Reporting Gaps and Inconsistencies, Capacity Gap Analysis and Best Pratice

BTR Chapter 2: NDC Tracking

CBIT-GSP Knowledge Product Series

2025

Background

The year 2024 was a crucial one for the Enhanced Transparency Framework (ETF), being the first submission year for Biennial Transparency Reports (BTRs). In these regards, the year 2025 will be equally important for Parties to capitalize on the Technical Expert Review (TER) and pave the road for an improved 2nd BTR.

The Capacity-Building Initiative for Transparency - Global Support Programme (CBIT-GSP) aims to provide streamlined support and capacity-building at the national, regional, and global level to assist developing countries in responding to the reporting provisions under the UNFCCC and the Paris Agreement's Enhanced Transparency Framework. Among the multiple support modalities the project provides, countries can request for a preliminary peer-to-peer quality assurance check of their BTR drafts, prior to submission to the UNFCCC. The CBIT-GSP quality check team was able to conduct the analysis of over 32 complete reports and/or single BTR chapters, and to provide prescriptive comments, suggestions and recommendations to aid countries in better aligning the content of their BTRs and supplementary CTFs and CRTs, to the requirements of the MPGs.

During this process it was found by the review team that many commonalities in the reporting gaps, mistakes and shortcomings were present. To properly assess these gaps, and to consolidate the lessons learned from the quality assurance checks, the CBIT-GSP team will summarise into knowledge products the identified capacity gaps, as well as provide examples of best-case studies from other countries' BTRs. This knowledge product will therefore contribute to strengthening the transparency framework and ensuring that developing countries can effectively meet their BTR obligations under the Paris Agreement for the next BTR submissions.

Objective and Approach

This knowledge products focuses on the common gaps found by the CBIT-GSP review team while supporting over 27 countries in further developing and reviewing the NDC Tracking chapter and the Common Tablar Format (CTF) tables.

For conciseness purposes, this knowledge product will focus on and further analyse three of the most common gaps relative to the chapter, which are:

- Indicator selection for NDC tracking.
- Reporting of mitigation policies, actions and measures, and adaptation measure with co-mitigation benefits.
- Projections of GHG emissions and removals

For each one of these topics, an analysis of the commonalities and findings, and their inconsistencies with the relative MPGs will be performed. Recommendation on areas for capacity building and improvement plans will be described, and their priority and time-horizon defined. Last, good practices and examples from other Parties will be reported.

Indicator selection for NDC tracking

One of the most common gaps found in the NDC Tracking chapter of the countries first BTR was the inconsistent selection and poor definition of suitable indicators, resulting in unclear methodology, lack of completeness and difficulties in evaluating and comparing progress.

The selection and definition of suitable indicators for the NDC tracking is undoubtedly the first and most fundamental step for tracking the progress towards the Party's NDC goals, as well as one of the most problematic ones for many Parties. The selection of inconsistent and unnecessary indicators, besides diminishing the transparency and clarity effort of the report, often results in an additional burden and challenges for the BTR working team. Moreover, there were many cases in which the selected indicators were poorly defined, without a clear monitoring and evaluation methodology, geographical and/or sectorial boundaries, reference baseline/year or, even more commonly, a consistent unit of measure. This also reflects in incomplete or inconsistent CTF tables Appendix, 1 and 4.

Every Party must track and report the NDC targets stated in the NDC. Regarding these ones, it is important to clearly define the base year value or baseline value against which the tracking will be made, as well as the target year value. Please note that both the values as well the selected indicator should have the same unit of measure to allow comparison, as well as the same sectorial/geographical boundaries.

When voluntarily selecting an indicator that was not reported in the NDC, the BTR team should first be able to answer some fundamental questions such as: How is the indicator related to the actual NDC goals? Does this specific indicator actually help tracking the progress towards a NDC goal? Is there available capacity to collect, monitor and evaluate data relative to this indicator? Is historical data available to monitor progress? Is there a clear methodology already in place for the selected indicator?

Table 1: example from a draft BTR – numbers and policy names were changed

Sector	Sub-sector	Indicator	Base year (2010)	Status (2023)	2030 Target
Energy	Other Sectors	Energy efficiency improvement	31.48 Gg CO2eq 2010 baseline energy intensity	32.729 Gg CO2eq: Early-stage improvements are initiated	30% improvement by 2030
Waste	Waste Management	Reduction in GHG emissions from the waste sector	2.34 Gg CO2eq Limited waste management initiatives	2.48 Gg CO2eq Integrated Waste Policy in Implementation phase	Reduction in GHG emissions through better practices of waste processing and management

Table 1 depicts two problematic indicators extrapolated by CTF 1 of a reviewed BTR (policy names and numbers were changed). The first indicator, "Energy efficiency improvement", was selected in the Party's second NDC, and rightfully reported in the BTR. Despite that, there are several issues related to its definition, scope and unit of measure. First, no definition was reported for "energy efficiency" or "energy intensity" in the textual report or in any of CTF tables Appendix, 1 or 2. This lack of information includes the unit of measure and therefore prevents the reader to understand how this indicator can be measured or calculated (e.g. MWh/GDP, MWh/population). Second, the base year value, as well as the current status and the target year

value, should be reported with the same unit of measure of the indicator, making possible to compare values and to track progress. In this case, the addition of the sentence "2010 baseline energy intensity" is not only not contributing to the indicator's definition, but adding confusion as it is not stated how this information is actually connected to it. The reported unit "Gg CO2eq" is not a unit consistent with the concept of "energy efficiency". Third, there is no sectorial scope related to the indicator (here indicated as "Other sectors" without further information), nor description of the intended methodology to collect relevant data and track its development.

On the other hand, the second indicator was not mentioned in the NDC, and therefore its addition to the BTR was not mandatory. The Party should therefore explain why the selection of such indicator helps tracking the progress towards NDC goals, and why this sector was selected over the others. On top of that, before voluntarily selecting such a specific indicator, the Party should be aware of its capacity for data collection and technical evaluation of the waste sector emissions. Finally, the target reported both in textual and tabular formats cannot be classified as a target, since there is no estimated value or reduction percentage.

Indicator(s) selected to track progress[a]	*Description*
Total greenhouse gas emissions	The economy-wide national total GHG emissions, including indirect CO2 and excluding LULUCF.
Information for the reference point(s), level(s), baseline(s), base year(s) or starting point(s), as appropriate[b]	Base year: FY 2013 (April 1, 2013 - March 31, 2014) Reference point (base year emissions): 1,407 Mt CO2 eq. (*Note: This base year emissions are the total national greenhouse gas emissions, including indirect CO2 and excluding LULUCF, in the 2024 national greenhouse gas inventory submission)"
Updates in accordance with any recalculation of the GHG	Base year emissions will be recalculated in future national GHG inventories.
Relation to NDC[c]	The Party's NDC is an economy-wide absolute emission reduction target. Therefore, the total GHG emissions are the most appropriate indicator for this type of NDC.

Figure 1: best practice for indicator selection and definition

As a general recommendation, best practice starts from the selection of indicators already when developing the country´s NDC and, therefore, by a closer cooperation between the NDC and BTR working teams. The idea is that NDC indicators should be carefully selected keeping in mind the capacity of the country and their intended tracking methodology. This includes availability of historical data and institutional arrangements in place to retrieve the necessary data, as well as the capacity to process those data and produce a consistent tracking of the goal. Additionally, unit of measure, reference point and base year, as well as sectoral definition (in the example, LULUCF is not included in the target as well as in the tracking indicator). To simplify, having just one or two indicators that refer to economy-wide or sectorial targets will help countries in tracking their progress and reduce the possibility of mistakes in the selection of indicators, while at the same time allowing them to build up the capacity needed and the necessary databases to include more detailed indicators in future BTRs.

Reporting of mitigation measures and co-mitigation

Another common gap is a lack of relevance and methodology when reporting Policies, Actions, mitigation Measures (PAMs) and adaptation measures with co-mitigation benefits. In terms of CTF tables, this covers CTF table 5 and CTF table 3 regarding the monitoring and estimation methodology.

An erroneous selection of the mitigation measures to be reported in this section, often combined with an unclear methodology for their monitoring and evaluation, leads to a lack of completeness, consistency and transparency in CTF Table 5 and in the related textual paragraphs. Many BTR drafts reported governmental decrees and environmental plans, often listing a series of intervention priorities and areas in which the framework will likely have an impact. But in most cases, especially when the policy covers multiple sectors and lacks setting specific targets, it becomes very difficult to estimate an actual impact and report the measure within the BTR framework. When a clear sectorial scope and target of a measure are not defined, reporting a methodology for evaluating and monitoring any impact can be a challenge. This often results in an overcrowded and at the same time incomplete CTF Table 5, listing multiple policies with vague descriptions and without responsible implementing agency, achieved and estimated emission reduction. This results in the Party reporting the Not Applicable (NA) and Not Estimated (NE) notation or in applying flexibility (FX).

The table below depicts a good practice sample from CTF Table 5, which was submitted combined with an exhaustive and clear description and contextualization of the single measures in the textual format. As one can see, the overarching policies have been broken down to sectorial and sub-sectorial measures, making it easier to define methodologies for their evaluation and monitoring. Each sub-measure has a defined sectorial focus, historical data series and an estimated target.

Name[c]	*Description*[d,e,f]	*Objectives*	*Type of instrument*[g]	*Status*[h]	*Sector*	*Gases affected*	*Start year*	*Implementing entity*	*Estimates of GHG emission reductions (kt CO_2 eq)*[i,k]					
									2013 Achieved	*2020 Achieved*	*2021 Achieved*	*2022 Achieved*	*2025 Expected*	*2030 Expected*
Promotion of the introduction of facilities and equipment with high energy-saving performance (across industries)	Introduction of high-efficiency air conditioning	Introduction of high-efficiency air conditioning	Technology Development,Taxation,Subsidy,Law	Implemented	Energy	CO2	2008	METI	45.87	447.00	504.00	548.00	860.00	690.00
Promotion of the introduction of facilities and equipment with high energy-saving performance (across industries) 2	Introduction of industrial HP (heat pump)	Introduction of industrial heat pump	Technology Development,Taxation,Subsidy,Law	Implemented	Energy	CO2	2008	METI	2.00	117.00	137.00	155.00	660.00	1,610.00
Promotion of the introduction of facilities and equipment with high energy-saving performance (across industries) 3	Introduction of industrial high-efficiency lighting	Introduction of industrial lighting	Technology Development,Taxation,Subsidy,Law	Implemented	Energy	CO2	2008	METI	670.00	5,102.00	5,832.00	6,402.00	8,442.00	2,931.00
Promotion of the introduction of facilities and equipment with high energy-saving performance (across industries) 4	Introduction of low-carbon industrial furnaces	Introduction of low-carbon industrial furnaces	Technology Development,Taxation,Subsidy,Law	Implemented	Energy	CO2	2008	METI	575.00	4,472.00	5,055.00	5,619.00	6,925.00	8,069.00
Promotion of the introduction of facilities and equipment with high energy-saving performance (across industries) 5	Introduction of industrial motors and inverters	Introduction of industrial motors and inverters	Technology Development,Taxation,Subsidy,Law	Implemented	Energy	CO2	2008	METI	338.00	2,923.90	3,224.00	3,543.00	10,820.00	7,608.00
Promotion of the introduction of facilities and equipment with high energy-saving performance (across industries) 6	Introduction of high-performance boilers	Introduction of high-performance boilers	Technology Development,Taxation,Subsidy,Law	Implemented	Energy	CO2	2008	METI	292.00	2,500.00	2,792.00	3,075.00	3,307.00	4,679.00
Promotion of the introduction of facilities and equipment with high energy-saving performance (across industries) 7	Introduction of cogeneration	Introduction of cogeneration	Technology Development,Taxation,Subsidy,Law	Implemented	Energy	CO2	2008	METI	410.00	3,324.00	3,803.55	4,169.00	6,942.00	10,610.00

Figure 2: example of a CTF table 5 with specific sub measures for which historical, achieved and expected estimates have been done

Same approach should be followed for reporting adaptation measures with mitigation co-benefits. Adaptation policies can often result in a broad framework and include multiple site or sector specific measures. Only those specific measures and sub measures which have countable co-mitigation benefits, and therefore a defined methodology for their estimation and monitoring, should be selected. Measures like afforestation, mangrove protection and any land restoration project needs to be contextualized and their benefits individually assessed.

GHG projections

Most Non-Annex I Parties submitted their first BTR while applying flexibility provisions on the GHG projections section. In the reviewed drafts from Parties that reported emission projections, it was found that many requirements of this area were not clear to the BTR working teams, leading to a poor alignment with the MPGs.

GHG emission projections are indicative of the impact of measures and policies on future trends of emission and removals of GHG. They can be the results of more or less complex techno-economic models, which can be economy-wide or sector focused. In order to tackle the common gaps found in the reviewed drafts, the main principles and guidelines from the MPGs are reported and further explained in this document.

In general, projections should be reported as total emissions, with and without the contribution of the LULUCF sector, as well as divided by sector and gas. Moreover, the reporting should be both in graphical and tabular format.

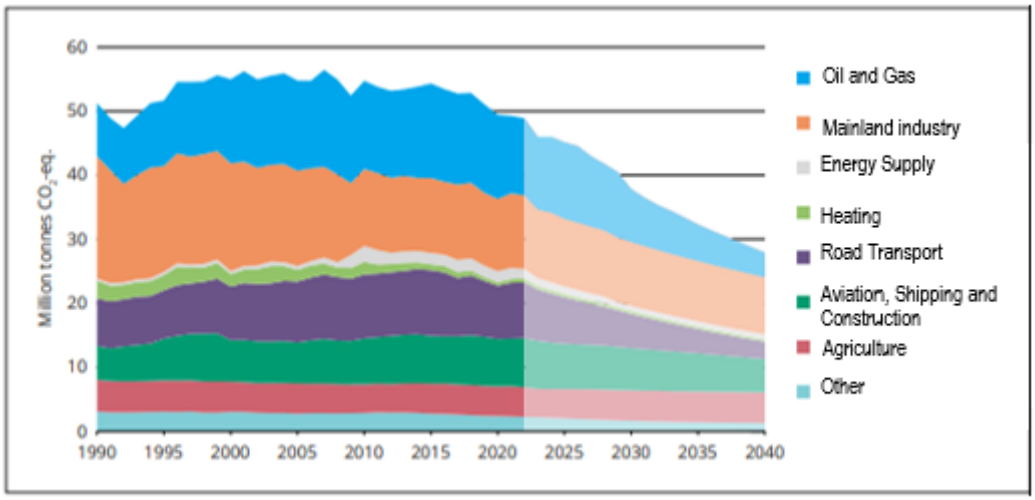

Figure 3: Overall GHG emissions projections by sector up to 2040

The extent of the projections. In multiple BTR drafts, the projections were extending only to the final year of the NDC, i.e. 2030. The MPGs state that, starting from the last available inventory, projections should extend 15 years after the first year ending in 5 or 0. For example, if the last available inventory is 2023, the next year ending in 5 or 0 is 2025, and therefore the projections should extend to 2040.

The three scenarios to be reported. The only scenario with a "shall" provision is the With Existing Measures (WEM) scenario, which includes all the planned and implemented measures reported in CTF table 5 and therefore, the current commitment of the country. This means that the scenario usually referred to Business as Usual (BaU), often used my many countries as a baseline scenario/benchmarck for the emission reduction targets, is not the WEM scenario, as some drafts incorrectly reported, but the WithOut Measures (WOM). The last scenario, With Additional Measures (WAM), reports the projections of emissions when supplementary measure, yet to be developed/implemented by the Party, are added to the WEM scenario. The WOM and the WAM scenarios are indicated as "may" provisions in the MPGs and are therefore reported on a voluntary base.

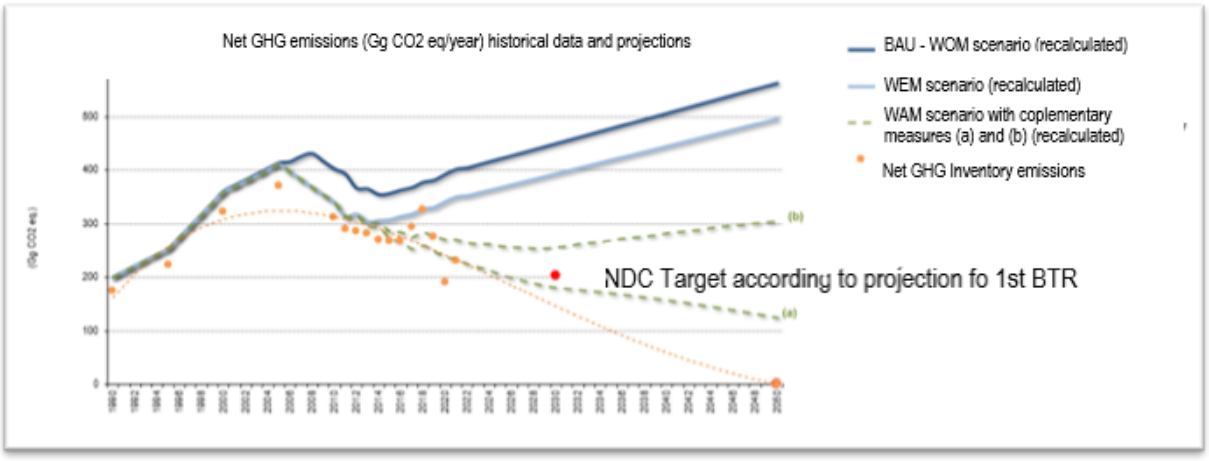

Figure 4: Comparison of Overall Net GHG emission projections across different scenarios and historical Inventory data

Figures 3 and 4 represent good practices extracted from some submitted BTRs. Figure 3 depicts a Party's GHG emissions by sector, with the historical data starting from 1990 and the projections extending until 2040. Figure 4 instead depicts the overall net emissions projections of the different scenarios against each other. In this graph, all the required scenarios, WEM, WOM and WAM, are reported and clearly indicated. For the WAM scenarios (dashed green lines), two different scenarios were developed, with two different sets of complementary measures that are clearly stated in the report. Additionally, the NDC target for 2030 and the 2050 Net Zero goal are also reported for reference.

Methodology and key indicators. For each projection addressed in the BTR, it is fundamental to ensure the transparency of reporting and the consistency of the projection. This means that the methodology should be carefully reported, including parameters used, assumptions, measures included (WAM scenario), projection trends of key indicators, software used and sensitivity analysis.

Conclusions

CBIT-GSP hopes that the content of this knowledge product can help Party's in the process of finalizing their first BTR, as well as those planning or starting the works for their BTR2 submission.

For further clarification regarding the selected topics of this knowledge product, as well as any other Transparency related doubt, CBIT-GSP aims to be the one-stop-shop for transparency capacity building, also provided through its Regional Network Coordinators across the globe.

All Party's are highly encouraged to submit their BTR drafts, single chapters, CTF and CRT tables to the CBIT-GSP team for a quality check review, and the possibility to bring the final improvements, before the official submission to the UNFCCC. Additionally, the quality check process can also prepare the national BTR team to the official Technical Expert Review, raising questions that the team may be called to answers after the submission.