

Framework Convention on Climate Change

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

### Summary

This report presents the results of the simplified review of the 2025 national inventory report of Norway, 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

 $C_2F_6$  hexafluoroethane  $CF_4$  tetrafluoromethane

CH<sub>4</sub> methane

CO<sub>2</sub> carbon dioxide

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

 $\begin{array}{ccc} N_2O & nitrous \ oxide \\ NE & not \ estimated \\ NF_3 & nitrogen \ trifluoride \\ NIR & national \ inventory \ report \end{array}$ 

 $\begin{array}{cc} NO & not \ occurring \\ PFC & perfluor ocarbon \\ SF_6 & sulfur \ hexafluor ide \end{array}$ 

#### I. Introduction

- 1. This report covers the simplified review of the NIR of Norway submitted in 2025. The review was conducted by the secretariat in accordance with the MPGs,<sup>1</sup> particularly chapter VII thereof, and the simplified review procedures.<sup>2</sup>
- 2. On 14 May 2025 a draft version of this report was transmitted to the Government of Norway,<sup>3</sup> which did not provide any comments on individual findings. Norway provided general comments on the report (see chap. II.B below).
- 3. The secretariat conducted the simplified review of Norway's NIR, which involved an initial assessment of completeness and consistency with the MPGs.<sup>4</sup>
- 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 Norway's NIR.<sup>5</sup>

## 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, 14 March 2025	
	2024 submission: CRTs, 22 November 2024	
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 (23.34 kt CO <sub>2</sub> eq for 2023) <sup>a</sup>	
	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 <sub>2</sub> emissions, by fuel type, of more than 5 per cent between the reference and sectoral approaches for the latest reported year (2023)	See table I.4
Time-series consistency	The time series of emissions is assessed by calculating interannual changes for each category and gas and converting them to CO <sub>2</sub> eq. Inter-annual changes exceeding the significance threshold are evaluated using the z-score method, <sup>b</sup> where outliers	See table I.5

<sup>&</sup>lt;sup>1</sup> Decision 18/CMA.1, annex.

<sup>&</sup>lt;sup>2</sup> Contained in paras. 15–19 of the conclusions and recommendations from the 2023 joint meeting of lead reviewers, available at <a href="https://unfccc.int/documents/627213">https://unfccc.int/documents/627213</a>.

<sup>&</sup>lt;sup>3</sup> As per para. 163 of the MPGs.

<sup>&</sup>lt;sup>4</sup> As per para. 155 of the MPGs.

<sup>&</sup>lt;sup>5</sup> As per para. 155 of the MPGs.

Area of review	Description	Assessment
	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 <sup>c</sup>	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	$NA^d$

<sup>&</sup>lt;sup>a</sup> Threshold calculated by the secretariat as 0.05 per cent of the national total GHG emissions for 2023, excluding LULUCF, or 500 kt CO<sub>2</sub> eq, whichever is lower (see para. 32 of the MPGs).

### B. Comments of the Party on the initial assessment

7. The Party provided general comments, 6 which are reported in the box below.

The recalculations in table I.1 are described in chapter 10.1 of Norway's 2025 National Inventory Document.

The use of the notation key NE as shown in table I.2 and the use of the notation key IE are explained in CRT 9.

Norway is aware of the difference between the reference approach and the sectoral approach as shown in table I.4. The reasons for the differences are described in chapter 3.2.1 of Norway's 2025 National Inventory Document.

<sup>&</sup>lt;sup>b</sup> Statistical measure that indicates how many standard deviations a data point is from the mean.

<sup>&</sup>lt;sup>c</sup> Range defined by the median plus or minus two times the standard deviation, calculated from all available data points per category.

<sup>&</sup>lt;sup>d</sup> As at the time of publication of this report, information on status of implementation of previous areas of improvement was not yet available.

<sup>&</sup>lt;sup>6</sup> The comments provided by Norway are presented verbatim.

## Annex

## Findings of the initial assessment of Norway'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** 

ID#	Category	CRT	Gas	Inventory year	Estimate in latest submission (2025)	Estimate in previous submission (2024)	Difference Unit	Difference (%)	Difference (kt CO <sub>2</sub> eq)
I.1.1.	1.A.2.e. Food processing, beverages and tobacco	Table1	CO <sub>2</sub>	2022	327.91	298.60	29.31 kt	9.8	29.31
I.1.2.	1.A.2.g. Other	Table1	CO <sub>2</sub>	2022	1 190.39	1 239.52	–49.13 kt	-4.0	-49.13
I.1.3.	1.A.4.a. Commercial/institutional	Table1	$CO_2$	2022	1 011.75	1 114.24	−102.49 kt	-9.2	-102.49
I.1.4.	1.A.5.b. Mobile	Table1	$CO_2$	2022	228.40	90.23	138.17 kt	153.1	138.17
I.1.5.	1.B.2.c. Venting and flaring	Table1	$CO_2$	2022	797.71	766.37	31.34 kt	4.1	31.34
I.1.6.	2.G.3. N <sub>2</sub> O from product uses	Table2(I)	$N_2O$	2022	0.15	0.05	0.10 kt	182.6	26.45
I.1.7.	3.A.2. Sheep	Table3	CH <sub>4</sub>	1990	17.60	15.39	2.21 kt	14.3	61.83
I.1.8.	3.A.2. Sheep	Table3	CH <sub>4</sub>	2022	17.78	15.40	2.38 kt	15.5	66.72
I.1.9.	4.A.1. Forest land remaining forest land	Table4	Net CO <sub>2</sub>	1990	-13 124.45	$-14\ 288.45$	1 164.00 kt CO <sub>2</sub> eq	-8.1	1 164.00
			emissions/removals						
I.1.10.	4.A.2. Land converted to forest land	Table4	Net CO <sub>2</sub>	1990	-443.08	-606.21	163.13 kt CO <sub>2</sub> eq	-26.9	163.13
			emissions/removals						
I.1.11.	4.E.2. Land converted to settlements	Table4	Net CO <sub>2</sub>	1990	1 498.06	1 591.63	−93.57 kt CO <sub>2</sub> eq	-5.9	-93.57
			emissions/removals						
I.1.12.	4.A.1. Forest land remaining forest land	Table4	Net CO <sub>2</sub>	2022	$-12\ 301.79$	-16947.00	4 645.21 kt CO <sub>2</sub> eq	-27.4	4 645.21
			emissions/removals						
I.1.13.	4.A.2. Land converted to forest land	Table4	Net CO <sub>2</sub>	2022	-806.39	$-1\ 122.42$	316.03 kt CO <sub>2</sub> eq	-28.2	316.03
			emissions/removals						
I.1.14.	4.B.1. Cropland remaining cropland	Table4	Net CO <sub>2</sub>	2022	1 720.65	1 762.96	-42.31 kt CO <sub>2</sub> eq	-2.4	-42.31
			emissions/removals						
I.1.15.	4.B.2. Land converted to cropland	Table4	Net CO <sub>2</sub>	2022	505.61	633.30	$-127.69$ kt $CO_2$ eq	-20.2	-127.69
			emissions/removals						
I.1.16.	4.C.1. Grassland remaining grassland	Table4	Net CO <sub>2</sub>	2022	-426.68	-483.94	57.26 kt CO <sub>2</sub> eq	-11.8	57.26
			emissions/removals						

					Estimate in	Estimate in			
					latest	previous			
				Inventory	submission	submission			Difference (kt
ID#	Category	CRT	Gas	year	(2025)	(2024)	Difference Unit	Difference (%)	$CO_2 eq)$
I.1.17.	4.C.2. Land converted to grassland	Table4	Net CO <sub>2</sub>	2022	494.66	387.84	106.82 kt CO <sub>2</sub> eq	27.5	106.82
			emissions/removals						
I.1.18.	4.D.2. Land converted to wetlands	Table4	Net CO <sub>2</sub>	2022	101.37	66.09	35.27 kt CO <sub>2</sub> eq	53.4	35.27
			emissions/removals						
I.1.19.	4.E.2. Land converted to settlements	Table4	Net CO <sub>2</sub>	2022	1 790.91	1 581.67	209.25 kt CO <sub>2</sub> eq	13.2	209.25
			emissions/removals						

Table I.2 **Findings on completeness** 

				Inventory	
ID#	Sector, category or gas	CRT	Gas	year	Notation key Finding type
I.2.1.	1.C.1. Transport of CO <sub>2</sub>	Table1	CO <sub>2</sub>	2023	NE, NO Reporting of "NE" detected
I.2.2.	1.C.1. Transport of CO <sub>2</sub>	Table1	Total GHG emissions	2023	NE, NO Reporting of "NE" detected
I.2.3.	4.C.1. Grassland remaining grassland	Table4	$N_2O$	1990	IE, NE, NO Reporting of "NE" detected
I.2.4.	4.C.2. Land converted to grassland	Table4	CH <sub>4</sub>	1990	IE, NE, NO Reporting of "NE" detected
I.2.5.	4.C.2. Land converted to grassland	Table4	$N_2O$	1990	IE, NE, NO Reporting of "NE" detected
I.2.6.	4.C.2. Land converted to grassland	Table4	$N_2O$	2023	IE, NE, NO Reporting of "NE" detected
I.2.7.	5.C.2. Open burning of waste	Table5	$CO_2$	1990	NE, NO Reporting of "NE" detected
I.2.8.	5.C.2. Open burning of waste	Table5	CH <sub>4</sub>	1990	NE, NO Reporting of "NE" detected
I.2.9.	5.C.2. Open burning of waste	Table5	$N_2O$	1990	NE, NO Reporting of "NE" detected
I.2.10.	5.C.2. Open burning of waste	Table5	Total GHG emissions	1990	NE, NO Reporting of "NE" detected
I.2.11.	5.C.2. Open burning of waste	Table5	$CO_2$	2023	NE, NO Reporting of "NE" detected
I.2.12.	5.C.2. Open burning of waste	Table5	CH <sub>4</sub>	2023	NE, NO Reporting of "NE" detected
I.2.13.	5.C.2. Open burning of waste	Table5	$N_2O$	2023	NE, NO Reporting of "NE" detected
I.2.14.	5.C.2. Open burning of waste	Table5	Total GHG emissions	2023	NE, NO Reporting of "NE" detected
I.2.15.	Unspecified mix of HFCs and PFCs	Table10s6	_	1990	NO Gas or sector not reported
I.2.16.	Unspecified mix of HFCs and PFCs	Table10s6	_	2023	NO Gas or sector not reported
I.2.17.	NF <sub>3</sub>	Table10s6	_	1990	NO Gas or sector not reported
I.2.18.	NF <sub>3</sub>	Table10s6	_	2023	NO Gas or sector not reported
I.2.19.	6. Other	Table10s6	_	1990	NO Gas or sector not reported
I.2.20.	6. Other	Table10s6	=	2023	NO Gas or sector not reported

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

					Notation key	Notation key
				Inventory	reported in latest	reported in previous
ID#	Category	CRT	Gas	year	submission (2025)	submission (2024)
I.3.1.	2.F.1. Refrigeration and air conditioning	Table2(II)	HFC-134	2022	NO	0.40
I.3.2.	2.F.1. Refrigeration and air conditioning	Table2(II)	HFC-143	2022	NO	0.19

Table I.4

Differences between the sectoral and reference approaches for the latest reported year

				Difference between
				reference and sectoral
ID#	CRT table	Fuel type	Description	approaches (%)
I.4.1.	Table1.A(c)	Solid fuels (excluding international bunkers)	Energy consumption	43.1
I.4.2.	Table1.A(c)	Solid fuels (excluding international bunkers)	CO <sub>2</sub> emissions	50.8
I.4.3.	Table1.A(c)	Other fossil fuels	Energy consumption	-45.3
I.4.4.	Table1.A(c)	Other fossil fuels	CO <sub>2</sub> emissions	-47.7

Table I.5 **Findings on time-series consistency** 

									Difference	Difference	
ID#	Category	CRT	Gas	Year 1	Year 2	Value 1	Value 2	Difference Unit	$(CO_2 eq)$	(%)	Z-score
I.5.1.	1.A.1.a. Public electricity and heat production	Table1	CO <sub>2</sub>	2008	2009	633.98	1 880.96	1 246.98 kt	1 246.98	196.7	4.6
I.5.2.	1.A.2.d. Pulp, paper and print	Table1	$CO_2$	1993	1994	295.41	653.92	358.51 kt	358.51	121.4	3.5
I.5.3.	1.A.3.a. Domestic aviation	Table1	$CO_2$	2019	2020	1 118.36	800.74	−317.62 kt	-317.62	-28.4	-3.5
I.5.4.	1.A.3.d. Domestic navigation	Table1	$CH_4$	2021	2022	3.11	4.70	1.59 kt	44.64	51.3	3.3
I.5.5.	1.A.5.b. Mobile	Table1	$CO_2$	2002	2003	487.64	192.66	-294.97 kt	-294.97	-60.5	-3.2
I.5.6.	1.B.2.c. Venting and flaring	Table1	$CO_2$	2006	2007	1 296.74	2 607.62	1 310.89 kt	1 310.89	101.1	4.0
I.5.7.	1.B.2.c. Venting and flaring	Table1	$CH_4$	2006	2007	10.03	13.65	3.62 kt	101.39	36.1	3.4
I.5.8.	1.D.1.a. Aviation	Table1	$CO_2$	2019	2020	1 751.01	584.78	−1 166.24 kt	$-1\ 166.24$	-66.6	-4.4
I.5.9.	1.D.1.a. Aviation	Table1	$CO_2$	2021	2022	511.66	1 368.92	857.26 kt	857.26	167.5	3.0
I.5.10.	1.D.1.b. Navigation	Table1	$CH_4$	2014	2015	0.08	1.40	1.32 kt	36.85	1 581.1	4.4
I.5.11.	2.A.2. Lime production	Table2(I)	$CO_2$	2009	2010	138.34	248.15	109.81 kt	109.81	79.4	4.2
I.5.12.	2.A.4. Other process uses of carbonates	Table2(I)	$CO_2$	2012	2013	44.49	102.62	58.12 kt	58.12	130.6	3.4
I.5.13.	2.B.5. Carbide production	Table2(I)	$CO_2$	2002	2003	206.79	95.61	-111.18 kt	-111.18	-53.8	-3.7
I.5.14.	2.B.8. Petrochemical and carbon black production	Table2(I)	$CO_2$	1996	1997	570.70	882.43	311.73 kt	311.73	54.6	3.8
I.5.15.	2.C.3. Aluminium production	Table2(I)	$CO_2$	2008	2009	2 230.82	1 790.25	-440.57 kt	-440.57	-19.7	-4.1

									Difference	Difference	
ID#	Category	CRT	Gas	Year 1	Year 2	Value 1	Value 2	Difference Unit	$(CO_2 eq)$	(%)	Z-score
I.5.16.	2.C.3. Aluminium production	Table2(I)	PFCs	1991	1992	3 106.01	2 369.31	-736.70 kt CO <sub>2</sub> eq	-736.70	-23.7	-3.4
I.5.17.	2.C.4. Magnesium production	Table2(I)	$CO_2$	2001	2002	164.36	0.00	−164.36 kt	-164.36	-100.0	-3.0
I.5.18.	2.C.4. Magnesium production	Table2(I)	$SF_6$	1991	1992	0.08	0.02	–0.06 kt	$-1\ 431.62$	-72.1	-3.4
I.5.19.	2.D.3. Other	Table2(I)	$CO_2$	2019	2020	107.20	144.02	36.82 kt	36.82	34.3	3.2
I.5.20.	2.G.1. Electrical equipment	Table2(I)	$SF_6$	2002	2003	0.00	0.00	0.00 kt	-40.76	-50.0	-3.6
I.5.21.	2.G.2. SF <sub>6</sub> and PFCs from other product use	Table2(I)	$SF_6$	1996	1997	0.00	0.00	0.00 kt	37.89	332.6	3.5
I.5.22.	2.G.2. SF <sub>6</sub> and PFCs from other product use	Table2(I)	$SF_6$	2001	2002	0.00	0.00	0.00 kt	-39.74	-75.0	-3.9
I.5.23.	2.C.3. Aluminium production	Table2(II)	CF <sub>4</sub>	1991	1992	416.54	321.60	−94.94 t	-629.45	-22.8	-3.3
I.5.24.	2.C.3. Aluminium production	Table2(II)	$C_2F_6$	1991	1992	31.02	21.36	−9.66 t	-107.24	-31.1	-3.9
I.5.25.	2.C.4. Magnesium production	Table2(II)	$SF_6$	1991	1992	84.50	23.58	−60.92 t	$-1\ 431.62$	-72.1	-3.4
I.5.26.	2.F.1. Refrigeration and air conditioning	Table2(II)	HFC-134a	2021	2022	312.12	274.32	−37.80 t	-49.14	-12.1	-3.5
I.5.27.	2.G.1. Electrical equipment	Table2(II)	$SF_6$	2002	2003	3.47	1.74	-1.73 t	-40.76	-50.0	-3.6
I.5.28.	2.G.2. SF <sub>6</sub> and PFCs from other product use	Table2(II)	$SF_6$	1996	1997	0.48	2.10	1.61 t	37.89	332.6	3.5
I.5.29.	2.G.2. SF <sub>6</sub> and PFCs from other product use	Table2(II)	$SF_6$	2001	2002	2.25	0.56	−1.69 t	-39.74	-75.0	-3.9
I.5.30.	3.A.1. Cattle	Table3	$CH_4$	1999	2000	73.06	68.57	–4.49 kt	-125.70	-6.1	-3.4
I.5.31.	3.A.1.a. Other	Table3	$CH_4$	1999	2000	73.06	68.57	–4.49 kt	-125.70	-6.1	-3.4
I.5.32.	4.B.1. Cropland remaining cropland	Table4	Net CO <sub>2</sub>	1999	2000	1 577.68	1 606.39	28.72 kt CO <sub>2</sub> eq	28.72	1.8	3.1
			emissions/removals								
I.5.33.	4.B.2. Land converted to cropland	Table4	Net CO <sub>2</sub>	2012	2013	519.55	724.66	205.11 kt CO <sub>2</sub> eq	205.11	39.5	3.3
			emissions/removals								
I.5.34.	4.D.1. Wetlands remaining wetlands	Table4	Net CO <sub>2</sub>	2012	2013	201.25	241.56	40.32 kt CO <sub>2</sub> eq	40.32	20.0	3.2
			emissions/removals								
I.5.35.	4.D.2. Land converted to wetlands	Table4	Net CO <sub>2</sub>	2016	2017	12.82	83.67	70.85 kt CO <sub>2</sub> eq	70.85	552.8	3.1
			emissions/removals								
I.5.36.	4.E.2. Land converted to settlements	Table4	Net CO <sub>2</sub>	2019	2020	2 274.73	1 703.04	−571.69 kt CO <sub>2</sub> eq	-571.69	-25.1	-3.2
			emissions/removals								
I.5.37.	5.C.1. Waste incineration	Table5	$CO_2$	2009	2010	61.70	196.48	134.77 kt	134.77	218.4	3.7
I.5.38.	5.F.2. Annual change in total carbon storage	Table5	$CO_2$	2008	2009	352.92	235.00	–117.93 kt	-117.93	-33.4	-3.1
I.5.39.	5.F.2. Annual change in total carbon storage	Table5	$CO_2$	2009	2010	235.00	116.81	–118.19 kt	-118.19	-50.3	-3.2

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.	1.A.1. Energy industries – gaseous fuels	Table1.A(a)s1	CO <sub>2</sub>	t/TJ	59.071 Above range
I.6.2.	2.D.2. Paraffin wax use	Table2(I).A-H	$CO_2$	t/t	2.948 Above range

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IEF reported Comparison

558.051 Above range

13.235 Above range

13.235 Above range

14.000 Above range

10.566 Above range

1.809 Above range

1.809 Above range

198 396.901 Above range

Table I.7
<b>Identification of new key categories</b>

2.F.1.a. Commercial refrigeration – HFC-32

3.A.2.a. Other (please specify)

5.A.1. Managed waste disposal sites

Category

I.6.10. 5.C.1.a. Biogenic

3.A.2. Sheep

3.A.4.h. Other

3.B.4.e. Horses

5.A.1.a. Anaerobic

ID#

I.6.3.

I.6.4.

I.6.5.

I.6.6.

I.6.7.

I.6.8.

I.6.9.

				Inventory
ID#	New key category	Gas	Criteria	year
I.7.1.	1.A.5. Other (not specified elsewhere) – liquid fuels	CO <sub>2</sub>	Level	2023
I.7.2.	2.B.1. Ammonia production	$CO_2$	Trend	2023
I.7.3.	2.B.8. Petrochemical and carbon black production	$CO_2$	Trend	2023
I.7.4.	3.B. Manure management	CH <sub>4</sub>	Trend	2023

CRT

Table3.A

Table3.A

Table3.A

Table5.A

Table5.A

Table5.C

Table3.B(a)

Gas

Table2(II).B-Hs2 Disposal loss factor %

CH<sub>4</sub>

 $CH_4$ 

 $CH_4$ 

 $CH_4$ 

 $CH_4$ 

 $CH_4$ 

 $CO_2$ 

Unit

kg CH<sub>4</sub>/head/year

kg CH<sub>4</sub>/head/year

kg CH<sub>4</sub>/head/year

kg CH<sub>4</sub>/head/year

t/t waste

t/t waste

kg/t waste