

Climate Progress Report 2023





Foreword by ESA's College

We are at the halfway mark between the adoption of the 2015 Paris Agreement and the year 2030, for which targets are defined to ensure we remain on track towards achieving the temperature goals of the Paris Agreement. There is a need to significantly accelerate global efforts towards achieving these goals.

In addition to the Paris Agreement, Norway and Iceland have committed themselves to climate targets under the European Economic Area (EEA) agreement.

Indeed, the EEA Agreement has become an important tool for Europe's green transition. This transition has impacted, and will continue to impact societies, businesses, and individuals across the EEA, providing both challenges and opportunities.

ESA is responsible for monitoring that Iceland and Norway deliver on their climate targets. This report takes stock of progress made by both countries towards attaining their 2030 targets in the effort sharing sectors (road transport, buildings, agriculture, waste and small industries) and land-use and forestry sectors.

This is the third ESA Climate Progress Report, providing important insights into the ongoing efforts to reduce greenhouse gas emissions.

Keeping oversight of developments on climate action in Iceland and Norway is a key priority for ESA. This work takes place in close cooperation and dialogue with the two States, the European Commission and the European Environment Agency.

It should be noted, regarding this year's report, that like the European Union, Norway and Iceland have updated their targets under the Paris Agreement: to cut emissions by 55% or more, compared to 1990 levels. However, these new commitments have not yet been reflected in the EEA Agreement. The findings of this report should therefore be read in this context.

With this context in mind, it is clear that both Iceland and Norway must step up their efforts to achieve their climate goals. We at ESA are committed to playing our role in this effort, working with all our partners toward a greener, healthier and more sustainable future.



1 INTRODUCTION

In the context of the European Economic Area (EEA) Agreement, Iceland, Norway and the European Union (EU) in 2019 agreed to deepen their cooperation on climate change and cooperate in reaching their 2030 greenhouse gas emission reduction targets.

To this end, by decision of the EEA Joint Committee No 269/2019 of 25 October 2019 ([JCD No 269/2019](#)) the following acts were incorporated into paragraph 8(a) of Article 3 of Protocol 31 to the EEA Agreement:¹

- the Effort Sharing Regulation: [\(EU\) 2018/842](#);²
- the Land Use, Land-Use Change and Forestry (LULUCF) Regulation: [\(EU\) 2018/841](#);³
- part of the Governance Regulation relevant for the implementation of the Effort-Sharing Regulation and the LULUCF Regulation: [\(EU\) 2018/1999](#).⁴

In 2020, the EU stepped up its ambitions by increasing its 2030 target to a net reduction of at least 55 per cent in greenhouse gas emissions compared to 1990. To deliver on its higher ambitions, the EU has, as part of its “Fit for 55 package”, amended the acts mentioned above to reflect its new target. These amendments, reflecting more stringent targets under the above acts, have not yet been incorporated into the EEA Agreement.

The EFTA Surveillance Authority (ESA) is mandated to assess progress made by Iceland and Norway towards the targets currently in force under EEA law. This report must therefore be read in light of the fact that the progress of Iceland and Norway is assessed towards targets in EEA law designed to implement the previous targets under the Paris Agreement of at least minus 40 per cent by 2030 compared to 1990.

The conclusions in the present report will therefore not provide an adequate reflection of how Iceland and Norway are progressing towards their current commitments under the Paris Agreement of at least minus 55 per cent by 2030, compared to 1990.⁵

¹ Paragraph 8(a) of Article 3 of Protocol 31 to the EEA Agreement entered into force on 11 March 2020.

² Regulation (EU) 2018/842 of the European Parliament and of the Council of the European Union of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013, (OJ L 156, 19.6.2018, p. 26–42).

³ Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land-use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (OJ L 156, 19.6.2018, p. 1–25).

⁴ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC EN 8 EN and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1–77).

⁵⁵ [Iceland](#) and [Norway](#) have in their respective Nationally Determined Contributions under the Paris Agreement reflected that they will seek to fulfil the Paris targets in cooperation with the EU. Unlike the EU Commission, ESA does not assess progress towards the commitments under the Paris Agreement. ESA assesses targets in EEA law aimed at contributing to achieving the Paris Agreement targets.



The EU, Iceland and Norway will be assessing the need to reflect the increased level of ambition in the targets. ESA will revisit in its upcoming reports any new targets reflecting the “Fit for 55 package”, pending agreement between the EU, Iceland and Norway.

The Effort Sharing Regulation and the LULUCF Regulation define targets for the reduction of greenhouse gas emissions in the period up to 2030. The sectors covered by the Effort Sharing Regulation include road and domestic maritime transport, buildings, waste management, agriculture, and industry not covered by the European Emission Trading System (ETS). The LULUCF Regulation concern emissions and removals from the land and forestry sectors.⁶ These acts do not apply to Liechtenstein.

Under Article 29(5)(b) of the Governance Regulation, ESA is mandated to assess, by 31 October 2021 and every consecutive year whether Iceland and Norway have made sufficient progress towards meeting the obligations set out in Article 4 of the Effort Sharing Regulation and in Article 4 of the LULUCF Regulation.⁷

The progress made by Iceland and Norway is in the following reflected using different assumptions and based on the latest available information reported to ESA, to identify possible gaps towards the targets (further details reflected in Sections 2 and 3). The final assessment of compliance for the years 2021-2025 will take place in the year 2027 (first compliance period).

In summary, assuming that the States would make use of certain flexibilities permitted,⁸ the preliminary estimates show that:

- Iceland expects to remain just within its targets currently in force;
- Norway expects a significant gap towards its current targets.

On this basis Norway is strongly encouraged to consider additional measures to reduce their emissions under the Effort Sharing and LULUCF Regulations, considering the gap towards the current targets.

Iceland is encouraged to consider additional measures to reduce their emissions under the Effort Sharing and LULUCF Regulations, considering their small margin to stay within the current targets, having in mind expected revisions to the targets as reflected above.

The European Commission publishes an annual progress assessment for the EU Member States. In the EU Climate Action Progress Report 2023, EU Member States' progress is assessed towards targets reflecting the at least 55 per cent target. The EU Climate Action Progress Report is more extensive than the present report due to a wider scope of EU legislation in this field.⁹

⁶ [Norway](#) and [Iceland](#) have made available national plans describing how each country intends to fulfil its commitments under the Effort Sharing and the LULUCF Regulations.

⁷ [ESA Climate Progress Report 2021](#) and [ESA Climate Progress Report 2022](#).

⁸ The assessment does not take into account all the flexibilities available under the Effort Sharing and LULUCF Regulations, this is explained in Sections 2 and 3.

⁹ The Commission assesses progress on a variety of commitments, including the EU's and its Member States' progress towards their commitments under the Paris Agreement, as independent Parties to the UN Framework Convention on Climate Change. ESA's progress assessment is limited to the States' obligations under the Effort Sharing and LULUCF Regulations, as currently applicable in the EEA Agreement.



2 EFFORT SHARING

The Effort Sharing Regulation, as adapted by Protocol 31 to the EEA Agreement for Iceland and Norway, sets binding national targets for reductions in greenhouse gas emissions. It applies to sectors that are not part of the ETS, including road transport, domestic maritime transport, buildings, agriculture, non-ETS industry and waste. The efforts under the Regulation are distributed based on relative gross domestic product per capita and taking into account cost effectiveness.¹⁰

The national reduction targets of the EU Member States range from minus 10 to minus 50 per cent by 2030, compared to 2005 emissions, pursuant to the Effort Sharing Regulation as amended in 2023.¹¹ The targets currently in force for Iceland and Norway were established in 2019 based on the previous range of 0 to minus 40 per cent, prior to the 2023 amendments.¹²

Iceland's target is a reduction of 29 per cent by 2030, compared to the 2005 emission levels. Norway's target is a reduction of 40 per cent by 2030, compared to the 2005 emission levels.¹³

The national 2030 greenhouse gas reduction targets are translated into annual emission allocations, the emission limits that the countries must respect during the 2021-2030 period.

The process for setting out the annual emission allocations included a comprehensive review of the historic greenhouse gas inventory data of Iceland and Norway carried out by the European Environment Agency.

The annual emission allocations set out by ESA in 2021,¹⁴ can be found in adaptation (ii) to the third indent of paragraph 8(a) of Article 3 of Protocol 31 to the EEA Agreement, see table 1.

Table 1: Annual emission allocations for Iceland and Norway for the period 2021-2030

EFTA State	Annual emission allocations in tonnes of CO ₂ equivalent									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Iceland	2,876,150	2,802,993	2,729,836	2,656,679	2,583,522	2,510,365	2,437,208	2,364,050	2,290,893	2,217,736
Norway	25,164,459	24,296,764	23,429,068	22,561,373	21,693,677	20,825,982	19,958,287	19,090,591	18,222,896	17,355,200

¹⁰ Second recital of the preamble to the Effort Sharing Regulation.

¹¹ Regulation (EU) 2023/857 of the European Parliament and of the Council of 19 April 2023 amending Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement, and Regulation (EU) 2018/1999 (OJ L 111, 26.4.2023, p. 1–14)

¹² Regulation (EU) 2023/857 amended the Effort Sharing Regulation and updated the EU Member States' targets to reflect the increased ambition of at least minus 55 per cent compared to 1990 for the EU Member States. This amendment has not been made part of the EEA Agreement. As such, Norway's and Iceland's respective targets from 2019 remain unchanged.

¹³ Iceland's and Norway's targets are set out in Article 3, paragraph 8(a), second indent, adaptation (v) of Protocol 31 to the EEA Agreement.

¹⁴ [EFTA Surveillance Authority Decision of 21 July 2021](#) setting out the annual emission allocations for the period from 2021 to 2030 for Iceland and Norway pursuant to the Effort Sharing Regulation (Decision No 204/21/COL).

2.1 PROGRESS TOWARDS THE 2030 EFFORT SHARING TARGETS

As described above, the Effort Sharing Regulation sets national emission reduction targets for 2030 and annual emission allocations for each year of the period 2021-2030, for Iceland and Norway.

In line with the reporting requirements of the Governance Regulation, the States report their greenhouse gas inventories annually.¹⁵ They have to report their national policies and measures and 2030 projections once every two years, but if there are substantial changes in the meantime, then they must report the updated information in the years in between.

In 2023 Iceland and Norway submitted their policies and measures, their projections for greenhouse gas emissions for the years up to 2030, their final greenhouse gas inventories for 2021, and their approximated greenhouse gas inventories for the year 2022, to ESA and the European Environment Agency.¹⁶

Final inventory data for 2021 shows that Iceland is expected to remain within their annual emission allocations for that year, while Norway is expected to exceed their annual emission allocations for that year.

Approximated inventory data for 2022 shows that Iceland and Norway are expected to exceed their annual emission allocations for that year by 0.1 per cent and 3.6 per cent respectively.

Table 2 reflects the estimated distance to targets based on the data reported by Iceland and Norway, and quality checked by the European Environment Agency.

Table 2: Effort sharing targets, distance to targets and 2030 projections¹⁷

Member State	2021	2022	2030 (projections WEM)	2030 (projections WAM)
Iceland				
Target	-7.5%	-9.9%	-29.0%	-29.0%
Emissions	-10.0%	-9.7%	-24.5%	-25.6%
Distance to target (pp)	2.5	-0.1	-4.5	-3.4
Norway				
Target	-13.0%	-16.0%	-40.0%	N/A
Emissions	-12.2%	-12.4%	-31.7%	N/A
Distance to target (pp)	-0.8	-3.6	-8.3	N/A

¹⁵ The period covered by the inventory starts in 1990 and runs up until 2 years before the current year (e.g. in 2023 the inventories cover emissions up to 2021). The States also report a preliminary greenhouse gas inventory (referred to as approximated greenhouse gas inventories) that starts in 1990 and runs up until 1 year before the current year (e.g. in 2023 the approximated inventories cover emissions up to 2022).

¹⁶ Norway: <https://reportnet.europa.eu/public/country/NO> and Iceland: <https://reportnet.europa.eu/public/country/IS>

¹⁷ The estimated distance to target is based on the final greenhouse gas inventory (GHGI) for 2021, approximated GHGI for 2022 and 2030 projections reported in 2023.

The ‘with existing measures’ (WEM) projection scenario reflects 2030 projections with implemented or adopted policies and measures. The ‘with additional measures’ (WAM) projections scenario takes into account the additional effects of planned measures.

In 2023 Iceland submitted a WAM scenario for the first time. Norway has not provided a WAM scenario in the 2023 reporting.¹⁸ It is not mandatory to include a WAM scenario, however as projections are an important tool for assessing progress towards the effort sharing targets it is highly encouraged.

Figure 1: Reported and projected emissions in the sectors covered by the Effort Sharing Regulation and annual emission allocations 2021-2030 for Norway (Million tonnes (Mt) CO₂ equivalent)¹⁹

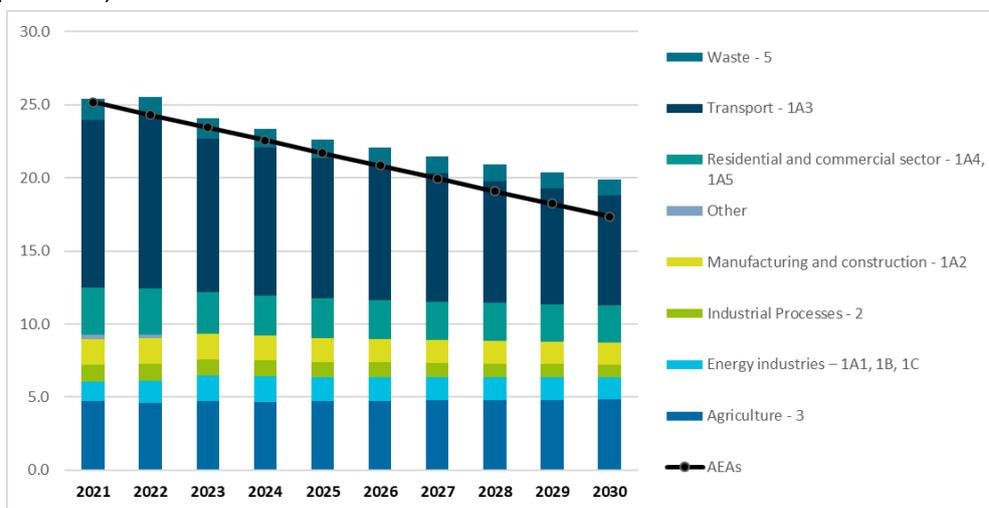
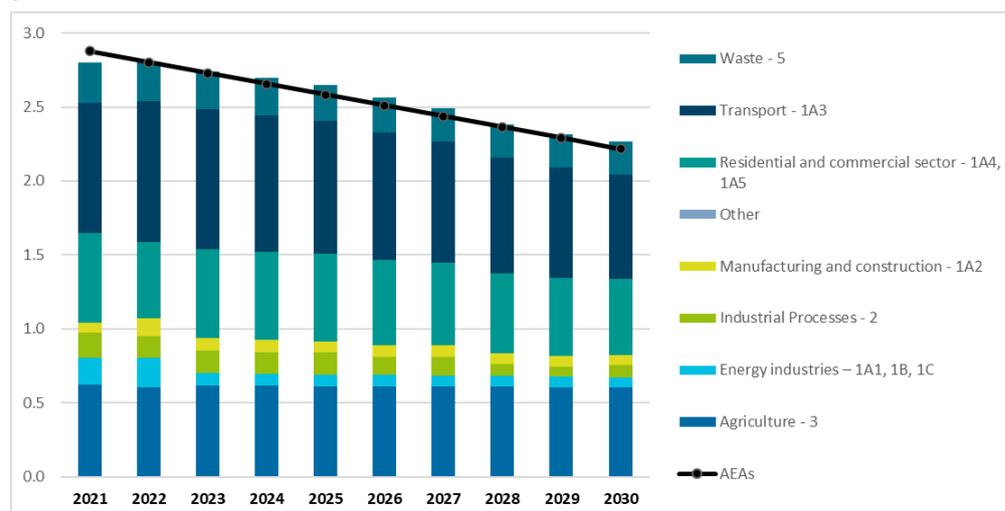


Figure 2: Reported and projected emissions in the sectors covered by the Effort Sharing Regulation and annual emission allocations 2021-2030 for Iceland (Mt CO₂ equivalent)²⁰



¹⁸ In their 2023 reporting on policies and measures Norway has included information on the expected impact of certain planned policies and measures (ex ante greenhouse gas emissions savings), for further details see Section 2.2. Pursuant to the reporting by Norway the effect of these planned measures has not been included in their 2030 projections.

¹⁹ Final greenhouse gas inventory (GHGI) for 2021, approximated GHGI for 2022 and 2030 projections (WEM scenario). Please note that the data for the years 2021 and 2022 in this graph is not precise. The 2021 and 2022 total ESR data can be found in Table 3.

²⁰ Final greenhouse gas inventory (GHGI) for 2021, approximated GHGI for 2022 and 2030 projections (WAM scenario).



The final emissions for 2021 and 2022 under the Effort Sharing Regulation will only be determined after a comprehensive review in 2027, when the compliance check for each of the years 2021 to 2025 will take place. The States can then use the flexibilities available under this Regulation to comply with their annual emission allocations.

However, the emissions projections that Iceland and Norway submitted in March 2023 can be used at this stage to gain insights on progress towards the effort sharing targets.

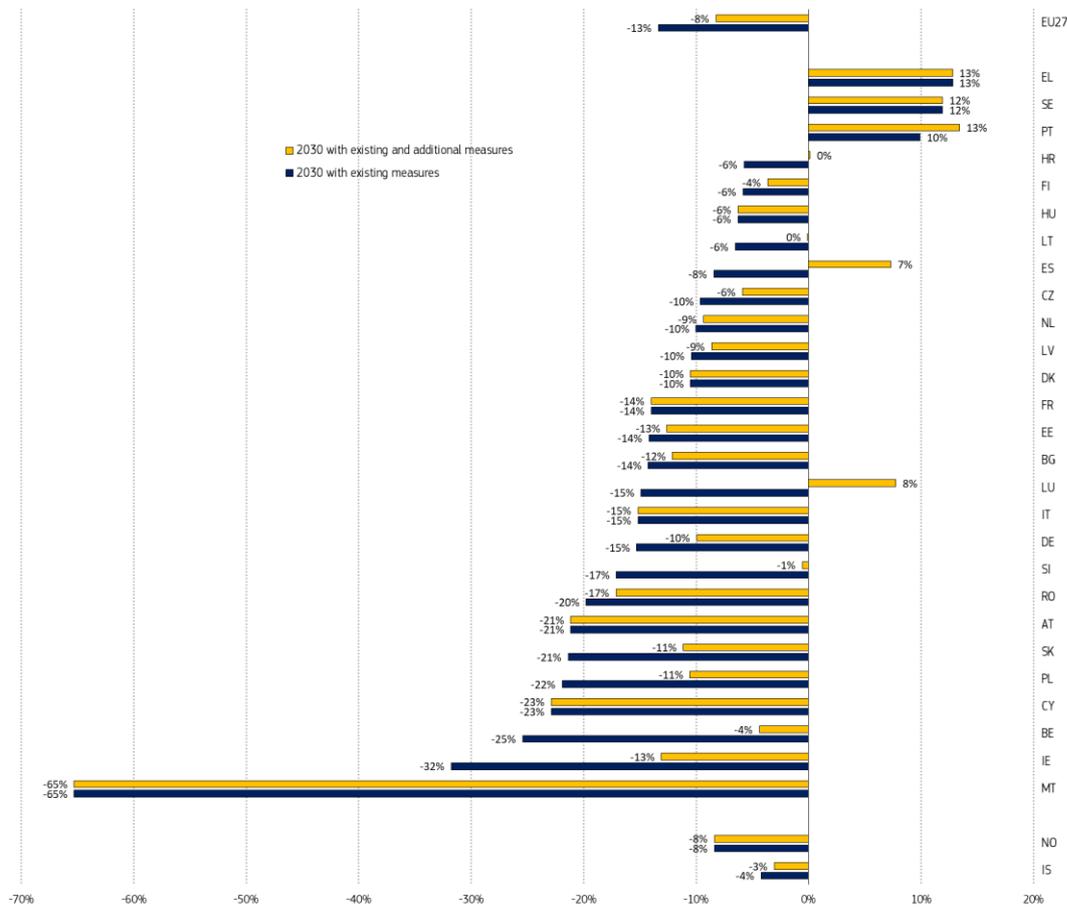
Based on reported emissions projections for 2030 without considering the available flexibilities, Iceland and Norway would need to plan and implement additional climate actions to reach their current 2030 targets in the effort sharing sectors.

The most recent emissions projections (WEM scenario) point to a gap of -4 percentage points to Iceland's 2030 target, which decreases to -3 percentage points when looking at the WAM scenario. For comparison, ESA's Climate Progress Report 2022 reflected a gap of -3 percentage points under the WEM scenario.

The most recent emissions projections point to a gap of -8 percentage points to Norway's 2030 target. This implies that the gap towards the 2030 effort sharing target remains largely unchanged compared to the 2030 projections reported by Norway in 2021.

Figure 3 shows the distance between the 2030 effort sharing targets and the States' 2030 projections, including the WEM and WAM scenarios. Positive values indicate projected overachievement while negative values indicate projected underachievement. In this figure the EU Member States are measured on targets reflecting the at least 55 per cent reduction target, while Iceland and Norway are measured on targets reflecting the at least 40 per cent reduction target.

Figure 3: Gap between 2030 effort sharing targets and projected greenhouse gas emissions²¹



Based on the latest greenhouse gas projections by Iceland and Norway, ESA has assessed the States' progress towards their annual emission limits over the period 2021-2030, taking into account the flexibilities available under the Effort Sharing Regulation.²²

Based on the assumption that the States would use saved annual emission allocations from previous years and/or the existing ETS flexibility to cover effort sharing emissions that exceed their annual emission allocations:

- Iceland and Norway would not have excess emissions in the first compliance period (2021 to 2025);
- Iceland would also not have excess emissions during the 2026-2030 period;
- Norway would have excess emissions during the 2026-2030 period.

Any excess emissions or surplus removals under the LULUCF Regulation for that period have not been considered in the above assessment.

²¹ Source: the EU Climate Action Progress Report 2023. Where countries have not submitted a WAM scenario, the WAM scenario in Figure 3 has been gap-filled using the WEM scenario.

²² Iceland and Norway will under the current legal framework be able to use the flexibilities permitted under the Effort Sharing Regulation, such as borrowing from following years, transfers of annual emission allocations from other States, flexibilities from the ETS or to offset part of their emissions with net removals generated in the LULUCF sector. In 2020, Iceland and Norway notified ESA of their intention to make use of the limited cancellation of ETS allowances allowed under the Regulation. The ETS allowances are deducted from the amounts that would normally be auctioned under the ETS.

Table 3: Annual emissions allocations (AEAs), historical and projected emissions and distance to targets under the Effort Sharing Regulation (Mt CO₂ equivalent) covering the period 2021 to 2030. Positive values indicate overachievement, negative values indicate underachievement.²³

EEA EFTA State	ETS and LULUCF flexibility	2005 base year emissions	2021 (final inventory)	2022 (approximated)	2023	2024	2025	2026	2027	2028	2029	2030
Iceland												
AEAs			2.9	2.8	2.7	2.7	2.6	2.5	2.4	2.4	2.3	2.2
Emissions			2.8	2.8	2.8	2.8	2.7	2.6	2.5	2.4	2.4	2.3
LULUCF debit (2021-2025)			Pursuant to Art 9(2) ESR, AEAs are reduced by the debit generated under the LULUCF Regulation in the period 2021-2025. See Section 3.									
Distance to target			0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Cumulative balance of AEAs			0.1	0.1	0.0	-0.2	-0.3	-0.4	-0.5	-0.6	-0.6	-0.7
ETS flexibility	1.2		The amount of ETS flexibility available over the 10-year period 2021-2030 as established by ESA Decision No 204/21/COL and set out in Annex III of Commission Implementing Decision 2020/2126, as adapted by Protocol 31 to the EEA Agreement									
Maximum LULUCF flexibility	0.2		The availability of LULUCF flexibility depends on the amount of LULUCF credits generated under the LULUCF Regulation. The use of the available LULUCF flexibility is limited to 50% of the maximum amount of LULUCF flexibility in the period 2021-2025 and 50% of the maximum amount of LULUCF flexibility in the period 2026-2030.									
Norway												
AEAs			25.2	24.3	23.4	22.6	21.7	20.8	20.0	19.1	18.2	17.4
Emissions			25.4	25.4	24.2	23.5	22.8	22.3	21.3	20.8	20.3	19.77
LULUCF debit (2021-2025)			Pursuant to Art 9(2) ESR, AEAs are reduced by the debit generated under the LULUCF Regulation in the period 2021-2025. See Section 3.									
Distance to target			-0.2	-1.1	-0.8	-1.0	-1.1	-1.4	-1.4	-1.7	-2.1	-2.4
Cumulative balance of AEAs			-0.2	-1.3	-2.0	-3.0	-4.1	-5.6	-6.9	-8.6	-10.7	-13.1
ETS flexibility	5.8		The amount of ETS flexibility available over the 10-year period 2021-2030 as established by ESA Decision No 204/21/COL and set out in Annex III of Commission Implementing Decision 2020/2126, as adapted by Protocol 31 to the EEA Agreement									
Maximum LULUCF flexibility	1.6		The availability of LULUCF flexibility depends on the amount of LULUCF credits generated under the LULUCF Regulation. The use of the available LULUCF flexibility is limited to 50% of the maximum amount of LULUCF flexibility in the period 2021-2025 and 50% of the maximum amount of LULUCF flexibility in the period 2026-2030.									

Pursuant to the LULUCF Regulation, greenhouse gas emissions from land use, land use change and forestry shall be balanced by at least an equivalent accounted removal of CO₂ in the period 2021 to 2025. Under Article 9(2) of the Effort Sharing Regulation, any excess emissions (debit) under the LULUCF Regulation are automatically deducted from the States' annual emission allocations in the first compliance period under the Effort Sharing Regulation.

States that perform well under the LULUCF Regulation can use such overachievement (credit), up to specific limits, to cover excess emissions under the Effort Sharing Regulation. Furthermore, the EU Member States, Iceland and Norway can trade annual emission allocations amongst themselves. Based on current projections prepared by the European Commission for the EU 27 there may only be a limited amount of annual emission allocations (AEAs) available for purchase.²⁴

In 2027 there will be a comprehensive review of the inventory data for the years 2021- 2025 and a compliance check under the LULUCF Regulation. Estimated LULUCF emission data for 2021 and for 2022 shows a small credit for Iceland and a significant debit for Norway (see Chapter 3).

²³ AEAs for the years 2021-2030 are established in Commission Implementing Decision (EU) 2020/2126 of 16 December 2020 on setting out the annual emission allocations of the Member States for the period from 2021 to 2030 pursuant to Regulation (EU) 2018/842 of the European Parliament and of the Council (OJ L 426, 17.12.2020, p. 58–64), as adapted to the EEA Agreement. The values of 'cumulative surplus of AEAs' are the cumulative annual distances to target and do not take into account cancellations and transfers of AEAs from other States. 2021 emissions are based on the final inventory reports, 2022 emissions are based on approximated inventory reports. 2023 – 2030 emissions are based on the most recent WAM emissions projections reports, or in the absence of WAM projections the WEM projections. First compliance check will take place in 2027.

²⁴ Report from the Commission to the European Parliament and the Council: EU Climate Action Progress Report 2023, COM(2023) 653 final, page 21.



Based on the assumption that the States would use saved annual emission allocations from previous years, the existing ETS flexibility, and considering any excess emissions or surplus removals under the LULUCF Regulation:

- Norway would have excess emissions already in the first compliance period (2021 to 2025), whereas excess emissions would only occur in the 2026-2030 period when net emissions or removals under LULUCF are not taken into account.
- Iceland would not have excess emissions during the period 2021-2030.

Considering its substantial gap,²⁵ Norway is strongly encouraged to consider additional measures to reduce its emissions under the Effort Sharing Regulation and/or LULUCF. In this context, it is relevant to take into account that excess emissions in the first compliance period (2021-2025)²⁶ pose a bigger challenge with less time to develop additional policies to reduce emissions. ESA notes that its assessment reflected in Table 3 is based on the projections reporting done by Norway in March 2023, and that Table 3 therefore does not reflect additional or planned measures.²⁷

Iceland is not expected to have excess emissions against the targets currently in force. However, the targets for Iceland and Norway are expected to be reviewed in light of the increased level of ambition to reduce emissions by at least 55 per cent by 2030, compared to 1990, pending agreement between the European Union, Iceland and Norway.

Iceland is encouraged to consider additional measures to reduce their emissions under the Effort Sharing and LULUCF Regulations, considering its small margin to stay within the current targets, having in mind expected revisions to the targets as reflected above.

Norway and Iceland are encouraged to update ESA with any additional policies and measures and with updated 2030 emissions projections reporting in 2024, including WAM projections, to facilitate ESA's progress assessment in 2024. Following such updates ESA would expect to have a more complete overview of the States progress towards the targets, including on expected new targets reflecting the "Fit for 55 package" pending agreement between the EU, Iceland and Norway. In its 2024 Climate Progress Report, ESA will come back to the progress assessment when a more complete overview is available, including on expected new targets. Updated reporting in 2024 is thus important as it supports the assessment of whether the States are making sufficient progress. Insufficient progress may trigger the need for a corrective action plan pursuant to Article 8 of the Effort Sharing Regulation.²⁸

²⁵ In this context, ESA has not received 2030 projections from Norway that include the additional effects of planned measures (WAM projections).

²⁶ The compliance check for the first compliance period will take place in 2027.

²⁷ Norway has not reported WAM projections. For further information on the reported expected impact of planned policies and measures (ex ante greenhouse gas emissions savings) see Section 2.2.

²⁸ Article 8 of the Effort Sharing Regulation provides that if ESA finds, in its annual assessment under Article 29(5)(b) of the Governance Regulation, that a State is not making sufficient progress towards meeting its obligations under Article 4 of that Regulation, taking into account the intended use of the relevant flexibilities, that State must submit to ESA a corrective action plan including additional actions that the State shall implement in order to meet its specific obligations under Article 4 of that Regulation.



2.2 NATIONAL POLICIES AND MEASURES IN THE EFFORT SHARING SECTORS

In 2023 Iceland reported 57 single policies and measures, a slight decrease compared to the 2021 reporting where Iceland reported 61 single policies and measures .

Of the policies and measures (PaMs) reported by Iceland in 2023:

- 52 are implemented PaMs;
- 3 are planned PaMs;
- 7 are newly implemented PaMs (implemented as from 2023).

Norway has reported 74 single policies and measures in 2023, a slight increase compared to the 2021 reporting where Norway reported 69 single policies and measures.

Of the policies and measures (PaMs) reported by Norway in 2023:

- 58 are implemented PaMs;
- 8 are planned PaMs;
- 3 are newly implemented PaMs (implemented as from 2023).

The reported national policies and measures have been quality checked by the European Environment Agency.²⁹

The sectors with the most policies and measures reflected in the 2023 reporting are for Iceland transport (22%), energy consumption (14%), and industrial processes (12%), which is similar as for the 2021 reporting.

The sectors with the most policies and measures reflected in the 2023 reporting for Norway are transport (27%), agriculture (12%) and LULUCF (12%). Compared to the 2021 reporting the LULUCF sector has seen the largest increase of policies and measures in Norway.

The number of reported policies and measures is not necessarily related to the level of ambition. The reporting in 2023 however shows that Iceland and Norway are planning and implementing policies and measures to achieve their current 2030 targets under the Effort Sharing Regulation.

Information on the expected impact of policies and measures (*ex ante* greenhouse gas emissions savings) submitted by Iceland and Norway can be used to gain insights on their progress towards the annual effort sharing targets.

Figures 4 and 5 show the reporting done by Iceland and Norway in 2021 and 2023 respectively, of the expected *ex ante* effects of policies and measures in kilo tonnes (kt) CO₂ equivalent for the years 2025, 2030, 2035 and 2040. The figures show that both Iceland and Norway have improved their reporting of *ex ante* effects in 2023, compared to the 2021 reporting.

²⁹ Further information can be found here: <https://climate-energy.eea.europa.eu/topics/climate-change-mitigation/policies-and-measures-to-reduce-emissions/data>

Figure 4: Ex ante assessments of the effects of individual or groups of policies and measures on the mitigation of climate change (kt CO₂ equivalent)³⁰

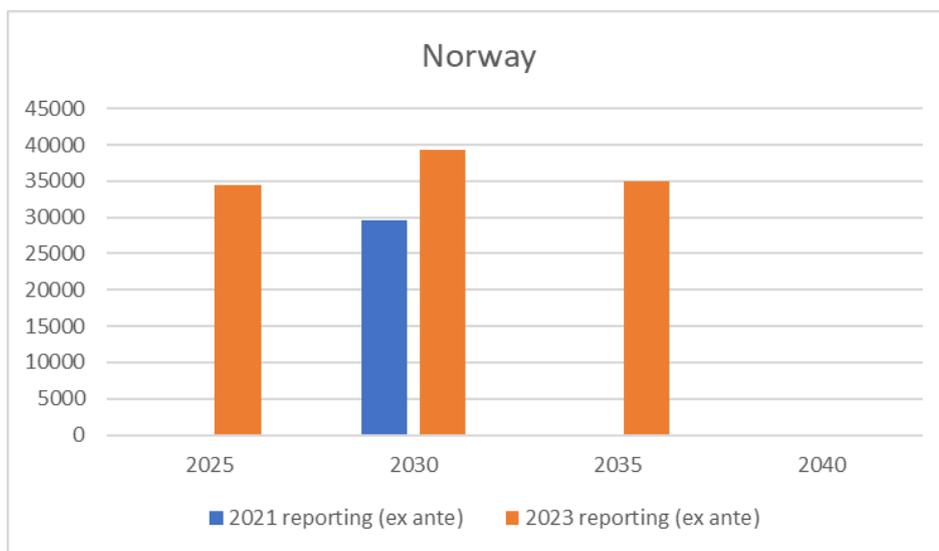
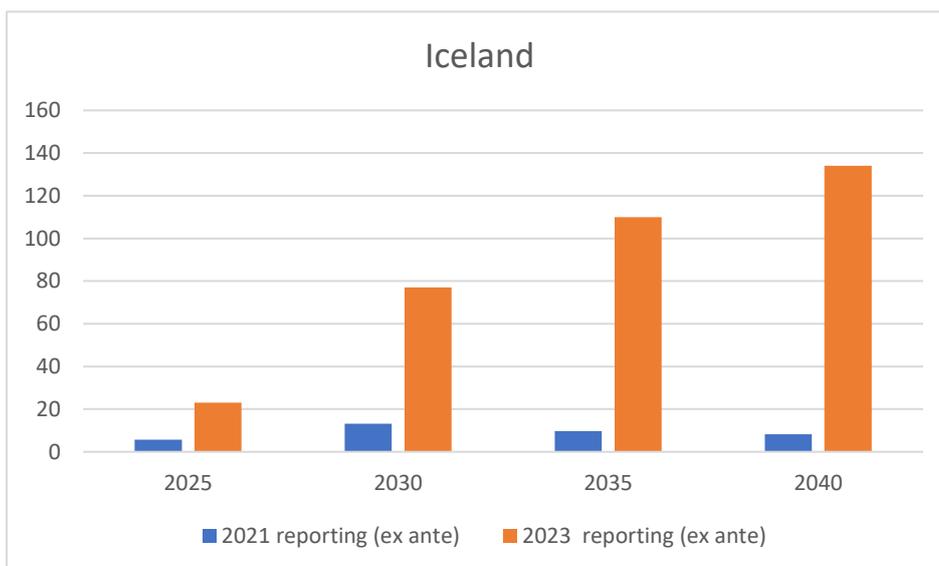


Figure 5: Ex ante assessments of the effects of individual or groups of policies and measures on the mitigation of climate change (kt CO₂ equivalent)³¹



In 2023, Norway in their policies and measures reporting reflected eight planned policies to reduce emissions in the effort sharing and LULUCF sectors, which pursuant to Norway are not included in their 2030 projections scenario (WEM or WAM). In the reporting by Norway six out of the eight planned policies and measures are quantified with the total greenhouse gas emissions reductions in 2030 estimated to 4250 kt CO₂ equivalent per year. Of the total expected reductions in 2030, 3350 kt CO₂ equivalent concern reductions in the effort sharing sectors and 900 kt CO₂ equivalent concern the LULUCF sector. The *ex ante* quantified emission reductions from these measures in 2025 are estimated to a total of 1820 kt CO₂ equivalent per year, of which 1520 kt CO₂ equivalent per year concern the effort sharing sectors and 300 kt CO₂ equivalent per year concern the LULUCF sector.

³⁰ As reported by Norway in 2021 and 2023.

³¹ As reported by Iceland in 2021 and 2023.



3 LAND USE, LAND-USE CHANGE AND FORESTRY

3.1 LULUCF

The land use, land-use change and forestry sector can both release greenhouse gas emissions to the atmosphere and remove CO₂ from it. As such, the sector plays an important role in addressing climate change.

In the EU Climate Action Progress Report 2023, the Commission highlights that carbon removals have declined at a worrying speed in the last years for the EU 27. The Commission reports that this trend is mostly due to a decrease in forest related removals, triggered mainly by an increase in harvesting. The trend is also, to a lesser extent, caused by reduced carbon sequestration in ageing forests in certain EU Member States, due to lower growth rates. The Commission further reports that climate change itself is having an increased impact too and that the growing frequency and severity of disturbances such as wind throw, insect, and fungus outbreaks, forest fires, and droughts is undermining the role of forests as a carbon sink and in some cases has turned them temporarily into carbon sources. The Commission also refers to slowing of forest area expansion as contributing to the fall in removals, but with a smaller impact.³²

LULUCF data reported in 2023 shows that, with some variation, there has been a decrease in the carbon removals in Norway in the past 10 years. In 2021, the reported total carbon sink³³ of Norway is a net removal of minus 15.49 Mt CO₂ equivalent and approximated 2022 data shows the same net removal as for 2021. LULUCF figures for 2022 were not available when the approximated 2022 inventory was reported, so figures for 2021 were reported also for 2022.³⁴

Iceland reported net emissions in the LULUCF sector of 9.39 Mt CO₂ equivalent in 2021, while approximated 2022 data shows net emissions of 9.37 Mt CO₂ equivalent.³⁵

The LULUCF Regulation requires Iceland and Norway to ensure that accounted greenhouse gas emissions from the land use, land use change and forestry sectors are balanced by at least an equivalent accounted removal of CO₂ from the atmosphere in the periods 2021 to 2025 and 2026 to 2030 (the “no-debit” rule). The compliance check under the LULUCF Regulation for the years 2021-2025 will take place in 2027.

In 2023, the EU amended the LULUCF Regulation, introducing a more ambitious obligation to ensure net CO₂ removals by 2030.³⁶ The revised LULUCF Regulation has not yet been incorporated into the EEA Agreement. Therefore, this report does not take into account this amendment.

³² Report from the Commission to the European Parliament and the Council: EU Climate Action Progress Report 2023, COM(2023) 653 final, page 27.

³³ Pursuant to Article 3(1)(1) of the LULUCF Regulation a ‘sink’ means any process, activity or mechanism that removes a greenhouse gas, an aerosol, or a precursor to a greenhouse gas from the atmosphere.

³⁴ Final greenhouse gas inventory for 2021 for Norway reported in 2023.

³⁵ Final greenhouse gas inventory for 2021 for Iceland reported in 2023.

³⁶ Regulation (EU) 2023/839 of the European Parliament and of the Council of 19 April 2023 amending Regulation (EU) 2018/841 as regards the scope, simplifying the reporting and compliance rules, and setting out the targets of the Member States for 2030, and Regulation (EU) 2018/1999 as regards improvement in monitoring, reporting, tracking of progress and review (OJ L 107, 21.4.2023, p. 1-28)



The LULUCF Regulation contains detailed rules for how to account the emissions and removals from different land accounting categories. This includes benchmarks against which the emissions or removals from the different land use activities will be measured, such as the Forest Reference Levels for sustainable forest management.³⁷ The reported total emissions and removals from the LULUCF sector as reflected for Iceland and Norway above thus differ from the accounted emissions and removals relevant for compliance under the LULUCF and Effort Sharing Regulations for the period 2021-2025.

Across all land categories, Iceland and Norway must fulfil the 'no-debit' rule, which means that credits or debits generated in the different land categories need to sum up to at least zero. If the 'no-debit' rule is not fulfilled and Iceland or Norway has a net debit, they will be able to use a number of flexibilities to compensate this net debit. This includes the option to purchase credits from other EU Member States or from each other. If a country still has a net debit for the years 2021-2025 after the use of flexibilities, this debit will be part of the compliance assessment under the Effort Sharing Regulation.

3.2 ASSESSMENT OF PROGRESS IN THE LULUCF SECTOR

Reported data for 2021³⁸ shows a net credit for Iceland in 2021 of minus 0.41 Mt CO₂ equivalent, when applying the accounting rules under the LULUCF Regulation. Approximated 2022 data shows a net credit of 0.44 Mt CO₂ equivalent.

Reported data for 2021³⁹ shows a net debit for Norway of 8.28 Mt CO₂ equivalent for 2021, when applying the accounting rules under the LULUCF Regulation. Approximated 2022 data shows a net debit for 2022 of 8.28 Mt CO₂ equivalent.

Article 8(11) of the LULUCF Regulation requires Iceland and Norway to submit to ESA by 15 March 2027 for the period from 2021 to 2025 any technical corrections to the Forest Reference Levels. Such technical corrections may have an impact the preliminary accounting reflected in this chapter.

³⁷ The Forest Reference Levels for Norway and Iceland were established by EFTA Surveillance Authority Decision of 16 December 2020 as regards the forest reference levels to be applied by Iceland and Norway for the period 2021-2025 under the LULUCF Regulation (Decision No 157/20/COL), and are set out in Article 3, paragraph 8(a), first indent, adaptation (viii) of Protocol 31 to the EEA Agreement.

³⁸ For the purpose of the present report the greenhouse gas inventory for 2021 for Iceland reported by 15 March 2023 has been used. Iceland has informed ESA of some changes to the LULUCF data, that were reflected in Iceland's submission to the UNFCCC Secretariat submitted by 15 April 2023, of which a copy has been shared with ESA (change amounts to 0,41 kt CO₂ equivalent). The present report does not take into account these changes.

³⁹ For the purpose of the present report the greenhouse gas inventory for 2021 for Norway reported by 15 March 2023 has been used.



Table 4: LULUCF preliminary accounted emissions and removals for the year 2021 per land category⁴⁰

State	Accounted Land category	Result: All units KtCO ₂ eq
Iceland	Deforested Land	1.85
	Afforested Land	-384.79
	Managed Cropland	5.86
	Managed Grassland	55.24
	Managed Wetland	
	Managed Forest Land	-97.355
	Sum annual	-419.19
Norway	Deforested Land	2,691.59
	Afforested Land	-1,147.06
	Managed Cropland	115.59
	Managed Grassland	35.38
	Managed Wetland	
	Managed Forest Land	6587.26
	Sum annual	8,282.76

The estimated 2021 and 2022 data shows that Norway expects a significant debit in the first two years of the first compliance period (2021 to 2025). If this development continues, Norway would face challenges in meeting its obligations in the first compliance period. These estimates need to be considered in Norway's policy planning taking into account that there is limited time to develop policies and implement measures to address the developments within the sector.

The estimated 2021 and 2022 data shows that Iceland expects a small credit in the first two years of the first compliance period (2021 to 2025).

It is important to emphasise that the reported data submitted by the States is limited, resulting in a high uncertainty for the assessed progress. In 2027 there will be a comprehensive review of the inventory data for the years 2021-2025 under the LULUCF Regulation.

In conclusion, based on the information currently available, Iceland and specifically Norway are encouraged to consider an increased ambition in their LULUCF sector.

3.3 LONG-TERM STRATEGY FOR THE LAND USE, LAND-USE CHANGE AND FORESTRY SECTORS

In 2020, Iceland and Norway submitted to ESA their strategies for the land use, land-use change and forestry sectors, with a perspective of at least 30 years.

The submission of these strategies is a prerequisite for making use of managed forest land flexibility.⁴¹ The detailed requirements for these strategies are reflected in Article 13(2)(a) of the LULUCF Regulation, as adapted to the EEA Agreement.⁴² The strategies have been made available to the public in Iceland⁴³ and Norway.⁴⁴ ESA is currently assessing if the States' strategies are adequate for documenting fulfilment with the LULUCF Regulation.

⁴⁰ Preliminary estimates based on the greenhouse gas inventory for 2021 reported in 2023.

⁴¹ As reflected in Article 13 of the LULUCF Regulation.

⁴² Article 3, paragraph 8(a), first indent, adaptation (iii) of Protocol 31 to the EEA Agreement.

⁴³ <https://www.stjornarradid.is/gogn/rit-og-skyrslur/stakt-rit/2020/08/28/Iceland-Strategy-on-LULUCF/>

⁴⁴ <https://www.regjeringen.no/en/dokumenter/strategy-on-land-use-land-use-change-and-forestry-sector/id2924513/>



4 ANNEX

Climate targets under the Effort Sharing and LULUCF Regulations as currently applicable in the EEA		
	Effort Sharing Regulation	LULUCF Regulation
Target year or period	2021-2030	2021-2030
Emission reduction target	2030 targets and annual targets for Iceland and Norway	No-debit target based on accounting rules
Base year	2005	Subject to accounting rules
LULUCF	Excluded from target, but reported in inventories.	Yes
Aviation	CO ₂ from domestic aviation excluded. Aviation generally excluded.	No
Use of international credits	No	No
Gases covered	CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆ , NF ₃	CO ₂ , CH ₄ , N ₂ O
Sectors included	Transport (except aviation), buildings, non-ETS industry, agriculture (non-CO ₂) and waste	Land use, land use change and forestry
Global Warming Potentials used	IPCC AR5	
Applicable to which EEA EFTA States	Iceland and Norway	



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