
| CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF   |  |      |      |      |
| N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF   |  |      |      |      |
| N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF   |  |      |      |      |
| HFCs  |  |      |      |      |
| PFCs  |  |      |      |      |
| SF <sub>6</sub>   |  |      |      |      |
| NF <sub>3</sub>   |  |      |      |      |
| Other (specify)   |  |      |      |      |
| <b>Total with LULUCF</b>  | 4881   |      | 4086 |      |
| <b>Total without LULUCF</b>   | 5211   |      | 4379 |      |

8. Information on projections of greenhouse gas emissions and removals under a 'with additional measures' scenario

9. Information on projections of greenhouse gas emissions and removals under a 'without measures' scenario

| 8. Information on projections of greenhouse gas emissions and removals under a 'with additional measures' scenario <sup>a,b</sup> |  |   |           |           |
|---|--|---|-----------|-----------|
| Sector <sup>d</sup>   | Most recent year in the Party's national inventory report (kt CO <sub>2</sub> eq) <sup>c</sup> | Projections of GHG emissions and removals, (kt CO <sub>2</sub> eq) <sup>c</sup> |           |           |
|   |  | 20XX  | 20X(0)(5) | 20X(0)(5) |
|   |  | 20XX  | 20X(0)(5) | 20X(0)(5) |
| Energy  |  |   |           |           |
| Transport   |  |   |           |           |
| Industrial processes and product use  |  |   |           |           |
| Agriculture   |  |   |           |           |
| LULUCF  |  |   |           |           |
| Waste   |  |   |           |           |
| Other (specify)   |  |   |           |           |
| <b>Gas</b>  |  |   |           |           |
| CO <sub>2</sub> emissions including net CO <sub>2</sub> from LULUCF   |  |   |           |           |
| CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF   |  |   |           |           |
| CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF   |  |   |           |           |
| CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF   |  |   |           |           |
| N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF   |  |   |           |           |
| N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF   |  |   |           |           |
| HFCs  |  |   |           |           |
| PFCs  |  |   |           |           |
| SF <sub>6</sub>   |  |   |           |           |
| NF <sub>3</sub>   |  |   |           |           |
| Other (specify)   |  |   |           |           |
| <b>Total with LULUCF</b>  |  |   |           |           |
| <b>Total without LULUCF</b>   |  |   |           |           |

| 9. Information on projections of greenhouse gas emissions and removals under a 'without measures' scenario <sup>a,b</sup> |  |   |      |      |
|---|--|---|------|------|
| Sector <sup>d</sup>   | Most recent year in the Party's national inventory report (kt CO <sub>2</sub> eq) <sup>c</sup> | Projections of GHG emissions and removals, (kt CO <sub>2</sub> eq) <sup>c</sup> |      |      |
|   |  | 2016  | 2025 | 2030 |
|   |  | 2016  | 2025 | 2030 |
| Energy  | 3013   |   | 4316 |      |
| Transport   | 1169   |   | 1514 |      |
| Industrial processes and product use  | 311  |   | 534  |      |
| Agriculture   | 158  |   | 188  |      |
| LULUCF  | -330   |   | -293 |      |
| Waste   | 559  |   | 635  |      |
| Other (specify)   |  |   |      |      |
| <b>Gas</b>  |  |   |      |      |
| CO <sub>2</sub> emissions including net CO <sub>2</sub> from LULUCF   |  |   |      |      |
| CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF   |  |   |      |      |
| CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF   |  |   |      |      |
| CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF   |  |   |      |      |
| N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF   |  |   |      |      |
| N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF   |  |   |      |      |
| HFCs  |  |   |      |      |
| PFCs  |  |   |      |      |
| SF <sub>6</sub>   |  |   |      |      |
| NF <sub>3</sub>   |  |   |      |      |
| Other (specify)   |  |   |      |      |
| <b>Total with LULUCF</b>  | 4881   |   | 6894 |      |
| <b>Total without LULUCF</b>   | 5211   |   | 7187 |      |



## 10. Projections of key indicators

| Key indicator(s): <sup>c</sup>                           | Unit, as applicable        | <i>Most recent year in the Party's national</i> | <i>Projections of key indicators<sup>d</sup></i> |      |      |
|--|----------------------------|---|--|------|------|
|  |                            | 2021  | 2025   | 2030 | 2035 |
| Total economy-wide greenhouse gas emissions and removals | kt CO2 eq                  | 4881  | 4409   | 4086 | 3800 |
| Solar Power Installation                                 | Gigawatts (GW)             | 50  | 80   | 120  | 170  |
| Electric Vehicle Adoption                                | Number of Electric Vehicle | 50  | 100  | 200  | 400  |
| Forest Cover Increase                                    | Hectares (in thousands)    | 200   | 250  | 300  | 360  |

## 11. Key underlying assumptions and parameters used for projections

11. Key underlying assumptions and parameters used for projections<sup>a,b</sup>

| Key underlying assumptions and parameters: <sup>c</sup> | Unit, as applicable | <i>Most recent year in the Party's national inventory report, or the most recent year for which data is available</i> | <i>Projections of key underlying assumptions and parameters<sup>d</sup></i> |      |      |  |
|---|---------------------|---|---|------|------|--|
|   |                     | 2021  | 2025  | 2030 | 2035 |  |
| Gross Domestic Product Growth Rate                      | Percentage (%)      | 3.5   | 4   | 4.5  | 5    |  |
| Population Growth Rate                                  | Percentage (%)      | 1.2   | 1.5   | 1.8  | 2    |  |
| Energy Consumption per Capita                           | MWh per person      | 7.5   | 8   | 8.5  | 9    |  |



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# Thank you for your attention!

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