Introduction to the Enhanced Transparency Framework

Training in the Enhanced Transparency Framework and NDC tracking

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GDPR Principles:
- Lawfulness
- Fairness
- Transparency
- Data minimization
- Storage limitation
- Accuracy
- Integrity and Confidentiality
Content of the webinar

Day 1

Introduction to the ETF

- Transparency - from the Convention and the Paris Agreement
- Why we need transparency at the international level
- Why we need transparency at the national level
- Overview of MPGs and links with the Paris Agreement
- Timeline for the ETF

BTR requirements Part I

- General aspects of the Biennial Transparency Reports
- National Inventory Report
- NDC Tracking

Day 2

BTR requirements Part II

- Support needed and received
- Adaptation Communication & Climate change impacts

Indicators for domestic MRV purposes and tracking progress of NDC

- Changes from current to PA reporting framework
- Complexity of tracking different types of NDC targets
- Reporting requirements for NDC targets and climate a
- Examples of indicators and applicability to Mauritius
Content

Introduction to the ETF

- Transparency - from the Convention and the Paris Agreement
- Why we need transparency at the international level
- Why we need transparency at the national level
- Overview of MPGs and links with the Paris Agreement
- Timeline for the ETF
Convention

- Developing countries didn’t have mitigation obligations.
- Transparency: National Communications (NCs) born in 1992
- COP 17: introduction of Biennial Update Reports (BUR) for non-Annex I Parties, to be submitted by December 2014
- MRV only focused on tracking and reporting actual emissions and implemented mitigation actions

Paris Agreement

- Global target: 1.5 - 2°C
- Commitments, NDC
- Accountability, Transparency, Biennial reporting
- With the PA and NDCs developing countries also have to report on future emissions and mitigation actions
Why do we need transparency at the international level?

Source: UNEP 2018: Emission Gap Report 2018

We are not on track

Important to know where we are and where we are heading!
Why do we need transparency at the international level?

The purpose of the framework for transparency of action is to:

• Provide a clear understanding of climate change actions in the light of the objective to limit global warming at 1.5 - 2°C

• Provide clarity and tracking of progress towards achieving Parties' NDCs (article 4), and Parties' adaptation actions (article 7), to inform the global stocktake (GST) (article 14).

The purpose of the framework for transparency of support is to:

• provide clarity on support provided and received by relevant individual Parties in the context of actions to achieve NDCs (article 4), adaptation actions (article 7), financial support (article 9), technology development and transfer (article 10), and capacity building (article 11)

• to the extent possible, to provide a full overview of aggregate financial support provided, to inform the global stocktake (article 14)
Why do we need transparency at the national level?

- Support **domestic policy processes**
  - Prioritise mitigation and adaptation efforts aligned with national priorities
  - Assess the quality and effectiveness of actions and modify interventions if needed

- Feedback to **assess climate action effectiveness**

- Transparent enabling environments to **increase public and private finance**, and attract **international support**

- Communicating impacts and gather **public support**

- Looking beyond GHG emissions to **socio-economic and environmental indicators**, and investment-maturity

- Support **capacity building**
Article 13 - in total 15 paragraphs, here is a selection:

13.1. An enhanced transparency framework for action and support - to build mutual trust and confidence and to promote effective implementation

13.2. Flexibility in the implementation to those developing country Parties that need it in the light of their capacities

13.3. Recognizing the special circumstances of the least developed countries and small island developing States - facilitative, non-intrusive, non-punitive, respectful of national sovereignty, and avoid placing undue burden on Parties

13.13. Adopt common modalities, procedures and guidelines, as appropriate, for the transparency of action and support
The Modalities, Procedures, and Guidelines (MPGs) provide more details about substance, timing and the processes of the entire Enhanced Transparency Framework outlined in the Paris Agreement.

All countries are in principle guided by the same MPGs.

Flexibility for developing countries:

- Self-determined
- Need for flexibility shall be specifically explained
- Plans and time frames for how to meet the full requirements shall be drawn up
- Aiming for a continuous enhancement of the quality over time
I. Introduction, purpose, principles of MPGs, clarifications on flexibility, improved reporting over time and reporting format

II. National inventory report of greenhouse gases (GHGs)

III. Information necessary to track progress made in implementing and achieving NDCs

IV. Information related to climate change impacts and adaptation

V. Information support provided and mobilized (Developed countries)

VI. Information on support needed and received

VII. MPG for technical expert review

VIII. MPG for the facilitative, multilateral consideration of progress (FMCP)
ETF and the MPGs

Information

GHG Inventory (Art. 13.7a)

Information to track progress on NDCs (information on mitigation and adaptation with mitigation co-benefits) (Art. 13.7b)

Information related to climate change impacts & adaptation (Art. 13.8)

Information on support provided (Art. 13.9)

Information on support needed and received (Art. 13.10)

I, II, etc.  Chapters of MPGs

* Mandatory for developed countries

Elements of reporting that can be submitted with the BTR

REPORTING

NIR

Technical expert review (Art. 13.11)

Multilateral considerations (Art. 13.11)

REVIEW

Adaptation Communications

Mandatory

Non-mandatory

Transp. from Convention to PA

Transp. at international level

Transp. at national level

Overview of the MPGs

Timeline for the ETF
ETF and links with the Paris Agreement

**Information in NDC**
- NDCs (Article 4)
- Cooperative Approaches, ITMOs & SD (Article 6)
- Adaptation (Article 7)
- Loss and damage associated with climate change impacts (Article 8)
- Financial support (Art. 9)
- Technology development and transfer (Art. 10)
- Capacity building support (Art. 11)

**Transparency (Art. 13)**
- GHG Inventory (Art. 13.7a)
- Information to track progress on NDCs (Art. 13.7b)
- Information related to climate change impacts & adaptation (Art. 13.8)
- Information on support provided (Art. 13.9)
- Information on support needed and received (Art. 13.10)

**Reporting**
- NIR

**Review**
- Technical expert review (Art. 13.11)
- Multilateral considerations (Art. 13.11)

**Global stocktake and Compliance**
- Global stocktake (Art. 14)
- Implementation and compliance mechanism (Article 15)

**Adaptation Communications**

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**Timeline for the ETF**

- Overview of the MPG
- Transp. from Convention to PA
- Transp. at international level
- Transp. at national level
Timing for the ETF

**Preparatory phase**: familiarize with MPGs and account for new requirements in current work streams.

**Notes**: 
- In the years where NC and BTR coincide, Parties may submit NC and BTR as a single report.
- Countries can combine the submission of last BUR with the BTR.

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**Timeline for the ETF**

**Overview of the MPGs**

**Timeline for the ETF**

- **Transp. from Convention to PA**
- **Transp. at international level**
- **Transp. at national level**

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**ICAT**

**Initiative for Climate Action Transparency**
The Enhanced Transparency Framework in a nutshell

- **Common reporting** requirements for all countries
  - Some flexibility for developing countries and discretion of submission for LDCs and SIDS
  - Provision for continuous improvement of reporting

- The Biennial Transparency Report **by end 2024** the latest
  - NIR, and Tracking of NDC progression and achievement (**shall**)
  - CC impacts and adaptation, and support received (**may**)

- MPG introduces **new requirements**
  - Information of new requirements can be used in current work on NC, BUR and NDC
  - Make use of the ‘preparatory phase’ (2019-2024) to start gathering data

- **Support** available for transparency, make use of it
  - E.g. CBIT and ICAT
Thank you!

More information can be found in: Unfolding the reporting requirements for Developing Countries under the Paris Agreement’s Enhanced Transparency Framework (UDP, 2019)
Reporting requirements under the Enhanced Transparency Framework

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18/08/2020
Content

BTR requirements Part I

- General aspects of the Biennial Transparency Reports
- National Inventory Report
- NDC Tracking

BTR requirements Part II (tomorrow)

- Support needed and received
- Adaptation Communication & Climate change impacts
The purpose of the framework for transparency of action is to:

• Provide a clear understanding of climate change actions in the light of the objective to limit global warming at 1.5 - 2°C

• Provide clarity and tracking of progress towards achieving Parties’ NDCs to inform the global stocktake.

The purpose of the framework for transparency of support is to:

• Provide clarity on support provided and received by relevant individual Parties in the context of actions to achieve NDCs, adaptation actions, financial support, technology development and transfer, and capacity building

• to the extent possible, to provide a full overview of aggregate financial support provided, to inform the global stocktake
• It’s a reporting vehicle to provide information on the status, action, and support
• 1st by 31 December 2024 the latest
• LDCs and SIDS can submit at their discretion

• Flexibility on certain requirements
• NIR to be submitted together with BTR
• Potential vehicle for Adaptation Communication
Content of the BTR - National Inventory Report (NIR)

Source: UNEP DTU Partnership 2019
# National Inventory Report (NIR)

## Detail

<table>
<thead>
<tr>
<th>NIR (part of BUR)</th>
<th>NIR (part of BTR or stand alone)</th>
</tr>
</thead>
</table>
| **Reporting form** | • Reporting  
  • GHG Inventory | • National Inventory Document (NID)  
  • Common Reporting Tables (CRT) |
| **Submission requirements** | • Developing countries should submit updates of national GHG inventories including a national inventory report | • Each Party shall provide a national inventory report |
| **IPCC guidelines** | • Use IPCC revised guidelines 1996, IPCC GPG 2000 and IPCC 2003 GPG for LULUCF | • Use IPCC Guidelines 2006, and any subsequent version or refinement |
| **Gases** | • CO2, CH4, and N2O  
  • HFCs, PFCs, SF6, CO, NOx, NMVOC, and SOx.  
  • Provide emissions and removals on a gas-by-gas basis and in units of mass  
  • **should use the GWP using the 100-year time horizon and CO2e for aggregated** | • CO2, CH4, N2O, HFCs, PFCs, SF6 and NF3 (flexibility to report at least first three)  
  • CO, NMVOCs, SOx, NOx. indirect CO2 from atmospheric oxidation of CH4, CO and NMVOCs (should)  
  • Use the 100-year time-horizon GWP to report aggregate emissions and removals of GHGs, expressed in CO2e |
| **Key categories** | • **Encouraged to apply the IPCC Good Practice Guidance** | • Identify key categories with threshold at 95% (85% if flexibility is needed)  
  • Individual and cumulative percentage contributions per category  
  • For each category, both level and trend at least for first and last reporting year of the time series |

*In italics:* "should", "encouraged" and "may" requirements. *In blue:* requirements where flexibility applies.
# National Inventory Report (NIR)

<table>
<thead>
<tr>
<th>Detail</th>
<th>NIR (part of BUR)</th>
<th>NIR (part of BTR or stand alone)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time series</td>
<td>Encouraged to provide time series back to the years reported in the previous NC. (In NC, no time series but inventories for the year 1994/1990, for first NC, and 2000 for second NC)</td>
<td>Latest reporting year shall be no more than 2 years prior to the submission of the NIR (3 years prior to the submission if flexibility is needed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time series shall start from 1990 (as a minimum the reference years for the respective NDC and a consistent annual time series from at least 2020 onwards, if flexibility is needed)</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>Encouraged to provide information on the level of uncertainty, and to describe the methodologies used, if any, for estimating these uncertainties.</td>
<td>Uncertainty for all source and sink categories shall be quantitatively estimated and qualitatively discussed, at least the starting year and the latest reporting year of the inventory time series. (Qualitative analysis where quantitative data is unavailable if flexibility is needed)</td>
</tr>
<tr>
<td>Completeness</td>
<td>Encouraged to apply the IPCC Good Practice Guidance</td>
<td>NE (Not Estimated) if emissions from a is considered insignificant; likely level of emissions is below 0.05% of the national total GHG emissions, excluding LULUCF and 500 kt CO2 eq, whichever is lower. Total national aggregate of estimated emissions for all gases from categories considered insignificant shall remain below 0.1% of the national total GHG emissions, excluding LULUCF. (If flexibility is needed all numbers x2)</td>
</tr>
<tr>
<td>QA/QC</td>
<td>Encouraged to apply the IPCC Good Practice Guidance</td>
<td>Each Party shall elaborate an inventory quality assurance/quality control (QA/QC). (If flexibility is needed this provision is only encouraged).</td>
</tr>
<tr>
<td>National circumstances</td>
<td>Describe procedures and arrangements to collect data and information on the role of the institutions involved</td>
<td>Information on national circumstances and institutional arrangements</td>
</tr>
</tbody>
</table>

*In italics: “should”, “encouraged” and “may” requirements. In blue: requirements where flexibility applies.*
The Content of the BTR - Information to track progress of NDC

- GHG Inventory II
  - Information to track progress on NDCs III
    - National circumstances III.A
    - Description of a Party’s NDC III.B
    - Information to track progress on NDCs III.C
    - Mitigation policies and measures, including adaptation with mitigation co-benefits, and economic diversification plans III.D
    - Summary of GHG emissions and removals III.E
    - Projections of greenhouse gas emissions and removals, as applicable III.F
  - Information related to climate change impacts & adaptation IV
  - Information on support needed and received VI

- National Inventory Report
- Biennial Transparency Report
  - Adaptation Communication

Source: UNEP DTU Partnership 2019
The Content of the BTR - Information to track progress of NDC

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- Biennial Transparency Report
- Adaptation Communication

Source: UNEP DTU Partnership 2019
Tracking progress of NDC - National Circumstances

<table>
<thead>
<tr>
<th>Information to report</th>
<th>BTR requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Circumstances, and how they affect GHG emissions and removals over time</td>
<td>Government structure</td>
</tr>
<tr>
<td></td>
<td>Population profile</td>
</tr>
<tr>
<td></td>
<td>Geographical profile</td>
</tr>
<tr>
<td></td>
<td>Economic profile</td>
</tr>
<tr>
<td></td>
<td>Climate profile</td>
</tr>
<tr>
<td></td>
<td>Sector details</td>
</tr>
<tr>
<td>Institutional arrangements for domestic implementation, monitoring, reporting, archiving of information and stakeholder engagement related to the implementation and achievement of the NDC</td>
<td>Legal arrangements</td>
</tr>
<tr>
<td></td>
<td>Institutional arrangements</td>
</tr>
<tr>
<td></td>
<td>Administrative arrangements</td>
</tr>
<tr>
<td></td>
<td>Procedural arrangements</td>
</tr>
<tr>
<td></td>
<td>Arrangements for tracking ITMO</td>
</tr>
<tr>
<td></td>
<td>Changes in institutional arrangements</td>
</tr>
</tbody>
</table>

NDC targets require a system and framework to establish and track the achievement of these targets.

Article 6 allows for cooperative approaches to reach targets, and the systems need to accommodate this:

- Add transferred - subtract used/acquired ITMOS
- How it promotes SD and environmental integrity and inter alia avoids double counting
Tracking progress of NDC - Description of NDC

- GHG Inventory II
- Information to track progress on NDCs III
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Source: UNEP DTU Partnership 2019
### BTR requirements

<table>
<thead>
<tr>
<th>Target</th>
<th>Reference point(s), level(s), baseline(s), base year(s) or starting point(s), and their respective value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time frame(s) and/or periods for implementation</td>
<td>Scope and coverage, including, as relevant, sectors, categories, activities, sources and sinks, pools and gases</td>
</tr>
<tr>
<td>Intention to use cooperative approaches that involve the use of ITMOs towards NDC</td>
<td>Any updates or clarifications of previously reported information</td>
</tr>
</tbody>
</table>

- Basically a description of the NDC, focusing on the NDC target
Information to track progress of NDC

GHG Inventory II

Information to track progress on NDCs III
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Information related to climate change impacts & adaptation IV

Information on support needed and received VI

National Inventory Report

Biennial Transparency Report

Adaptation Communication

Source: UNEP DTU Partnership 2019
### Tracking progress of NDC - Targets and indicators

<table>
<thead>
<tr>
<th>Target</th>
<th>Indicator(s)</th>
<th>Target description</th>
<th>Target tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute emissions reduction</td>
<td>Net GHG emissions and removals</td>
<td>- Target year(s) or period(s), and whether they are single-year or multi-year target(s)</td>
<td>- Reference point(s), level(s), baseline(s), base year(s) or starting point(s), and their respective value(s)</td>
</tr>
<tr>
<td>Emissions intensity reduction</td>
<td>Percentage reduction of GHG emissions per unit of GDP</td>
<td>- Time frame(s) and/or periods for implementation</td>
<td>- Most recent information on each indicator and on the construction of the baseline</td>
</tr>
<tr>
<td>Emissions reductions below a projected baseline</td>
<td>Net GHG emissions and removals</td>
<td>- Scope and coverage, including, as relevant, sectors, categories, activities, sources and sinks, pools and gases</td>
<td>- For quantitative targets, the relation between reference, target and most recent information (e.g. percentage)</td>
</tr>
<tr>
<td>Strategies, plans and actions</td>
<td>Relevant qualitative indicators</td>
<td>- Reference point(s), level(s), baseline(s), base year(s) or starting point(s), and their respective value(s)</td>
<td></td>
</tr>
<tr>
<td>Mitigation co-benefits of adaptation actions or economic diversification plans, policies and measures</td>
<td>Net GHG emissions and removals</td>
<td>- Reference point(s), level(s), baseline(s), base year(s) or starting point(s), and their respective value(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantitative and qualitative mitigation indicators</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Parameters, assumptions, definitions, data sources and models, metrics and IPCC guidelines
Sector, category or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance
Methodologies used to:
- Estimate mitigation co-benefits of adaptation actions and/or economic diversification plans
- Cooperative approaches that involve the use of ITMOs
- Track progress of implementation of policies and measures
- Related to the NDC, and conditions and assumptions relevant to the achievement of the NDCs
- How the methodology in each reporting year is consistent with the methodology/ies used when communicating the NDC
- Methodological inconsistencies with the Party’s most recent NIR, if applicable
- How double counting of net GHG emission reductions has been avoided
Tracking progress of NDC - Mitigation policies & measures

- GHG Inventory II
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National Inventory Report

Biennial Transparency Report

Adaptation Communication

Source: UNEP DTU Partnership 2019
Tracking progress of NDC - Mitigation policies & measures

Tabular format in BTR
- Name
- Description
- Objectives
- *Type of instrument (regulatory, economic instrument or other)*
- Status (planned, adopted or implemented)
- Sector(s) affected
- Gases affected
- Start year of implementation
- Implementing entity or entities
- Estimates of expected and achieved GHG emissions reductions (Flexibility)
- Costs (May)
- Non-GHG mitigation benefits (May)
- How the mitigation actions interact with each other (May)

Narrative format or annex to the BTR
- Methodologies and assumptions used to estimate the GHG emissions reductions or removals by each action, policy and measure
- Those actions, policies and measures that are no longer in place compared with the most recent BTR, and why they are no longer in place (Should)
- Actions, policies and measures that influence GHG emissions from international transport (Should)
- How the actions, policies and measures are modifying longer-term trends in GHG emissions and removals (Should)
- Assessment of economic and social impacts of response measures (encouraged to provide detailed information)

Adaptation actions and/or economic diversification plans resulting in mitigation co-benefits
- Sectors and activities associated with response measures
- Social and economic consequences from the response measures
- Challenges and barriers to address the consequences
- Actions to address the consequences
If the NIR is submitted as a stand-alone report, the BTR shall include a summary in a tabular format of its GHG emissions and removals for the year corresponding to the country’s most recent NIR.
Tracking progress of NDC - Emission Projections

GHG Inventory II

Information to track progress on NDCs III
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Information related to climate change impacts & adaptation IV

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National Inventory Report

Biennial Transparency Report

Adaptation Communication

Source: UNEP DTU Partnership 2019
Tracking progress of NDC - Emission Projections

National emission projections

- With measures
- With additional measures
- Without measures
- Without LULUCF
- Without LULUCF2
- Without LULUCF3

Start
Year used in the most recent NIR
Until
15 years after the next year ending with 0 or 5 (= 16-19 years)
### Tracking progress of NDC - Emission Projections

<table>
<thead>
<tr>
<th>Information to report</th>
<th>BTR requirements (encouraged) (in graphical and tabular format)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time coverage</strong></td>
<td>From the latest NIR, and covering at least 15 years beyond the next year ending in zero or five. At least to the end point of the NDC, if flexibility is needed.</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>Graphical and tabular formats</td>
</tr>
<tr>
<td></td>
<td>On a sectoral basis and by gas, as well as for the national total</td>
</tr>
<tr>
<td></td>
<td>With and without LULUCF</td>
</tr>
<tr>
<td></td>
<td>‘with measures’ projection</td>
</tr>
<tr>
<td></td>
<td>‘with additional measures’ projection and ‘without measures’ projection (May)</td>
</tr>
<tr>
<td></td>
<td>Presented relative to actual inventory data for the preceding years</td>
</tr>
<tr>
<td><strong>NDC Indicators</strong></td>
<td>Projections of key indicators to determine progress towards its NDC are also to be provided</td>
</tr>
<tr>
<td><strong>Methodologies</strong></td>
<td>Models and/or approaches used and key underlying assumptions and parameters used for projections (e.g. gross domestic product growth rate/level, population growth rate/level)</td>
</tr>
<tr>
<td></td>
<td>Changes in the methodology since the most recent BTR</td>
</tr>
<tr>
<td></td>
<td>Assumptions on policies and measures included in the ‘with measures’ projection and ‘with additional measures’ projection, if included</td>
</tr>
<tr>
<td></td>
<td>Sensitivity analysis for any of the projections, together with a brief explanation of the methodologies and parameters used</td>
</tr>
</tbody>
</table>
## Tracking progress of NDC - Emission Projections

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂ excluding net CO₂ from LULUCF</td>
<td>439.64G</td>
<td>451.43G</td>
<td>470.29G</td>
<td>494.45G</td>
<td>426.35G</td>
<td>355.78G</td>
<td>353.48G</td>
<td>348.99G</td>
</tr>
<tr>
<td>CO₂ including net CO₂ from LULUCF</td>
<td>434.05G</td>
<td>428.34G</td>
<td>452.43G</td>
<td>465.18G</td>
<td>390.90G</td>
<td>315.55G</td>
<td>316.11G</td>
<td>328.64G</td>
</tr>
<tr>
<td>CH₄ excluding CH₄ from LULUCF</td>
<td>48.26G</td>
<td>50.36G</td>
<td>50.76G</td>
<td>48.28G</td>
<td>49.61G</td>
<td>43.80G</td>
<td>43.57G</td>
<td>43.85G</td>
</tr>
<tr>
<td>CH₄ including CH₄ from LULUCF</td>
<td>49.74G</td>
<td>50.70G</td>
<td>51.68G</td>
<td>48.65G</td>
<td>47.27G</td>
<td>44.09G</td>
<td>43.97G</td>
<td>45.33G</td>
</tr>
<tr>
<td>N₂O excluding N₂O from LULUCF</td>
<td>20.08G</td>
<td>27.43G</td>
<td>28.44G</td>
<td>27.78G</td>
<td>18.83G</td>
<td>17.54G</td>
<td>17.94G</td>
<td>17.79G</td>
</tr>
<tr>
<td>N₂O including N₂O from LULUCF</td>
<td>26.90G</td>
<td>28.23G</td>
<td>29.22G</td>
<td>28.40G</td>
<td>19.23G</td>
<td>17.87G</td>
<td>18.36G</td>
<td>18.28G</td>
</tr>
<tr>
<td>HFCs</td>
<td>444.92G</td>
<td>27.47G</td>
<td>7.51G</td>
<td>11.72G</td>
<td>14.70G</td>
<td>15.04G</td>
<td>15.29G</td>
<td></td>
</tr>
<tr>
<td>PFCs</td>
<td>2.90G</td>
<td>1.49G</td>
<td>1.48G</td>
<td>1.940</td>
<td>1.520</td>
<td>1.688</td>
<td>1.614</td>
<td>1.314</td>
</tr>
<tr>
<td>Unspecified mix of HFCs and PFCs</td>
<td>NO,NA</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>SF₆</td>
<td>408.68G</td>
<td>804.64G</td>
<td>550.55G</td>
<td>594.47G</td>
<td>590.39G</td>
<td>417.34G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NF₃</td>
<td>NA,NO</td>
<td>77</td>
<td>13</td>
<td>33</td>
<td>26</td>
<td>28</td>
<td>34</td>
<td>23</td>
</tr>
<tr>
<td>Total (excluding LULUCF)</td>
<td>517.46G</td>
<td>552.41G</td>
<td>554.10G</td>
<td>550.60G</td>
<td>505.73G</td>
<td>434.04G</td>
<td>432.11G</td>
<td>427.70G</td>
</tr>
<tr>
<td>Total (including LULUCF)</td>
<td>514.46G</td>
<td>510.50G</td>
<td>537.87G</td>
<td>552.22G</td>
<td>471.09G</td>
<td>394.43G</td>
<td>395.56G</td>
<td>409.32G</td>
</tr>
</tbody>
</table>

---

Q&A session

Thank you!

More information can be found in:
Unfolding the reporting requirements for Developing Countries under the Paris Agreement’s Enhanced Transparency Framework (UDP, 2019)
Reporting requirements under the Enhanced Transparency Framework

Training in the Enhanced Transparency Framework and NDC tracking

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19/08/2020
Content

BTR requirements Part I (yesterday)
- General aspects of the Biennial Transparency Reports
- National Inventory Report
- NDC Tracking

BTR requirements Part II
- Support needed and received
- Adaptation Communication & Climate change impacts
The content of the BTR - Support needed and received

Source: UNEP DTU Partnership 2019
The content of the BTR - Support needed and received

<table>
<thead>
<tr>
<th>Title</th>
<th>FN</th>
<th>FR</th>
<th>TDTN</th>
<th>TDTR</th>
<th>CBN</th>
<th>CBR</th>
<th>ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme/project description</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Channel</td>
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<td></td>
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<tr>
<td>Recipient Entity</td>
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<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Implementing entity</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Estimated or actual amount (domestic currency and USD)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Expected or actual time frame</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Expected or utilized financial instrument</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status (committed or received)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Type of support (mitigation, adaptation or cross-cutting)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sector and subsector</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whether the activity will contribute to technology development and transfer and/or capacity-building</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status of activity (planned, ongoing or completed)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whether the activity is anchored in a national strategy and/or NDC</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected and achieved use, impact and estimated results</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

FN= Financial support needed; FR= financial support received; TDTN= technology development and transfer support needed; TDTR= Technology development and transfer support received; CBN= Capacity-building support needed; CBR= Capacity-building support received; ST= Support needed and received for the implementation of Article 13 and transparency activities.
The content of the BTR - Climate impacts and adaptation

Source: UNEP DTU Partnership 2019
Adaptation Communication

- **Goal:** increase visibility of adaptation, strengthen adaptation action and support, provide input to the global stocktake, enhance understanding of adaptation needs and actions

- **Submission:** Parties submit ACs with NAP, NDC, NC and **now also with BTR**
Adaptation Communication

• No guidance from MPGs on AC

• Guidance from Decision 9/CMA.1 on ACs from COP24 provides a list of the information which may be included
  o (a) National circumstances, institutional arrangements and legal frameworks
  o (b) Impacts, risks and vulnerabilities, as appropriate
  o (c) National adaptation priorities, strategies, policies, plans, goals and actions
  o (d) Implementation and support needs of, and provision of support to, developing country Parties
  o ... etc

• Decision 17/CP.8 also provide information that may be relevant to report on adaptation:
  o Information on vulnerability and on adaptation measures taken
  o Information on the scope of countries’ vulnerability and adaptation assessments
  o Description of approaches, methodologies and tools
  o Information on their vulnerability and adaptation in key vulnerable areas

• Draft supplementary guidance available by June 2022

• Lack of guidance: MPGs on information on climate change impacts and adaptation could be used to compile adaptation communication. This approach can also help countries to get ready for BTR
The content of the BTR - Climate impacts and adaptation

- **Detailed guidance** by MPGs on climate change impacts and adaptation
- **"Should"** requirement for submission
- Structured in the following **blocks of information:**
  - National circumstances, institutional arrangements and legal frameworks
  - Impacts, risks and vulnerabilities
  - Adaptation priorities and barriers
  - Adaptation strategies, policies, plans, goals and actions
  - Progress on implementation of adaptation

<table>
<thead>
<tr>
<th>Information to report on climate change impacts and adaptation as part of the BTR (by group)</th>
<th>Requirements on information related to climate change impacts and adaptation as part of the BTR (in detail)</th>
<th>Requirements on information related to adaptation communication as a component of the NDC Decision 9/CMA.1 (UNFCCC, 2018b)</th>
<th>Requirements on information related to national communication, relevant for adaptation communication Decision 17/CP.8 (UNFCCC, 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National circumstances, institutional arrangements and legal frameworks relevant to adaptation</td>
<td>Institutional arrangements and governance for assessing and addressing impacts of climate change Legal and policy frameworks and regulations Biogeophysical characteristics Demographics Economy Infrastructure</td>
<td>National circumstances, institutional arrangements and legal frameworks</td>
<td>Information on features of geography, climate and economy which may affect the ability to deal with mitigating and adapting to climate change (may)</td>
</tr>
</tbody>
</table>
Quick recap

Paris Agreement

Enhanced Transparency Framework

GHG Inventory II

- Information to track progress on NDCs III
  - National circumstances III.A
  - Description of a Party’s NDC III.B
  - Information to track progress on NDCs III.C
  - Mitigation policies and measures III.D
  - Summary of GHG emissions and removals III.E
  - Projections of GHG emissions and removals III.F

Information related to climate change impacts & adaptation IV

Information on support needed and received VI

Biennial Transparency Report

National Inventory Report

Biennial Transparency Report

Adaptation Communication

Support

AC and impacts
Take-home messages

- MPG contains more detailed guidance on information to be reported, compared to previous framework
- NIR and Information to track NDC are mandatory to report
- MPG provides some information linked to NDCs' requirements, and other current submissions
- Preparing NDCs (or other reports such as NC, NIR and BUR) taking into account MPG, will help countries to identify gaps, ensure that information are standardised across reporting elements, thus preparing countries for when the ETF will become effective
- Through the use of "flexibility", MPG provides the framework for moving towards a common improved reporting for all Parties.
Thank you!

More information can be found in:
Unfolding the reporting requirements for Developing Countries under the Paris Agreement’s Enhanced Transparency Framework (UDP, 2019)
Indicators for domestic MRV purposes and tracking progress of NDC

Training in the Enhanced Transparency Framework and NDC tracking

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19/08/2020
Content

Indicators for domestic MRV purposes and tracking progress of NDC

- Changes from Kyoto Protocol to Paris Agreement reporting framework
- Complexity of tracking different types of NDC targets
- Reporting requirements for NDC targets and climate action
- Examples of indicators and applicability to Mauritius
Changes to the current reporting framework

- Currently there are differentiated guidelines between Annex I and non-Annex I Parties
  - Obligations, level of detail, frequency and format
  - Annex I Parties subject to targets under the Convention and the Kyoto Protocol

- Bifurcated requirements provide for significantly different starting points in dealing with the new provisions of the enhanced transparency framework
  - Now all parties have expressed targets through their NDC
  - Current reporting requirements and lessons learned for developed countries can provide valuable inputs

---

Source: Brocchieri, F., Gagna, A., Romano, D., Vitullo, M., 2020: Proposed indicators for domestic MRV purposes and tracking progress of NDCs, Draft Report under the Initiative for Climate Action Transparency
Information to track progress of NDC

GHG Inventory II

Information to track progress on NDCs III
   National circumstances III.A
   Description of a Party’s NDC III.B
   Information to track progress on NDCs III.C
      Mitigation policies and measures, including adaptation with mitigation co-benefits, and economic diversification plans III.D
      Summary of GHG emissions and removals III.E
      Projections of greenhouse gas emissions and removals, as applicable III.F

Information related to climate change impacts & adaptation IV

Information on support needed and received VI

National Inventory Report

Biennial Transparency Report

Adaptation Communication

Source: UNEP DTU Partnership 2019
Tracking progress of NDC - Mitigation policies & measures

GHG Inventory

Information to track progress on NDCs

- National circumstances
- Description of a Party’s NDC
- Information to track progress on NDCs
- Mitigation policies and measures, including adaptation with mitigation co-benefits, and economic diversification plans
- Summary of GHG emissions and removals
- Projections of greenhouse gas emissions and removals, as applicable

Information related to climate change impacts & adaptation

Information on support needed and received

National Inventory Report

Biennial Transparency Report

Adaptation Communication

Source: UNEP DTU Partnership 2019
Variety of NDC target types

Source: Brocchieri, F., Gagna, A., Romano, D., Vitullo, M., 2020: Proposed indicators for domestic MRV purposes and tracking progress of NDCs, Draft Report under the Initiative for Climate Action Transparency
## Tracking progress of NDC - Targets and indicators - BTR requirements

<table>
<thead>
<tr>
<th>Target</th>
<th>Indicator(s)</th>
<th>Target description</th>
<th>Target tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute emissions reduction</td>
<td>Net GHG emissions and removals</td>
<td>- Target year(s) or period(s), and whether they are single-year or multi-year target(s)</td>
<td>- Reference point(s), level(s), baseline(s), base year(s) or starting point(s), and their respective value(s)</td>
</tr>
<tr>
<td>Emissions intensity reduction</td>
<td>Percentage reduction of GHG emissions per unit of GDP</td>
<td>- Time frame(s) and/or periods for implementation</td>
<td>- Most recent information on each indicator and on the construction of the baseline</td>
</tr>
<tr>
<td>Emissions reductions below a projected baseline</td>
<td>Net GHG emissions and removals</td>
<td>- Scope and coverage, including, as relevant, sectors, categories, activities, sources and sinks, pools and gases</td>
<td>- For quantitative targets, the relation between reference, target and most recent information (e.g. percentage)</td>
</tr>
<tr>
<td>Strategies, plans and actions</td>
<td>Relevant qualitative indicators</td>
<td>- Reference point(s), level(s), baseline(s), base year(s) or starting point(s), and their respective value(s)</td>
<td></td>
</tr>
<tr>
<td>Mitigation co-benefits of adaptation actions or economic diversification plans, policies and measures</td>
<td>Net GHG emissions and removals, Quantitative and qualitative mitigation indicators</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Mauritius NDC target (mitigation):
Abate 30% of GHG by 2030, relative to the BAU scenario of 7 million metric tonnes CO₂ equivalent (conditional on international support)

NDC activities (mitigation):
• smart use of marine resources;
• expansion in solar, wind and biomass energy production and other renewable energy sources;
• sustainable consumption and production in all sectors of the economy;
• gradual shift towards the use of cleaner energy technologies, such as LNG, among others;
• modernisation of the national electricity grid through the use of smart technologies, which is a prerequisite to accelerate the uptake of renewable energy;
• efficient use of energy through the deployment of appropriate technologies in all sectors of the economy and awareness raising on energy conservation;
• sustainable transportation, including promotion of energy efficient mass transportation systems based on hybrid technologies and cleaner energy sources;
• climate smart agriculture including bio-farming;
• sustainable and integrated waste management, including waste to energy;
• sustained tree planting programme within the context of the cleaner, greener and safer initiative; and
• leapfrog to low global warming potential refrigerants.

Source: Mauritius' NDC (INDC 28.09.2015)
Tracking progress of NDC - methodologies and accounting approaches

- Parameters, assumptions, definitions, data sources and models, metrics and IPCC guidelines
- Sector, category or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance
- Methodologies used to:
  - Estimate mitigation co-benefits of adaptation actions and/or economic diversification plans
  - Cooperative approaches that involve the use of ITMOs
  - Track progress of implementation of policies and measures
  - Related to the NDC, and conditions and assumptions relevant to the achievement of the NDCs
  - How the methodology in each reporting year is consistent with the methodology/ies used when communicating the NDC
  - Methodological inconsistencies with the Party’s most recent NIR, if applicable
- How double counting of net GHG emission reductions has been avoided
"The Republic of Mauritius imperatively needs international technical and financial support to enable it to abate its greenhouse gas emissions by 30%, by the year 2030, relative to the business as usual scenario of 7 million metric tonnes CO₂ equivalent."

<table>
<thead>
<tr>
<th>Assumptions and methodological approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source for GHG emissions</strong></td>
</tr>
<tr>
<td><strong>Global warming potentials</strong></td>
</tr>
<tr>
<td><strong>Approaches to land sector emissions</strong></td>
</tr>
<tr>
<td><strong>BAU emissions in the target year</strong></td>
</tr>
<tr>
<td><strong>BAU projection methodology</strong></td>
</tr>
</tbody>
</table>

Source: Mauritius' NDC (INDC 28.09.2015)
<table>
<thead>
<tr>
<th>Group</th>
<th>Indicator</th>
<th>Numerator / denominator</th>
<th>Description and Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macro</td>
<td>Total CO₂ intensity of GDP, t/Mio Currency</td>
<td>Total CO₂ emissions, kt</td>
<td>Total CO₂ emissions (excluding LULUCF)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GDP, Bio Currency</td>
<td>Gross domestic product at constant prices</td>
</tr>
<tr>
<td>Services</td>
<td>CO₂ intensity of the commercial and institutional sector, t/Mio Currency</td>
<td>CO₂ emissions from fossil fuel consumption in commercial and institutional sector, kt</td>
<td>CO₂ emissions from fossil fuel combustion in commercial and institutional buildings in the public and private sectors. Energy used for transport by services should not be included here but in the transport indicators.</td>
</tr>
<tr>
<td>Transformation</td>
<td>Specific CO₂ emissions of public and autoproducer thermal power plants, t/TJ</td>
<td>CO₂ emissions from public and autoproducer thermal power stations, kt</td>
<td>CO₂ emissions from all fossil fuel combustion for gross electricity and heat production by public and autoproducer thermal power and combined heat and power plants. Emissions from heat only plants are not included. \nGross electricity produced and any heat sold to third parties (combined heat and power plants - CHP) by public and autoproducer thermal power and combined heat and power plants. Output from heat only plants is not included. \nPublic thermal plants generate electricity (and heat) for sale to third parties, as their primary activity. They may be privately or publicly owned. Autoproducer thermal power stations generate electricity (and heat) wholly or partly for their use as an activity, which supports their primary activity. The gross electricity generation is measured at the outlet of the main transformers, i.e. the consumption of electricity in the plant auxiliaries and in transformers is included. (source: energy balance)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All products – output by public and autoproducer thermal power stations, PJ</td>
<td></td>
</tr>
</tbody>
</table>


Translate 30% GHG reduction to t CO₂

‘Efficient use of energy through the deployment of appropriate technologies in all sectors of the economy and awareness raising on energy conservation’

‘Gradual shift towards the use of cleaner energy technologies, such as LNG, among others;’
### Tracking progress of NDC - Potential indicators for Economy-wide NDC targets - Energy sectors

<table>
<thead>
<tr>
<th>Group</th>
<th>Indicator</th>
<th>Numerator / denominator</th>
<th>Description and Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>Share of renewable energy production</td>
<td>Renewable energy production/total energy production (%)</td>
<td>The indicator can be used to track NDC progress, in term of renewable energy production, and in term of GHG emissions reduction</td>
</tr>
<tr>
<td>Industry</td>
<td>CO₂ emissions from the industry sector, kt</td>
<td>Emissions from combustion of fossil fuels in manufacturing industries, construction and mining and quarrying (except coal mines and oil and gas extraction) including combustion for the generation of electricity and heat. Energy used for transport by industry should not be included here but in the transport indicators. Emissions arising from off-road and other mobile machinery in industry should be included in this sector.</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>Total final energy consumption from industry, PJ</td>
<td>Includes total final energy consumption of industry from all energy sources (including biomass and electricity consumption) (source: energy balance)</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>Clinker substitution (t/t, or %)</td>
<td>Amount of secondary raw materials (waste input), t</td>
<td>Amount of waste replacing natural raw material fed into the kiln</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Amount of natural raw materials, t</td>
<td>Total amount of natural raw material fed into the kiln</td>
</tr>
</tbody>
</table>

**National target of 35% RE by 2025?**

*Efficient use of energy through the deployment of appropriate technologies in all sectors of the economy and awareness raising on energy conservation*

*sustainable and integrated waste management, including waste to energy*

---

Source: Brocchieri, F., Gagna, A., Romano, D., Vitullo, M., 2020: Proposed indicators for domestic MRV purposes and tracking progress of NDCs, Draft Report under the Initiative for Climate Action Transparency
### Tracking progress of NDC - Potential indicators for Economy-wide NDC targets - non-Energy sectors

<table>
<thead>
<tr>
<th>Group</th>
<th>Indicator</th>
<th>Description</th>
<th>Description and Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>$N_2O$ mitigation</td>
<td>Change in Nitrogenous fertilizers application, %</td>
<td>The indicator tracks changes of the $N_2O$ emissions reduction/increase due to fertilizers use</td>
</tr>
<tr>
<td>Agriculture</td>
<td>CH$_4$ mitigation (e.g. manure management)</td>
<td>Change in livestock numbers (i.e. bovines, swines), %</td>
<td>The indicator helps tracking changes in the share of emission resulting from enteric fermentation</td>
</tr>
<tr>
<td>Agriculture</td>
<td>NH$_3$ mitigation (e.g. manure management)</td>
<td>Change in livestock numbers (i.e. bovines, swines, poultry), %</td>
<td>The indicator tracks changes of the NH$_3$ emissions reduction/increase due to manure management (NH$_3$ emissions are important since NH$_3$ is a N$_2O$ precursor)</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Annual milk production</td>
<td>Annual amount of milk or changes (%) on the base year tonnes, litres, %</td>
<td>The amount of milk together with the number of heads allows for calculation of yield. This information is related to changes in diets</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Manure storage in open structures</td>
<td>Annual amount, t</td>
<td>The indicator allows the calculation of CH$_4$ emissions from manure management</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Manure storage in closed structures</td>
<td>Annual amount, t</td>
<td>The indicator allows the calculation of CH$_4$ emissions from manure management</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Anaerobic digesters</td>
<td>Number of digesters fed with animal manure, t</td>
<td>The indicator is correlated to the reduction of CH$_4$ emissions from manure management</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Animal manure sent to anaerobic digesters</td>
<td>t</td>
<td>The indicator is correlated to the reduction of CH$_4$ emissions from manure management</td>
</tr>
<tr>
<td>Agriculture/Energy</td>
<td>Energy/biogas produced by anaerobic digestion of animal manure</td>
<td>MWh (Energy) or Sm$^3$ (biogas) produced or changes in these numbers (%)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Brocchieri, F., Gagna, A., Romano, D., Vitullo, M., 2020: Proposed indicators for domestic MRV purposes and tracking progress of NDCs, Draft Report under the Initiative for Climate Action Transparency
### Tracking progress of NDC - Potential indicators for Economy-wide NDC targets - non-Energy sectors

<table>
<thead>
<tr>
<th>Group</th>
<th>Indicator</th>
<th>Description</th>
<th>Description and Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste</td>
<td>Specific waste production, kg/inhaps.</td>
<td>Waste production, Mt Population, M inhaps.</td>
<td>The indicator is key in the tracking changes in emissions from waste</td>
</tr>
<tr>
<td>Waste</td>
<td>Waste management</td>
<td>Tons (or %) of waste sent to landfill</td>
<td>The indicator is key in the tracking changes in emissions from waste</td>
</tr>
<tr>
<td>Cropland</td>
<td>Burial of crop residues</td>
<td>Hectare of cropland subject to the activity; types of crop</td>
<td>Management practice correlated with the potential increase of soil organic carbon and nitrogen content. Positive effects depending on temperature and humidity.</td>
</tr>
<tr>
<td>Cropland</td>
<td>Animal waste application</td>
<td>T of animal waste applied to soils</td>
<td>Management practice correlated with the potential increase of soil organic carbon and nitrogen content</td>
</tr>
<tr>
<td>Cropland</td>
<td>Cover crop</td>
<td>Area of cropland with cover crop (hectares)</td>
<td>Management practice correlated with the potential increase of soil organic carbon or to increase carbon and nitrogen content</td>
</tr>
<tr>
<td>Cropland</td>
<td>Zero/minimum tillage</td>
<td>hectares of cropland area subject to the management practice</td>
<td>Management practice correlated with the potential increase of soil organic carbon; the indicator can be used in the estimation of C removals from cropland soils</td>
</tr>
<tr>
<td>Forest</td>
<td>Land covered by forest</td>
<td>hectares</td>
<td>The indicator is key in estimating CO\textsubscript{2} removals. The activity is also linked to the REDD+ activities.</td>
</tr>
</tbody>
</table>

Source: Brocchieri, F., Gagna, A., Romano, D., Vitullo, M., 2020: Proposed indicators for domestic MRV purposes and tracking progress of NDCs, Draft Report under the Initiative for Climate Action Transparency
### Tracking progress of NDC - Potential indicators for Economy-wide NDC targets - non-Energy sectors

<table>
<thead>
<tr>
<th>Group</th>
<th>Indicator</th>
<th>Description</th>
<th>Description and Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land converted to forest land</td>
<td>Land afforested/reforested</td>
<td>hectares</td>
<td>The indicator is key in estimating CO\textsubscript{2} removals. The activity is also linked to the REDD+ activities.</td>
</tr>
<tr>
<td>Deforestation</td>
<td>Forest converted to other land uses</td>
<td>hectares</td>
<td>The indicator is key in estimating CO\textsubscript{2} emissions. The activity is also linked to the REDD+ activities.</td>
</tr>
<tr>
<td>Forest</td>
<td>Enhancement of forest-carbon stocks/conservation of forest C stock</td>
<td>hectares</td>
<td>The indicator is key in estimating CO\textsubscript{2} removals. The activity is also linked to the REDD+ activities.</td>
</tr>
<tr>
<td>Forest</td>
<td>Sustainable management of forest</td>
<td>hectares</td>
<td>The indicator is key in estimating CO\textsubscript{2} removals. The activity is also linked to the REDD+ activities.</td>
</tr>
<tr>
<td>Forest</td>
<td>Burned area</td>
<td>hectares</td>
<td>The indicator is key in estimating GHG emissions from wildfires occurring on forest area.</td>
</tr>
<tr>
<td>Forest</td>
<td>Harvested biomass</td>
<td>m\textsuperscript{3}, t</td>
<td>The indicator is key in estimating CO\textsubscript{2} emissions and removals.</td>
</tr>
</tbody>
</table>

## Tracking progress of NDC - Mitigation policies & measures

### Tabular format in BTR
- Name
- Description
- Objectives
- Type of instrument (regulatory, economic instrument or other)
- Status (planned, adopted or implemented)
- Sector(s) affected
- Gases affected
- Start year of implementation
- Implementing entity or entities
- Estimates of expected and achieved GHG emissions reductions (Flexibility)
- Costs (May)
- Non-GHG mitigation benefits (May)
- How the mitigation actions interact with each other (May)

### Narrative format or annex to the BTR
- Methodologies and assumptions used to estimate the GHG emissions reductions or removals by each action, policy and measure
- Those actions, policies and measures that are no longer in place compared with the most recent BTR, and why they are no longer in place (Should)
- Actions, policies and measures that influence GHG emissions from international transport (Should)
- How the actions, policies and measures are modifying longer-term trends in GHG emissions and removals (Should)
- Assessment of economic and social impacts of response measures (encouraged to provide detailed information)

### Adaptation actions and/or economic diversification plans resulting in mitigation co-benefits
- Sectors and activities associated with response measures
- Social and economic consequences from the response measures
- Challenges and barriers to address the consequences
- Actions to address the consequences
The content of the BTR - Climate impacts and adaptation

- **Detailed guidance** by MPGs on climate change impacts and adaptation
- "Should" requirement for submission
- Structured in the following **blocks of information:**
  - National circumstances, institutional arrangements and legal frameworks
  - Impacts, risks and vulnerabilities
  - Adaptation priorities and barriers
  - Adaptation strategies, policies, plans, goals and actions
  - Progress on implementation of adaptation
  - Information related to averting, minimizing and addressing loss and damage
  - Cooperation, good practices, experience and lessons learned

<table>
<thead>
<tr>
<th>Information to report on climate change impacts and adaptation as part of the BTR (by group)</th>
<th>Requirements on information related to climate change impacts and adaptation as part of the BTR (in detail)</th>
<th>Requirements on information related to adaptation communications as a component of the NDC Decision 9/CMA.1 (UNFCCC, 2018b)</th>
<th>Requirements on information related to national communication, relevant for adaptation communication Decision 17/CP.8 (UNFCCC, 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National circumstances, institutional arrangements and legal frameworks relevant to adaptation</td>
<td>Institutional arrangements and governance for assessing and addressing impacts of climate change</td>
<td>National circumstances, institutional arrangements and legal frameworks</td>
<td>Information on features of geography, climate and economy which may affect the ability to deal with mitigating and adapting to climate change (may)</td>
</tr>
<tr>
<td>Biological and policy frameworks and regulations</td>
<td>Biogeophysical characteristics</td>
<td>Economy</td>
<td>Infrastructure</td>
</tr>
</tbody>
</table>
## Tracking progress of NDC - Mauritius' NDC (INDC 28.09.2015)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Priority Adaptation Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>Protection of infrastructure will be enhanced against climate change calamities</td>
</tr>
<tr>
<td>Disaster Risk Reduction</td>
<td>Objective is to understand disaster risk, implement disaster risk strategy, strengthen management of related governance and invest in resilience.</td>
</tr>
<tr>
<td>Strategy</td>
<td></td>
</tr>
<tr>
<td>Coastal Zone Management</td>
<td>Improve awareness, enhance rehabilitation and strengthen regulatory framework for protection of beach, dunes and vegetation.</td>
</tr>
<tr>
<td>Water Resources Management</td>
<td>Improve forecasting, management, protection and quality of water resources, including upgrading and building of new plants and reservoirs and reducing water losses in the distribution system.</td>
</tr>
<tr>
<td>Rainwater Harvesting</td>
<td>Procurement and installation of rainwater harvesting systems, improvement in policy, legal and regulatory water framework, mainland Mauritius, Rodrigues and other outer islands.</td>
</tr>
<tr>
<td>Desalination</td>
<td>Small desalination projects, especially for Rodrigues island.</td>
</tr>
<tr>
<td><strong>Integrated Pest and Disease Management</strong></td>
<td>Develop an integrated strategy and policy to foster adoption of Integrated Pest and Disease Management (IPDM) practices including the review of policy and regulatory framework to facilitate the upscaling of IPDM technology and regulate the use and disposal of pesticides.</td>
</tr>
<tr>
<td><strong>Efficient Irrigation Techniques Development</strong></td>
<td>Investment in water infrastructure to support irrigation projects and development of a policy framework to enhance access to, and productive use of, water in the agricultural sector. Promote climate smart agriculture practices</td>
</tr>
<tr>
<td><strong>Climate Smart Fisheries</strong></td>
<td>Development and implementation of sustainable fishing management plans, strengthening of institutional capacity and adaptation of infrastructure (quay) to climate change (sea level rise).</td>
</tr>
<tr>
<td><strong>Improve Marine and Terrestrial Biodiversity Resilience</strong></td>
<td>Improvement of the management of marine and terrestrial protected areas and expansion of protected area network including rehabilitation of wetlands, sea-grass, mangrove plantation, increase in tree coverage areas and coral reef rehabilitation/management.</td>
</tr>
<tr>
<td><strong>Health Sector</strong></td>
<td>Mainstream climate change adaptation in health sector to respond to population increase and its additional climate-related health burden. Develop and implement a communication, education and awareness strategy with respect to climate change risks and impacts on human health. Improve surveillance of diseases associated with climate change and develop and implement a decentralized alert and rapid response mechanism.</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>Acquisition of hybrid and electric means of mass transportation</td>
</tr>
</tbody>
</table>
## Tracking progress of NDC - Examples of potential indicators for adaptation targets/actions

<table>
<thead>
<tr>
<th>Sector</th>
<th>Indicators</th>
</tr>
</thead>
</table>
| Indicators to address meteorological parameters that may drive climate change (e.g. number of extreme events with respect to reference annual/seasonal value) | Nr. of extreme temperature  
Nr. of heat/cold waves  
Consecutive dry days  
Consecutive wet days  
Change in average annual precipitation |
| Indicators to address potential occurrence of a natural or human-induced physical event or trend or their physical impact | Change in river flooding  
Change in coastal flooding |
| Indicators to address potential exposure to natural or human-induced physical events | Percentage of population living in areas at risk of floods  
Increase in frequency and impact of forest/land fires  
Forest browning  
Agricultural productivity  
Impact of increased temperatures in manure management  
Impact of increased temperatures in milk production  
Number of surface water resources with declining water quality caused by extreme events  
Number of households/business facilities/hospitals/educational facilities located in areas at flood/coastal erosion risk |
| Indicators addressing other changes in | Population density compared to reference period  
Energy consumption  
Water consumption in agriculture  
Water loss (leakages in the distribution network)  
solid waste production; change in treated wastewater |

Q&A session

Thank you!

More information can be found in: Unfolding the reporting requirements for Developing Countries under the Paris Agreement’s Enhanced Transparency Framework (UDP, 2019)