

The 20<sup>th</sup> Workshop on  
GHG Inventories in Asia  
(WGIA20)

Session II: Changes in Reporting Under the Paris Agreement

# Overview on GHG Inventory Reporting under the Paris Agreement

Tomoyuki AIZAWA, Programme Officer, Transparency Division

27 June 2023, Tomakomai, Japan

**#Together4Transparency**

---



United Nations  
Climate Change

---

# What are the requirements for GHG Inventory reporting under the Paris Agreement?



**United Nations**  
Climate Change Secretariat

## Overview of reporting requirements under Article 13



United Nations  
Climate Change Secretariat

### All Parties shall

- » **National inventory report of GHG emissions** (Article 13, para. 7(a)), which consists of a national inventory document (NID) and common reporting tables (CRT)
- » **Progress made in implementing and achieving the NDC** (Article 13, para. 7(b)), which shall be reported in a narrative and common tabular format (CTF)

### All Parties should, as appropriate

- » **Climate change impacts and adaptation** (Article 13, para. 8)

+

### Developed country Parties shall and other Parties that provide support should

- » **Financial, technology transfer and capacity-building support provided to developing country Parties** under Articles 9–11 (Article 13, para. 9), to be reported in textual and/or common tabular format (CTF)

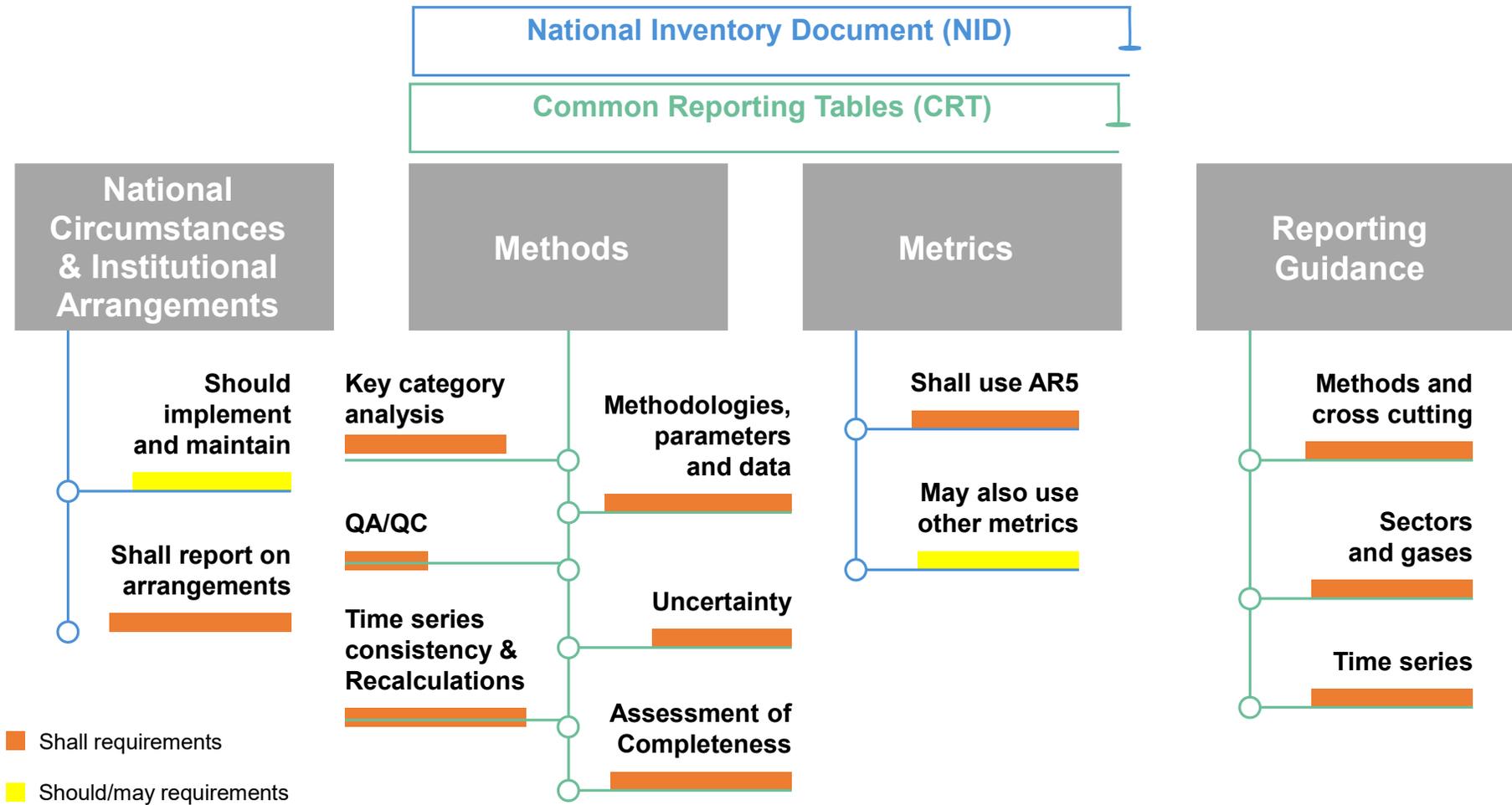
### Developing country Parties should

- » **Financial, technology transfer and capacity-building support needed and received** under Articles 9–11 (Article 13, para. 10), to be reported in textual and/or common tabular format (CTF)

# National Inventory Report - overview



United Nations  
Climate Change Secretariat





## Methods/Guidelines

- 2006 IPCC Guidelines are required, along with any subsequent version/refinement agreed upon by the CMA Parties encouraged to apply the 2013 Wetlands Supplement
- Countries always encouraged to apply higher-tier methods and factors
- Energy, Industrial Processes and Product Use, Agriculture, Waste, Land use, Land Use Change and Forestry
- Use global warming potential values from AR5

## Gases

- **Shall**: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, NF<sub>3</sub> (with flexibility)
- **Should**: pre-cursor gases (CO, NO<sub>x</sub>, NMVOCs and SO<sub>x</sub>)
- **May** report indirect CO<sub>2</sub> from atmospheric oxidation of CH<sub>4</sub>, CO and NMVOCs; if choose to, report total GHG emissions with and without indirect CO<sub>2</sub>
- **Should** report indirect N<sub>2</sub>O other than ag/LULUCF as a memo item (not included in national totals)
- **May** report other substances that have an impact on climate

## Time series

- **Shall**: report consistent time series from 1990 (with flexibility)
- **Shall**: Latest reporting year no more than 2 years prior to the submission year (with flexibility)



## Key category analysis

- **Shall** identify those categories that contribute most to the level or trend of emissions; generally use higher tier methods for key categories (with flexibility)

## Time series consistency & recalculations

- **Should** use the same methods over time, as well as approach to AD and EFs
- **Should** use IPCC splicing techniques to fill in gaps in time series
- **Shall** perform recalculations in accordance with IPCC Guidelines

## Uncertainty Assessment

- **Shall** quantitatively assess uncertainty and qualitatively discuss uncertainty for all source and sink categories, for at least the starting year and latest year (with flexibility)



## Completeness Assessment

- **Should** indicate sources/sinks included in IPCC Guidelines, but not reported.
- **Shall** use notation keys where numerical data not reported, describing why the emissions for specific categories are not reported.
- **May** exclude “insignificant” categories from reporting, where insignificant defined as categories being 500 kt CO<sub>2</sub> eq or 0.05% of national emissions, whichever is lower. Total sum of categories considered insignificant must remain below 0.1% of total national emissions **(with flexibility)**
- Once categories are reported, Parties **shall** continue reporting the category

## QA/QC

- **Shall** elaborate an inventory QA/QC plan **(with flexibility)**
- **Shall** implement general QA/QC procedures **(with flexibility)**
- **Should** apply category-specific QC procedures for key categories and for categories in which significant methodological changes and/or data revisions have occurred.
- **Should** conduct a basic peer review of inventory
- **Should** compare sectoral estimates with the reference approach, and report results



## Flexibility Provisions

- The ETF provides built-in flexibility to those developing countries that need it owing to their national capacities
- Capacity-building and support from developed country Parties will be crucial to facilitating improvement in reporting over time
- MPGs specify the flexibility that is available in the scope, frequency and level of detail of reporting, and in the scope of the review
- The application of a flexibility provided for in the provisions of these MPGs is self-determined

## Least Developed Countries (LDCs) and Small Island Developing States (SIDS)

- Special circumstances of the least developed countries and small island developing states were recognized
- LDCs/SIDS may submit the information referred to in Article 13 (paras. 7, 8, 9 and 10) at their discretion

## Support and capacity building

- Support shall be provided to developing countries for the implementation of Article 13
- Support shall be provided continuously for building transparency-related capacity of developing countries

# Flexibility provisions for national GHG inventory



United Nations  
Climate Change Secretariat

Flexibility (annex to Dec. 18/CMA.1)	Flexibility provisions for those developing country Parties that need it in the light of their capacities
<b>Key categories (para. 25)</b>	Identify key categories using a threshold no lower than 85% (instead of 95%)
<b>Uncertainty assessment (para. 29)</b>	Provide qualitative discussion of uncertainty for key categories both latest inventory year/ trend, instead of quantitatively estimating and qualitatively discussing uncertainty for all categories for at least the starting year and the latest reporting year and the trend.
<b>Completeness (para. 32)</b>	Consider emissions insignificant if the likely level of emissions is below 0.1% of total GHG emissions, excluding LULUCF, or 1,000 kt CO <sub>2</sub> eq, whichever lower (as opposed to 0.05% or 500 kt CO <sub>2</sub> eq). Total emissions for all gases from categories considered insignificant shall remain below 0.2% total GHG emissions, excluding LULUCF, as opposed to 0.1%
<b>QA/QC (paras. 34 and 35)</b>	Encouraged to elaborate an inventory QA/QC plan including information on the inventory agency responsible for implementing QA/QC (as opposed to a requirement to develop a QA/QC plan)
	Encouraged to implement and provide information on general inventory QC procedures in accordance with their QA/QC plan (as opposed to required to implement and provide information)
<b>Gases (para. 48)</b>	Report at least 3 gases (CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O). Also any of the 4 gases (HFCs, PFCs, SF <sub>6</sub> and NF <sub>3</sub> ) included in NDC under Art. 4 or that are covered by an activity under Art. 6, or have been previously reported (as opposed to reporting all 7 gases)
<b>Time series (paras. 57 and 58)</b>	Report data covering the reference year/period for the NDC and, in addition, a consistent annual time series from at least 2020 onward (as opposed to reporting a continuous time series from 1990 onwards).
	Latest reporting year shall be no more than 3 years prior to submission (vs no more than 2 years for other Parties)

- Method, Section II, D. Metrix, §37  
Appendix 8.A: Lifetimes, Radiative Efficiencies and Metric Values
- Decision 5/CMA.3, §25 clarifies that the 100-year time-horizon global warming potential values referred to in decision 18/CMA.1, annex, paragraph 37, shall be those listed in table 8.A.1 of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, excluding the value for fossil methane;
- [https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_Chapter08\\_FINAL.pdf#page=73](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf#page=73)

## Appendix 8.A: Lifetimes, Radiative Efficiencies and Metric Values

**Table 8.A.1 |** Radiative efficiencies (REs), lifetimes/adjustment times, AGWP and GWP values for 20 and 100 years, and AGTP and GTP values for 20, 50 and 100 years. Climate-carbon feedbacks are included for CO<sub>2</sub>, while no climate feedbacks are included for the other components (see discussion in Sections 8.7.1.4 and 8.7.2.1, Supplementary Material and notes below the table; Supplementary Material Table 8.SM.16 gives analogous values including climate-carbon feedbacks for non-CO<sub>2</sub> emissions). For a complete list of chemical names and CAS numbers, and for accurate replications of metric values, see Supplementary Material Section 8.SM.13 and references therein.

Acronym, Common Name or Chemical Name	Chemical Formula	Lifetime (Years)	Radiative Efficiency (W m <sup>-2</sup> ppb <sup>-1</sup> )	AGWP 20-year (W m <sup>-2</sup> yr kg <sup>-1</sup> )	GWP 20-year	AGWP 100-year (W m <sup>-2</sup> yr kg <sup>-1</sup> )	GWP 100-year	AGTP 20-year (K kg <sup>-1</sup> )	GTP 20-year	AGTP 50-year (K kg <sup>-1</sup> )	GTP 50-year	AGTP 100-year (K kg <sup>-1</sup> )	GTP 100-year
Carbon dioxide	CO <sub>2</sub>	see*	1.37e-5	2.49e-14	1	9.17e-14	1	6.84e-16	1	6.17e-16	1	5.47e-16	1
Methane	CH <sub>4</sub>	12.4†	3.63e-4	2.09e-12	84	2.61e-12	28	4.62e-14	67	8.69e-15	14	2.34e-15	4
Fossil methane‡													
Nitrous Oxide	N <sub>2</sub> O	121†	3.00e-3	6.58e-12	264	2.43e-11	265	1.89e-13	277	1.74e-13	282	1.28e-13	234



# Metrics (F-gases)

- [https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_Chapter08\\_FINAL.pdf#page=74](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf#page=74)
- [https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_Chapter08\\_FINAL.pdf#page=75](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf#page=75)
- [https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_Chapter08\\_FINAL.pdf#page=76](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf#page=76)

Table 8.A.1 (continued)

Acronym, Common Name or Chemical Name	Chemical Formula	Lifetime (Years)	Radiative Efficiency (W m <sup>-2</sup> ppb <sup>-1</sup> )	AGWP 20-year (W m <sup>-2</sup> yr kg <sup>-1</sup> )	GWP 20-year	AGWP 100-year (W m <sup>-2</sup> yr kg <sup>-1</sup> )	GWP 100-year
<b>Hydrofluorocarbons</b>							
HFC-23	CHF <sub>3</sub>	222.0	0.18	2.70e-10	10,800	1.14e-09	12,400
HFC-32	CHF <sub>2</sub>	5.2	0.11	6.07e-11	2430	6.21e-11	677
HFC-41	CHF	2.8	0.02	1.07e-11	427	1.07e-11	116
HFC-125	CHF <sub>2</sub> CF <sub>3</sub>	28.2	0.23	1.52e-10	6090	2.91e-10	3170
HFC-134	CHF <sub>2</sub> CHF <sub>2</sub>	9.7	0.19	8.93e-11	3580	1.02e-10	1120
HFC-134a	CHF <sub>2</sub> CF <sub>3</sub>	13.4	0.16	9.26e-11	3710	1.19e-10	1300
HFC-143	CHF <sub>2</sub> CHF <sub>2</sub>	3.5	0.13	3.00e-11	1200	3.01e-11	328
HFC-143a	CHF <sub>2</sub> CF <sub>3</sub>	47.1	0.16	1.73e-10	6940	4.41e-10	4800
HFC-152	CHF <sub>2</sub> CHF <sub>2</sub>	0.4	0.04	1.51e-12	60	1.51e-12	16
HFC-152a	CHF <sub>2</sub> CHF <sub>2</sub>	1.5	0.10	1.26e-11	506	1.26e-11	138
HFC-161	CHF <sub>2</sub> CHF <sub>2</sub>	66.0 days	0.02	3.33e-13	13	3.33e-13	4
HFC-227ca	CF <sub>3</sub> CF <sub>2</sub> CHF <sub>2</sub>	28.2	0.27	1.27e-10	5080	2.42e-10	2640
HFC-227ea	CF <sub>3</sub> CF <sub>2</sub> CF <sub>3</sub>	38.9	0.26	1.34e-10	5360	3.07e-10	3350
HFC-236cb	CHF <sub>2</sub> CF <sub>2</sub> CF <sub>3</sub>	13.1	0.23	8.67e-11	3480	1.11e-10	1210
HFC-236ea	CHF <sub>2</sub> CHF <sub>2</sub> CF <sub>3</sub>	11.0	0.30*	1.03e-10	4110	1.22e-10	1330
HFC-236fa	CF <sub>3</sub> CH <sub>2</sub> CF <sub>3</sub>	242.0	0.24	1.73e-10	6940	7.39e-10	8060
HFC-245ca	CHF <sub>2</sub> CF <sub>2</sub> CHF <sub>2</sub>	6.5	0.24*	6.26e-11	2510	6.56e-11	716
HFC-245cb	CF <sub>3</sub> CF <sub>2</sub> CH <sub>3</sub>	47.1	0.24	1.67e-10	6680	4.24e-10	4620
HFC-245ea	CHF <sub>2</sub> CHF <sub>2</sub> CHF <sub>2</sub>	3.2	0.16*	2.15e-11	863	2.16e-11	235
HFC-245eb	CHF <sub>2</sub> CHF <sub>2</sub> CF <sub>3</sub>	3.1	0.20*	2.66e-11	1070	2.66e-11	290
HFC-245fa	CHF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub>	7.7	0.24	7.29e-11	2920	7.87e-11	858
HFC-263bb	CH <sub>2</sub> CF <sub>2</sub> CH <sub>2</sub>	1.2	0.10*	6.93e-12	278	6.93e-12	76
HFC-272ca	CH <sub>2</sub> CF <sub>2</sub> CH <sub>3</sub>	2.6	0.07	1.32e-11	530	1.32e-11	144
HFC-329p	CHF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>3</sub>	28.4	0.31	1.13e-10	4510	2.16e-10	2360
HFC-365mfc	CHF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>3</sub>	8.7	0.22	6.64e-11	2660	7.38e-11	804
HFC-43-10mee	CF <sub>3</sub> CHF <sub>2</sub> CHF <sub>2</sub> CF <sub>3</sub>	16.1	0.42*	1.08e-10	4310	1.51e-10	1650
HFC-1132a	CH <sub>2</sub> =CF <sub>2</sub>	4.0 days	0.004†	3.87e-15	<1	3.87e-15	<1
HFC-1141	CH <sub>2</sub> =CHF	2.1 days	0.002†	1.54e-15	<1	1.54e-15	<1
(Z)-HFC-1225ye	CF <sub>2</sub> CF=CHF(Z)	8.5 days	0.02	2.14e-14	<1	2.14e-14	<1
(E)-HFC-1225ye	CF <sub>2</sub> CF=CHF(E)	4.9 days	0.01	7.25e-15	<1	7.25e-15	<1
(Z)-HFC-1234ze	CF <sub>2</sub> CH=CHF(Z)	10.0 days	0.02	2.61e-14	1	2.61e-14	<1
HFC-1234yf	CF <sub>2</sub> CF=CH <sub>2</sub>	10.5 days	0.02	3.22e-14	1	3.22e-14	<1
(E)-HFC-1234ze	trans-CF <sub>2</sub> CH=CHF	16.4 days	0.04	8.74e-14	4	8.74e-14	<1
(Z)-HFC-1336	CF <sub>2</sub> CH=CHF(Z)	22.0 days	0.07†	1.54e-13	6	1.54e-13	2

(continued on next page)

Table 8.A.1 (continued)

Acronym, Common Name or Chemical Name	Chemical Formula	Lifetime (Years)	Radiative Efficiency (W m <sup>-2</sup> ppb <sup>-1</sup> )	AGWP 20-year (W m <sup>-2</sup> yr kg <sup>-1</sup> )	GWP 20-year	AGWP 100-year (W m <sup>-2</sup> yr kg <sup>-1</sup> )	GWP 100-year
<b>Chlorocarbons and Hydrochlorocarbons</b>							
HFC-1243zf	CF <sub>2</sub> CH=CH <sub>2</sub>	7.0 days	0.01	1.37e-14	1	1.37e-14	<1
HFC-1345zfc	C <sub>2</sub> F <sub>5</sub> CH=CH <sub>2</sub>	7.6 days	0.01	1.15e-14	<1	1.15e-14	<1
3,3,4,4,5,5,6,6,6-Nonafluorocyclohex-1-ene	C <sub>6</sub> F <sub>9</sub> CH=CH <sub>2</sub>	7.6 days	0.03	1.25e-14	<1	1.25e-14	<1
3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorocyclohex-1-ene	C <sub>6</sub> F <sub>13</sub> CH=CH <sub>2</sub>	7.6 days	0.03	9.89e-15	<1	9.89e-15	<1
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Hep-tadecafluorocyclohex-1-ene	C <sub>6</sub> F <sub>17</sub> CH=CH <sub>2</sub>	7.6 days	0.03	8.52e-15	<1	8.52e-15	<1
<b>Bromocarbons, Hydrobromocarbons and Halons</b>							
Methyl chloroform	CH <sub>2</sub> Cl <sub>2</sub>	5.0	0.07	1.44e-11	578	1.47e-11	160
Carbon tetrachloride	CCl <sub>4</sub>	26.0	0.17	8.69e-11	3480	1.59e-10	1730
Methyl chloride	CH <sub>3</sub> Cl	1.0	0.01*	1.12e-12	45	1.12e-12	12
Methylene chloride	CH <sub>2</sub> Cl <sub>2</sub>	0.4	0.03*	8.18e-13	33	8.18e-13	9
Chloroform	CHCl <sub>3</sub>	0.4	0.08	1.50e-12	60	1.50e-12	16
1,2-Dichloroethane	CH <sub>2</sub> ClCH <sub>2</sub> Cl	65.0 days	0.01	8.24e-14	3	8.24e-14	<1
<b>Fully Fluorinated Species</b>							
Nitrogen trifluoride	NF <sub>3</sub>	590.0	0.20	3.19e-10	12,800	1.47e-09	16,100
Sulphur hexafluoride	SF <sub>6</sub>	3,200.0	0.57	4.37e-10	17,500	2.16e-09	23,500
(Trifluoromethyl) sulphur pentafluoride	SF <sub>5</sub> CF <sub>3</sub>	800.0	0.59	3.36e-10	13,500	1.60e-09	17,400
Sulphury fluoride	SO <sub>2</sub> F <sub>2</sub>	36.0	0.20	1.71e-10	6840	3.76e-10	4090
PFC-14	CF <sub>4</sub>	50,000.0	0.09	1.22e-10	4880	6.08e-10	6630
PFC-116	C <sub>2</sub> F <sub>6</sub>	10,000.0	0.25	2.05e-10	8210	1.02e-09	11,100
PFC-216	C-C <sub>2</sub> F <sub>6</sub>	3,000.0	0.23*	1.71e-10	6850	8.44e-10	9200
PFC-218	C <sub>2</sub> F <sub>8</sub>	2,600.0	0.28	1.66e-10	6640	8.16e-10	8900
PFC-318	C-C <sub>2</sub> F <sub>8</sub>	3,200.0	0.32	1.77e-10	7110	8.75e-10	9540

(continued on next page)

Table 8.A.1 (continued)

Acronym, Common Name or Chemical Name	Chemical Formula	Lifetime (Years)	Radiative Efficiency (W m <sup>-2</sup> ppb <sup>-1</sup> )	AGWP 20-year (W m <sup>-2</sup> yr kg <sup>-1</sup> )	GWP 20-year	AGWP 100-year (W m <sup>-2</sup> yr kg <sup>-1</sup> )	GWP 100-year
<b>Perfluorocarbons</b>							
PFC-31-10	C <sub>3</sub> F <sub>10</sub>	2,600.0	0.36	1.71e-10	6870	8.44e-10	9200
Perfluorocyclopentene	C <sub>5</sub> F <sub>8</sub>	31.0 days	0.08	1.21e-13	7	1.21e-13	2
PFC-41-12	n-C <sub>4</sub> F <sub>12</sub>	4,100.0	0.41	1.58e-10	6350	7.84e-10	8550
PFC-51-14	n-C <sub>5</sub> F <sub>14</sub>	3,100.0	0.44	1.47e-10	5890	7.26e-10	7910
PFC-61-16	n-C <sub>6</sub> F <sub>16</sub>	3,000.0	0.50	1.45e-10	5830	7.17e-10	7820
PFC-71-18	C <sub>7</sub> F <sub>18</sub>	3,000.0	0.55	1.42e-10	5680	6.99e-10	7620
PFC-91-18	C <sub>9</sub> F <sub>18</sub>	2,000.0	0.55	1.34e-10	5390	6.59e-10	7190
Perfluorodecalin (cis)	Z-C <sub>10</sub> F <sub>20</sub>	2,000.0	0.56	1.35e-10	5430	6.64e-10	7240
Perfluorodecalin (trans)	E-C <sub>10</sub> F <sub>20</sub>	2,000.0	0.48	1.18e-10	4720	5.77e-10	6290
PFC-1114	CF <sub>3</sub> =CF <sub>2</sub>	1.1 days	0.002	2.68e-16	<1	2.68e-16	<1
PFC-1216	CF <sub>2</sub> =CF=CF <sub>2</sub>	4.9 days	0.01	6.42e-15	<1	6.42e-15	<1
Perfluorobuta-1,3-diene	CF <sub>2</sub> =CF=CF=CF <sub>2</sub>	1.1 days	0.003	3.29e-16	<1	3.29e-16	<1
Perfluorobut-1-ene	CF <sub>2</sub> CF=CF <sub>2</sub>	6.0 days	0.02	8.38e-15	<1	8.38e-15	<1
Perfluorobut-2-ene	CF <sub>2</sub> CF=CF <sub>2</sub>	31.0 days	0.07	1.62e-13	6	1.62e-13	2

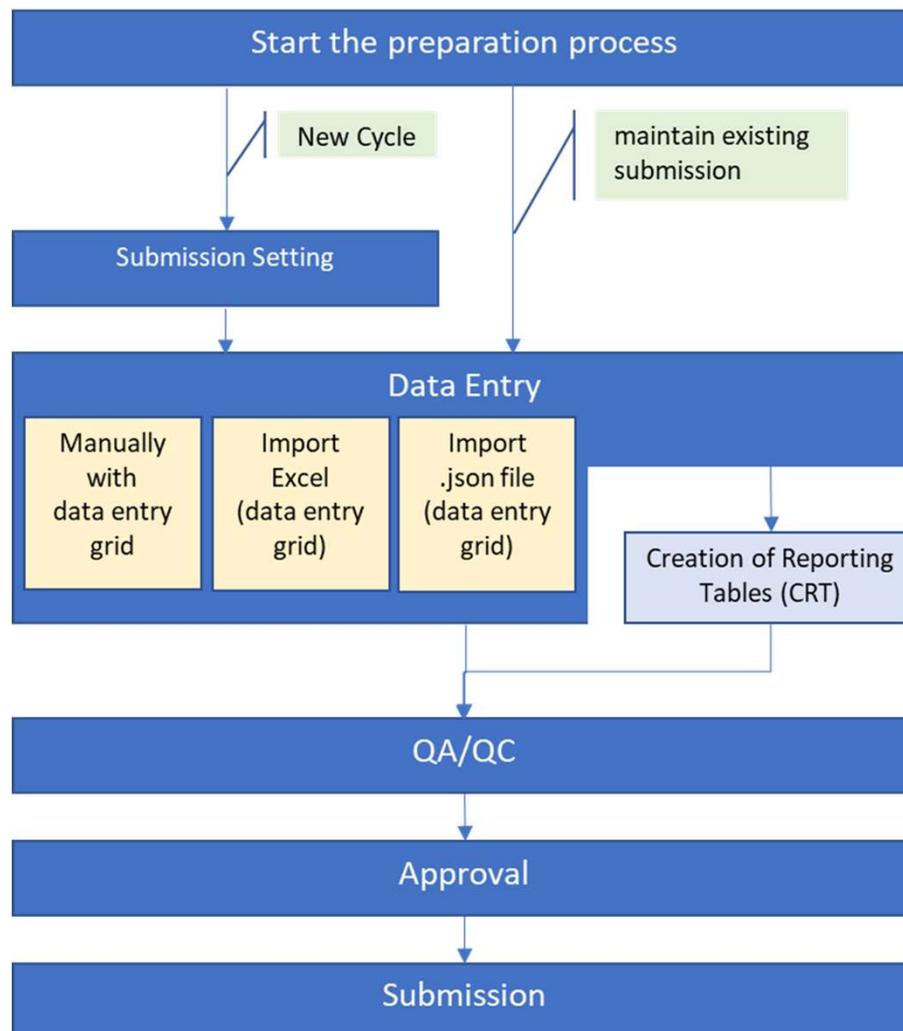
---

# How ETF | GHG INVENTORY Reporting Tool will work?



**United Nations**  
Climate Change Secretariat

# Steps of GHG Inventory Preparation towards official submission



# User Interface - ETF reporting tools

Please select one of the ETF reporting tools

## ETF | GHG INVENTORY

Reporting tool

Information in the national inventory reports of anthropogenic emissions by sources and removals by sinks of greenhouse gases (Decision 18/CMA.1, Annex I)

Enter >



## ETF | PROGRESS

Reporting tool

Enter >



## ETF | SUPPORT

Reporting tool

Enter >

# User Interface – GHG INVENTORY Reporting Tool

The screenshot shows the user interface of the GHG INVENTORY Reporting Tool. At the top, there is a dark blue navigation bar with the logo on the left, the text 'ETF | GHG INVENTORY', and menu items 'Inventories', 'Data entry', 'Reporting tables', and 'QA/QC'. On the right side of the navigation bar, there are icons for a grid and a user profile, and a status indicator 'Online' with a green dot.

Below the navigation bar, the main content area has a white background. At the top of this area, the text reads: 'Please select an option to start working on an inventory'. Below this text, there are three light blue rounded rectangular cards, each containing a title, a description, and a blue 'Start' button.

- Create blank inventory**  
Please select this option to create a new blank inventory and start working on it.
- Select an existing inventory**  
Please select this option if you would like to work on or make a copy of an existing inventory.
- Import a file**  
Please select this option if you want to start by uploading a JSON file.

# User Interface – GHG INVENTORY Reporting Tool

ETF | GHG INVENTORY | **Inventories** | Data entry | Reporting tables | QA/QC

ESP-CRT-2024-V1.84 | © DEFAULT VERSION | STATUS: STARTED | SYNCHRONIZED

## Inventories

The list below contains all inventory versions and their status.

[+ Create Version](#) [Import .json file](#)

Year  Status

Year	Version name	Status	Version	Created date	Updated	
2024	ESP-CRT-2024-v1.84	Started	© DEFAULT	2023-06-01	-	<a href="#">Open</a>
2027	ESP-CRT-2027-v0.9	Started	-	2023-06-01	-	<a href="#">Open</a>
2027	ESP-CRT-2027-v0.8	Started	-	2023-05-31	-	<a href="#">Open</a>
2027	ESP-CRT-2027-v0.7	Started	-	2023-05-29	-	<a href="#">Open</a>
2027	ESP-CRT-2027-v0.6	Started	-	2023-05-29	-	<a href="#">Open</a>

© Last version submitted  
**ISO-CRT-2024-V1.0**  
[Open >](#)

© Last version submitted  
**ISO-CRT-2023-V1.0**  
[Open >](#)

online

# User Interface – GHG INVENTORY Reporting Tool

ETF | GHG INVENTORY

Inventories | **Data entry** | Reporting tables | QA/QC

ESP-CRT-2024-V1.84 | © DEFAULT VERSION | STATUS: STARTED | SYNCHRONIZED

### Navigation tree

Sectors/Totals

- 1. Energy
  - 1.A. Fuel combustion activities (sectoral approach)
    - 1.A(b). CO<sub>2</sub> from fuel combustion activities (reference approach)
    - 1.A(c). Comparison of CO<sub>2</sub> emissions from fuel combustion
    - 1.A(d). Feedstocks, reductants and other non-energy use of fuels
  - 1.B. Fugitive emissions from fuels
  - 1.C. CO<sub>2</sub> transport and storage
  - 1.D. Memo items
- 2. Industrial processes and product use
- 3. Agriculture

## 1.A.3. Transport

Expand all Show/hide years Export ?

ID	Description	Unit	1990	1991	1992	1993
01	▼ Fuel consumption	TJ				
02	Liquid fuels	TJ				
03	Solid fuels	TJ				
04	Gaseous fuels	TJ				
05	Other fossil fuels	TJ				
06	Biomass	TJ				
07	▼ Calorific value					
08	Liquid fuels					
09	Solid fuels					
10	Gaseous fuels					
11	Other fossil fuels					

onLine

# Structure of the Common Reporting Tables (CRT)



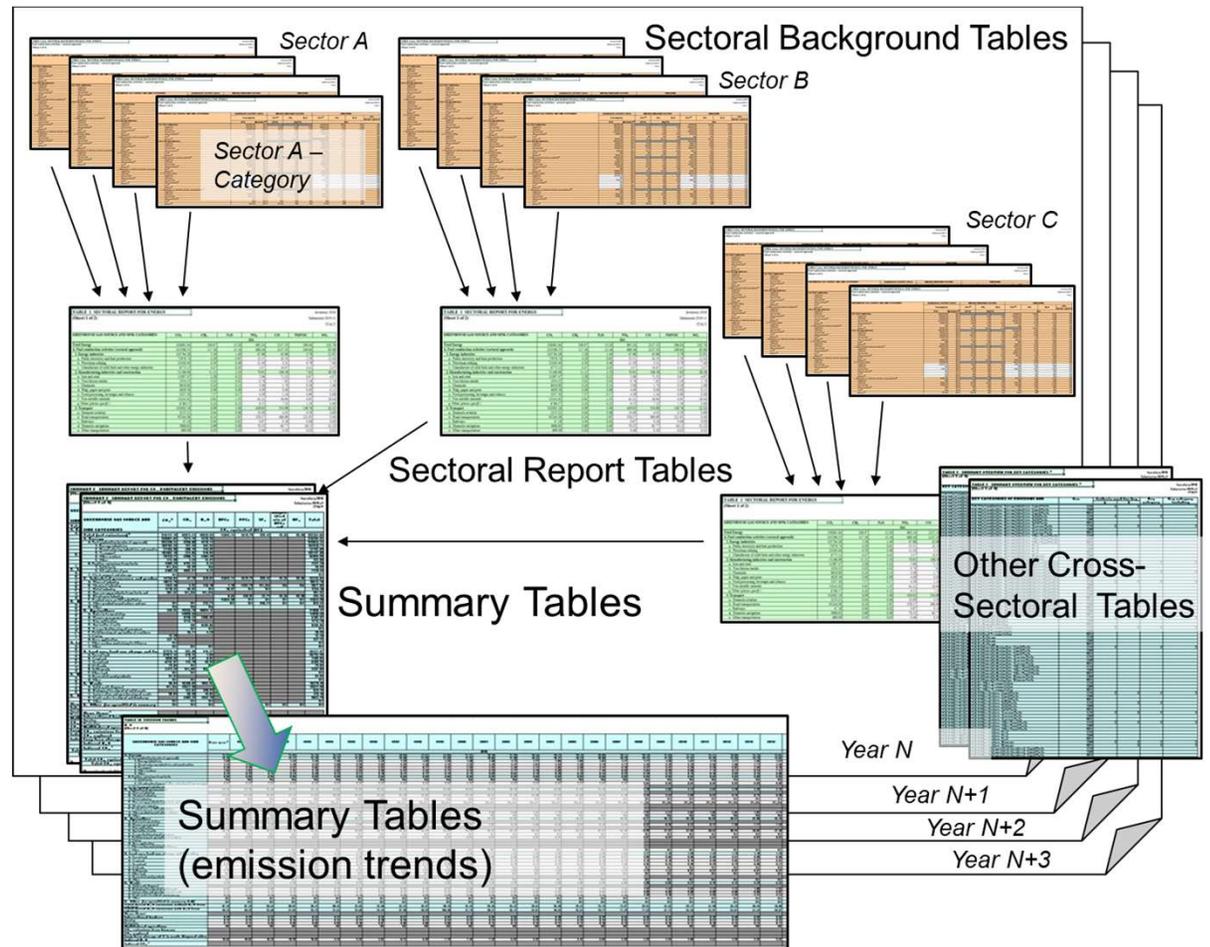
United Nations  
Climate Change Secretariat

## Summary tables

## Other cross-sectoral tables

## Sectoral tables

- Sectoral Background Data Tables
- Sectoral Report Tables
- Other (e.g. reference approach for energy)





---

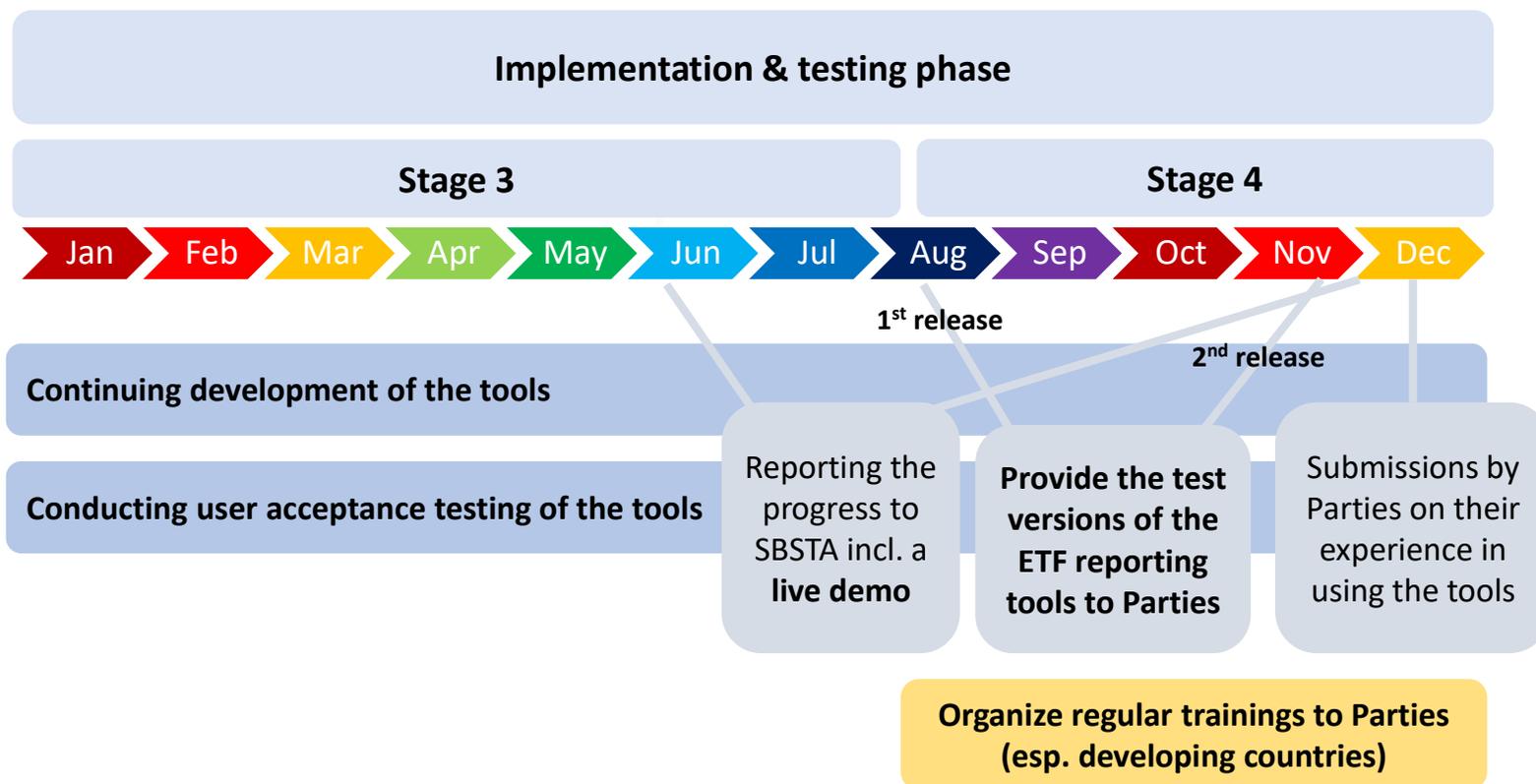
# How about the schedule of ETF | GHG Inventory Reporting Tool?



**United Nations**  
Climate Change Secretariat

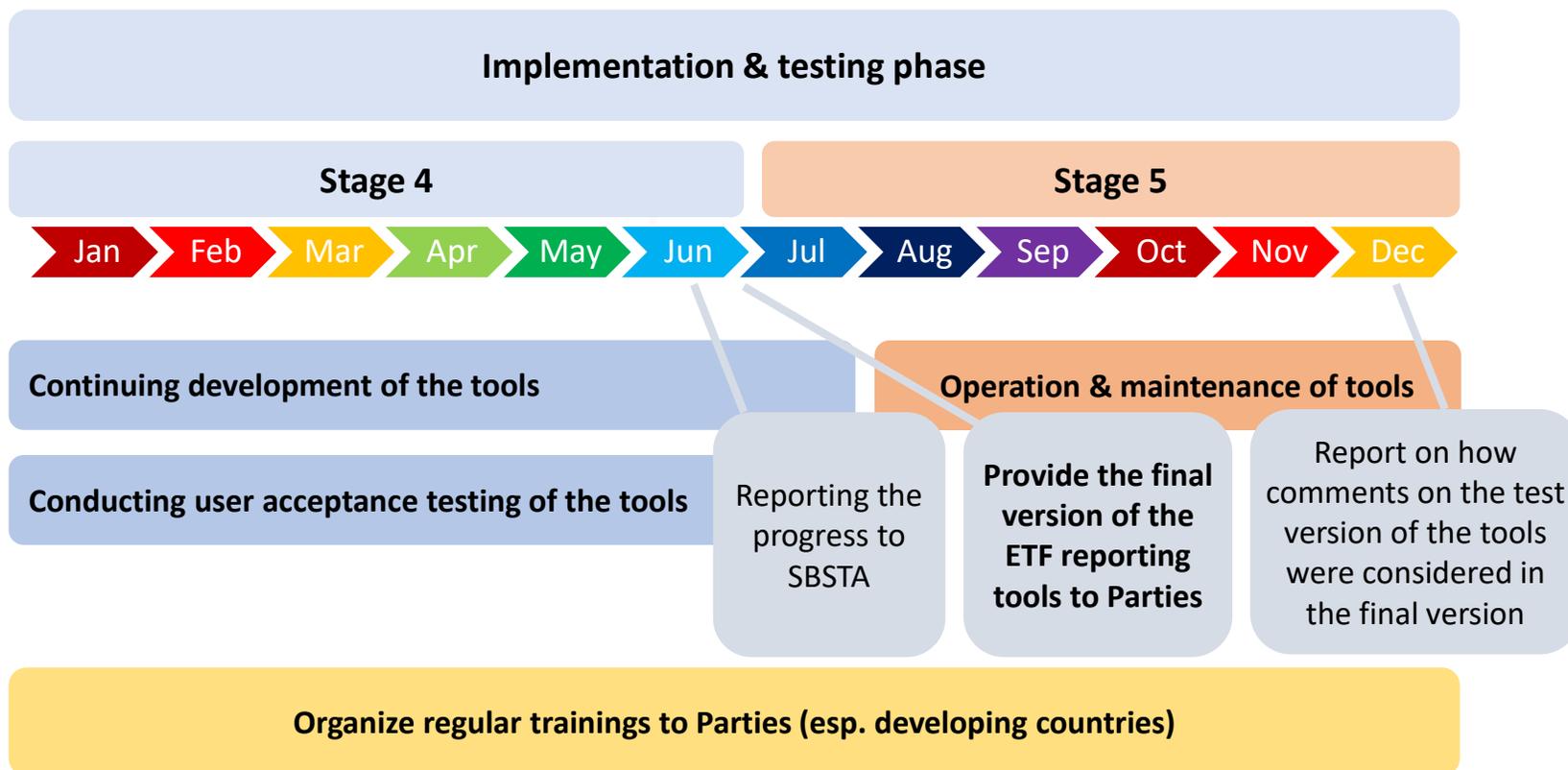


## 2023





## 2024



## Scope of the Test Version – Data/Tables/Features



United Nations  
Climate Change Secretariat

### **GHG Inventory:**

- Energy sector – all tables (12)
- Waste sector – all tables (5)

### **Prepare data set** and data set version management (ONLY in online mode):

- Version settings

### **Navigation tree** (full navigation tree, ONLY scoped data entry grids will be rendered, country specific nodes)

### **Data entry grids** fully functional:

- Data entry: numerical values; text values; NK values; documentation box; flexibility (only FX)

### **Export/Import:**

- Excel for entering/modifying data (data entry grids)
- JSON for integration with IPCC software and national systems (data exchange .json for Energy sector)

### **Generation of reporting tables** as per agreed format (in Excel) for included tables

### **Standard functions:**

- Data validation
- Automatic calculation/aggregation of values
- Auto-save (local and on server)
- Auto-copy/complete in the GHG Inventory tool (NCV/GCV, method, EF)
- Versions management with no conflict resolution: only last version is saved



- **Continuing the IT development** of the back-end solution and UI/UX design
- **Continuing the work with IPCC** for finalizing the mapping between 2006 IPCC GLs and CRT and for the interoperability with IPCC Software
- Completing the **test version of the new reporting tools – release on 15 August**
- Preparing the organization of **technical training workshops**
- Initiating **preparatory work** on the new **ETF review tools and Data Warehouse** project
- Continuing to engage with Parties and donors for **providing sufficient resources** for completing the development of the tools and conducting training workshops

---

# Thank you!



**United Nations**  
Climate Change Secretariat