



**Alianza para la Transparencia**  
en el Acuerdo de París  
Grupo Regional de América Latina y el Caribe



**REPÚBLICA DE PANAMÁ**  
— GOBIERNO NACIONAL —



**CBIT-GSP**  
CLIMATE TRANSPARENCY

# Tracking progress of the mitigation commitments of NDCs CTF tables 6 to 11

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# Reporting projections under the ETF

Para MPGs	Type	Requirement
92	Shall / Encouraged	<b>Report projections</b> with flexibility for developing countries
93	Shall	Indicative of the impact of PaMs, <b>not for progress assessment</b> unless specified
94	Shall / May	Report ' <b>with measures</b> ' projection and optionally others
95	Shall	Projections to start from most recent year and <b>extend at least 15 years</b> , with flexibility for developing countries
96	Should	<b>Methodology</b> description including models, changes, assumptions, and sensitivity analysis
97	Shall	Provide projections of key <b>indicators</b> for NDC progress
98	Shall	Include <b>sectoral</b> , by <b>gas</b> and national <b>total</b> projections using a consistent metric
99	Shall	Present projections relative to actual inventory data
100	Shall	Provide emission projections with and without LULUCF
101	Shall	Present projections in graphical and tabular formats

# Table of tables

<b>Issue</b>	<b>Summary of GHG inventory</b>	<b>Scenarios (WEM, WAM, WOM)</b>	<b>Indicators</b>	<b>Assumptions and parameters</b>
Tale #	6	7,8,9	10	11
Para in MPG	91	94	97	96 a

# Summary of GHG emissions and removals

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>6. Summary of greenhouse gas emissions and removals in accordance with the common reporting table 10 emission trends –summary</b>												
2	According to paragraph 91 of the MPGs, each Party that submits a stand-alone national inventory report shall provide a summary												
3	of its GHG emissions and removals. This information shall be provided for those reporting years corresponding to the Party's												
4	most recent national inventory report, in a tabular format.												

National inventory report may be submitted as a stand-alone report or as a component of a biennial transparency report (paragraph 12 of chapter II of MPGs) and consists of a national inventory document and the common reporting tables (paragraph 38 of chapter II of MPGs).



# Projections of GHG emissions and removals

Tables: 7,8,9

# Table 7: With existing measures scenario (WEM)

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

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

# Table 8: With additional measures scenario (WAM)

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

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



# Table 9: Without measures scenario (WOM)

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

**9. Information on projections of greenhouse gas emissions and removals under a 'without measures' scenario<sup>a,b</sup>**

	Most recent year in the Party's national inventory report (kt CO <sub>2</sub> eq) <sup>c</sup>	Projections of GHG emissions and removals, (kt CO <sub>2</sub> eq) <sup>c</sup>		
	2016	2025	2030	2035
<b>Sector<sup>d</sup></b>				
Energy	3013		4316	
Transport	1169		1514	
Industrial processes and product use	311		534	
Agriculture	158		188	
LULUCF	-330		-293	
Waste	559		635	
Other (specify)				
<b>Gas</b>				
CO <sub>2</sub> emissions including net CO <sub>2</sub> from LULUCF				
CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF				
CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF				
CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF				
N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF				
N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF				
HFCs				
PFCs				
SF <sub>6</sub>				
NF <sub>3</sub>				
Other (specify)				
<b>Total with LULUCF</b>	4881		6894	
<b>Total without LULUCF</b>	5211		7187	

# Report flexibility

5. *Decides* that those developing country Parties that need flexibility in the light of their capacities may, when reporting on a provision for which they have a capacity constraint, choose one or more of the following options, as applicable, to reflect the application of the specific flexibility provisions included in the annex to decision 18/CMA.1 in the common reporting tables and common tabular formats, as contained in annexes I and II, respectively:

(a) Use the new notation key “FX” (flexibility) in the relevant common reporting tables or common tabular formats, providing an explanation of how the specific flexibility provision has been applied in the corresponding documentation box;

(b) 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;

**7. Information on projections of greenhouse gas emissions and removals under a 'with measures' scenario<sup>a,b</sup>**

	<i>Most recent year in the Party's national inventory report (kt CO<sub>2</sub> eq)<sup>c</sup></i>				<i>Projections of GHG emissions and removals, (kt CO<sub>2</sub> eq)<sup>c</sup></i>			
					2025	2030	2035	
	2020	2025	2030	2035				
CO <sub>2</sub> emissions excluding net CO <sub>2</sub> from LULUCF	5000	4800	4500	FX				
CH <sub>4</sub> emissions including CH <sub>4</sub> from LULUCF	FX	FX	FX	FX				
CH <sub>4</sub> emissions excluding CH <sub>4</sub> from LULUCF	FX	FX	FX	FX				
N <sub>2</sub> O emissions including N <sub>2</sub> O from LULUCF	FX	FX	FX	FX				
N <sub>2</sub> O emissions excluding N <sub>2</sub> O from LULUCF	FX	FX	FX	FX				
HFCs	FX	FX	FX	FX				
PFCs	FX	FX	FX	FX				
SF <sub>6</sub>	FX	FX	FX	FX				
NF <sub>3</sub>	FX	FX	FX	FX				
Other (specify)	FX	FX	FX	FX				
<b>Total with LULUCF</b>	FX	FX	FX	FX				
<b>Total without LULUCF</b>	5000	4800	4500	FX				

<sup>a</sup> Each Party shall report projections pursuant to paras. 93–101 of the MPGs; those developing country Parties that need flexibility in the light of their capacities are instead encouraged to report such projections (para. 92 of the MPGs).



## **Exercises with CTF tables:** Examples of projections reported

# Exercises with CTF tables: Examples of projections reported

For purposes of this exercise, we will also use examples of a variety of countries: Australia, New Zealand, Canada, USA, Ireland, Japan

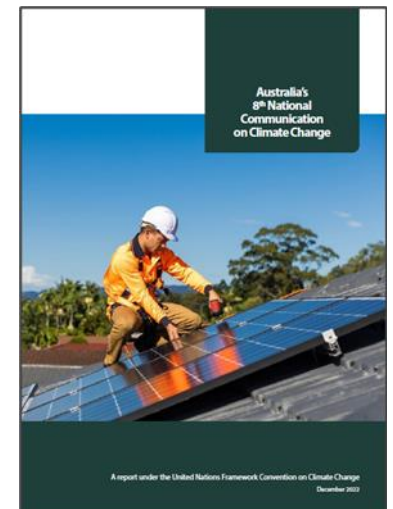
All the National Communications of Annex I Parties can be **downloaded** at: <https://unfccc.int/NC8>

# Exercises with CTF tables

- **1st Exercise: Filling Tables CTF 7-11. Examples of Projections already reported**
- 2nd Exercise: Filling Table CTF 7. Use your Table B (optional)

# Exercises with CTF tables

1. **Australia** presents in Table #5.1 of its 8<sup>th</sup> National Communication (page 131), projections of GHG emissions by sector and gas.
  - a) With this information available, which CTF Tables from 7 to 11 can be filled?
  - b) Fill the corresponding CTF tables with the data provided in Table #5.1 of Australia's 8th National Communication. Consider 2020 as the most recent year in the Party's national inventory report.



# Exercises with CTF tables

2. **New Zealand** presents in Tables #5.3 and 5.4 of its 8th National Communication (page 166), key assumptions for modelling their GHG projections.

a) With this information available, which CTF Tables from 7 to 11 can be filled?

b) Fill the corresponding CTF tables with the data provided in Tables #5.3 and 5.4 of New Zealand's 8th National Communication. Consider 2020 as the most recent year in the Party's national inventory report.





# Exercises with CTF tables

3. **New Zealand** presents in Table #5.6 of its 8th National Communication (page 168), WEM, WOM and WAM projections of GHG emissions by gas.

a) With this information available, which CTF Tables from 7 to 11 can be filled?

b) Fill one of the corresponding CTF tables with the data provided in #Table 5.6 of New Zealand's 8th National Communication. Consider 2020 as the most recent year in the Party's national inventory report.



# Exercises with CTF tables

4. [Canada](#) presents in Table #5-1 of its 8th National Communication (page 251), projections of GHG emissions by sector.

a) With this information available, which CTF Tables from 7 to 11 can be filled?

b) Do you identify specific problems to fill the CTF tables with the data provided by Canada in this Table?

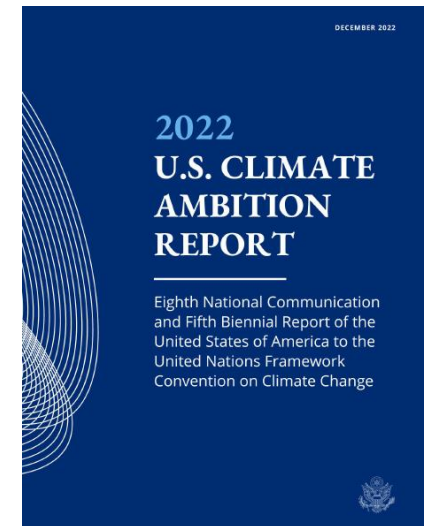


# Exercises with CTF tables

5. **USA** presents in Table #5.1 of its 8th National Communication (page 138), projections of GHG emissions by gas and in table #5.2, projections of GHG emissions by sector.

a) With this information available, which CTF Tables from 7 to 11 can be filled?

b) Fill the corresponding CTF tables with the data provided in Table #5.2 of USA's 8th National Communication. Consider 2020 as the most recent year in the Party's national inventory report.

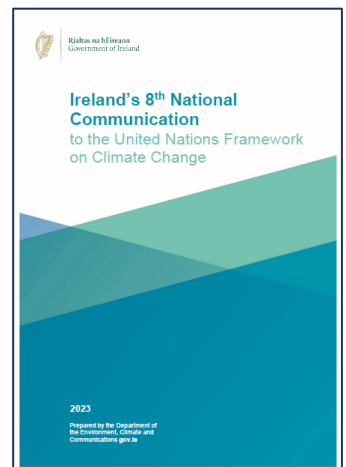


# Exercises with CTF tables

6. Ireland presents in Table #5.4 and 5.5 of its 8th National Communication (page 211), projections of GHG emissions by gas for the WEM scenario and in Table #5.6, projections of GHG emissions by gas for the WAM scenario.

a) With this information available, which CTF Tables from 7 to 11 can be filled?

b) Fill the corresponding CTF tables with the data provided in Table #5.4 of Ireland's 8th National Communication. Consider 2020 as the most recent year in the Party's national inventory report.

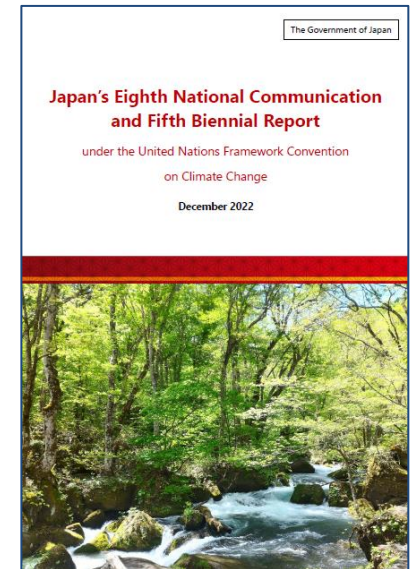


# Exercises with CTF tables

7. **Japan** presents in Table #4-1 of its 8th National Communication (page 207), projections of GHG emissions by sector and gas.

a) With this information available, which CTF Tables from 7 to 11 can be filled?

b) Fill the corresponding CTF tables with the data provided in Table #5.1 of Japan's 8th National Communication. Consider 2020 as the most recent year in the Party's national inventory report.



# Projections key indicators

Table 10


# Reporting projections under the ETF

Para MPGs	Type	Requirement
92	Shall / Encouraged	<b>Report projections</b> with flexibility for developing countries
93	Shall	Indicative of the impact of PaMs, <b>not for progress assessment</b> unless specified
94	Shall / May	Report ' <b>with measures</b> ' projection and optionally others
95	Shall	Projections to start from most recent year and <b>extend at least 15 years</b> , with flexibility for developing countries
96	Should	<b>Methodology</b> description including models, changes, assumptions, and sensitivity analysis
97	<b>Shall</b>	97. Each Party shall also <b>provide projections of key indicators</b> to determine progress towards its NDC under Article 4 of the Paris Agreement.
98	Shall	Include <b>sectoral</b> , by <b>gas</b> and national <b>total</b> projections using a consistent metric
99	Shall	Present projections relative to actual inventory data
100	Shall	Provide emission projections with and without LULUCF
101	Shall	Present projections in graphical and tabular formats

# 10. Projections of key indicators

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





# Key underlying assumptions and parameters used for projections

Table 11

# Reporting projections under the ETF

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92	Shall / Encouraged	<b>Report projections</b> with flexibility for developing countries
93	Shall	Indicative of the impact of PaMs, <b>not for progress assessment</b> unless specified
94	Shall / May	Report ' <b>with measures</b> ' projection and optionally others
95	Shall	Projections to start from most recent year and <b>extend at least 15 years</b> , with flexibility for developing countries
96	<b>Should</b>	96. Each Party should provide information in describing the <b>methodology</b> used to develop the projections. This information should include: <ul style="list-style-type: none"> <li>• (a) Models and/or approaches used and <b>key underlying assumptions and parameters used for projections</b> (e.g. gross domestic product growth rate/level, population growth rate/level);</li> </ul>
97	Shall	97. Each Party shall also provide projections of key indicators to determine progress towards its NDC under Article 4 of the Paris Agreement.
98	Shall	Include <b>sectoral</b> , by <b>gas</b> and national <b>total</b> projections using a consistent metric
99	Shall	Present projections relative to actual inventory data
100	Shall	Provide emission projections with and without LULUCF
101	Shall	Present projections in graphical and tabular formats

# 11. Key underlying assumptions and parameters used for projections

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

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

# Fill in CTF Tables 10 and 11 with data for your country

Data for your country: **Table B: Projections in “Tables to be filled by participants”**

Fill in Tables CTF 10 and 11 in the file *“CTF\_Tracking\_Progress\_NDC\_Template\_Clean”*