



United Nations

FCCC/ETF/SRR/2025/HUN



Framework Convention on
Climate Change

Distr.: General
5 August 2025

English only

Report on the simplified review of the national inventory report of Hungary submitted in 2025

Summary

This report presents the results of the simplified review of the 2025 national inventory report of Hungary, conducted by the secretariat in accordance with the modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement.



Abbreviations and acronyms

C ₃ F ₈	octafluoropropane
CF ₄	tetrafluoromethane
CH ₄	methane
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
CRT	common reporting table
GHG	greenhouse gas
HFC	hydrofluorocarbon
IE	included elsewhere
IEF	implied emission factor
LULUCF	land use, land-use change and forestry
MPGs	modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement
N	nitrogen
N ₂ O	nitrous oxide
NA	not applicable
NE	not estimated
NF ₃	nitrogen trifluoride
NIR	national inventory report
NO	not occurring
PFC	perfluorocarbon
TFT	thin film transistor

I. Introduction

1. This report covers the simplified review of the NIR of Hungary submitted in 2025. The review was conducted by the secretariat in accordance with the MPGs,¹ particularly chapter VII thereof, and the simplified review procedures.²
2. On 13 June 2025 a draft version of this report was transmitted to the Government of Hungary,³ which provided comments on individual findings on 22 July 2025 that were addressed by the secretariat and incorporated, as appropriate, in this final version of the report. Hungary did not provide any general comments on the report.
3. The secretariat conducted the simplified review of Hungary's NIR, which involved an initial assessment of completeness and consistency with the MPGs.⁴
4. The findings of the initial assessment, presented in the annex, are the result of automated checks and do not necessarily indicate issues of completeness or consistency of the Party's reporting with the MPGs.
5. This report, including the findings listed in the annex and any comments provided by the Party (see para. 2 above), will be made available to and considered by the technical expert review team as part of the subsequent technical expert review of Hungary's NIR.⁵

II. Initial assessment of completeness and consistency with the modalities, procedures and guidelines

A. Summary of findings

6. The table below provides a summary of the findings of the initial assessment by the secretariat. Tables I.1–I.7 list the findings and include detailed information on each one.

Summary of the initial assessment

Area of review	Description	Assessment
Dates of submission	2025 submission: CRTs, 10 June 2025 2024 submission: CRTs, 21 February 2025	
Recalculations	Recalculations that have changed estimated total GHG emissions or removals (excluding LULUCF) by more than 2 per cent for categories or subcategories above the threshold of significance (27.16 kt CO ₂ eq for 2023) ^a Recalculations for 1990 (the reference year for the Party's nationally determined contribution) and 2022 since the previous submission	See table I.1
Completeness	Detection of notation key "NE", or of missing gases or sectors in CRT 10 emission trends summary	See table I.2
Notation keys	Changes in notation keys reported for 1990 and 2022 since the previous submission	See table I.3
Sectoral and reference approaches	Difference in estimated energy consumption or CO ₂ emissions, by fuel type, of more than 5 per cent between the reference and sectoral approaches for the latest reported year (2023)	No findings for this area
Time-series consistency	The time series of emissions is assessed by calculating inter-annual changes for each category and gas and converting them to CO ₂ eq. Inter-annual changes exceeding the significance	See table I.5

¹ Decision 18/CMA.1, annex.

² Contained in paras. 15–19 of the conclusions and recommendations from the 2023 joint meeting of lead reviewers, available at <https://unfccc.int/documents/627213>.

³ As per para. 163 of the MPGs.

⁴ As per para. 155 of the MPGs.

⁵ As per para. 155 of the MPGs.

<i>Area of review</i>	<i>Description</i>	<i>Assessment</i>
	threshold are evaluated using the z-score method, ^b where outliers are identified as values exceeding a z-score of 3, based on the statistical distribution of the full time series	
IEFs	Comparison of IEFs reported for any significant subcategories under key categories with the range of IEFs reported by developed country Parties for the latest inventory year (2023) in their 2025 submission ^c	See table I.6
Key categories	New key categories identified since the previous submission for level (latest year) and trend	See table I.7
Previous areas of improvement	Status of implementation of previous areas of improvement identified in the latest report on the technical expert review of the Party's biennial transparency report	NA ^d

^a Threshold calculated by the secretariat as 0.05 per cent of the national total GHG emissions for 2023, excluding LULUCF, or 500 kt CO₂ eq, whichever is lower (see para. 32 of the MPGs).

^b Statistical measure that indicates how many standard deviations a data point is from the mean.

^c Range defined by the median plus or minus two times the standard deviation, calculated from all available data points per category.

^d As at the time of publication of this report, information on status of implementation of previous areas of improvement was not yet available.

B. Comments of the Party on the initial assessment

7. The Party did not provide any general comments.

Annex

Findings of the initial assessment of Hungary's 2025 national inventory report

Tables I.1–I.7 detail the findings of the initial assessment by the secretariat of the Party's NIR.

Table I.1

Findings on recalculations

<i>ID#</i>	<i>Category</i>	<i>CRT</i>	<i>Gas</i>	<i>Inventory year</i>	<i>Estimate in latest submission (2025)</i>	<i>Estimate in previous submission (2024)</i>	<i>Difference Unit</i>	<i>Difference (%)</i>	<i>Difference (kt CO₂ eq)</i>
I.1.1.	1.B.2.c. Venting and flaring	Table1	CH ₄	2022	1.94	3.03	–1.09 kt	–35.9	–30.46
I.1.2.	2.B.1. Ammonia production	Table2(I)	CO ₂	2022	418.77	757.45	–338.68 kt	–44.7	–338.68
I.1.3.	2.F.1. Refrigeration and air conditioning	Table2(I)	HFCs	2022	1 600.19	1 552.6	47.59 kt CO ₂ eq	3.1	47.59
I.1.4.	5.D.1. Domestic wastewater	Table5	CH ₄	1990	25.11	30.68	–5.56 kt	–18.1	–155.82
I.1.5.	5.D.1. Domestic wastewater	Table5	N ₂ O	2022	1.16	0.28	0.88 kt	311.2	232.2

Table I.2

Findings on completeness

<i>ID#</i>	<i>Sector, category or gas</i>	<i>CRT</i>	<i>Gas</i>	<i>Inventory year</i>	<i>Notation key Finding type</i>
I.2.1.	1.B.1.b. Fuel transformation	Table1	CH ₄	1990	NE Reporting of “NE” detected
I.2.2.	1.B.1.b. Fuel transformation	Table1	N ₂ O	1990	NE Reporting of “NE” detected
I.2.3.	1.B.1.b. Fuel transformation	Table1	Total GHG emissions	1990	IE, NE Reporting of “NE” detected
I.2.4.	1.D.1.b. Navigation	Table1	CO ₂	1990	NE, NO Reporting of “NE” detected
I.2.5.	1.D.1.b. Navigation	Table1	CH ₄	1990	NE, NO Reporting of “NE” detected
I.2.6.	1.D.1.b. Navigation	Table1	N ₂ O	1990	NE, NO Reporting of “NE” detected
I.2.7.	1.D.1.b. Navigation	Table1	Total GHG emissions	1990	NE, NO Reporting of “NE” detected
I.2.8.	1.D.1.b. Navigation	Table1	CO ₂	2023	NE, NO Reporting of “NE” detected
I.2.9.	1.D.1.b. Navigation	Table1	CH ₄	2023	NE, NO Reporting of “NE” detected
I.2.10.	1.D.1.b. Navigation	Table1	N ₂ O	2023	NE, NO Reporting of “NE” detected
I.2.11.	1.D.1.b. Navigation	Table1	Total GHG emissions	2023	NE, NO Reporting of “NE” detected
I.2.12.	4.A.2. Land converted to forest land	Table4	CH ₄	1990	NA, NE, NO Reporting of “NE” detected
I.2.13.	4.A.2. Land converted to forest land	Table4	N ₂ O	1990	IE, NA, NE, NO Reporting of “NE” detected
I.2.14.	5.D.2. Industrial wastewater	Table5	N ₂ O	1990	NE Reporting of “NE” detected

<i>ID#</i>	<i>Sector, category or gas</i>	<i>CRT</i>	<i>Gas</i>	<i>Inventory year</i>	<i>Notation key Finding type</i>
I.2.15.	5.D.2. Industrial wastewater	Table5	N ₂ O	2023	NE Reporting of “NE” detected
I.2.16.	Unspecified mix of HFCs and PFCs	Table10s6	–	1990	NO Gas or sector not reported
I.2.17.	Unspecified mix of HFCs and PFCs	Table10s6	–	2023	NO Gas or sector not reported
I.2.18.	NF ₃	Table10s6	–	1990	NO Gas or sector not reported
I.2.19.	NF ₃	Table10s6	–	2023	NO Gas or sector not reported
I.2.20.	6. Other	Table10s6	–	1990	NO Gas or sector not reported
I.2.21.	6. Other	Table10s6	–	2023	NO Gas or sector not reported

Table I.3
Changes in notation keys reported since the previous submission

<i>ID#</i>	<i>Category</i>	<i>CRT</i>	<i>Gas</i>	<i>Inventory year</i>	<i>Notation key in latest submission (2025)</i>	<i>Notation key in previous submission (2024)</i>
I.3.1.	2.C.4. Magnesium production	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.2.	2.E.1. Integrated circuit or semiconductor	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.3.	2.E.1. Integrated circuit or semiconductor	Table2(I)	NF ₃	1990	–	NO
I.3.4.	2.E.2. TFT flat panel display	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.5.	2.E.2. TFT flat panel display	Table2(I)	NF ₃	1990	–	NO
I.3.6.	2.E.3. Photovoltaics	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.7.	2.E.3. Photovoltaics	Table2(I)	NF ₃	1990	–	NO
I.3.8.	2.E.4. Heat transfer fluid	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.9.	2.E.4. Heat transfer fluid	Table2(I)	NF ₃	1990	–	NO
I.3.10.	2.F.1. Refrigeration and air conditioning	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.11.	2.F.1. Refrigeration and air conditioning	Table2(I)	NF ₃	1990	–	NO
I.3.12.	2.F.2. Foam blowing agents	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.13.	2.F.2. Foam blowing agents	Table2(I)	NF ₃	1990	–	NO
I.3.14.	2.F.3. Fire protection	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.15.	2.F.3. Fire protection	Table2(I)	NF ₃	1990	–	NO
I.3.16.	2.F.5. Solvents	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.17.	2.F.5. Solvents	Table2(I)	NF ₃	1990	–	NO
I.3.18.	2.F.6. Other applications	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.19.	2.F.6. Other applications	Table2(I)	NF ₃	1990	–	NO
I.3.20.	2.F.6. Other applications	Table2(I)	Total GHG emissions	1990	–	NO
I.3.21.	2.G.1. Electrical equipment	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.22.	2.G.1. Electrical equipment	Table2(I)	NF ₃	1990	–	NO
I.3.23.	2.H.3. Other (please specify)	Table2(I)	Unspecified mix of HFCs and PFCs	1990	–	NO

<i>ID#</i>	<i>Category</i>	<i>CRT</i>	<i>Gas</i>	<i>Inventory year</i>	<i>Notation key in latest submission (2025)</i>	<i>Notation key in previous submission (2024)</i>
I.3.24.	2.H.3. Other (please specify)	Table2(I)	NF ₃	1990	–	NO
I.3.25.	2.H.3. Other (please specify)	Table2(I)	Total GHG emissions	1990	–	NO
I.3.26.	2.C.4. Magnesium production	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.27.	2.E.1. Integrated circuit or semiconductor	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.28.	2.E.1. Integrated circuit or semiconductor	Table2(I)	NF ₃	2022	–	NO
I.3.29.	2.E.2. TFT flat panel display	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.30.	2.E.2. TFT flat panel display	Table2(I)	NF ₃	2022	–	NO
I.3.31.	2.E.3. Photovoltaics	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.32.	2.E.3. Photovoltaics	Table2(I)	NF ₃	2022	–	NO
I.3.33.	2.E.4. Heat transfer fluid	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.34.	2.E.4. Heat transfer fluid	Table2(I)	NF ₃	2022	–	NO
I.3.35.	2.F.1. Refrigeration and air conditioning	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.36.	2.F.1. Refrigeration and air conditioning	Table2(I)	NF ₃	2022	–	NO
I.3.37.	2.F.2. Foam blowing agents	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.38.	2.F.2. Foam blowing agents	Table2(I)	NF ₃	2022	–	NO
I.3.39.	2.F.3. Fire protection	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.40.	2.F.3. Fire protection	Table2(I)	NF ₃	2022	–	NO
I.3.41.	2.F.5. Solvents	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.42.	2.F.5. Solvents	Table2(I)	NF ₃	2022	–	NO
I.3.43.	2.F.6. Other applications	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.44.	2.F.6. Other applications	Table2(I)	NF ₃	2022	–	NO
I.3.45.	2.F.6. Other applications	Table2(I)	Total GHG emissions	2022	–	NO
I.3.46.	2.G.1. Electrical equipment	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.47.	2.G.1. Electrical equipment	Table2(I)	NF ₃	2022	–	NO
I.3.48.	2.H.3. Other (please specify)	Table2(I)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.49.	2.H.3. Other (please specify)	Table2(I)	NF ₃	2022	–	NO
I.3.50.	2.H.3. Other (please specify)	Table2(I)	Total GHG emissions	2022	–	NO
I.3.51.	2.C.4. Magnesium production	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.52.	2.E.1. Integrated circuit or semiconductor	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.53.	2.E.1. Integrated circuit or semiconductor	Table2(II)	NF ₃	1990	–	NO
I.3.54.	2.E.2. TFT flat panel display	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.55.	2.E.2. TFT flat panel display	Table2(II)	NF ₃	1990	–	NO
I.3.56.	2.E.3. Photovoltaics	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.57.	2.E.3. Photovoltaics	Table2(II)	NF ₃	1990	–	NO
I.3.58.	2.E.4. Heat transfer fluid	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.59.	2.E.4. Heat transfer fluid	Table2(II)	NF ₃	1990	–	NO

<i>ID#</i>	<i>Category</i>	<i>CRT</i>	<i>Gas</i>	<i>Inventory year</i>	<i>Notation key in latest submission (2025)</i>	<i>Notation key in previous submission (2024)</i>
I.3.60.	2.F.1. Refrigeration and air conditioning	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.61.	2.F.1. Refrigeration and air conditioning	Table2(II)	NF ₃	1990	–	NO
I.3.62.	2.F.2. Foam blowing agents	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.63.	2.F.2. Foam blowing agents	Table2(II)	NF ₃	1990	–	NO
I.3.64.	2.F.3. Fire protection	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.65.	2.F.3. Fire protection	Table2(II)	NF ₃	1990	–	NO
I.3.66.	2.F.5. Solvents	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.67.	2.F.5. Solvents	Table2(II)	NF ₃	1990	–	NO
I.3.68.	2.F.6. Other applications	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.69.	2.F.6. Other applications	Table2(II)	NF ₃	1990	–	NO
I.3.70.	2.G.1. Electrical equipment	Table2(II)	Unspecified mix of HFCs and PFCs	1990	–	NO
I.3.71.	2.G.1. Electrical equipment	Table2(II)	NF ₃	1990	–	NO
I.3.72.	2.C.4. Magnesium production	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.73.	2.E.1. Integrated circuit or semiconductor	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.74.	2.E.1. Integrated circuit or semiconductor	Table2(II)	NF ₃	2022	–	NO
I.3.75.	2.E.2. TFT flat panel display	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.76.	2.E.2. TFT flat panel display	Table2(II)	NF ₃	2022	–	NO
I.3.77.	2.E.3. Photovoltaics	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.78.	2.E.3. Photovoltaics	Table2(II)	NF ₃	2022	–	NO
I.3.79.	2.E.4. Heat transfer fluid	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.80.	2.E.4. Heat transfer fluid	Table2(II)	NF ₃	2022	–	NO
I.3.81.	2.F.1. Refrigeration and air conditioning	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.82.	2.F.1. Refrigeration and air conditioning	Table2(II)	NF ₃	2022	–	NO
I.3.83.	2.F.2. Foam blowing agents	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.84.	2.F.2. Foam blowing agents	Table2(II)	NF ₃	2022	–	NO
I.3.85.	2.F.3. Fire protection	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.86.	2.F.3. Fire protection	Table2(II)	NF ₃	2022	–	NO
I.3.87.	2.F.5. Solvents	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.88.	2.F.5. Solvents	Table2(II)	NF ₃	2022	–	NO
I.3.89.	2.F.6. Other applications	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.90.	2.F.6. Other applications	Table2(II)	NF ₃	2022	–	NO
I.3.91.	2.G.1. Electrical equipment	Table2(II)	Unspecified mix of HFCs and PFCs	2022	–	NO
I.3.92.	2.G.1. Electrical equipment	Table2(II)	NF ₃	2022	–	NO
I.3.93.	4.A.2. Land converted to forest land	Table4	N ₂ O	1990	IE, NA, NE, NO	NA, NE, NO

Table I.4

Discrepancies between sectoral and reference approaches for the latest reported year

<i>ID#</i>	<i>CRT table</i>	<i>Fuel type</i>	<i>Description</i>	<i>Difference between reference and sectoral approaches (%)</i>
No findings for this area				

Table I.5

Findings on time-series consistency

<i>ID#</i>	<i>Category</i>	<i>CRT</i>	<i>Gas</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Value 1</i>	<i>Value 2</i>	<i>Difference</i>	<i>Unit</i>	<i>Difference (CO₂ eq)</i>	<i>Difference (%)</i>	<i>Z-score</i>
I.5.1.	1.A.1.b. Petroleum refining	Table1	CO ₂	1999	2000	2 076.14	1 446.53	-629.60	kt	-629.60	-30.3	-4.0
I.5.2.	1.A.1.c. Manufacture of solid fuels and other energy industries	Table1	CO ₂	2001	2002	610.80	347.38	-263.42	kt	-263.42	-43.1	-3.4
I.5.3.	1.A.2.a. Iron and steel	Table1	CO ₂	1990	1991	2 524.25	1 658.69	-865.56	kt	-865.56	-34.3	-4.2
I.5.4.	1.A.2.b. Non-ferrous metals	Table1	CO ₂	1990	1991	301.00	450.87	149.88	kt	149.88	49.8	3.4
I.5.5.	1.A.2.d. Pulp, paper and print	Table1	CO ₂	2015	2016	145.01	424.34	279.33	kt	279.33	192.6	4.3
I.5.6.	1.A.2.e. Food processing, beverages and tobacco	Table1	CO ₂	1991	1992	2 217.06	1 726.59	-490.46	kt	-490.46	-22.1	-3.2
I.5.7.	1.A.2.g. Other	Table1	CO ₂	1996	1997	2 491.89	1 152.83	-1 339.05	kt	-1 339.05	-53.7	-4.0
I.5.8.	1.A.3.c. Railways	Table1	CO ₂	1990	1991	534.03	441.05	-92.98	kt	-92.98	-17.4	-3.2
I.5.9.	1.A.3.d. Domestic navigation	Table1	CO ₂	1990	1991	209.11	51.56	-157.55	kt	-157.55	-75.3	-5.5
I.5.10.	1.A.4.b. Residential	Table1	CO ₂	1991	1992	15 898.89	12 526.60	-3 372.29	kt	-3 372.29	-21.2	-3.4
I.5.11.	1.A.4.b. Residential	Table1	CH ₄	1991	1992	31.93	19.44	-12.49	kt	-349.69	-39.1	-3.4
I.5.12.	1.B.1.a. Coal mining and handling	Table1	CH ₄	1991	1992	40.20	29.64	-10.56	kt	-295.79	-26.3	-3.7
I.5.13.	1.B.2.a. Oil	Table1	CH ₄	1994	1995	5.94	3.78	-2.16	kt	-60.39	-36.3	-5.1
I.5.14.	1.B.2.c. Venting and flaring	Table1	CO ₂	1994	1995	478.54	259.88	-218.66	kt	-218.66	-45.7	-4.4
I.5.15.	1.B.2.c. Venting and flaring	Table1	CH ₄	1994	1995	14.06	11.04	-3.02	kt	-84.62	-21.5	-3.4
I.5.16.	1.D.1.a. Aviation	Table1	CO ₂	2019	2020	850.54	308.71	-541.83	kt	-541.83	-63.7	-3.9
I.5.17.	2.A.1. Cement production	Table2(I)	CO ₂	1990	1991	1 750.72	1 101.70	-649.03	kt	-649.03	-37.1	-3.6
I.5.18.	2.A.2. Lime production	Table2(I)	CO ₂	1990	1991	613.93	421.84	-192.08	kt	-192.08	-31.3	-3.8
I.5.19.	2.A.4. Other process uses of carbonates	Table2(I)	CO ₂	2008	2009	476.01	287.75	-188.26	kt	-188.26	-39.5	-3.2
I.5.20.	2.B.2. Nitric acid production	Table2(I)	N ₂ O	1990	1991	10.37	5.24	-5.13	kt	-1 358.94	-49.5	-3.3
I.5.21.	2.B.8. Petrochemical and carbon black production	Table2(I)	CO ₂	2004	2005	939.45	1 344.11	404.65	kt	404.65	43.1	3.2
I.5.22.	2.C.3. Aluminium production	Table2(I)	CO ₂	1991	1992	106.89	45.59	-61.30	kt	-61.30	-57.3	-3.4
I.5.23.	2.C.3. Aluminium production	Table2(I)	PFCs	1991	1992	290.70	161.71	-129.00	kt CO ₂ eq	-129.00	-44.4	-3.1
I.5.24.	2.D.1. Lubricant use	Table2(I)	CO ₂	1995	1996	193.57	80.75	-112.82	kt	-112.82	-58.3	-3.1
I.5.25.	2.F.1. Refrigeration and air conditioning	Table2(I)	HFCs	2016	2017	1 789.31	1 587.31	-202.00	kt CO ₂ eq	-202.00	-11.3	-3.2
I.5.26.	2.G.3. N ₂ O from product uses	Table2(I)	N ₂ O	2017	2018	0.31	0.57	0.26	kt	67.79	82.0	3.5

ID#	Category	CRT	Gas	Year 1	Year 2	Value 1	Value 2	Difference	Unit	Difference (CO ₂ eq)	Difference (%)	Z-score
I.5.27.	2.C.3. Aluminium production	Table2(II)	CF ₄	1991	1992	39.68	22.40	-17.28	t	-114.55	-43.5	-3.1
I.5.28.	2.F.1. Refrigeration and air conditioning	Table2(II)	HFC-134a	2016	2017	319.45	372.58	53.14	t	69.08	16.6	3.5
I.5.29.	2.F.1. Refrigeration and air conditioning	Table2(II)	HFC-143a	2016	2017	158.19	112.12	-46.07	t	-221.13	-29.1	-3.8
I.5.30.	3.A.1.b. Non-dairy cattle	Table3	CH ₄	1991	1992	53.35	43.41	-9.94	kt	-278.31	-18.6	-3.2
I.5.31.	3.A.1.b. Non-dairy cattle	Table3	CH ₄	1992	1993	43.41	33.63	-9.78	kt	-273.86	-22.5	-3.2
I.5.32.	3.A.2. Sheep	Table3	CH ₄	1992	1993	14.94	11.66	-3.28	kt	-91.77	-21.9	-3.3
I.5.33.	3.A.3. Swine	Table3	CH ₄	1991	1992	11.71	9.36	-2.36	kt	-66.01	-20.1	-3.5
I.5.34.	3.B.1.b. Non-dairy cattle	Table3	CH ₄	1991	1992	9.62	7.82	-1.79	kt	-50.15	-18.6	-3.2
I.5.35.	3.B.1.b. Non-dairy cattle	Table3	CH ₄	1992	1993	7.82	6.08	-1.75	kt	-48.96	-22.3	-3.1
I.5.36.	3.B.5. Indirect N ₂ O emissions	Table3	N ₂ O	1991	1992	0.85	0.72	-0.12	kt	-33.10	-14.7	-3.4
I.5.37.	3.C. Rice cultivation	Table3	CH ₄	1991	1992	2.43	1.35	-1.08	kt	-30.24	-44.4	-3.9
I.5.38.	3.D.1.a. Inorganic N fertilizers	Table3	N ₂ O	1990	1991	5.63	2.20	-3.43	kt	-907.81	-60.9	-4.2
I.5.39.	3.D.1.b. Organic N fertilizers	Table3	N ₂ O	1991	1992	2.77	2.38	-0.39	kt	-103.93	-14.2	-3.6
I.5.40.	3.D.1.c. Urine and dung deposited by grazing animals	Table3	N ₂ O	1992	1993	0.56	0.45	-0.11	kt	-28.61	-19.3	-3.2
I.5.41.	3.D.2. Indirect N ₂ O emissions from managed soils	Table3	N ₂ O	1990	1991	1.14	0.75	-0.39	kt	-102.46	-34.1	-4.4
I.5.42.	3.G. Liming	Table3	CO ₂	1994	1995	99.96	58.42	-41.54	kt	-41.54	-41.6	-3.3
I.5.43.	3.H. Urea application	Table3	CO ₂	1990	1991	171.15	79.91	-91.24	kt	-91.24	-53.3	-4.1
I.5.44.	3.I. Other carbon-containing fertilizers	Table3	CO ₂	2021	2022	104.21	65.54	-38.67	kt	-38.67	-37.1	-4.1
I.5.45.	4.A.1. Forest land remaining forest land	Table4	CH ₄	2021	2022	0.39	2.16	1.77	kt	49.56	456.9	3.7
I.5.46.	4.A.1. Forest land remaining forest land	Table4	CH ₄	2022	2023	2.16	0.35	-1.81	kt	-50.63	-83.8	-3.7
I.5.47.	4.B.1. Cropland remaining cropland	Table4	Net CO ₂ emissions/removals	2015	2016	-255.40	-107.69	147.71	kt CO ₂ eq	147.71	-57.8	3.2
I.5.48.	5.C.1. Waste incineration	Table5	CO ₂	2014	2015	80.36	27.33	-53.03	kt	-53.03	-66.0	-4.2
I.5.49.	5.D.2. Industrial wastewater	Table5	CH ₄	1995	1996	3.92	2.72	-1.20	kt	-33.60	-30.6	-4.5

Table I.6

Comparison between implied emission factors reported for key categories and the range of implied emission factors from the 2025 national inventory reports of developed country Parties

ID#	Category	CRT	Gas	Unit	IEF reported	Comparison
I.6.1.	2.B.10.a. Hydrogen production	Table2(I).A-H	CO ₂	t/t	14.189	Above range
I.6.2.	2.C.1.d. Sinter	Table2(I).A-H	CO ₂	t/t	4.843	Above range
I.6.3.	2.G.3.b.i. Propellant for pressure and aerosol products	Table2(I).A-H	N ₂ O	t/t	35.353	Above range
I.6.4.	2.F.1.a. Commercial refrigeration – C ₃ F ₈	Table2(II).B-Hs2	Product life factor	%	35.000	Above range
I.6.5.	3.D.1.a. Inorganic N fertilizers	Table3.D	N ₂ O	kg N ₂ O-N/kg N	0.000	Below range

<i>ID#</i>	<i>Category</i>	<i>CRT</i>	<i>Gas</i>	<i>Unit</i>	<i>IEF reported</i>	<i>Comparison</i>
I.6.6.	3.D.1.b. Organic N fertilizers	Table3.D	N ₂ O	kg N ₂ O-N/kg N	0.000	Below range
I.6.7.	3.D.1.b. Organic N fertilizers – 3.D.1.b.i. Animal manure applied to soils	Table3.D	N ₂ O	kg N ₂ O-N/kg N	0.000	Below range
I.6.8.	3.D.1.b. Organic N fertilizers – 3.D.1.b.ii. Sewage sludge applied to soils	Table3.D	N ₂ O	kg N ₂ O-N/kg N	0.000	Below range
I.6.9.	5.D.1. Domestic wastewater	Table5.D	N ₂ O	kg N ₂ O-N/kg N	0.075	Above range

Table I.7

Identification of new key categories

<i>ID#</i>	<i>New key category</i>	<i>Gas</i>	<i>Criteria</i>	<i>Inventory year</i>
I.7.1.	2.A.1. Cement production	CO ₂	Trend	2023
I.7.2.	2.B.1. Ammonia production	CO ₂	Trend	2023
I.7.3.	2.B.10. Other	CO ₂	Level	2023
I.7.4.	2.B.10. Other	CO ₂	Trend	2023
I.7.5.	3.A. Enteric fermentation	CH ₄	Trend	2023
I.7.6.	4.E.2. Land converted to settlements	CO ₂	Level	2023
I.7.7.	4.E.2. Land converted to settlements	CO ₂	Trend	2023
I.7.8.	5.D. Wastewater treatment and discharge	N ₂ O	Level	2023
I.7.9.	5.D. Wastewater treatment and discharge	N ₂ O	Trend	2023