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Consultative Group of Experts
The Constituted Body for MRV & ETF

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Climate Change

Compilation of examples of the application of flexibility provisions in biennial transparency reports

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Introduction

Article 13 of the Paris Agreement provides the core structure of the enhanced transparency framework (ETF), which includes reporting, technical expert review (TER) and facilitative, multilateral consideration of progress (FMCP).

The ETF is implemented on the basis of modalities, procedures and guidelines (MPGs),[1] that apply to all Parties, with flexibility to those developing countries that need it in the light of their capacities.[2]

In accordance with Article 13, paragraph 2, of the Paris Agreement, the ETF shall provide flexibility in the implementation of the provisions of Article 13 to those developing country Parties that need it in the light of their capacities, and the MPGs shall reflect such flexibility.

The MPGs specify the flexibility provisions that are available to those developing country Parties that need it in the light of their capacities, pursuant to Article 13, paragraph 2, reflecting flexibility, including in the scope, frequency and level of detail of reporting, and in the scope of the review.[3]

The application of a flexibility provided for in the provisions of the MPGs for those developing country Parties that need it in the light of their capacities is to be self-determined.

In doing so, the developing country Party shall[4]:

- clearly indicate the provision to which flexibility is applied,
- concisely clarify capacity constraints, noting that some constraints may be relevant to several provisions, and
- provide self-determined estimated time frames for improvements in relation to those capacity constraints.

When a developing country Party applies flexibility provided for in these MPGs, the TER teams shall not review the Party's determination to apply such flexibility or whether the Party possesses the capacity to implement that specific provision without flexibility.

Consultative Group of Experts (CGE) is the main channel for the provision of technical assistance and support to developing country Parties in fulfilling their reporting requirements in relation to measurement, reporting, and verification under the Convention and the enhanced transparency framework under the Paris Agreement.

This compilation represents an effort by the CGE to assist developing countries in implementing ETF, with an aim to showcase examples on application of flexibility provisions, as reported in BTRs.

It is important to note that this compilation does not capture the full scope of information reported by Parties in their BTRs and a more comprehensive and detailed information can be found in the respective reports (https://unfccc.int/first-biennial-transparency-reports).

1 The MPGs are contained in the annex to decision 18/CMA.1. Guidance for operationalizing the MPGs, as well as the corresponding common reporting tables, common tabular format tables and outlines for reporting, can be found in decision 5/CMA.3 and its annexes. Guidance pertaining to reviews of the information reported pursuant to chapter IV of the annex to decision 18/CMA.1 is available in decision 9/CMA.4.

2 Decision 18/CMA.1, annex, chapter I.C, paragraphs 4-6.

3 Decision 18/CMA.1., annex, Chapter I.C, paragraph 5.

4 Decision 18/CMA.1, annex, paragraph 6.

Overview of specific flexibility provisions

This chapter provides an overview of the flexibility provisions specified in the MPGs, that offer flexibility to those developing country Parties that need it in the light of their capacities in relation to:

- reporting anthropogenic emissions by sources and removals by sinks of greenhouse gas (GHG) in the national inventory report (table 1);
- reporting progress in implementing and achieving the nationally determined contribution (table 2);
- common tabular formats (CTFs) and common reporting tables (CRTs) (table 3)
- the technical expert review (table 4);
- the facilitative, multilateral consideration of progress (table 5).

Table 1

Overview of flexibility provisions in relation to a national inventory report as per Annex to decision 18/CMA.1

Reference in the MPGs	*Provision in the MPGs*	*Flexibility provision in the MPGs, for those developing country Parties that need it*
Paragraph 25 Key category analysis	Parties shall implement the key category analysis consistent with the IPCC guidelines (i.e. apply the 95 per cent threshold defined in the IPCC guidelines).	Identify key categories using a threshold no lower than 85 per cent in place of the 95 per cent threshold defined in the IPCC guidelines.
Paragraph 29 Uncertainty assessment	Parties shall quantitatively estimate and qualitatively discuss the uncertainty of the emission and removal estimates for all categories, including inventory totals, for at least the starting year and the latest reporting year of the inventory time series, and shall also estimate the trend uncertainty for these same categories/inventory totals for the entire time series.	Provide, at a minimum, a qualitative discussion of uncertainty for key categories, using the IPCC guidelines where quantitative input data are unavailable to quantitatively estimate uncertainties. Parties are also encouraged to provide a quantitative estimate of uncertainty for all source and sink categories of the GHG inventory.
Paragraph 32 Insignificant threshold	Each Party may use the notation key "NE" (not estimated) when the estimates would be insignificant in terms of level according to the following considerations: emissions from a category should only be considered insignificant if the likely level of emissions is below 0.05 per cent of the national total GHG emissions, excluding LULUCF, or 500 kt CO2eq, whichever is lower. The total national aggregate of estimated emissions for all gases from categories considered insignificant shall remain below 0.1 per cent of the national total GHG emissions, excluding LULUCF. Parties should use approximated activity data and default IPCC emission factors to derive a likely level of emissions for the respective category.	Consider emissions to be insignificant if the likely level of emissions is below 0.1 per cent of the national total GHG emissions, excluding LULUCF, or 1,000 kt CO2eq, whichever is lower. The total national aggregate of estimated emissions for all gases from categories considered insignificant, in this case, shall remain below 0.2 per cent of the national total GHG emissions, excluding LULUCF.

Table 1 (Continued)

Overview of flexibility provisions in relation to a national inventory report as per Annex to decision 18/CMA.1

Reference in the MPGs	*Provision in the MPGs*	*Flexibility provision in the MPGs, for those developing country Parties that need it*
Paragraph 34 QA/QC plan	Parties shall elaborate an inventory QA/QC plan in accordance with the IPCC guidelines, including information on the inventory agency responsible for implementing QA/QC.	Encouraged to elaborate an inventory QA/QC plan in accordance with the IPCC guidelines, including information on the inventory agency responsible for implementing QA/QC.
Paragraph 35 QC procedures	Parties shall implement and provide information on general inventory QC procedures in accordance with the QA/QC plan and the IPCC guidelines.	Encouraged to implement and provide information on general inventory QC procedures in accordance with the QA/QC plan and the IPCC guidelines.
Paragraph 48 Gases	Parties shall report on seven gases: CO2, CH4, N2O, HFCs, PFCs, SF6 and NF3.	Report at least three gases (CO2, CH4 and N2O) as well as any of the additional four gases (HFCs, PFCs, SF6 and NF3) that are included in the Party's NDC under Article 4 of the Paris Agreement, are covered by an activity under Article 6 of the Paris Agreement or have been previously reported.
Paragraph 57 Time series	Parties shall report a consistent annual time series starting from 1990.	Parties may report data covering, at a minimum, the reference year/period for their NDC under Article 4 of the Paris Agreement and, in addition, a consistent annual time series from at least 2020 onward.
Paragraph 58 Latest reporting year	The latest reporting year shall be no more than two years prior to the submission of the national inventory report.	The latest reporting year shall be no more than three years prior to the submission of the national inventory report.

Table 2

Overview of flexibility provisions in relation to reporting progress in implementing and achieving the nationally determined contribution as per Annex to decision 18/CMA.1

Reference in the MPGs	*Provision in the MPGs*	*Flexibility provision in the MPGs, for those developing country Parties that need it*
Paragraph 85 Expected and achieved GHG emission reductions for PAMs	Each Party shall provide, to the extent possible, estimates of expected and achieved GHG emission reductions of its PAMs.	Instead encouraged to report this information.
Paragraph 92 Projections of GHG emission and removals	Each Party shall report projections.	Instead encouraged to report these projections.
Paragraph 95 Time period for projections	Projections shall begin from the most recent year in the Party's national inventory report and extend at least 15 years beyond the next year ending in zero or five.	Instead extend their projections at least to the end point of their NDC.
Paragraph 102 Projections methodology or coverage	See paragraphs 93 through 101 of the annex to decision 18/CMA.1.	With respect to paragraphs 93 to 101 of the annex to decision 18/CMA.1, can instead report using a less detailed methodology or coverage.

Table 3

Overview of flexibility provisions in relation to common tabular formats and common reporting tables as per decision 5/CMA.3

Reference in the MPGs	Incorporating flexibility in the CRTs and CTFs
Paragraph 5(a) Use of the notation key "FX" (flexibility)	Use the new notation key 'FX' (flexibility) in the relevant CRTs or CTFs, providing an explanation of how the specific flexibility provision has been applied in the corresponding documentation box.
Paragraph 5(b) Collapse rows or columns	Collapse relevant row(s) or column(s) where 'FX' is reported in each cell in the row or column and expand them again for display purposes, providing an explanation of how the specific flexibility provision has been applied in the corresponding documentation box.
Paragraph 5(c) Collapse tables, generate tables and columns	Collapse tables related to the four additional gases included in decision 18/CMA.1, annex, paragraph 48, where 'FX' is reported in each cell in the row or column and expand it again for display purposes, providing an explanation of how the specific flexibility provision has been applied in the corresponding documentation box; indicate the first year and last year of the inventory time series, consistent with decision 18/CMA.1, annex, paragraphs 57–58, and generate columns and tables consistent with this selection, providing an explanation of how the specific flexibility provision has been applied in the corresponding documentation boxes; and indicate the thresholds selected, consistent with decision 18/CMA.1, annex, paragraphs 25 and 32, providing an explanation of how the specific flexibility provision has been applied in the corresponding documentation box.

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Table 4

Overview of flexibility provisions in relation to the technical expert review as per Annex to decision 18/CMA.1

Reference in the MPGs	*Provision in the MPGs*	*Flexibility provision in the MPGs, for those developing country Parties that need it*
Paragraphs 158 – 159 Format of the TER	A Party shall undergo an in-country review for: (a) The first BTR; (b) At least two BTRs in a 10-year period, of which one is the BTR that contains information on the Party's achievement of its NDC under Article 4 of the Paris Agreement; (c) A BTR if recommended in the TER of the Party's previous BTR; (d) A BTR upon request of the Party under TER.	Instead choose to undergo a centralized instead of an in-country review, but are encouraged to undergo an in-country review.
Paragraph 162(c) Time to provide requested information to TER team	The technical expert review team should communicate any preliminary questions to the Party at least four weeks prior to the technical expert review week. The technical expert review team may request additional information before or during the technical expert review week. The Party concerned should make every reasonable effort to provide the requested information within two weeks of the request.	Instead encouraged to provide the information within three weeks of the request.
Paragraph 162 (d)	The technical expert review team shall communicate to the Party concerned draft areas of improvement, constituting preliminary "recommendations" (for "shall" provisions) and/or "encouragements" (for non-"shall" provisions).	And also communicate any capacity-building needs identified in consultation with the Party concerned, at the end of the technical expert review week.
Paragraph 162(f) Comments on the draft TER report	The Party concerned shall be given up to one month from receipt of the draft TER report to provide comments.	Instead provide comments within three months of receipt of the draft TER report.

Table 5

Overview of flexibility provisions for the facilitative, multilateral consideration of progress as per Annex to decision 18/CMA.1

Reference in the MPGs	*Provision in the MPGs*	*Flexibility provision in the MPGs, for those developing country Parties that need it*
Paragraph 192 (c) Time to respond to questions	The Party in question shall respond in writing to the questions no later than one month prior to the working group session through the online platform.	Instead submit written responses to questions up to two weeks prior to the working group session.

Examples on application of flexibility provisions

AZERBAIJAN

In accordance with paragraph 2 of Article 13 of the Paris Agreement, in the implementation of the provisions of Article 13 in the ETF, flexibility is provided to developing country Parties that need it in the light of their capacities, and, if necessary, the Parties shall ensure it and reflect such flexibility in their reports.

According to Article 13(2) of the PA, MPGs provide flexibility capacities for developing countries that need it.

In terms of the application of the flexibility provided for in the provisions of MPGs, developing Parties that need it shall determine their position. The developing country shall clearly indicate the provision to which the flexibility applies, briefly clarify the capacity constraints, noting that some constraints may be related to several provisions and submit estimated timeframes for improvements to address these constraints. When a developing country Party applies the flexibility provided for in the MPGs, the technical expert review teams will not consider the Party's decision to use such flexibility or whether the Party is able to implement that particular provision without flexibility.

Azerbaijan has developed a summary of data on the specific flexibility provisions applied, indicating the capacity constraints associated with the application of flexibility in the provisions and time frames defined for improvements related to these constraints.

Summary of flexibilities applied in NDC tracking

Description of the application of flexibility	Clarification of capacity constraint	Timeframe for improvement
Azerbaijan applies flexibility under Paragraph 85 due to limited capacity for estimating GHG emission reductions in a detailed tabular format. The country provides qualitative descriptions of policies and measures but lacks the technical resources for precise quantitative estimates at this time.	Capacity constraints include insufficient data, technical expertise, and modeling tools needed to produce accurate estimates of expected and achieved emission reductions.	Azerbaijan aims to improve its ability to provide detailed emission reduction estimates for BTR 3. This will involve developing technical expertise, enhancing data collection systems, and implementing necessary modeling tools for more accurate reporting.
Azerbaijan applies flexibility under Paragraph 92 by not including the projections, due to current limitations in its capacity to fully comply with detailed projection reporting requirements.	Capacity constraints include insufficient technical expertise and limited data availability needed to provide comprehensive and accurate projections as outlined in the MPGs.	Azerbaijan plans to improve its capacity to provide detailed projections for BTR 3, through enhancing technical capacities to use modeling tools, improving data systems, and technical training to align with the full reporting guidelines.

Summary of flexibilities applied in the national inventory on the anthropogenic emissions and absorptions of greenhouse gases

Areas covered by provisions where flexibility is applied in the report	Capacity constraints related to the application of flexibility	Improvements envisaged for the country by areas	Information on the implementation of improvements
1. Para 57 and 58 (Consistency of time series and recalculations): Azerbaijan, as a developing country, presents the GHG inventory of only 1990 as a base or reference year and the last 3 reporting years (2020-2022) as part of the BTR report using the opportunities created by clauses 57 and 58 of the MPG on GHG inventory.	Owing to limited time constraints, lack of national capacities and of information on the use of the 2006 IPCC methodology guidelines in specific sectors, as well as limitations in resources and language barriers faced by local stakeholders (primarily in the agriculture sector) regarding the application of existing methodologies.	Currently, domestic procedures aimed at enhancing legislation on GHG inventory are being implemented in the country. In this context, a series of training sessions on the IPCC 2006 Guidelines is planned, involving all relevant institutions.	The improvements are planned for the next BTR cycles, in accordance with 2006 IPCC and UNFCCC Guidelines, an inventory will be conducted for more years between 1990 and 2022. Meantime, in order to overcome the language barrier, it is planned to translate the relevant country-specific sections of the 2006 IPCC Guidelines into the Azerbaijani language.
2. Para 34 (QA/QC plan): Azerbaijan applies flexibility under Paragraph 34 due to current limitations in developing a comprehensive QA/QC plan. The country focuses on the main elements of the IPCC guidelines within available resources and expertise while prioritizing immediate needs.	Capacity constraints include limited technical expertise, insufficient resources for detailed category-specific QC, and challenges in organizing external expert peer reviews. These limitations hinder the full implementation of the QA/QC plan as per IPCC guidelines.	The "Inventory of heat trapping gases and development of Measurement, Reporting and Verification (MRV) system", as well as the implementation of the corresponding paragraphs in the Action Plan of the State Commission on Climate Change are envisaged in the 1st paragraph of the action direction 5.2.5 of the document "Socio-economic development strategy of the Republic of Azerbaijan for 2022-2026".	For third BTR cycle, Azerbaijan aims to enhance QC procedures by 2025 through capacity-building initiatives, including staff training and resource allocation, to implement a more robust QA/QC system, in line with the IPCC guidelines and international standards.
3. Para 29 (Uncertainty assessments): Azerbaijan applies flexibility under Paragraph 29 to focus on a qualitative discussion of uncertainty for key categories due to limited resources and data availability. This approach allows the country to address the most significant categories while working towards improving its ability to provide quantitative uncertainty estimates.	Capacity constraints include limited access to detailed data and analytical tools necessary for quantitative uncertainty estimation (e.g. the uncertainty analysis calculator in the IPCC software contains bugs, displays errors, and is not yet considered finalized). These limitations make it challenging to meet the full requirements, so the country prioritizes qualitative assessments for key categories.	Azerbaijan aims to enhance its capacity for quantitative uncertainty estimation. This includes improving data quality, expanding analytical capabilities, and training personnel to eventually meet all IPCC guidelines comprehensively.	The improvements are planned for the next BTR cycles, when analytical tools are available.

Summary of flexibilities applied in the national inventory on the anthropogenic emissions and absorptions of greenhouse gases (continued)

Areas covered by provisions where flexibility is applied in the report	Capacity constraints related to the application of flexibility	Improvements envisaged for the country by areas	Information on the implementation of improvements
4. Para 25 (Key category analysis): Azerbaijan applies flexibility under Paragraph 25 by using a lower threshold of 85% instead of 95% to identify key categories. This approach allows the country to focus on fewer, more critical categories due to limited resources and capacity, prioritizing improvements where most impactful.	Capacity constraints include limited data quality and analytical resources, making it challenging to apply the 95% threshold for key category analysis. Using an 85% threshold helps manage these constraints while directing resources to priority areas.	Azerbaijan plans to improve its key category analysis to align with the 95% threshold by 2030. This will involve enhancing data quality, increasing analytical capabilities, and investing in resources to better meet IPCC guidelines.	The improvements are planned for the next BTR cycles, when analytical tools are available.
5. Para 35 (QC procedures): Azerbaijan applies flexibility under Paragraph 35 due to limited capacity for comprehensive implementation of general and category-specific QC procedures. Current efforts focus on basic QC procedures in line with available resources, prioritizing key categories and areas with significant methodological changes or data revisions.	Capacity constraints include limited technical expertise, insufficient resources for detailed category-specific QC, and challenges in organizing external expert peer reviews. These limitations hinder the full implementation of the QA/QC plan as per IPCC guidelines.	Azerbaijan aims to enhance QC procedures by 2025 through capacity-building initiatives, including staff training and resource allocation, to implement a more robust QA/QC system, standards.	
6. Para 48 (Reporting of F-gases): In line with Paragraph 48 of Decision 18/CMA.1, Azerbaijan applies flexibility in reporting HFCs, PFCs, SF6, and NF3 due to limited capacity and data availability. The country currently focuses on reporting CO2, CH4, and N2O, which are more significant to its national emissions inventory. The inclusion of the additional four gases is constrained by a lack of reliable data, technical expertise, and resources.	Insufficient statistical data required for GHG emissions inventory, Inconsistencies between statistical data collection rules and requirements of the 2006 IPCC Guidelines, lack of resources in relevant sectors and time constraints are the primary obstacles. Azerbaijan faces capacity constraints in reporting HFCs, PFCs, SF6, and NF3 due to limited technical expertise, insufficient data collection systems, and resource shortages.	Azerbaijan aims to enhance its capacity to report on HFCs, PFCs, SF6, and NF3 by 2026. Ongoing efforts include legislative improvements, capacity building initiatives, and training on the IPCC 2006 Guidelines. These actions are expected to gradually expand the scope of the GHG inventory, enabling full compliance with reporting requirements in the coming years.	The State Commission on Climate Change has developed an Action Plan for the implementation of these improvements. These improvements are expected to be finalized in future BTR cycles.
7. Para 32 (Insignificance threshold): Azerbaijan applies flexibility under Paragraph 32 to simplify reporting for categories with minimal emissions. The country uses a higher insignificance threshold (0.1% of national total GHG emissions or 1,000 kt CO2 eq) due to limited data accuracy and resources.	Capacity constraints include limited access to detailed data and lack of analytical tools, making it challenging to precisely estimate emissions to the lower threshold.	Azerbaijan aims to align with the lower insignificance threshold. This involves improving data collection, finding suitable analytical tools, and reporting practices to better meet IPCC guidelines and enhance overall inventory accuracy.	The improvements are planned for the next BTR cycles.

BRAZIL

With a view to promoting universal participation, ETF and its MPGs include an inherent flexibility that takes into account the different capacities of the Parties and is based on the collective experience of developed and developing countries. The MPGs specify the flexibility provisions available to Parties that are developing countries and that need it, in light of their capacities, as provided for in Article 13, paragraph 2.

The application of the flexibility provided for in the provisions of the MPGs for Parties that are developing countries must be self-determined, i.e., the country will determine when the flexibility can be applied in light of its capacity constraint(s) and always in relation to a specific reporting requirement to which such flexibility can be applied.

In doing so, developing countries should clearly indicate the provision to which flexibility is applied, concisely explain the capacity constraints, noting that some constraints may be relevant to several provisions, and provide estimated and self-determined timeframes for improvements in relation to these capacity constraints.

Therefore, the flexibility provision under the Paris Agreement is essential to ensure the effective participation of all countries, taking into account their different circumstances and capacities. These provisions allow developing countries to adapt their commitments to their realities, ensuring progress in a sustainable and equitable way, while receiving the international support needed to strengthen their capacities over time.

Data frames 6.1 and 6.2 present a general overview of the flexibility provisions of the MPGs for preparing the GHG inventory and tracking the progress of the NDC, respectively. In addition, an assessment is made as to whether or not Brazil has used these provisions, in light of its national capacities.

Flexibility provision used by Brazil with regard to tracking of NDC progress

MPG Reference (Annex to Decision 18/ CMA.1)	MPGs Provisions	Indication of the flexibility provision used by Brazil, in light of its capacities
Paragraph 85 GHG emission reductions expected and achieved for the PAMs	Parties should provide, to the extent possible, estimates of the GHG emission reductions expected and achieved by their actions, policies and measures (PAMs)	**Flexibility used by the country.** Brazil reported the mitigation policies and measures, actions and plans related to the implementation and achievement of the NDC in Chapter 3, section 3.4. However, it only reports the estimated emission reductions expected for the policy described in item 3.4.3, and the estimated emission reductions achieved for the policy described in item 3.4.6. Indications of capacity constraints, ongoing measures and the timeframe for implementing the necessary improvements are described in sections 3.4.1 to 3.4.7 of Chapter 3.
Paragraph 92 Projections of GHG emissions and removals	Each Party shall communicate the projections pursuant to paragraphs 93-101 of the MPGs	**Flexibility used by the country.** Until the approval stage of this BTR1, the Brazilian Government was in the process of analyzing and validating the results of the GHG emissions projections. The duly completed and validated projections will be submitted in BTR2.
Paragraph 95 Extension of projections	Projections should start in the most recent year of the Party's national inventory report and extend to, at least, 15 years beyond the following year ending in zero or five.	**Flexibility used by the country.** Until the approval stage of this BTR1, the Brazilian Government was in the process of analyzing and validating the results of the GHG emissions projections. The duly completed and validated projections will be submitted in BTR2.
Paragraph 102 Methodology or scope of projections	Parties that are developing countries and require flexibility can submit reports using a less detailed methodology or coverage.	**Flexibility used by the country.** Until the approval stage of this BTR1, the Brazilian Government was in the process of analyzing and validating the results of the GHG emissions projections. The duly completed and validated projections will be submitted in BTR2.

Flexibility provision used by Brazil to prepare the national inventory

MPG Reference (Annex to Decision 18/ CMA.1)	MPGs Provisions	Indication of the flexibility provision used by Brazil, in light of its capacities
Paragraph 25 Key category analysis	Parties should implement the key category analysis consistently with the IPCC guidelines (i.e., apply the 95% threshold defined in the IPCC Guidelines).	**Flexibility not used by the country.** The 95% threshold was used to identify the categories, in accordance with the IPCC Guidelines.
Paragraph 29 Assessment of uncertainty	Parties should quantitatively estimate and qualitatively discuss the uncertainty of emission and removal estimates for all categories, including the inventory totals, for at least the first and the last reporting year of the inventory time series, and should also estimate the trend uncertainty for these same categories/ inventory totals for the entire time series.	**Flexibility not used by the country.** Brazil estimated the uncertainties of the Inventory for all categories for the first year (1990) and for the last year of the time series (2022).
Paragraph 32 Use of the acronym "NE" (Not estimated)	A category should only be considered insignificant if the likely level of emissions is less than 0.05% of total national greenhouse gas emissions, excluding LULUCF, or 500 kt of CO2 equivalent, whichever is lower. The aggregate national total of estimated emissions for all gases in categories considered insignificant must remain below 0.1% of the total national GHG emissions, excluding LULUCF.	**Flexibility not used by the country.** Brazil did not use the flexibility for the non-estimation of categories considered to be insignificant. Emissions were estimated and accounted for in the inventory for all the categories for which there was available data, without considering their degree of significance. For all the categories indicated by the country as not estimated, according to Section 2.7, Brazil will make efforts to improve the estimates in subsequent inventories.
Paragraph 34 Quality assurance / Quality control	Parties must prepare an inventory quality assurance and quality control plan in accordance with IPCC guidelines, including information on the inventory agency responsible for implementing these controls.	**Flexibility not used by the country.** Brazil has an inventory quality assurance and quality control plan. The Ministry of Science, Technology and Innovation (MCTI) is responsible for implementing this plan.
Paragraph 35 Quality assurance / Quality control	Parties should implement and provide information on general inventory quality control procedures in accordance with the quality assurance/quality control plan and the IPCC Guidelines	**Flexibility not used by the country.** Brazil implements the inventory quality assurance and quality control plan.
Paragraph 48 Gases	The Parties should report seven gases: CO2, CH4, N2 O, HFCs, PFCs, SF6 and NF3.	**Flexibility used by the country.** All the gases included in Brazil's NDC were reported, in accordance with Article 4 of the Paris Agreement. However, emissions of NF3 were not estimated due to the lack of activity data because of the incipiency of the production activity in the country. The action plan includes liaising with the institutions responsible for the sources that emit NF3, with the aim of collecting the necessary data over the next two years. This data will then be analyzed and the results presented in 2028.
Paragraph 57 Time series	Parties should report a consistent annual time series beginning in 1990.	**Flexibility not used by the country.** The annual time series begins in 1990.
Paragraph 58 Reporting year	The last reporting year should not be more than two years before the submission of the national inventory report.	**Flexibility not used by the country.** The last reporting year (2022) is not more than two years before the submission of the report (2024).

INDIA

Enhanced Transparency Framework (ETF), established as per Article 13 of the Paris Agreement, aims to promote transparency and accountability in global efforts to combat climate change. To ensure consistency and comparability in climate data, Parties are required to submit their GHG inventory data using Common Reporting Tables (CRTs) and tracking of Nationally Determined Contributions (NDCs) using Common Tabular Formats (CTFs). With the adoption of the modalities, procedures, and guidelines (MPGs) for the ETF, along with the corresponding CRTs and CTFs, India has transitioned to the new reporting system. These MPGs outline the specific information countries must report, the format for presenting it, and the process for reviewing the data. These agreements were formalized at COP24 in 2018 and finalized at COP26 in 2021.

India has availed flexibilities in specific areas of reporting, in light of its capacity constraints and national circumstances. Where flexibility has been availed, it has been clearly identified and justified and is consistent with the reporting provisions of the MPGs. The application of flexibility by India reflects the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC), while also reaffirming its commitment to progressively enhance the transparency, accuracy, and completeness of its climate reporting over time.

India's vast geographical size, diverse agro-climatic zones, and complex institutional structure make gathering timely and precise data across various sectors and sub-sectors a difficult task. The challenge is compounded by the need to coordinate among multiple government departments and organizations to collect the necessary information. Additionally, employing the more advanced Tier II and Tier III methodologies for GHG estimations demands substantial resources, time, technical expertise, and institutional capacity.

Further, due to the delayed disbursement of Global Environment Facility (GEF) funds, India was left with less than two years to prepare its first Biennial Transparency Report (BTR-1). Despite these constraints, India, as a developing country, has exercised a minimum/limited number of flexibilities available to the developing countries under the MPGs. Moreover, India has made concerted efforts to adhere to the transparency, accuracy, completeness, consistency, and comparability (TACCC) principles ensuring transparency, accuracy, consistency, completeness, and comparability while preparing its national GHG inventory.

The specific flexibilities availed by India and their details are provided below.

As a developing country, India has judiciously exercised the flexibility provisions available under the ETF to ensure transparency, accuracy, and consistency in its national GHG inventory. Moving forward, India aims to further enhance its reporting capabilities, gradually reducing its reliance on these flexibilities as its data collection systems and institutional capacities strengthens.

SN	MPG paragraph	Flexibility	Timeline for improvement*
GHG inventory			
1.	25	Each Party shall identify key categories for the starting year and the latest reporting year, including and excluding land use, land-use change and forestry (LULUCF) categories, for both level and trend assessment, by implementing a key category analysis consistent with the 2006 IPCC guidelines; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead identify key categories using a threshold no lower than 85 per cent in place of the 95 per cent threshold defined in the 2006 IPCC guidelines, allowing a focus on improving fewer categories and prioritizing resources.	10 years
2.	57	Each Party shall report a consistent annual time series starting from 1990; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead report data covering, at a minimum, the reference year/period for its NDC under Article 4 of the Paris Agreement and, in addition, a consistent annual time series from at least 2020 onwards.	10 years
Mitigation policies and measures, actions and plans			
3.	85	Each Party shall provide, to the extent possible, estimates of expected and achieved GHG emission reductions for its actions, policies and measures in the tabular format; those developing country Parties that need flexibility in the light of their capacities with respect to this provision are instead encouraged to report this information.	5 years
Projections			
4.	95	Projections shall begin from the most recent year in the Party's national inventory report and extend at least 15 years beyond the next year ending in zero or five; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead extend their projections at least to the end point of their NDC under Article 4 of the Paris Agreement.	5 years
5.	98	Each Party shall include projections on a sectoral basis and by gas, as well as for the national total, using a common metric consistent with that in its national inventory report, those developing country Parties that need flexibility in the light of their capacities are instead encouraged to report these projections.	10 years

**Self-determined timeline for improvement from the year of submitting India's first BTR.*

1. India has availed the flexibility to identify key categories using a threshold no lower than 85 percent in place of the 95 percent threshold defined in the IPCC guidelines (Para 25 of MPGs). This is due to the unavailability of important data/information at granular level and lack of adequate funding. One such example is the calculation of GHG emissions from the road transport sector which is the 2nd largest contributor to India's total inventory using tier I methodology. This is primarily due to insufficient funds to carry out exhaustive experimental studies for developing country specific emissions factors (EFs) to move to a higher tier. Apart from financial resources, development of EFs requires significant time and technical expertise. Moreover, adopting higher-tier methodologies (i.e., Tier II or III) as recommended by the 2006 IPCC Guidelines and its 2019 Refinement Guidelines to calculate GHG emissions in certain sectors has been proven difficult and sometimes ineffective due to lack of high-quality granular data. Therefore, India plans to avail this flexibility provision for an additional 10 years, during which it will aim to improve data availability and apply higher-tier methodologies to key sectors, currently being estimated using the Tier I approach.

Methodologies of key categories (without LULUCF) used for the preparation of national GHG inventory BTR1

Sub-sectors, Gas	BTR1
1A1a Electricity production, CO2	T1/T2/T3
1A3b Road transport, CO2	T1
3A1 Enteric Fermentation, CH4	T1/T2
1A2gviii Other (Nonspecific Industries), CO2	T1/T2
1A2a Iron & steel, CO2	T1/T2/T3
2A1 Cement production, CO2	T2
1.A.4.b.i. Stationary combustion, CO2	T1
3C7 Rice Cultivation, CH4	T2
1.A.1.b. Petroleum refining, CO2	T1
3.D. Agricultural soils	T2
1A2f Non-metallic Minerals (Cement and Bricks) CO2	T2

2. India has availed the flexibility in reporting time-series calculation of greenhouse gas inventory for four years – 2005, 2020, 2021, and 2022 (Para 57 of MPGs). This flexibility was adopted due to the unavailability of data for certain time periods and financial constraints to carry out estimations for all these years, following the BTR requirements. For data between 1990 and 2005, India, like many other developing nations, needed more advanced data collection, data-recovery infrastructure and methodologies to track GHG emissions across all sectors accurately. There were gaps in institutional capacities, technological limitations, and data governance frameworks, making it difficult to maintain consistent, reliable inventories. In next 10 years, India aims to report time-series calculations starting 1990 onwards.

3. In line with paragraph 85, India has exercised the flexibility to report only the achieved GHG emission avoided, rather than the expected emission avoided for its actions, policies, and measures in CTF-5. India, like many other developing countries, faces challenges in accurately forecasting the outcomes of its mitigation actions due to the complexity of its socio-economic systems in which these policies operate. Moreover, the mitigation actions are implemented through various national and state-level schemes that depend on budgetary allocations, which can vary every year. Forecasting expected emission avoided is especially challenging when future funding is uncertain. Additionally, many a times these schemes are merged or amalgamated with others, further making it challenging to accurately track and forecast their outcomes. Hence, in future, key schemes with highest GHG avoidance potential may be identified and information on expected avoided emissions from these schemes may be reported in next 5 years.

4. India's projected emissions is for the year 2030 which is the end date of implementation of the existing NDC (Para 95). This is due to the constraints in technical and modeling capacity required for future projections. Limited financial resources restrict the ability to upgrade data collection infrastructure and invest in new technologies needed for precise GHG monitoring and projections. Due to these capacity constraints, India has relied on flexibility mechanisms in its first BTR to meet reporting requirements and will avail for the next 5 years.

5. In line with paragraph 98, India reports projections only on a sectoral basis and not for individual GHGs. Generating gas-specific projections requires detailed and segregated data at the category and sub-category level for each greenhouse gas, which is presently not available. Additionally, domestic technical capacity constraint is another reason for adopting this flexibility. There is a need for capacity building through trainings and workshops with bilateral and/or multi-lateral partners. India will avail this flexibility for the next 10 years.

CTF7: Information on projections of greenhouse gas emissions and removals under a 'with measures' scenario

	Most recent year in the Party's national inventory report (Mt CO2 eq)	Projections of GHG emissions and removals (Mt CO2 eq)			
	2022	*2025*	*2030*	*2035*	*2040*
Sector					
Energy	2492.07	2873.36	3642.83	FX	FX
Transport	Included in Energy Sector	Included in Energy Sector	Included in Energy Sector	FX	FX
Industrial processes and product use	301.02	354.92	467.04	FX	FX
Agriculture	509.44	522.48	544.96	FX	FX
LULUCF	-571.82	-586.01	-610.43	FX	FX
Waste	93.84	96.26	100.42	FX	FX
Other (specify)	FX	FX	FX	FX	FX
Gas					
CO2 emissions including net CO2 from LULUCF	FX	FX	FX	FX	FX
CO2 emissions excluding net CO2 from LULUCF	FX	FX	FX	FX	FX
CH4 emissions including CH4 from LULUCF	FX	FX	FX	FX	FX
CH4 emissions excluding CH4 from LULUCF	FX	FX	FX	FX	FX
N2O emissions including N2O from LULUCF	FX	FX	FX	FX	FX
N2O emissions excluding N2O from LULUCF	FX	FX	FX	FX	FX
HFCs	FX	FX	FX	FX	FX
PFCs	FX	FX	FX	FX	FX
SF6	FX	FX	FX	FX	FX
NF3	FX	FX	FX	FX	FX
Other (specify)	FX	FX	FX	FX	FX
Total with LULUCF	2824.55	3261.01	4144.81	FX	FX
Total without LULUCF	3396.37	3847.01	4755.24	FX	FX

KENYA

One of the guiding principles of the modalities, procedures and guidelines (MPGs) for the enhanced transparency framework used in the preparation of this inventory document is the provision of flexibility to those developing country Parties that need it in the light of their capacities. Below is a summary table of the flexibility provisions applied.

Summary of flexibilities applied

MPG flexibility provision (18/CMA.1)	Description of the flexibility application	Clarification of capacity limitation	Deadline for capacity improvement	Progress made to address areas of improvement
Para 85	Estimates of expected GHG emissions for actions, policies and measures.	Lack of capacity to estimate expected GHG emission reductions for identified priority actions, policies and measures.	2030, subject to the availability of support.	NA
Para 92, 95 and 102	Projections of GHG emissions and removals.	Lack of capacity to report projections.	2028, subject to the availability of adequate support.	NA

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LEBANON

Due to time limitations, data unavailability and capacity constraints, Lebanon is using several flexibility provisions for this BTR, as presented in the table below.

Flexibility Provision	Capacity constraints	Planned improvements	Self-determined estimated time frames
GHG inventory – time-series consistency	Time and technical constraints hinder the migration of the 19942022 time-series between the 2 versions of the IPCC software	Migrate 1994-2022 time-series into new version of IPCC software.	BTR2 - 2026
Estimates of expected and achieved GHG emissions reductions	Limited time resources to calculate Emission reduction and submit BTR1 by December 2024.	More time will be allocated to estimate emissions reductions.	BTR2 - 2026
	Data unavailability for correctly estimating emissions reductions relevant to a policy or measure.	Data gaps and indicators will be identified and validated with key stakeholders.	BTR2 - 2026
	No financial resources to develop and track indicators related to specific policies.	Determine methodologies to develop policy indicators.	BTR3 - 2028
	No accurate information is available to estimated expected GHG emissions reductions from the domestic policies.	Determine methodologies to track domestic policies.	BTR3 - 2028
GHG emissions projections	Given national circumstances and capacities, and due to time and capacity constraints Lebanon is did not prepare any study on GHG emission projection.	Conduct study on GHG emissions projection.	BTR2 - 2026

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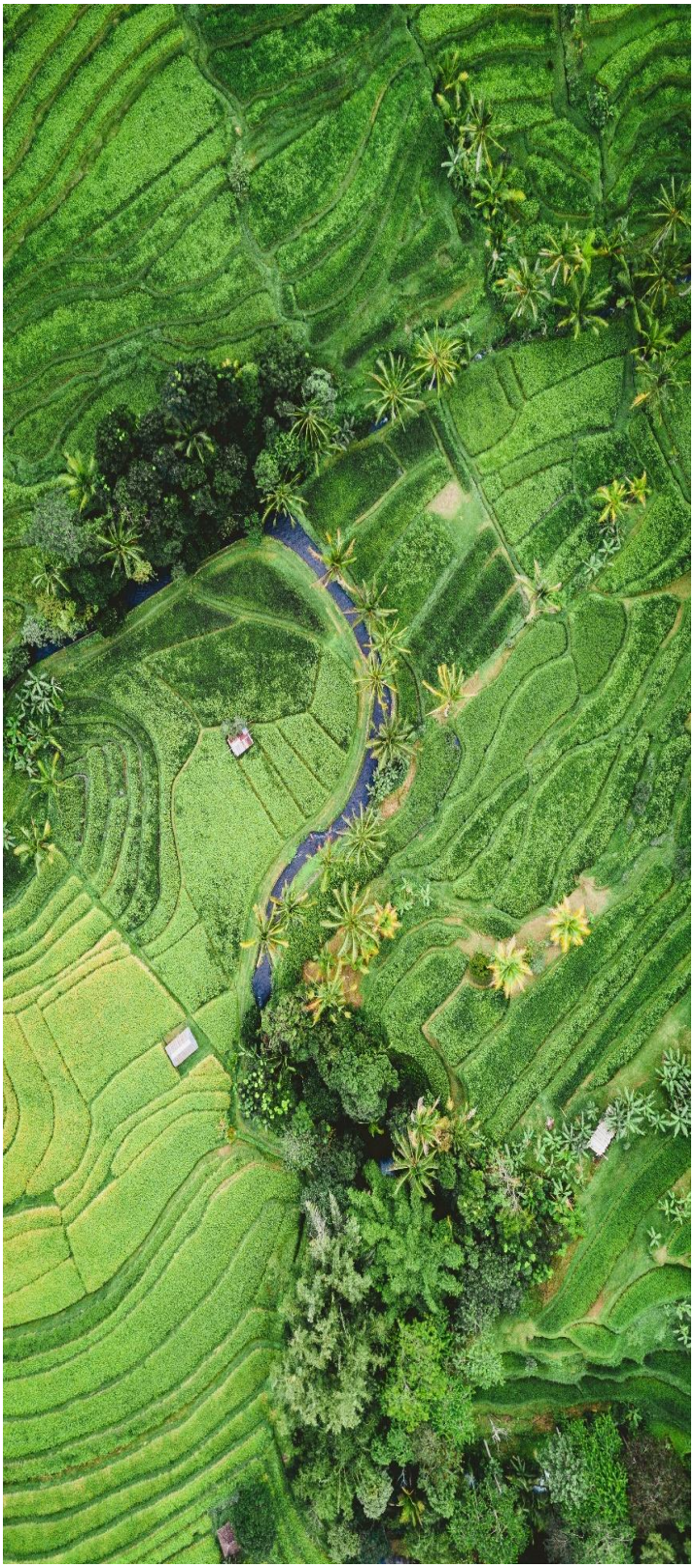
PHILIPPINES



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Decision 18/CMA.1 outlines the MPGs for implementing the ETF under the Paris Agreement.

This decision allows flexibility for developing country Parties based on their capacities. Flexibility provisions ensure that these countries can meet transparency requirements while considering national circumstances, resource limitations, and institutional capacities.

This supports progressive improvements in transparency, aligning with the Paris Agreement's principles of equity and ambition.

The Philippines has applied flexibility in reporting under the ETF.

The MPGs require countries that utilize flexibility to outline plans for improving transparency in future reports.

The Philippines has prepared an improvement plan highlighting key actions, indicative timelines, and dependencies on national circumstances and resource availability.

Tables below summarize the applied flexibilities, the corresponding actions for enhancement, and a timeline for achieving these improvements.

This ensures a clear trajectory toward meeting the full transparency requirements of the Paris Agreement in the subsequent BTR submissions.

List of Flexibilities Applied in Reporting National GHG Inventory

Reporting Component and Flexibility Applied	Data and Information Gaps and Challenges	Action for Improvement	Improvement by
Uncertainty Assessment: Flexibility to provide, at a minimum, a qualitative discussion of uncertainty for key categories, using the IPCC guidelines, both for the latest inventory year and the trend, instead of quantitatively estimating and qualitatively discussing the uncertainty of the emissions and removal estimates for all categories, including inventory totals, for at least the starting year and the latest reporting year of the inventory time series and also estimating the trend uncertainty for these same categories/ inventory totals for the entire time series.	• Limited capacity, resources, expertise, and knowledge in conducting uncertainty analysis.	• Engage in and contribute to capacity-building initiatives focused on uncertainty analysis. • Establish or institutionalize the integration of uncertainty data collection into the compilation process.	Submission of BTR 3 in 2028, contingent on capacity-building activities and resources.
QA/QC: Developing countries that need flexibility in light of their capacities are encouraged to elaborate an inventory QA/QC plan in accordance with the IPCC guidelines, including information on the inventory agency responsible for implementing QA/QC; instead of a mandatory requirement to elaborate the QA/QC plan for other Parties.	• No available domestic GHG Inventory expert for the Waste and IPPU sectors to conduct Quality Assurance (QA).	• Explore partnerships with academe and research institutions. • Explore international experts to conduct QA.	Submission of BTR 2 in 2026, contingent on availability of experts and resources.
Gases: Flexibility to report at least 3 gases (CO_2, CH_4, and N_2O) as well as any of the additional four gases (HFCs, PFCs, SF_6, and NF_3) that are included in the Party's NDC under Article 4 of the Paris Agreement, are covered by an activity under Article 6 of the Paris Agreement, or have been previously reported; instead of mandatory requirement to report on the basket of 7 gases.	• Limited capacity and resources to collect emission sources of PFC, SF_6, and NF_3 gases.	• Establish and enhance the data collection process in the IPPU sector. • Conduct capacity-building activities for data compilers.	Submission of BTR 3 in 2028, contingent on capacity-building, improvement in the data collection process, and available resources.
Time Series: Flexibility to 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 onward; instead of the mandatory requirement to report a consistent annual time series starting from 1990.	• Limited capacity and resources to generate annual GHG inventories starting from 1990. • Limited capacity and resources to perform recalculation for the previous GHG inventory years developed.	• Explore possible support for capacity-building activities and technical assistance to conduct recalculation. • Develop capacity to enhance reporting quality, timely, and accurate GHG inventory.	Submission of BTR 3 in 2028, contingent on support provided for technical assistance and available resources.

List of flexibilities applied in NDC tracking

Reporting Component and Flexibility Applied	Data and Information Gaps and Challenges	Action for Improvement	Improvement by
GHG Emission Reductions (achieved and expected): Each Party shall provide, to the extent possible, estimates of expected and achieved GHG emission reductions for its actions, policies, and measures in the tabular format; those developing country Parties that need flexibility in the light of their capacities with respect to this provision are instead encouraged to report this information.	• Limited capacity and resources to measure achieved and expected mitigated emissions • The MRV system has yet to be established based on the recently developed NDC Implementation Plan.	• Explore possible support to estimate and monitor mitigation impacts of implemented NDC. • Institutionalize central and sectoral MRV systems to track NDC implementation progress.	Submission of BTR 3 in 2028, contingent on support provided for technical assistance and available resources.
Projections for With Existing Measures, With Additional Measures, and Without Measures: Each Party shall report projections pursuant to paragraphs 93–101 below; those developing country Parties that need flexibility in the light of their capacities are instead encouraged to report these projections. Projections shall begin from the most recent year in the Party's NRI and extend at least 15 years beyond the next year ending in zero or five; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead extend their projections at least to the end point of their NDC under Article 4 of the Paris Agreement. Those developing country Parties that need flexibility in the light of their capacities can instead report using a less detailed methodology or coverage.	• Limited capacity and resources to provide comprehensive and accurate projections.	• Conduct capacity-building activities to enhance technical capacities to use modeling tools, improve data systems, and technical training to align with the full reporting guidelines. • Explore possible support for technical assistance to project emissions to comply with detailed reporting requirements. • Projections to be included in the 2025 PH NDC submission.	Submission of BTR 2 in 2026, contingent on support provided for technical assistance and available resources.

SOUTH AFRICA

As per paragraph 6 of the annex to decision 18/CMA.1, a summary table (Table 5.1) is provided below summarizing the use of flexibilities in this BTR. Four flexibilities are used in total.

Summary of the application of flexibility provisions

Flexibility provision (numbers refer to the paragraph number in the annex to decision 18/CMA.1)	Application and capacity constraint	Self-determined timeframe for Improvement
57. Each Party shall report a consistent annual time series starting from 1990; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead report data covering, at a minimum, the reference year/period for its NDC under Article 4 of the Paris Agreement and, in addition, a consistent annual time series from at least 2020 onwards.	Applied to all GHG emissions sources reported in the NID. Data to estimate emissions from 1990-1999 is not readily available, due to the fact that the transition from apartheid to democracy took place in 1994. Data on major emitting sectors was not readily available during apartheid, and access was restricted by law in some cases. Other data sources (e.g. land use data) also pose significant challenges. The GHG inventory team is currently compiling data on GHG emissions I the 1990s and hope to have completed this process by 2028.	2028
32. Each Party may use the notation key "NE" (not estimated) when the estimates would be insignificant in terms of level according to the following considerations: emissions from a category should only be considered insignificant if the likely level of emissions is below 0.05 per cent of the national total GHG emissions, excluding LULUCF, or 500 kilotonnes of carbon dioxide equivalent (kt CO2 eq), whichever is lower. The total national aggregate of estimated emissions for all gases from categories considered insignificant shall remain below 0.1 per cent of the national total GHG emissions, excluding LULUCF. Parties should use approximated activity data and default IPCC emission factors to derive a likely level of emissions for the respective category. Those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead consider emissions insignificant if the likely level of emissions is below 0.1 per cent of the national total GHG emissions, excluding LULUCF, or 1,000 kt CO2 eq, whichever is lower. The total national aggregate of estimated emissions for all gases from categories considered insignificant, in this case, shall remain below 0.2 per cent of the national total GHG emissions, excluding LULUCF.	Applied to: • Energy: Emissions from abandoned underground mines and post-mining activities (methane and CO2, CH4, and N2O). • IPPU: Subcategories involving N2O, HFCs, PFCs, and SF6, specifically in the electronics industry, solvents, and other product uses. • LULUCF: Emissions from organic soils (CO2 and N2O). • Waste: Emissions from waste incineration (CH4). South Africa currently lacks the data to determine more accurately the magnitude of these subcategories and will undertake further work on their occurrence and magnitude in the South Africa economy.	2028

Summary of the application of flexibility provisions (continued)

Flexibility provision (numbers refer to the paragraph number in the annex to decision 18/CMA.1)	Application and capacity constraint	Self-determined timeframe for Improvement
95. Projections shall begin from the most recent year in the Party's national inventory report and extend at least 15 years beyond the next year ending in zero or five; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead extend their projections at least to the end point of their NDC under Article 4 of the Paris Agreement.	Applied to the GHG emissions projection for the "with measures" scenario, which extends to 2030 (the end point of South Africa's most recent NDC). The in-house model which was used to develop the projection currently only produced results up to 2030 which match SA's requirements. The model's capabilities will be extended to produce projections 15 years beyond the next year ending in zero or five by 2028.	2028
102. Those developing country Parties that need flexibility in the light of their capacities with respect to paragraphs 93–101 above can instead report using a less detailed methodology or coverage.	Applied to the GHG emissions projection for the "with measures" scenario, for which only aggregate national emissions projections are reported (without any disaggregation), and for which a less detailed methodology is reported, and to the projection of key indicators, which is not reported. As above, the current in-house modelling framework does not report comprehensive disaggregated GHG emissions by gas, sector and source, and so these were not reported. The methodology and assumptions for the model are still being documented. The indicator used to track progress was not projected due to limitations in data, and a currently inadequate understanding of the key drivers for natural disturbances. Data challenges are reported in Annex VII of the NID.	2028

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UNITED ARAB EMIRATES

As a developing country party under the Paris Agreement, the UAE will leverage the flexibility provisions granted in Decision 18/CMA.1, considering its capabilities and resources. These provisions are designed to assist countries that may not have the same level of resources or technical capacity as Annex I parties. For this BTR submission, the UAE has identified and adopted flexibilities across three key areas: flexibilities related to the GHG inventory, mitigation policies, measures, actions, and plans; and projections.

Summary of flexibility provisions adhered to

Area of flexibility	Paragraph Reference (18/CMA.1, Annex)	Description of the Flexibility Provision	Rationale	Estimated Time Frames for Improvement
Key category analysis	25	Flexibility to identify key categories using a threshold no lower than 85 percent in place of the 95 percent threshold defined in the 2006 IPCC Guidelines.	Data availability and methodological challenges	Under assessment
Uncertainty assessment	29	Flexibility to provide, at a minimum, a qualitative discussion of uncertainty for key categories.	Data availability and methodological challenges	3-4 reporting cycles
QA/QC	34	In place of the mandatory requirement to elaborate a QA/QC plan, the developing country parties are encouraged to elaborate an inventory QA/QC plan in accordance with the 2006 IPCC Guidelines, including information on the inventory agency responsible for implementing QA/QC.	Methodological challenges	3-4 reporting cycles
Time series	57	In place of the mandatory requirement to report a consistent annual time series starting in 1990, flexibility to report data covering, at a minimum, the reference year or period for a Party's NDC and, in addition, a consistent annual time series from at least 2020 onward.	Data availability and methodological challenges	Under assessment
Mitigation policies and measures, actions and plans	85	In place of the mandatory requirement to report estimates of expected and achieved GHG emission reductions for their actions, policies and measures in tabular format as per Paragraph 82, developing country Parties that need flexibility in the light of their capacities are **encouraged** to report this information.	Capacity constraint Methodological challenges	Under assessment
Projections of greenhouse gas emissions and removals	92	In place of the mandatory requirement to report projections pursuant to paragraphs 93–101 of the MPGs, developing country Parties that need flexibility in the light of their capacities **are encouraged** to report this information.	Methodological challenges Capacity constraints	Under assessment

1. Flexibilities Regarding the National GHG Inventory

For an effective assessment of global progress, robust emission inventories are essential, as they provide critical insights into each country's advancements. It is therefore vital that all countries submit their emissions estimates under consistent frameworks to ensure comparability, consistency, and accuracy. The UNFCCC has established reporting guidelines to support this, but some requirements necessitate higher levels of capacity or resources. The UAE is utilising four flexibilities in its inventory reporting, related to: key category assessment, uncertainty assessment, Quality Assurance and Quality Control plans, and the length of time series data. These flexibilities are in place considering its national circumstances and resource constraints while the UAE is fully enabled to align with international reporting standards.

1.1 Key Category Analysis

Fulfilling the higher-tier reporting requirements presents a significant opportunity for the UAE to address existing data availability and methodological limitations. To this end, the flexibility provisions outlined in Paragraph 25 of Decision 18/CMA.1 are being utilised, applying the 85% threshold to identify key categories. This means that a category is designated as "key" if it accounts for 85% of the country's emissions or reflects significant changes in trends, in accordance with the methods defined in the 2006 IPCC Guidelines. One of the major challenges faced in the inventory process is limited data availability affecting estimation accuracy, being Tier 1 the most used even for key category sectors. There is a current gap regarding country-specific emissions factors and comprehensive statistics on fuel consumption, including fuels used for feedstock or non-energy purposes. Under the flexibility provisions, the UAE has shortened the list of key categories from 10 to 18 categories, to prioritise efforts to enhance estimations.

1.1.1 Key Category Analysis Improvement Plan and Proposed Timeline

The UAE is actively working to enhance the required activity data, methodologies, and emission factors to improve the reporting tier, not only for the categories identified under the flexibility provisions but also for most categories classified as key. A significant focus is being placed on improving fuel consumption statistics and developing country-specific emissions factors, alongside enhancing data collection processes. To implement a bottom-up approach, the IEQT will be instrumental, while alongside the relevant Ministries and Authorities will enhance energy statistics from a top-down perspective and will work on developing suitable calorific values for the fuels used in the country to allow for the formulation of country specific emission factors. The detailed list of actions aimed at enhancing the reporting of key categories and those under flexibility is provided through Chapter 1. The timeline for achieving the required level of data accuracy is currently under consideration, reflecting the complexity and breadth of the sectors, stakeholders, and institutional mandates involved.

1.2 Uncertainty Assessment

A quantitative assessment of uncertainty regarding emissions and removals across all sources and sink categories remains unaddressed due to challenges associated with data availability and the methodologies employed. This gap in the reporting process signifies that the prepared inventories do not incorporate a quantitative analysis of uncertainties. During the compilation process, the Excel data collection templates and compilation sheets lacked features to request uncertainty related information. This highlights the critical need for enhancement in future inventory compilations, as uncertainty assessments are essential for evaluating the reliability and accuracy of emissions estimates. Until recently, the UAE's primary considerations have been collaborating with different stakeholders to identify the major sources of emissions and sinks, obtain an initial understanding of the scale of emissions from these sources, and build the governance structures needed to support data collection and reporting. This foundational work is crucial towards the goal of establishing a robust emissions inventory system and creating the necessary institutional framework for regular reporting.

1.2.1 Uncertainty Assessment Improvement Plan and Proposed Timeline

The UAE expects to integrate quantitative uncertainty assessments into successive inventories, as the development of the Integrated Emissions Quantification Tool under the National MRV Transparency system progresses. The development and implementation of the IEQT that will incorporate the relevant

methodology for quantitative uncertainty assessment is anticipated to be concluded between two to three BTR reporting cycles. The development of the MRV Transparency System is being undertaken in a phased approach, incorporating a stepwise process where the system, in its final and fully functional stage, will enable linkage with the IPCC Inventory Software and facilitate a detailed uncertainty assessment. The lack of appropriate tools to conduct uncertainty and key category analysis in a detailed, transparent way was identified in Phase 1 as an existing gap in the inventory preparation process and it was recommended as a target for improvement to be addressed under the Phase 2 of project. This is being implemented in the IEQT development stage, where a core module of the IEQT will support the estimate of uncertainties for activity data and emission factors for specific categories as well as the overall inventory. As the supporting tools are developed, the inventory is also moving through the Tiers with additional data sources and emission factors being identified, improving the overall quality of the inventory and reducing the uncertainty with the qualitative uncertainty improved in the forthcoming GHG inventory. This is further expected to improve with accurate and reliable data provided by the reporting entities through the IEQT, and the uncertainty assessment will move towards a quantitative assessment, and the completion of the IEQT tool, associated capacity building, and its eventual use is expected to reduce the overall quantitative uncertainty as well in the future.

MOCCAE notes that this proposed timeframe should account for the technical aspects of system development and the critical task of ensuring that data providers fully understand and adopt the concept of uncertainty assessment. Many stakeholders involved in emissions reporting may still need to become familiar with the intricacies of quantifying uncertainty. It is anticipated that significant efforts will be required to educate and train data providers, helping them recognise the importance of incorporating uncertainty into their reports and guiding them through the practical steps involved. This period will also be critical for building MOCCAE's internal capacity. The team responsible for compiling and assessing emissions data will need time to develop the necessary skills to conduct thorough uncertainty assessments. This capacity-building process will involve understanding the different sources of uncertainty, how to quantify them, and how to interpret the results effectively. Additionally, it is anticipated that focus will be required on identifying key emissions categories with high levels of uncertainty and creating a plan to improve data accuracy and reduce variability in these areas over time. This combination of technical development, stakeholder education, and institutional capacity-building will ensure that the Integrated Emission Quantification Tool is utilised at its full potential in improving the quality and reliability of the UAE's emissions data.

1.2.2 Qualitative Estimate of Uncertainty

While the UAE is still working towards developing its capacity for comprehensive quantitative uncertainty assessments, Sections C to H from Chapter 1 include a qualitative discussion of uncertainties for the respective emissions based on sectoral sources of uncertainty outlined in the 2006 IPCC Guidelines. These chapters offer insights into the potential sources of variability and inaccuracies for each sector regarding activity data, emissions factors and any other model or assumption utilised. By examining the uncertainties qualitatively, the inventory report highlights areas where improvements could significantly enhance the reliability of the inventory in future iterations.

1.3 Quality Assurance/Quality Control Plan

Due to capacity constraints related to the implementation of the methodology, flexibility is required in developing a comprehensive Quality Assurance/Quality Control (QA/QC) plan in line with national efforts to further consolidate climate reporting and enhance transparency, the responsibility for compiling the national emissions inventory has recently transitioned from the Ministry of Energy and Infrastructure to the Ministry of Climate Change and Environment. This transfer aligns with MOCCAE's broader role in overseeing the country's commitments under the Paris Agreement and streamline the climate reporting processes and ensure greater coherence across climate-related data collection efforts and tracking.

As MOCCAE takes over this responsibility, it was impractical to develop and implement a comprehensive Quality Assurance/Quality Control (QA/QC) plan in accordance with the 2006 IPCC Guidelines within a limited timeframe for the current submission. However, MOCCAE acknowledges that establishing a QA/QC

system is vital for enhancing the reliability of the data submitted in fulfilment of the UAE's climate reporting obligations. Currently, some elements of the QA/QC plan have been formulated, including initial procedures for quality control of the data collected, external parties' validation and improvement plan. However, not all these elements have been fully operationalized in the latest edition of the national inventory. The ongoing development of the QA/QC plan reflects the complexity of the task. Establishing a fully functional system requires time, primarily as MOCCAE builds its internal capacity to manage the intricate emissions data collection and verification processes. MOCCAE is working on refining the procedures and mechanisms that will allow for more rigorous checks and validation of the data sources used in future inventories.

As these elements are gradually implemented, MOCCAE aims to achieve higher data integrity standards, ultimately strengthening the UAE's credibility in global climate reporting. In future reporting cycles, the full implementation of the QA/QC plan is expected to significantly enhance the accuracy of the UAE's emissions inventory, ensuring that it aligns with both national goals and international climate commitments.

1.3.1 QA/QC Improvement Plan and Proposed Timeline

As highlighted in Chapter 1, the UAE's MRV-Transparency system is a crucial component of the country's efforts to ensure accurate, transparent, and reliable climate reporting. A key feature of this MRV is the development of detailed guidance for implementing a comprehensive Quality QA/QC plan. This plan is integral to improving the quality and consistency of the national GHG emissions inventory.

The QA/QC plan is expected to be fully executed through the IEQT, which is still under development. Once operational, this tool will serve as the primary platform for verifying and validating emissions data, helping to streamline and standardise the process across various sectors. The QA/QC plan outlines clear roles and responsibilities for stakeholders involved in the inventory process, ensuring each party understands its specific data collection, verification, and reporting duties. This includes designating which government entities, data providers, and other relevant institutions are accountable for submitting accurate emissions data and who will review and validate this information.

By embedding QA/QC procedures directly into the inventory cycle, the UAE aims to create a continuous feedback loop where data is collected and assessed for quality and consistency before being finalised in national reports. This ensures that errors or discrepancies are identified and addressed early in the process, ultimately leading to more reliable and precise emissions estimates. While QA/QC development and implementation are projected to take 3-4 reporting cycles, the more considerable challenge lies in building the capacity of MOCCAE's compilation team to execute these QA/QC tasks effectively. Implementing such a sophisticated system requires more than technical development; it necessitates a significant investment in human resources and training.

MOCCAE plans to ensure its staff is well-versed in the technical aspects of emissions quantification and the detailed procedures of QA/QC. This includes developing expertise in identifying sources of uncertainty, applying appropriate quality checks, and interpreting data in line with international standards.

1.4 Time Series

The UAE leverages the flexibility provision granted on time series due to data availability and methodological challenges. The UAE notes that this inventory submission has been a steep learning in the compilation and reporting under the rigor required by the UNFCCC. Previous to the ETF, the reporting requirements were more flexible, allowing for broader estimates and less stringent. However, under the current transparency and accountability frameworks, the UAE acknowledges it is now expected to provide more accurate, comprehensive, and verifiable data on its emissions. This shift marks a significant step toward enhancing the country's climate reporting quality, ensuring alignment with international standards, and strengthening the reliability of the data used in climate policy and strategy decision-making processes.

The inventory compilation process in the UAE has undergone significant changes over the years, transitioning across three different entities since the country began reporting its emissions as part of the Kyoto Protocol commitments. This institutional shift has created challenges in maintaining continuity and consistency in the inventory compilation. One of the significant challenges has been the tracking and retrieval of previous compilation files and input data, as different government entities have facilitated and

managed this responsibility over time. The absence of a unified, standardised system has resulted in inconsistencies in methodologies, data sources, and reporting formats. For instance, previous inventories followed the 1996 IPCC methodology, which is now outdated. Addressing the continuity concerns offers an opportunity to build a reliable historical dataset that will enhance the capability to effectively compare emissions trends over time.

Additionally, the lack of historical data, particularly for key sectors like waste, poses another challenge in meeting UNFCCC requirements. The 1990-time series is a crucial benchmark for many countries' climates reporting. In the UAE's case, data for specific sectors, such as waste management, was not collected until recent years. This gap in historical data makes it challenging to provide a complete and accurate emissions profile stretching back to 1990.

1.4.1 Time Series Improvement Plan and Proposed Timeline

To address the gaps in the inventory time series, the country will create a dedicated task force comprising key government entities. The primary responsibility of this group will be to identify the specific data needed to complete the historical emissions inventory and to track down any existing data that may have been recorded in previous inventories. The proposed timeframe for launching this initiative is still under assessment, allowing the UAE first to establish greater clarity on the data fields that can realistically be collected and tracked.

During the interim period, it is anticipated that the IEQT will help define the data fields and the relevant stakeholders responsible to source this information. By taking the time to clearly map out the necessary data points and identify the appropriate entities involved, the country will be better positioned to undertake a more coordinated effort to reconstruct historical emissions data to the furthest extent where data availability will allow for a set of inventories that embody the principles of accuracy and completeness to still be maintained.

Given the scale and complexity of reconstructing such an extensive time series, particularly for sectors where historical data may be sparse or absent, capacity-building efforts will be essential. The task force is responsible for working closely with participating ministries and agencies to develop the technical expertise necessary to handle these gaps. This will include training in using IPCC guidelines for handling data gaps, understanding the methods for estimating emissions where data is unavailable, and developing protocols for data collection moving forward.

2. Flexibilities Regarding Mitigation Policies, Measures, Actions and Plans

The UAE is making use of the flexibility provisions available for developing countries, as outlined in Paragraph 85 Decision 18/CMA.1 for the reporting of expected and achieved GHG emissions of each mitigation policy, measure, action or plan. This approach acknowledges the varying capacities and methodological considerations faced during the reporting process. The requirements set forth particularly regarding the reporting of expected and achieved GHG emission reductions, present an opportunity to enhance the skills and resources of entities responsible for implementing specific mitigation measures.

Additionally, establishing a robust system for these entities to facilitate effective reporting in the BTR will further strengthen the UAE's commitment to transparency and accountability in climate action. While the UAE continues to build the required technical expertise, systems, and processes, the identified limitations impact the level of detail and precision expected for the BTR. However, efforts pursued through the MRV-Transparency system to be implemented will be leveraged upon to track progress of mitigation measures from specific entities to address the challenges and enhance future BTR submissions.

2.1 Estimates of Expected and Achieved GHG Emissions for Respective Actions, Policies and Measures

For all measures reported in Chapter 2, the flexibility provision has been employed due to the necessity for entities implementing mitigation measures to possess adequate capacity for validating the quantities of GHG emissions and the associated methodologies as required by the MPG format in a unified national method. Consequently, by utilising this flexibility, information has been presented in both narrative and tabular formats, detailing the name, description, objectives, type of instrument (regulatory, economic, or

other), status (planned, adopted, or implemented), affected sectors, gases impacted, the year of implementation commencement, and the responsible entities. However, it is acknowledged that there are gaps in information that need to be addressed in order to meet the transparency requirements of BTR regarding annual GHG emissions reduction achieved and expected. Challenges arise from gaps in reporting of data linked to each measure and from ensuring that the methodology for GHG emissions estimation meets the transparency requirements of the BTR. Consequently, the UAE acknowledges the need to enhance and unify the tracking of GHG emission reductions associated with each mitigation measure implemented by the respective entities. This improvement requires the development of relevant institutional capabilities and technical expertise to ensure compliance.

2.2 Proposed Improvement Plan and Expected Timelines

To facilitate the tracking and reporting of progress on key mitigation measures as mandated by the MPGs, it is essential to establish and implement a tracking system that consolidates the various GHG emission reduction estimates associated with each measure. This will enable the UAE to effectively monitor its progress toward its NDC. The implementation of a progress tracking system will standardise the emissions estimation methodology and ensure that all information is stored in a centralised location. This system could take the form of a basic Excel spreadsheet, a model, or dedicated tools integrated into the MRV Transparency system.

Utilizing a unified tracking system will encourage each entity responsible for implementing mitigation measures to evaluate their effectiveness across different sectors and report their findings to MOCCAE. Upon receiving the GHG emissions data and the associated quantification methodology, MOCCAE will review and validate the information prior to submission to the BTR. The ongoing plans for subsequent stages of designing and implementing the MRV Transparency System are anticipated to address the primary gaps regarding estimates of achieved and expected GHG emissions reductions for respective actions, policies and measures.

The MRV Transparency System is also anticipated to facilitate and capture standardised data collection and reporting platform for implementing entities. However, their timeframes for implementation are still under assessment, as the country considers the gradual integration of various components (initial assessments, stakeholder engagements, design, operationalisation and continuous improvement) into the MRV system and ensures that each stage can be evaluated and updated relative to common feedback and performance metrics.

3. Flexibilities on Projections of GHG Emissions and Removals

In recognition of its capabilities, the UAE invokes the flexibility provisions outlined in Paragraph 92 of Decision 18/CMA.1The rationale for utilising this flexibility stems from the capacity and methodological constraints faced, which impact the completeness of the required information. Efforts to address these limitations and close existing gaps will be guided by the proposed improvement plan.

3.1 Proposed Improvement Plan and Expected Timelines

The proposed improvement plan encompasses an inclusion of the required parameters for projections in the preparation process of the subsequent NDCs. As the UAE continues its commitment to addressing the identified gaps, it is important to acknowledge that capacity-building and resource development within implementing entities are ongoing and evolving processes. These efforts are anticipated to progress over subsequent reporting cycles, steadily strengthening capabilities of these entities to improve the quality, depth, and completeness of the information provided.

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