



## The new reporting requirements under the Paris Agreement

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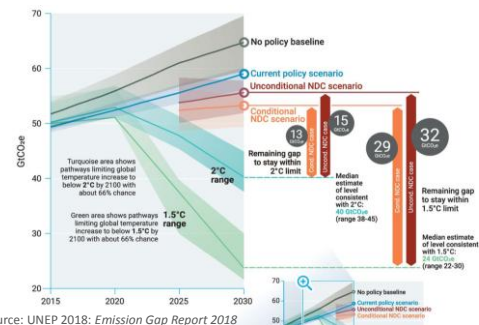


### Background

- **Paris Agreement**
  - Global target, 2°C -1.5 °C
  - Commitments, NDC
  - Accountability, transparency
- **MRV discussions and decisions matured over long time before Paris.** The UNFCCC includes the obligation to report, the National Communications were born already in 1992.
- **Before PA (kyoto) developing countries didn't have mitigation obligations.** MRV was only focused on **tracking and reporting actual emissions and implemented mitigation actions**
- **With the PA and NDCs developing countries also have to report on future emissions and mitigation actions.**



### Background



Why Climate Action Transparency?

- Support domestic policy processes
- Transparent enabling environments to increase public and private finance
- International reporting
- Criteria to assess climate action effectiveness
- Looking beyond GHG emissions to socio-economic and environmental indicators, and investment-maturity

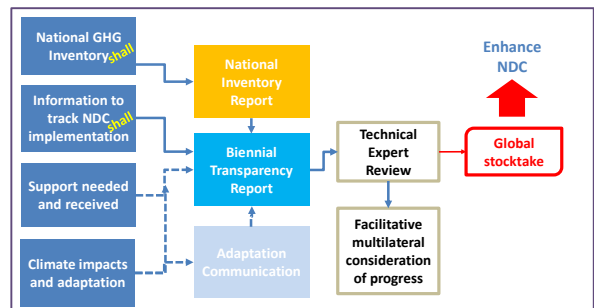
Paris Agreement Article 13 - in total 15 paras, here a selection:

1. An enhanced transparency framework for action and support - to build mutual trust and confidence and to promote effective implementation
2. Flexibility in the implementation to those developing country Parties that need it in the light of their capacities.
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. Adopt common modalities, procedures and guidelines, as appropriate, for the transparency of action and support.
14. Support shall be provided to developing countries for the implementation of this Article.

Take-home points on transparency from Katowice

- The Modalities, Procedures, and Guidelines, MPGs, provide **substantially more details about substance, timing and the processes** of the entire transparency framework outlined in the Paris Agreement
- All countries are in principle guided by the same MPGs. with exceptions for LDCs and SIDS.
- 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

The three "products" resulting from the MPGs of Article 13



Source: UNEP DTU Partnership 2019

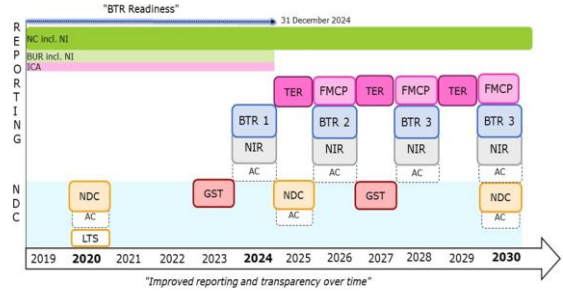
Reporting - before and after the MPGs

	Until 2024	After 2024
<b>Reporting</b>	<b>Frequency</b>	<b>Frequency</b>
National Communications incl. GHG inventory	Every four years from submission of the first NC*	Every four years
Biennial Update Report incl. GHG inventory	Every two years**	Discontinued
Nationally Determined Contribution	Every five years from 2020***	Every five years
Biennial Transparency Report incl. National Inventory Report	N/A	Every two years from 2024

\*First NC should be submitted within three years of entering the Convention  
 \*\*First BUR should be submitted by December 2014  
 \*\*\* NDCs should be submitted 9 to 12 months before COP

Source: UNEP DTU Partnership 2019

Timeline Reporting and Review



Source: UNEP DTU Partnership 2019

MPGs - In more detail - National Inventory Reports

- Reported annually for developed countries and at least biennially for developing countries
- Guidance for national inventories is now common for all Parties
  - From 1996 to 2006 IPCC guidance,
  - 100-year time-horizon GWP values from the IPCC AR5,
  - Report 7 gases, (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>)
    - Flexibility for developing countries (CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O)
    - Any of the additional gases that are included in the Party's NDC
    - Gases covered by an activity under Article 6 of the Paris Agreement
    - Gases previously reported
  - Report consistent annual time series from 1990
  - The latest reporting year, no more than two years prior
    - Flexibility to instead report data covering, at a minimum, the reference year/period for its NDC and, in addition, a consistent annual time series from at least 2020 onwards.
  - Implement and maintain institutional arrangements for the estimation, compilation and timely reporting of NIRs

BTR - In more detail - National Circumstances & institutional Arrangements

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

BTR - In more detail - Tracking NDC Progress - Target

- Description of the NDC including
  - Target: Conditional, 30% by 2030
  - Target type: BAU
  - Reference points: 7m metric tonnes CO2e in 2030 (2020?)
  - Time frame: up to 2030
  - Scope and coverage:
  - Intention to use cooperative approaches
- Indicators to track progress on NDC implementation and achievement
- Describe each methodology, accounting approach used for target(s), the construction of baselines and each indicator

- CO2 and Short Lived Climate Forces (SLCF)
- Energy, Transportation, Industry, Agriculture, Forestry, land use and solid waste management
- Historical data from Statistics Mauritius

BTR - In more detail - Tracking NDC Progress

- Information on 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 the NDC
- Estimates of expected and achieved GHG emissions reductions for its actions, policies and measures
- May also provide information on non-GHG mitigation benefits

BTR - In more detail - Tracking NDC Progress - actions and policies

Information to report	<b>BTR requirements</b>
Information on actions, policies and 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 for developing countries) Costs (May report) Non-GHG mitigation benefits (May report) How the mitigation actions interact with each other (May report)
Information on actions, policies and measures (in 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 report) Actions, policies and measures that influence GHG emissions from international transport (Should report) How the actions, policies and measures are modifying longer-term trends in GHG emissions and removals (Should report)
Adaptation actions and/or economic diversification plans resulting in mitigation co-benefits	Assessment of economic and social impacts of response measures (encouraged to provide detailed information) Sectors and activities associated with response measures Social and economic consequences from the response measures action Challenges and barriers to address the consequences Actions to address the consequences

MPGs - In more detail - Adaptation

- National circumstances, institutional arrangements and legal frameworks relevant for adaptation
- Impacts, risks and vulnerabilities
- Adaptation strategies, policies, plans, goals and actions to integrate adaptation into national policies and strategies
- Progress on implementation of adaptation
- Monitoring and evaluation of adaptation actions and processes
- Information related to averting, minimizing and addressing loss and damage associated with climate change impacts
- Cooperation, good practices, experience and lessons learned

BTRs - In more detail - Emission projections

- Projections of GHG emissions and removals (flexibility)
- 15 years beyond the next year ending in 0 or 5
- A ‘with measures’ scenario and may also include ‘with additional measures’ and ‘without measures’ scenarios. Flexibility - extend projections at least to the end point of the NDC)
- Projections are indicative and shall not be used to assess progress

BTRs - In more detail - Support needed and received

- Amount of support needed;
- Reporting year or time frame;
- Identify support as coming from specific sources;
- Determine support as committed, received or needed;
- Identify and report status of the supported activity (planned, ongoing or completed);
- Identify and report the channel (bilateral, regional or multilateral);
- Identify and report the type of support (mitigation, adaptation or cross-cutting);
- Identify and report the financial instrument (grant, concessional loan, non-concessional loan, equity, guarantee or other);
- Identify and report sectors and subsectors;
- Report on the use, impact and estimated results of the support needed and received;
- Identify and report support as contributing to technology development and transfer and capacity-building;
- Avoid double counting in reporting information on support needed and received for transparency-related activities.

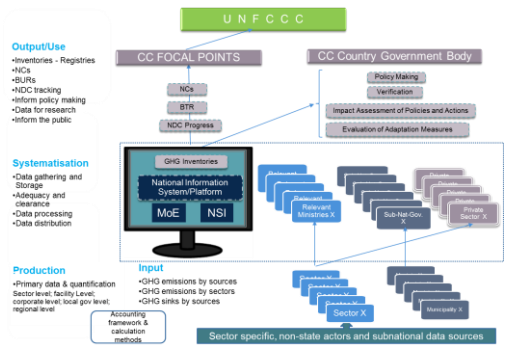
6 Lessons for Successful Capacity-Building

WRI's examination of current capacity-building support and other efforts in 13 case studies illuminated six key lessons. These lessons are not all-encompassing and do not represent all knowledge on capacity building for transparency. However, these key lessons can serve as reference points when building capacity for the enhanced transparency framework and the implementation of the Paris Agreement.

1. Building or developing capacity is a process that takes time and depends on countries' "learning by doing."
2. Capacity for transparency can be strengthened through enhanced institutional arrangements.
3. Legal and regulatory architecture, supported by an enhanced governance structure, can play a key role in sustaining regular tracking of countries' efforts.
4. Tracking tools and platforms are emerging to increase countries' abilities to monitor support received and progress toward their commitments.
5. Capacity building can be strengthened by leveraging opportunities for the integration of sustainable development goals and efforts for policy coherence.
6. Leveraging existing institutions to build lasting systems and knowledge are critical to sustain capacity.

Source: World Resources Institute, March 2019

National MRV System for Transparency





**1. Building or developing capacity is a process that takes time and depends on countries "learning by doing."**

Developed countries, such as Japan, have built their existing capacity over an extended period during the past 20 years. Expectations that developing countries will build their own capacity in a short period of time are unrealistic. But by building on their own experiences and lessons learned, countries' measurement, reporting and verification systems can be strengthened more quickly and sustainably. This is reflected in Ghana's current efforts under their Climate Ambitious Reporting Program established in 2013 to enhance domestic measurement, reporting and verification (MRV) systems.

Source: World Resources Institute, March 2019



**2. Capacity for transparency can be strengthened through enhanced institutional arrangements.**

Institutional arrangements and governance structures can play an important role in ensuring data collection—including through establishing inter-ministerial coordination mechanisms (such as in the Dominican Republic) and multi-stakeholder engagement, especially with the private sector (such as the process with private sector stakeholders in South Korea).

Source: World Resources Institute, March 2019



**3. Legal and regulatory architecture, supported by an enhanced governance structure, can play a key role in sustaining regular tracking of countries' efforts.**

Legislation and other regulatory measure can have a great influence on countries' efforts to gather and track data. Laws and regulations can demonstrate a country's commitment and sustained approach to the collection of mitigation and adaptation data, as has been the case with Mexico.

Source: World Resources Institute, March 2019



**4. Tracking tools and platforms are emerging to increase countries' abilities to monitor support received and progress toward their commitments.**

Countries are finding new and innovative ways to build and mobilize their capacity. Innovative, interactive, comprehensive tracking tools can make it easier for stakeholders and decision-makers to understand data and to understand and track implementation toward countries' NDCs. The paper provides examples from the NDC Partnership and Colombia as well as touches on emerging applications of blockchain technology.

Source: World Resources Institute, March 2019



**5. Capacity building can be strengthened by leveraging opportunities for the integration of sustainable development goals and efforts for policy coherence.**

At the same time that countries address climate change, they can also advance sustainable development considerations, including those involving gender. For instance, Vanuatu developed an "Integrated MRV framework" tool that helps policymakers assess sustainable development impacts of mitigation actions that advance both their NDC and their SDGs and in its latest report the country showed how it mainstreamed gender through its MRV system.

Source: World Resources Institute, March 2019



**6. Leveraging existing institutions to build lasting systems and knowledge are critical to sustain capacity.**

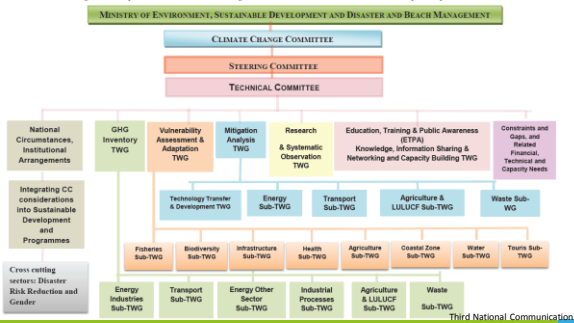
Efforts to build capacity must ensure that knowledge is not lost if individuals change jobs. Instead, capacity-building efforts must ensure systems capacity is built by investing in and leveraging existing institutions to build or inform national GHG inventories, such as statistical organizations, universities (as has been done effectively in the Dominican Republic) and civil society initiatives, such as those to gather data in India and Brazil.

Source: World Resources Institute, March 2019



Mauritius - Inst. Structure for NC & BUR

Figure 1.18 Proposed sustained institutional arrangement for National Communications and Biennial Update Reports



Mauritius - Inst. Structure for NC & BUR

Institutional arrangements for national GHG inventory

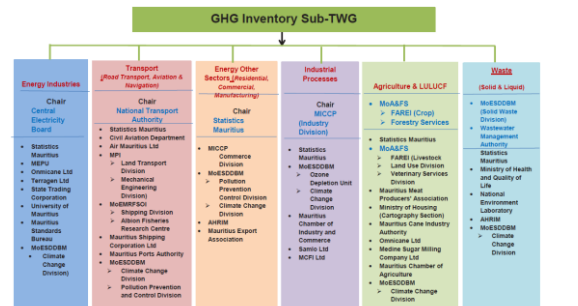


Figure 2.1 Institutions involved in the preparation of NCHG and NBR



Mauritius - Identified gaps and needs

SECTOR	KEY AREAS WHERE GAPS AND NEEDS HAVE BEEN IDENTIFIED	PROPOSED MEASURES	POTENTIAL SOURCE OF FINANCIAL/TECHNICAL SUPPORT
Climate Change Scenario	<ul style="list-style-type: none"> <li>Development of climate change scenarios is quite complex and requires specialized expertise;</li> <li>Purchase of meteorological data to test and validate climate change models is very costly.</li> </ul>	There is a need to develop expertise at national level for concerned institutions for the application of appropriate climate change models and scenarios for determination of climate change impact assessment at sectoral level.	Bilateral, Regional bodies
GHG Inventory	<ul style="list-style-type: none"> <li>Lack of disaggregated activity data and Local and country specific Emission and sink factors for more refined GHG calculations to higher Tiers</li> </ul>	Enhanced CB of scientists and better Lab facilities to conduct studies on determination of local and country specific EF for emission and sinks	Local training; UNFCCC; Bilateral
Energy	Inefficient energy auditors and enforcement of regulations under the EE Act	Training of energy auditors and on enforcement, and training of trainers on energy saving and EE	Local training; UNFCCC; Bilateral
Transport	Absence of EE mass transportation systems based on hybrid technologies and cleaner energy	Policy development, institutional CB and technology transfer	UNFCCC Bilateral
IPPU	Absence of EE mass transportation systems based on hybrid technologies and cleaner energy	Human and institutional CB for a new generation of appliances and installations (AC chillers etc.)	Montreal Protocol Bilateral

Third National Communication



Mauritius - Identified gaps and needs

Forest	Limited data on privately-owned forests, trees along rivers, roadside, on natural forests (type of trees, age distribution class, annual increment)	Refinement of inventory system and capturing data on trees outside forest area and ground truthing on private land. Further training in remote sensing for land use change. Acquisition of high resolution satellite imagery with Near Infrared band for Mauritius for the accurate calculation of carbon sink for the island.	RCMRD; UNFCCC Bilateral
Waste	Insufficient development in integrated waste management including waste to energy and record of waste types and EFs development	Technology transfer for project development and calculation of emissions from wastes, and CB on waste-to-energy technology	Multilateral; ADB; UNDP; Bilateral
Liquid waste	Limited data on emissions at treatment plants and records of population connected, and industries to develop EFs	Capacity building on development of EFs	UNFCCC
	Absence of a real time flow monitoring system for sewers to obtain real time data and take remedial measures upfront.	Secure funding for implementation of projects	
	Use of renewable sources of energy has not been explored for the operation of wastewater treatment plants and pumping stations.		

Third National Communication



Mauritius - Identified gaps and needs

Agriculture	Limited development in integrated pest and disease management, bio-farming; research to develop local EFs, and sustainable land use planning practices; <ul style="list-style-type: none"> <li>Lack of trained staff on climate modeling to understand and predict the impact of climate change on the agricultural sector.</li> <li>Lack of trained staff on techniques for mitigation analysis and scenario building.</li> <li>Lack of a Systematic Observation framework to study how CC is impacting on the agricultural sector.</li> <li>Lack of data pertaining to livestock sector, in particular deer and horses</li> </ul>	Integrated pest and disease management and bio-farming technologies; Ways to introduce revenue-generation mechanisms; other technologies (GIS, agrometeorological stations) <ul style="list-style-type: none"> <li>Integrate CC gaps into current agricultural policies and strategies.</li> <li>Improve technology transfer and capacity building</li> <li>Increase funding and investment in CC related adaptation and mitigation technologies.</li> </ul>	Multilateral; FAO; IITA, GCIAR.
Coastal and Tourism	Limited coastal protection works - coastal vegetation, beach nourishment / dune replenishment; coastal wetland protection/restoration; lagoon management and coral rehabilitation	Coastal protection works - site investigation/source identification, planting of native vegetation; re-establishment of marshes; mangrove/savanna restoration; coral nursery.	GEF; JICA; AFD; GIZ; Multilateral; Bilateral; REDD+

Third National Communication



Mauritius - Identified gaps and needs

Water	Limited forecasting and integrated water resources management; limited water use efficiency and water storage capacity; limited monitoring and data analysis	Development and use of hydrological models; Reduce losses in water distribution system; Promote soil and water conservation techniques; Increase water storage capacity; Modernize data acquisition and management system.	UNDP; USAID; EC; Multilateral; Bilateral
Biodiversity	Limited restoration of native forests and reintroduction of native plants in planted forest; limited expansion and improvement of protected areas and protection of Environmentally Sensitive Areas.	R&D on impacts of CC on native forests; maintenance of replanted forest; removal of invasive alien species. Improving resilience of marine terrestrial biodiversity to CC.	GEF; REDD+
Fisheries	Limited rehabilitation and expansion of coastal and marine habitat; limited development in sustainable aquaculture; limited improvement in monitoring of coastal areas and absence of a harmonized monitoring methodology.	Promote sustainable aquaculture; coral nursery; seagrass restoration; mangrove propagation; create a centralized knowledge repository; Enhance fisherman sensitization and training programme.	EU, AFD, FAO Bilateral; Multilateral

Third National Communication



Mauritius - Identified gaps and needs

<b>Health</b>	Insufficient surveillance/monitoring/control of vectors, diseases and environmental hazards; Inadequate health promotion through education/communication/dissemination on preventive strategies; Absence of policies to make projections for hotspots	Policy formulation; Consolidation of data for mapping purposes; implementations of Early Warning System of surveillance to monitor trend of vectors, environmental hazards and climate-sensitive disease and conditions. Create a Unit for vector borne and climate-sensitive diseases	Multilateral: WHO, WB; Bilateral
<b>Infrastructure</b>	Limited use of topographic, hydrology and climate-related data in infrastructure planning (e.g. elevated roads and buildings); and absence of real time warning system for infrastructure failure	CB of institutions on the use of climate related data for infrastructure planning; use of climate resilient materials and techniques in flood prone areas; CB on restoration of landscape integrity and technology deployment	AFD, Bilateral; Multilateral
<b>Gender</b>	Limited expertise to address gender implications of climate change	Capacity Building Programmes of Officers and Gender Focal Points on: <ul style="list-style-type: none"> <li>Gender and its implications on Climate Change</li> <li>Adopting a gender lens while planning, implementing and evaluating projects and programmes</li> </ul>	Bilateral

Third National Communication

Mauritius Gaps and Challenges - related to NDC actions?

There is an action plan including:

- A description of the activities related to NDC targets
- Objectives
- Key Indicators

Mauritius Gaps and Challenges - related to NDC actions?

- Who are the institutions responsible to implement and monitor the implementation of the activities?
- Are the institutions responsible for the given activities aware they should monitor the indicators?
- The Action Plan provides cost estimates, but the implementation instruments are not clear, or at least not described in the Action Plan.

E.g. the Long-Term Energy Strategy 2009 – 2025 mentions:

- Solar water heater loan scheme
  - FIT/net metering and investment subsidies for PV
  - Build Operate Own (BOO) model for wind and waste to energy
- Are the implementation instruments sufficient to reach NDC targets? Are there impact assessments available?
- What about the other sectors?

Mauritius Gaps and Challenges - related to NDC actions?

- Mitigation**
- Expansion in solar, wind and biomass energy production and other renewable energy sources
  - 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, including an eco-friendly manufacturing sector, 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
  - Leapfrog to low global warming potential refrigerants; and
  - Smart use of marine resources, sustainable consumption and production in all sectors of the economy
- Adaptation**
- Enhancing protection of critical public infrastructure and ecosystem
  - Enhancing protection of coastal zone
  - Enhancing water security
  - Strengthening food security
  - Improving resilience to climate change impacts in the health sector
  - Improving protection and resilience in biodiversity sector
  - Improving resilience of Rodrigues to climate change



*Impact Assessment Methodologies*

Greenhouse gas impacts:



Renewable Energy



Buildings Efficiency



Transport Pricing



Agriculture Sector



Forestry Sector



Sustainable Development



Transformational Change



Non-State Action

*Process Guidance Documents:*



Stakeholder Participation



Technical Review