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## **Report on the technical expert review of the first biennial transparency report of Norway\***

### *Summary*

This report presents the results of the technical expert review of the first biennial transparency report of Norway, conducted by a technical expert review team 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. The review took place from 31 March to 4 April 2025 in Oslo.

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\* In the symbol for this document, 2024 refers to the year in which the original biennial transparency report was submitted, not to the year of publication.



## Abbreviations and acronyms

A6.4ER	emission reduction under Article 6, paragraph 4, of the Paris Agreement
AR	Assessment Report of the Intergovernmental Panel on Climate Change
BTR	biennial transparency report
CCS	carbon dioxide capture and storage
CER	certified emission reduction
CH <sub>4</sub>	methane
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> eq	carbon dioxide equivalent
CRT	common reporting table
CTF	common tabular format
EEA	European Economic Area
EU	European Union
EU ETS	European Union Emissions Trading System
F-gas	fluorinated gas
GEF	Global Environment Facility
GHG	greenhouse gas
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
ITMO	internationally transferred mitigation outcome
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 <sub>2</sub> O	nitrous oxide
NA	not applicable
NDC	nationally determined contribution
NE	not estimated
NF <sub>3</sub>	nitrogen trifluoride
NID	national inventory document
NMVOOC	non-methane volatile organic compound
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
PaMs	policies and measures
PFC	perfluorocarbon
QA/QC	quality assurance/quality control
REDD+	reducing emissions from deforestation; reducing emissions from forest degradation; conservation of forest carbon stocks; sustainable management of forests; and enhancement of forest carbon stocks (decision 1/CP.16, para. 70)
SF <sub>6</sub>	sulfur hexafluoride
TERT	technical expert review team
WAM	‘with additional measures’
WM	‘with measures’

## I. Introduction and summary

### A. Introduction

1. This report covers the technical expert review of the BTR1 of Norway. The review was organized by the secretariat and conducted by the TERT in accordance with the MPGs,<sup>1</sup> particularly chapter VII thereof.
2. A draft version of this report was transmitted to the Government of Norway, which provided comments that were taken into account, as appropriate, in this final version of the report.<sup>2</sup>
3. The review was conducted as an in-country review from 31 March to 4 April 2025 in Oslo by the following team of nominated experts from the UNFCCC roster of experts: Chart Chiemchaisri (Thailand), Fatou Ndeye Gaye (Gambia), Maria Gutierrez (Mexico), Erwin Moldaschl (Austria), Giorgi Mukhigulishvili (Georgia), Emanuele Peschi (Italy), Emma Salisbury (United Kingdom of Great Britain and Northern Ireland) and Verica Taseska Gjorgievska (North Macedonia). Maria Gutierrez and Emma Salisbury were the lead reviewers. The review was coordinated by Claudia do Valle (secretariat).

### B. Scope

4. The TERT conducted a technical expert review of the information reported in the BTR1 of Norway as per the scope of the review defined in paragraph 146 of the MPGs, consisting of:
  - (a) Review of the consistency of the information submitted by the Party under Article 13, paragraphs 7 and 9, of the Paris Agreement with the MPGs (see chap. II.A below);
  - (b) Consideration of the Party's implementation and achievement of its NDC under Article 4 of the Paris Agreement (see chap. II.B below);
  - (c) Consideration of the support provided by the Party, as relevant (see chap. II.C below);
  - (d) Identification of areas of improvement<sup>3</sup> for the Party related to implementation of Article 13 of the Paris Agreement (see chap. II.D below).

### C. Summary

5. Norway submitted its BTR1 on 17 December 2024, before the deadline of 31 December 2024 mandated in decision 18/CMA.1. Norway submitted its NID as a stand-alone document on 22 November 2024, before the deadline of 31 December 2024. Norway also submitted its CRTs on 22 November 2024, before the deadline of 31 December 2024, and CTF tables on 17 December 2024, before the deadline of 31 December 2024.<sup>4</sup>
6. A list of the areas of improvement identified on the basis of the review of the consistency of the reported information with the MPGs can be found in the assessment tables.<sup>5</sup>

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<sup>1</sup> Decision 18/CMA.1, annex.

<sup>2</sup> As per para. 162(e) of the MPGs.

<sup>3</sup> As referred to in paras. 7, 8, 146(d) and 162(d) of the MPGs.

<sup>4</sup> The technical expert review was conducted on the basis of the versions of the BTR submitted on 4 February 2025, the NID and CRTs submitted on 22 November 2024 and the CTF tables submitted on 17 December 2024. The Party subsequently submitted revised CTF NDC tables on 3 April 2025, which were considered by the TERT during the review.

<sup>5</sup> Contained in document FCCC/ETF/TERR.1/2024/NOR/Add.1, available at <https://unfccc.int/first-biennial-transparency-reports>.

**D. Information provided by the Party pursuant to paragraphs 143–145 of the modalities, procedures and guidelines**

7. Norway does not consider itself subject to the reporting obligations applicable to developing country Parties pursuant to Article 13, paragraph 10, of the Paris Agreement. Accordingly, the Party did not report information on support needed and received for implementing Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building.

**II. Technical expert review<sup>6</sup>**

**A. Review of the consistency of the submitted information with the modalities, procedures and guidelines<sup>7</sup>**

**1. National inventory report<sup>8</sup>**

8. The TERT assessed the information reported in the BTR1 of Norway and identified areas of improvement relating to consistency with the MPGs, which are described in tables 2–4 and 6–7 of the assessment tables referred to in paragraph 6 above and summarized in table 1.

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<sup>6</sup> As per para. 187 of the MPGs.

<sup>7</sup> As per para. 146(a) of the MPGs.

<sup>8</sup> As per para. 150(a) of the MPGs.

Table 1

**Information reported in Norway's national inventory report and review of consistency with the modalities, procedures and guidelines**

<i>Element</i>	<i>Elements of information to be reported</i>	<i>Response and its summary, as relevant</i>	<i>ID#(s) for the area(s) of improvement identified<sup>a</sup></i>
Submission type (para. 12 of the MPGs)	Has the national inventory report been submitted as a stand-alone document?	Yes	No areas of improvement were identified
Time series (paras. 57–58 of the MPGs)	What years have been reported and is the time series in accordance with the MPGs?	1990–2022, in accordance with the MPGs	No areas of improvement were identified
Metrics (para. 37 of the MPGs)	Has the Party used the 100-year global warming potential values from the AR5?	Yes	No areas of improvement were identified
	Has the Party used other metrics?	No	No areas of improvement were identified
Gases (paras. 47–49 and 51 of the MPGs)	Which gases have been reported?	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub>	No areas of improvement were identified
Indirect emissions (para. 52 of the MPGs)	Has the Party reported indirect CO <sub>2</sub> emissions and national totals with and without indirect CO <sub>2</sub> ?	Partly	4.I.1
	Has the Party reported indirect N <sub>2</sub> O emissions from sources other than those in the agriculture and LULUCF sectors as a memo item?	Yes	No areas of improvement were identified
National circumstances and institutional arrangements (paras. 18–19 of the MPGs)	Has the Party reported information on the functions related to inventory planning, preparation and management?	Yes	No areas of improvement were identified
Methodologies, parameters and data (paras. 20–24 of the MPGs)	Has the Party used the <i>2006 IPCC Guidelines for National Greenhouse Gas Inventories</i> ?	Yes	3.E.5, 4.I.3, 6.L.2, 7.W.3
	Has the Party used other IPCC methodological guidance?	Yes, the <i>2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands</i> and the <i>2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories</i> .	No areas of improvement were identified
Key category analysis (paras. 25 and 41–42 of the MPGs)	Has the Party reported a key category analysis?	Yes, a key category analysis was performed using approach 2 and a 90 per cent threshold for level and trend	No areas of improvement were identified

<i>Element</i>	<i>Elements of information to be reported</i>	<i>Response and its summary, as relevant</i>	<i>ID#(s) for the area(s) of improvement identified<sup>a</sup></i>
		assessment for the starting year (1990) and the latest reporting year (2022) and with and without LULUCF	
Time-series consistency and recalculations (paras. 26–28 and 43 of the MPGs)	Has the Party reported a consistent time series?	Yes	No areas of improvement were identified
	Has the Party provided justification and explanatory information for recalculations?	Partly	No areas of improvement were identified
Uncertainty assessment (paras. 29 and 44 of the MPGs)	Has the Party reported the results of the uncertainty analysis and the methods used, underlying assumptions and trends?	Yes, including level and trend uncertainty, reported using approach 2 for the starting year (1990) and the latest reporting year (2022)	No areas of improvement were identified
QA/QC plan and procedures (paras. 34–36 and 46 of the MPGs)	Has the Party elaborated information on an inventory QA/QC plan, including information on the inventory agency responsible for implementing QA/QC, and current and future QA/QC procedures?	Yes, including information on the inventory agency responsible for implementing QA/QC, an inventory QA/QC plan, general QC procedures and category-specific QC for key categories and for individual categories for which significant methodological changes and/or data revisions have occurred	No areas of improvement were identified
Assessment of completeness (paras. 30–33, 45, 47 and 50 of the MPGs)	Have any areas of improvement for lack of completeness been identified for the following sectors?	Yes	2.G.1
	Energy	Yes	3.E.6
	IPPU	No	No areas of improvement were identified
	Agriculture	No	No areas of improvement were identified
	LULUCF	No	No areas of improvement were identified
	Waste	No	No areas of improvement were identified
Threshold for reporting significant categories (para. 32 of the MPGs)	For categories reported as “NE” owing to insignificance, has information been reported showing that the likely level of	Yes	No areas of improvement were identified

<i>Element</i>	<i>Elements of information to be reported</i>	<i>Response and its summary, as relevant</i>	<i>ID#(s) for the area(s) of improvement identified<sup>a</sup></i>
Methodologies, emission factors, parameters and activity data (paras. 39–40 and 53–56 of the MPGs)	emissions is below the threshold of significance?		
	Has information been reported on categories, gases, methodologies (including the rationale for selecting them), emission factors and activity data at a disaggregated level for the following sectors?		
	Energy	Partly	3.E.2, 3.E.3, 3.E.4
	Has information been reported on international aviation and marine bunker fuel emissions as two separate entries and such emissions distinctly reported from national totals?	Yes	NA
	Has information been reported indicating how feedstocks and non-energy use of fuels have been accounted for in the inventory, under the energy or IPPU sector?	Yes	NA
	IPPU	Partly	4.I.2
	Agriculture	Yes	No areas of improvement were identified
	LULUCF	Partly	6.L.3, 6.L.4
	Did the Party provide information on the approach taken to address emissions and subsequent removals from natural disturbances on managed land in a manner consistent with IPCC guidance, and indicate whether the estimates are included in national totals?	Yes	No areas of improvement were identified
	Waste	Partly	7.W.2, 7.W.4

<sup>a</sup> See document FCCC/ETF/TERR.1/2024/NOR/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.

**2. Information necessary to track progress in implementing and achieving the nationally determined contribution<sup>9</sup>**

9. The TERT assessed the information reported in the BTR1 of Norway and identified areas of improvement relating to consistency with the MPGs, which are described in tables 9–10 of the assessment tables referred to in paragraph 6 above and summarized in table 2.

Table 2

**Information reported in Norway’s submission**

<i>Topic</i>	<i>ID#(s) for the area(s) of improvement identified<sup>a</sup></i>
National circumstances and institutional arrangements (paras. 59–63 of the MPGs)	No areas of improvement were identified
Description of the NDC under Article 4 of the Paris Agreement, including updates (para. 64 of the MPGs)	9.1
Information necessary to track progress in implementing and achieving the NDC under Article 4 of the Paris Agreement (paras. 65–79 of the MPGs)	10.1
Mitigation PaMs, actions and plans related to implementing and achieving the NDC under Article 4 of the Paris Agreement (paras. 80–90 of the MPGs)	No areas of improvement were identified
Summary of GHG emissions and removals (para. 91 of the MPGs)	No areas of improvement were identified
Projections of GHG emissions and removals (paras. 92–102 of the MPGs)	No areas of improvement were identified

<sup>a</sup> See document FCCC/ETF/TERR.1/2024/NOR/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.

**3. Financial, technology development and transfer, and capacity-building support provided<sup>10</sup>**

10. According to paragraph 118 of the MPGs, developed country Parties shall provide information pursuant to Article 13, paragraph 9, of the Paris Agreement in accordance with the MPGs contained in chapter V of the annex to decision 18/CMA.1. Other Parties that provide support should also provide such information and, in doing so, are encouraged to use the same MPGs contained in that chapter.

11. Pursuant to Article 13, paragraph 9, of the Paris Agreement, developed country Parties shall and other Parties that provide support should provide information on financial, technology development and transfer, and capacity-building support provided to developing country Parties under Articles 9–11 of the Paris Agreement.

12. Norway considered itself subject to reporting obligations applicable to developed country Parties pursuant to Article 13, paragraph 9, of the Paris Agreement and, in accordance with the MPGs, reported information on financial, technology development and transfer, and capacity-building support provided under Articles 9–11 of the Paris Agreement in its BTR1.<sup>11</sup>

13. The TERT assessed the information reported in the BTR1 of Norway and identified an area of improvement relating to consistency with the MPGs, which is described in table 19 of the assessment tables referred to in paragraph 6 above and summarized in table 3.

<sup>9</sup> As per para. 150(b) of the MPGs.

<sup>10</sup> As per para. 150(c) of the MPGs.

<sup>11</sup> As per para. 118 of the MPGs.

Table 3

**Review of the consistency of the information on financial, technology development and transfer, and capacity-building support reported in Norway’s submission with the modalities, procedures and guidelines**

<i>Topic</i>	<i>ID#(s) for the area(s) of improvement identified<sup>a</sup></i>
National circumstances and institutional arrangements (paras. 119–120 of the MPGs)	No areas of improvement were identified
Underlying assumptions, definitions and methodologies (paras. 121–122 of the MPGs)	No areas of improvement were identified
Information on financial support provided under Article 9 of the Paris Agreement (paras. 123–124 of the MPGs)	No areas of improvement were identified
Information on support for technology development and transfer provided under Article 10 of the Paris Agreement (paras. 126–127 of the MPGs)	19.1
Information on capacity-building support provided under Article 11 of the Paris Agreement (paras. 128–129 of the MPGs)	No areas of improvement were identified

<sup>a</sup> See document FCCC/ETF/TERR.1/2024/NOR/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.

## **B. Consideration of the Party’s implementation and achievement of its nationally determined contribution<sup>12</sup>**

14. In considering Norway’s progress in implementing and achieving its NDC, the TERT noted that the NDC is a commitment to reduce GHG emissions by at least 55 per cent by 2030 compared with the 1990 level. It includes all sectors of the inventory and covers CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>. Emissions and removals from the LULUCF sector that are additional (those resulting from new or enhanced PaMs) will be accounted for when assessing achievement of the target. Although Norway is not a member State of the EU, it has, since 1994, been part of the EU internal market through the EEA Agreement.

15. Norway’s approach to achieving this target involves active participation in EU climate legislation through the EEA Agreement. This includes participation in the EU ETS, the EU effort-sharing regulation and the EU LULUCF regulation. The EU ETS covers approximately half of the Party’s emissions. Under the EU effort-sharing regulation for sectors not included in the EU ETS, such as agriculture, transport, waste and buildings, Norway has a binding annual GHG emission reduction target for 2021–2030. The current agreement requires Norway to reduce emissions in these sectors by 40 per cent by 2030 compared with the 2005 level. Under the EU LULUCF regulation, Norway has committed to ensuring that GHG emissions from LULUCF are balanced by at least an equivalent removal of CO<sub>2</sub> from the atmosphere in 2021–2030, adhering to the ‘no debit’ rule of the EU. During the review, the Party explained that the definition of its contribution in terms of GHG reductions to the EU framework has not yet been finalized and is currently under negotiation with the European Commission.

16. Norway intends to achieve its NDC in cooperation with the EU utilizing the framework established under Article 6 of the Paris Agreement. If its cooperation with the EU does not lead to its target being met, Norway plans to use ITMOs acquired from countries outside of the EEA. During the review, Norway explained that it has adopted a purchasing programme under Article 6 of the Paris Agreement (the Norwegian Global Emission Reduction Initiative) with an approved budget of USD 740 million. The programme’s main objectives include contributing to emission reductions, supporting capacity-building and

<sup>12</sup> As per para. 146(b) of the MPGs.

programme development, purchasing carbon credits and strengthening the carbon market. Notably, it does not fall under ODA. The programme prioritizes cooperation with countries committed to achieving broader green transformation and lasting emission reductions and mobilizing private investments, and involves coordination with other funding sources such as Just Energy Transition Partnerships, private investments and ODA. Norway will report on its chosen accounting method for cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement and in decision 2/CMA.3 in its forthcoming initial report in accordance with the guidance on cooperative approaches.<sup>13</sup>

17. The indicator that Norway selected to track progress in implementing and achieving its NDC is described in table 4.

Table 4

**Description of the indicator(s) selected by Norway to track progress in implementing and achieving its nationally determined contribution**

<i>NDC target</i>	<i>Indicator</i>	<i>Description</i>
Reduction of emissions by at least 55 per cent in 2030 compared with the base-year (1990) level	Emissions without LULUCF	Total emissions in CO <sub>2</sub> eq, including indirect CO <sub>2</sub> , without LULUCF

*Sources:* Norway’s BTR1 and CTF tables 1–3.

18. The TERT noted that, although LULUCF is included in the scope of the Party’s NDC, its contribution to achieving the NDC target is not clearly reflected in either the base-year or target-year level. At present, the contribution of LULUCF to achieving the NDC is not entirely clear since, as the Party explained during the review, it has yet to finalize a method for defining emissions and removals from the LULUCF sector that are additional (resulting from new or enhanced PaMs) and thus accounted for when assessing achievement of the NDC target. Norway also plans to use ITMOs from cooperative approaches towards the achievement of its NDC, although no quantitative estimates are yet available. Units from cooperative approaches and other market-based mechanisms are not included in the reference point or the target.

19. Table 5 summarizes information on progress in implementing the NDC based on the indicator emissions without LULUCF taking into account the type of Norway’s NDC target, including quantitative values for the base year, implementation period, including the most recent year available, and target year.

Table 5

**Summary of information on Norway’s progress in implementing and achieving its nationally determined contribution**

(kt CO<sub>2</sub> eq)

	<i>Emissions without LULUCF</i>	<i>Contribution of LULUCF, as applicable</i>	<i>ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable</i>	<i>Indicator adjusted for contribution of LULUCF and ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable</i>
NDC base year (1990)	51 263.14			
2021	49 254.43	NE	NA	NE
2022	48 879.49	NE	NA	NE
Target level (2030)				23 068.41

*Source:* Norway’s BTR1 and CTF table 4.

20. According to the most recent information on the indicator emissions without LULUCF provided in CTF table 4, in 2022 Norway’s GHG emissions without LULUCF were 48,879.49 kt CO<sub>2</sub> eq. The contribution of LULUCF was not estimated (see para. 18 above). The indicator is 4.6 per cent (2,383.65 kt CO<sub>2</sub> eq) below the emission level corresponding to the base-year level and 111.9 per cent (25,811.08 kt CO<sub>2</sub> eq) above the emission level corresponding to the target level in 2030. This does not, however, take into

<sup>13</sup> Decision 2/CMA.3, annex.

account the planned use of ITMOs, nor the contribution of the LULUCF sector, which could not yet be calculated.

21. Norway reported information on the actions and PaMs that support the implementation and achievement of its NDC. Table 6 provides a summary of the reported information on the key PaMs of Norway.

Table 6

**Summary of information on key policies and measures reported by Norway**

<i>Sector</i>	<i>Key PaMs<sup>a, b</sup></i>	<i>Estimate of mitigation impact in 2030 (kt CO<sub>2</sub> eq)</i>
Policy framework and cross-sectoral measures	CO <sub>2</sub> tax on mineral products (excluding road and air transport under the ETS)	514
	EU ETS	NE
	Enova (new solutions for climate and energy transition)	2 629
	Klimasats (financial support scheme to reduce emissions in cities)	53
	Innovation Norway	NE
Energy		
Petroleum	Climate policies that affect the petroleum sector	8 500
	Indirect CO <sub>2</sub> emissions from offshore and onshore NMVOC regulation	120
Energy efficiency	Ban on the use of mineral oil for heating	380
Transport	The CO <sub>2</sub> tax on mineral products (road transport only)	7 000
	Biofuel mandate for road transport	NE
	Biofuel mandate for shipping	190
	Biofuel mandate for other sectors	460
	Green Shipping Programme	260
IPPU	Use of biocarbon in the production of ferroalloys and cement	500
	N <sub>2</sub> O reduction from the production of nitric acid	2 400
	Agreement of major aluminium producers to reduce emissions	5 200
	F-gas regulation	600
Agriculture	Regional agri-environmental programme	23
	Delivery of manure for production of biogas	3
LULUCF	Restrictions on cultivation of peatlands	5
	Reducing emissions from peatlands and bogs	60
	Fertilization of forests as a climate mitigation measure	270
Waste	Requirement for collection of landfill gas	90
	Ban on depositing biodegradable waste in landfills	592
	Tax on waste incineration	252
Other	CCS (geological storage of CO <sub>2</sub> from fuel combustion, industrial production and waste incineration)	750

*Sources:* Norway's BTR1 and CTF table 5.

<sup>a</sup> Included in the WM scenario projections.

<sup>b</sup> Names of PaMs reproduced as reported in Norway's BTR.

22. The TERT noted that the key PaMs contributing to GHG emission reductions are climate policies targeting the petroleum, transport and industry sectors. In the petroleum sector, GHG emissions are expected to decrease by 8.5 Mt CO<sub>2</sub> eq by 2030, driven by a combination of the CO<sub>2</sub> tax on petroleum activities, participation in the EU ETS, strict regulations on flaring and venting, and requirements to implement best available technologies to minimize emissions.

23. In the transport sector, GHG emissions significantly decreased between 2015 and 2022, indicating that the widespread adoption of electric vehicles, incentivized by, inter alia, value-added tax exemptions, road toll reductions, investments in charging infrastructure, and programmes encouraging the use of low- and zero-emission vessels in maritime transport, has supplemented the effects of mitigation PaMs. Moreover, biofuel blending mandates and investment in public transport have helped to further reduce fossil fuel consumption in the sector. It is estimated that in 2030 electrification and biofuel measures in transport will have led to emission reductions of some 10.2 Mt CO<sub>2</sub> eq.

24. In the IPPU sector, projections indicate that key implemented PaMs will continue to contribute to GHG emission reductions; in 2030, it is estimated that the use of N<sub>2</sub>O decomposition technology in nitric acid production will reduce GHG emissions by 2.4 Mt CO<sub>2</sub> eq, and that long-standing voluntary agreements with the aluminium industry on reducing CO<sub>2</sub> and PFC emissions will reduce GHG emissions by 5.2 Mt CO<sub>2</sub> eq, reflecting the importance of technological advancements and industry commitment for lowering emission intensity.

25. Another policy tool that has played a crucial role in accelerating the deployment of low-emission solutions involves the State-owned enterprise Enova, which provides financial support for climate-friendly technologies and energy efficiency improvements across multiple sectors. Through grants and advisory services, Enova has supported enterprises and individuals in transitioning to cleaner energy sources and reducing their carbon footprint. A range of initiatives implemented under Enova across different sectors are expected to result in emission reductions amounting to some 2.6 Mt CO<sub>2</sub> eq in 2030.

26. CCS measures, which account for an estimated emission reduction of 0.75 Mt CO<sub>2</sub> eq in 2030, play a crucial role in Norway's plan for reducing GHG emissions, contributing to the achievement of Norway's NDC target through large-scale projects such as Longship and Northern Lights, which facilitate CO<sub>2</sub> capture, transport and permanent storage, while also driving technological advancements and international collaboration in CCS deployment.

27. Norway's economy remains heavily reliant on natural resources, particularly petroleum, although its share in gross domestic product is projected to decrease, as reserves are expected to decline. Norway reported that one of the key drivers affecting the impact of its PaMs is its population, which grew by 31 per cent in 1990–2023, from 4.2 million to 5.5 million. Climate factors also influence GHG emissions: cold temperatures drive up heating demand, while abundant precipitation enables nearly all domestic electricity to be supplied by hydropower, facilitating widespread electrification for energy consumption.

28. Norway achieved a 56 per cent reduction in emission intensity (emissions per unit of gross domestic product) between 1990 and 2022, driven by increasingly stringent climate policies and rapid technological advancements. For the energy sector, Norway reported that 98 per cent of its electricity is generated from renewable sources (primarily hydropower) and that it has reduced its energy intensity by 45 per cent since 1990, indicating a decoupling of economic growth from energy use. The transport sector accounted for 33 per cent of national emissions, with road transport emissions declining owing to the adoption of electric vehicles, which represented 90 per cent of new car sales in 2024. Industrial emissions under the IPPU sector have decreased by 37 per cent since 1990, driven by reductions in resource-based manufacturing (e.g. metals and chemicals), yet the sector still accounted for 19 per cent of total GHG emissions in 2022. Emissions from the waste sector, representing 2.9 per cent of total national emissions, have decreased since 1990 owing to increased recycling and landfill bans, despite growing waste volumes as a result of economic expansion. The agriculture sector accounts for 9.5 per cent of national emissions, mainly CH<sub>4</sub> and N<sub>2</sub>O emissions from livestock and fertilizer use, and emissions have declined by 6.8 per cent since 1990, reflecting limited arable land and extensive pasture use. In the LULUCF sector, Norway's forests

sequester approximately 28 per cent of national emissions, although sequestration has declined since 2010 owing to logging, drought and reduced planting, while emissions from deforestation have increased slightly.

29. Norway reported projections for 2030–2040 under the WM scenario.<sup>14</sup> The WM scenario reported by the Party includes PaMs implemented and adopted until the middle of 2024. In addition to the WM scenario, Norway reported the WAM scenario, which includes planned policies and actions that have not yet been adopted by the Norwegian Parliament. The projected emission levels are presented in table 7.

Table 7

**Summary of greenhouse gas emission projections for Norway**

	<i>GHG emissions (kt CO<sub>2</sub> eq/year)<sup>a</sup></i>	<i>Change in relation to 2020 level (%)</i>	<i>Change in relation to 2022 level (%)</i>
Inventory data 2020	49 405.87		
Inventory data 2022	48 879.49	-1.1	
WM projections for 2030	37 842.04	-23.4	-22.6
WAM projections for 2030	33 068.61	-33.1	-32.3
WM projections for 2040	27 915.49	-43.5	-42.9
WAM projections for 2035 <sup>b</sup>	27 088.13	-45.2	-44.6

*Sources:* Norway’s BTR1 and CTF tables 6–9.

*Note:* The projections are for GHG emissions with LULUCF and including indirect CO<sub>2</sub> emissions.

<sup>a</sup> The numbers in this column refer to projections without LULUCF.

<sup>b</sup> Norway did not report a WAM scenario for 2040.

30. The TERT assessed Norway’s progress towards achieving its target. The TERT noted that, on the basis of a comparison of information for the most recent reported year (i.e. 2022), the Party reduced its GHG emissions without LULUCF by 4.6 per cent and with LULUCF by 11.1 per cent compared with the 1990 level and that an additional reduction of 25,811.08 kt CO<sub>2</sub> eq would be required to reach the target level by 2030. As the contribution of the LULUCF sector is not yet clearly defined in the indicator (see para. 18 above), the TERT considers that there are not yet sufficient data to fully assess the Party’s progress in implementing the NDC, given that the scope and contribution of the LULUCF sector to the target and indicator have not yet been defined by the Party.

**C. Consideration of the Party’s support provided<sup>15</sup>**

31. Norway reported information on financial, technology development and transfer, and capacity-building support provided to developing country Parties under Articles 9–11 of the Paris Agreement as per the reporting obligations applicable to developed country Parties pursuant to Article 13, paragraph 9, of the Paris Agreement (see para. 12 above).

32. In its BTR1 Norway reported information on national circumstances and institutional arrangements relevant to reporting on the provision and mobilization of support. The Party reported information on the systems and processes used to identify, track and report on support provided; challenges and limitations; experience and good practices relating to public policy and regulatory frameworks for private climate financing and investment; and efforts to enhance the comparability and accuracy of the information reported on financial support provided.

33. Norway’s support strategy is wide-ranging in terms of geography, sectors and scale, and encompasses bilateral partnerships, regional initiatives and multilateral cooperation. Climate finance continues to focus primarily on three areas: reducing emissions from deforestation and forest degradation (REDD+); promoting renewable energy; and supporting adaptation to climate change, including risk reduction. Since 2021, the Party has strengthened

<sup>14</sup> Note that, as per para. 93 of the MPGs, projections shall not be used to assess progress towards the implementation and achievement of an NDC under Article 4 of the Paris Agreement unless the Party has identified a reported projection as its baseline.

<sup>15</sup> As per para. 146(c) of the MPGs.

its focus on adaptation in line with its commitment to at least triple adaptation finance by 2026 compared with the 2020 level.

34. Norway's total climate finance provided and mobilized more than doubled between 2020 and 2022, increasing from USD 741 million to USD 1.6 billion. Of this, earmarked support (excluding Norfund and the Party's Climate Investment Fund) rose from USD 428 million in 2020 to USD 546 million in 2022, while contributions from Norfund and the Party's Climate Investment Fund increased from USD 62 million in 2020 to USD 198 million in 2022.

35. Norway's BTR1 contains key information on underlying assumptions, methodologies and definitions used by the Party to identify and/or report information on financial support provided, including efforts to enhance the comparability and accuracy of reported information. Norway's reporting of climate finance, both provided and mobilized, is based on reporting under the OECD Creditor Reporting System. The Party uses the Rio markers of the OECD Development Assistance Committee, which classify activities as having a principal or significant climate objective, to identify earmarked contributions (i.e. all public support provided through bilateral and multilateral channels, excluding core contributions to multilateral organizations). The Norwegian Agency for Development Cooperation conducts annual QA checks on the reporting of climate-specific earmarked contributions in line with the OECD Creditor Reporting System guidelines.

36. For tracking and reporting core contributions to multilateral organizations, Norway uses the OECD imputed multilateral shares methodology, which is based on calculated climate-specific shares of donors' core contributions. Since 2021, this methodology has also allowed for disaggregation by adaptation, mitigation and cross-cutting support. However, not all climate-relevant multilateral organizations receiving core support from Norway report sufficient information to the OECD to allow for the calculation of imputed multilateral shares, and therefore the full extent of Norway's core support is not captured in the report. For mobilized climate finance, Norway applies the OECD standardized framework for measuring mobilized private capital, and, as is done for public support, applies a 40 per cent coefficient to the mobilized private finance to estimate the climate-specific amount.

37. Norway's BTR1 includes information on underlying assumptions used by the Party to identify and/or report information on technology development and transfer, and capacity-building support provided. It explains that Norway does not yet apply a specific methodology for systematically tracking these activities but provides numerous examples of relevant initiatives in both textual form and qualitative tables. The BTR1 notes that the Working Party on Development Finance Statistics of the OECD Development Assistance Committee has recently developed a methodology for tracking these activities; however, this methodology does not fully capture Norway's support. During the review, the Party elaborated on the challenges it faces, highlighting the limitations of using predefined variables to determine whether an activity contributes to capacity-building and the need for time-consuming manual reviews under the proposed OECD approach. Norway indicated that it is exploring alternative reporting options, including the use of relevant Sustainable Development Goals as proxies, and intends to consult with other Parties on how best to report these activities in the future.

## **1. Financial support provided under Article 9 of the Paris Agreement**

### **(a) Bilateral, regional and other channels**

38. Norway provided USD 1,443.21 million of financial support through bilateral, regional and other channels in the biennium 2021–2022. A significant share of this support (36.0 per cent) was registered as global, with no specified geographical region. Of the remaining support, the largest share of public climate finance was directed to Africa (39.8 per cent), followed by Asia (13.8 per cent) and the Americas (10.1 per cent). The projects, programmes or activities that received financial support were primarily related to environmental protection, energy efficiency, renewable energy and food security. The majority of financial support provided through bilateral, regional and other channels was allocated to the following sectors: general environmental protection, mainly forestry (40.9 per cent), agriculture (20.0 per cent), energy (18.2 per cent), cross-cutting (6.4 per cent) and other (4.4 per cent).

39. Table 8 summarizes information on financial support provided by the Party through bilateral, regional and other channels by type of support.

Table 8

**Summary of financial support provided through bilateral, regional and other channels in 2021–2022 by Norway**

<i>Type of financial instrument</i>	<i>Amount (climate-specific) (face value – USD million)</i>				<i>Share of total for bilateral, regional and other channels (%)</i>
	<i>Adaptation</i>	<i>Mitigation</i>	<i>Cross-cutting</i>	<i>Total</i>	
Grant	169.84	688.17	194.22	1 052.23	72.9
Equity	–	219.61	–	219.61	15.2
Other	–	171.37	–	171.37	11.9
<b>Total</b>	<b>169.84</b>	<b>1 079.14</b>	<b>194.22</b>	<b>1 443.21</b>	<b>100.0</b>
<b>Share of total for bilateral, regional and other channels (%)</b>	<b>11.8</b>	<b>74.8</b>	<b>13.4</b>	<b>100.0</b>	<b>–</b>

Sources: Norway's BTR1 and CTF table III.1.

**(b) Multilateral channels**

40. Norway provided USD 412.38 million in financial support through multilateral channels in the biennium 2021–2022. The Party did not provide information on financial support by sector in CTF table III.2. The financial support was directed mainly to multilateral financial institutions such as the Green Climate Fund, the World Bank, the African Development Bank and the Adaptation Fund. The financial support provided through multilateral channels was allocated to adaptation (47.0 per cent), followed by mitigation (38.0 per cent) and cross-cutting activities (15.0 per cent).

41. Table 9 summarizes information on financial support provided by the Party through multilateral channels by type of support.

Table 9

**Summary of financial support provided through multilateral channels in 2021–2022 by Norway**

(USD million)

<i>Institution/fund</i>	<i>Climate-specific inflows (face value)</i>			
	<i>Adaptation</i>	<i>Mitigation</i>	<i>Cross-cutting</i>	<i>Total</i>
Adaptation Fund	17.51	–	–	17.51
African Development Bank	44.38	23.98	–	68.36
Asian Development Bank	0.92	0.72	–	1.65
GEF	6.05	6.92	10.83	23.80
Green Climate Fund	53.93	75.31	29.39	158.63
Inter-American Development Bank	0.04	0.49	0.01	0.55
International Finance Corporation	0.06	4.01	0.01	4.07
UNFCCC trust fund for supplementary activities	–	–	0.27	0.27
World Bank	55.54	42.51	–	98.05
Other	–	–	–	0.00
CGIAR	1.91	1.24	8.88	12.03
Food and Agriculture Organization of the United Nations	0.11	0.02	0.28	0.41
Global Green Growth Institute	0.05	0.52	0.00	0.57
IPCC	–	–	0.11	0.11
International Fund for Agricultural Development	11.31	1.08	0.00	12.39
Multilateral Fund for the Implementation of the Montreal Protocol	–	–	4.06	4.06

<i>Institution/fund</i>	<i>Climate-specific inflows (face value)</i>			
	<i>Adaptation</i>	<i>Mitigation</i>	<i>Cross-cutting</i>	<i>Total</i>
Nordic Development Fund	2.01	–	7.92	9.93
<b>Total</b>	<b>193.83</b>	<b>156.80</b>	<b>61.76</b>	<b>412.38</b>
<b>Share of total (%)</b>	<b>47.0</b>	<b>38.0</b>	<b>15.0</b>	<b>100.0</b>

Sources: Norway's BTR1 and CTF table III.2.

## 2. Technology development and transfer support provided under Article 10 of the Paris Agreement

42. Norway implemented measures or activities related to technology development and transfer, including activities undertaken by both the public and the private sector, that benefited developing country Parties. Promoting the development, accessibility and efficiency of energy technologies is a key component of Norway's ODA, and collaboration under the Technology Mechanism was identified as a priority in the BTR1. Strategies for supporting technology development and transfer include contributing to pilot projects aimed at accelerating the deployment of innovative technologies and practices under the GEF and the Adaptation Fund, as well as supporting the Systematic Observations Financing Facility, which finances investments in weather observation stations in the least developed countries and small island developing States to improve early warning systems. The BTR1 indicates that support for technology development and transfer was largely channelled through multilateral forums.

43. Norway's support for technology development and transfer covers the different stages of the technology cycle, namely research, development and demonstration, deployment and diffusion. Although the BTR1 does not specify the support provided at each stage, various examples are cited. One notable example is the sharing of lessons learned and experience from Norway's efforts to develop commercial-scale CCS value chains, including through Mission Innovation, the Clean Energy Ministerial, the Carbon Management Challenge and the organization of visits to Norwegian CCS facilities.

44. Although the BTR1 presents examples of support provided by Norway for the deployment and enhancement of the endogenous capacities and technologies of developing country Parties, it does not explicitly address this topic. Examples include support for projects and programmes aimed at strengthening the capacity of recipient countries to assess climate-related technology needs, such as the GEF technology needs assessment programme and the Innovation Facility under the Adaptation Fund, which offers grants to vulnerable countries to accelerate innovative adaptation practices and technologies on the ground.

45. Norway encouraged private sector activities aimed at supporting developing country Parties with technology development and transfer. For example, the global GreenVoyage2050 programme is being implemented jointly by public and private sector actors to assist developing countries in reducing emissions from shipping through technology cooperation and the piloting of new technologies.

46. Norway engaged in measures and activities related to technology innovation, including research, development and deployment, using a collaborative approach. The Party reported on the knowledge generated from the support provided for technology development and transfer to developing country Parties. Through the Central African Forest Initiative, for instance, Norway has contributed to the development of the National Forest Monitoring System Programme in the Democratic Republic of the Congo, the development of new climate-resilient seed varieties and agricultural techniques in Mali and the Niger, and the rehabilitation of a water canal in Lebanon, which improved water access and food security.

47. Norway's supported measures and activities related to technology development and transfer focused mainly on supporting technology needs assessments and promoting innovative practices. Examples of measures and activities cited in the BTR1 include improving access to weather and climate observations, enhancing forest monitoring and increasing energy efficiency in the shipping industry. Such measures and activities covered the energy, transport, agriculture, forestry, and water and sanitation sectors. The technology development and transfer support provided was distributed evenly across the areas of

mitigation, adaptation and cross-cutting. The types of technology that received support include technologies for reducing maritime emissions, early warning systems, radar imaging technologies for forest monitoring, and improved land and water management technologies. For the reporting period 2021–2022, all measures and activities aimed at supporting technology development and transfer were reported as ongoing. The recipient entities for Norway’s technology development and transfer support were operating at the national, regional or global level.

### **3. Capacity-building support provided under Article 11 of the Paris Agreement**

48. Norway provided capacity-building support to developing country Parties for mitigation, adaptation and cross-cutting needs. To deliver such support, the Party applied a variety of strategies, ranging from contributions to multilateral initiatives, such as the Capacity-building Initiative for Transparency under the GEF and the Green Climate Fund, to more targeted sectoral approaches, including the establishment of knowledge banks to strengthen the capacities of public institutions in partner countries. Support was wide-ranging and provided both bilaterally and through regional and multilateral partners.

49. Norway’s capacity-building support addressed existing and emerging needs, priorities and gaps of developing country Parties by promoting stakeholder participation, country-driven demand and cooperation across programmes. It also contributed to initiatives such as the NDC Partnership and other programmes aimed at strengthening institutional and technical capacities in developing countries, particularly the least developed countries.

50. Norway described its key policies that promote capacity-building support in developing country Parties. Its efforts focus largely on building upon existing knowledge bases, ensuring that a variety of stakeholders can access climate-relevant information, and strengthening institutional capacity. The Knowledge Bank programmes, for example, in fisheries, oceans, agriculture and energy for development, aim to enhance competencies within public institutions through technical cooperation. Bilateral programmes include the development of a national blue carbon market in Indonesia and integrated mangrove management and restoration programmes in Colombia, while regional programmes include the Sahara Forest Project and the Central African Forest Initiative. Norway also supported meteorological institutes to strengthen national meteorological services in Bangladesh, Ethiopia, Malawi, Mozambique and Viet Nam.

51. To ensure the involvement and engagement of stakeholders and the sharing of lessons learned and best practices, Norway’s support includes contributions to the Green Climate Fund, the United Nations Office for Disaster Risk Reduction and the Global Facility for Disaster Reduction and Recovery. Capacity-building is also an integral component of Norway’s International Climate and Forest Initiative, which aims to reduce and reverse tropical deforestation and emphasizes the importance of transparency and public engagement, for example by making high-resolution satellite data publicly available and promoting public participation in efforts to enhance transparency in carbon markets.

#### **D. Identification of areas of improvement<sup>16</sup>**

52. During the technical expert review, the TERT identified areas of improvement in relation to Norway’s implementation of Article 13 of the Paris Agreement, which are summarized in chapter II.A above and included in the assessment tables referred to in paragraph 6 above.

### **III. Conclusions and recommendations**

53. The TERT conducted a technical expert review of the information reported in the BTR1, NID, CRTs and CTF tables of Norway in accordance with the MPGs.

<sup>16</sup> As per para. 146(d) of the MPGs.

54. The areas of improvement identified by the TERT on the basis of the review of the consistency of the information reported by Norway with the MPGs are summarized in chapter II.A above and included in the assessment tables referred to in paragraph 6 above.

55. The TERT notes that, on the basis of a comparison of information for the most recent reported year (i.e. 2022), the Party reduced its GHG emissions without LULUCF by 4.6 per cent and with LULUCF by 11.1 per cent compared with the 1990 level and that an additional reduction of 25,811.08 kt CO<sub>2</sub> eq would be required to reach the target level by 2030. As the contribution of the LULUCF sector is not yet clearly defined in the indicator (see para. 18 above), the TERT considers that there are not yet sufficient data to fully assess the Party's progress in implementing the NDC, given that the scope and contribution of the LULUCF sector to the target and indicator have not yet been defined by the Party.

56. The TERT notes that the key PaMs contributing to GHG emission reductions are those implemented in the petroleum, transport and industry sectors, supported by cross-cutting initiatives such as those undertaken by the State-owned enterprise Enova and through CCS deployment. In the petroleum sector, GHG emissions are projected to decline by 8.5 Mt CO<sub>2</sub> eq by 2030 owing to the CO<sub>2</sub> tax on petroleum activities, participation in the EU ETS, and stringent regulations on flaring, venting and technology performance. In the transport sector, GHG emissions significantly decreased between 2015 and 2022 as a result of the widespread adoption of electric vehicles, driven by fiscal incentives, investments in charging infrastructure and biofuel blending mandates, with total reductions projected at 10.2 Mt CO<sub>2</sub> eq by 2030. In the IPPU sector, the application of N<sub>2</sub>O decomposition technology in nitric acid production and voluntary agreements with the aluminium industry are expected to reduce emissions by 2.4 Mt CO<sub>2</sub> eq and 5.2 Mt CO<sub>2</sub> eq respectively in 2030. In addition, Enova has provided financial and advisory support for climate-friendly technologies and energy efficiency improvements across multiple sectors, with expected emission reductions of 2.6 Mt CO<sub>2</sub> eq in 2030. CCS measures are estimated to reduce emissions by 0.75 Mt CO<sub>2</sub> eq in 2030 through large-scale projects.

57. Norway considers itself subject to the reporting obligations applicable to developed country Parties pursuant to Article 13, paragraph 9, of the Paris Agreement and, in accordance with the MPGs, reported information on financial, technology development and transfer, and capacity-building support provided under Articles 9–11 of the Paris Agreement in its BTR1.<sup>17</sup>

58. Norway continued to provide financial support through bilateral, regional and other channels and through multilateral channels to developing countries. The financial support through bilateral, regional and other channels in 2021–2022 totalled USD 1,443.21 million; financial support through multilateral channels in 2021–2022 amounted to USD 225.08 million.

59. Norway continued to provide support for technology development and transfer, as well as for capacity-building in developing country Parties. Technological support focused on projects and programmes aimed at improving access to weather and climate observations, enhancing forest monitoring, promoting energy efficiency (particularly in the shipping industry), and advancing land and water management technologies. Capacity-building support remained broad in scope and focused on strengthening national data management systems and relevant institutional arrangements and technical capacities; building on the existing institutional and technical knowledge of partner countries; and ensuring that a variety of stakeholders have access to climate-relevant information.

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<sup>17</sup> As per para. 118 of the MPGs.

## Annex

### Documents and information used during the review

#### A. Reference documents

BTR1 of Norway. Available at <https://unfccc.int/first-biennial-transparency-reports>.

BTR1 CTF tables of Norway.

Available at <https://unfccc.int/first-biennial-transparency-reports>.

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IPCC. 2014. *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*. T Hiraiishi, T Krug, K Tanabe, et al. (eds.). Geneva: IPCC. Available at <https://www.ipcc.ch/publication/2013-supplement-to-the-2006-ipcc-guidelines-for-national-greenhouse-gas-inventories-wetlands/>.

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“Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement”. Annex to decision 18/CMA.1. FCCC/PA/CMA/2018/3/Add.2. Available at <https://unfccc.int/documents/184700>.

#### B. Additional information provided by the Party

Responses to questions during the review were received from Kristin Alsvik Rieck (Ministry of Climate and Environment of Norway), including additional material. The following references were provided by Norway and may not conform to UNFCCC editorial style as some have been reproduced as received:

Dalsgaard, L., Lange, H., Strand, L. T., Callesen, I., Borgen, S. K., Liski, J., & Astrup, R. (2016). Underestimation of boreal forest soil carbon stocks related to soil classification and drainage. *Canadian Journal of Forest Research*, 46(12), 1413–1425. Available at <https://doi.org/10.1139/cjfr-2015-0466>

LISKI, J., ILVESNIEMI, H., MÄKELÄ, A., & STARR, M. (1998). Model analysis of the effects of soil age, fires and harvesting on the carbon storage of boreal forest soils. *European Journal of Soil Science*, 49(3), 407–416. Available at <https://doi.org/10.1046/j.1365-2389.1998.4930407.x>

Liski, J., Palosuo, T., Peltoniemi, M., & Sievänen, R. (2005). Carbon and decomposition model Yasso for forest soils. *Ecological Modelling*, 189(1–2), 168–182. Available at <https://doi.org/10.1016/j.ecolmodel.2005.03.005>

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Tuomi, M., Thum, T., Järvinen, H., Fronzek, S., Berg, B., Harmon, M., Trofymow, J. A., Sevanto, S., & Liski, J. (2009). Leaf litter decomposition—Estimates of global variability

based on Yasso07 model. *Ecological Modelling*, 220(23), 3362–3371. Available at <https://doi.org/10.1016/j.ecolmodel.2009.05.016>

WRB (2015): World Reference Base for Soil Resources 2014, update 2015 International soil classification system for naming soils and creating legends for soil maps. *World Soil Resources Reports*. Rome

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