



Update of the Nationally Determined Contribution of Iceland

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This submission consists of four parts: 1) the Introduction, 2) Iceland's updated and enhanced Nationally Determined Contribution (NDC), 3) Annex I, with the information provided to facilitate clarity, transparency and understanding (ICTU) of the NDC and 4) Annex II, with additional information to clarify Iceland's climate profile, policies and legal arrangements, including information on the government pledge for Iceland to become carbon neutral by 2040.

1) Introduction

With this submission, Iceland updates its NDC by enhancing its commitment to at least 55 per cent net greenhouse gas emissions reduction by 2030 compared to 1990, to be achieved by acting jointly with the European Union and its Member States and Norway.

Iceland submitted its Intended Nationally Determined Contribution (INDC) in 2015, which became its Nationally Determined Contribution (NDC) upon Iceland's ratification of the Paris Agreement, on 24 September 2016. There, Iceland announced its intention of being part of a collective delivery by European countries to reach a target of 40 per cent reduction of greenhouse gas emissions by 2030 compared to 1990.

In October 2019, an agreement was finalized on climate cooperation between Iceland, Norway and the EU, with the Decision of the EEA Joint Committee No 269/2019, which amended Protocol 31 to the EEA Agreement.¹ Iceland intends to fulfil its enhanced NDC of at least 55 per cent net greenhouse gas emissions within the framework of the agreement which is subject to revision in light of the enhanced target. Iceland, along with Norway, will work with the European Union and its Member States in reviewing the relevant provisions of their 2019 agreement, as needed, on climate cooperation to reflect the enhanced emissions target for 2030.

Based on the EEA Joint Committee Decision No 269/2019, Iceland takes part in three key climate mitigation legislative frameworks: Emissions Trading System (ETS), which inter alia includes emissions from the heavy industry and aviation sectors in Iceland; Effort Sharing Regulation, which sets binding targets for non-ETS emissions for individual targets; and LULUCF, which covers emissions and carbon removals from the Land Use, Land Use Change

¹ Decision of the EEA Joint Committee No 269/2019 of 25 October 2019, amending Protocol 31 to the EEA Agreement



and Forestry sector. This means that Iceland's contribution towards the joint fulfilment target is comparable in effort and governed by the same set of rules as for the Member States of the European Union and for Norway.

Iceland announced on 12 December 2020 at the Climate Ambition Summit that Iceland would increase its level of ambition from the currently pledged 40 per cent emissions cuts to 2030, to 55 per cent or more, acting jointly to achieve this enhanced target with other European States. The European Union and its Member States have since communicated that they, acting jointly, are committed to a binding target of a net domestic emission reduction of at least 55 per cent to 2030 compared to 1990. Iceland's enhanced ambition target of 55 per cent net emissions reduction refers to the joint target of the countries involved; the individual share and commitments of each country is then determined by commonly agreed rules.

2) Iceland's Nationally Determined Contribution

Iceland's Nationally Determined Contribution

Iceland is committed to a target of 55 per cent net reduction of greenhouse gas emissions by 2030 compared to 1990, acting jointly with the European Union and its Member States and Norway to achieve this target, within the framework of their climate cooperation agreement.



3) Annex I

Information on Iceland's NDC provided in according to guidelines in Decision 4/CMA.1

Information to facilitate clarity, transparency and understanding (ICTU) of the updated nationally determined contribution of Iceland for the timeframe 2021-2030.

Information necessary for clarity, transparency and understanding of Iceland's NDC		
Para	Guidance provided by 4/CMA. 1	ICTU applicable to Iceland's NDC
1	Quantifiable information on the reference point (including, as appropriate, a base year):	
(a)	Reference year(s), base year(s), reference period(s) or other starting point(s);	Base year 1990
(b)	Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other starting point(s), and, as applicable, in the target year;	Quantification of the reference indicator will be based on national totals reported in the National Inventory Report of Iceland and may be updated due to methodological improvements to the GHG inventory.
(c)	For strategies, plans and actions referred to in Article 4, paragraph 6, of the Paris Agreement, or policies and measures as components of nationally determined contributions where paragraph 1(b) above is not applicable, Parties to provide other relevant information;	Not applicable
(d)	Target relative to the reference indicator, expressed numerically, for example in percentage or amount of reduction;	Economy-wide net reduction of at least 55% in greenhouse gas emissions by 2030 compared to 1990. (see 3(a))
(e)	Information on sources of data used in quantifying the reference point(s);	Quantification of the reference indicator will be based on data reported in the National Inventory Report of Iceland.
(f)	Information on the circumstances under which the Party may update the values of the reference indicators.	Values may be updated due to methodological improvements to the GHG inventory.



2	Time frames and/or periods for implementation:	
(a)	Time frame and/or period for implementation, including start and end date, consistent with any further relevant decision adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA);	From 1 January 2021 to 31 December 2030.
(b)	Whether it is a single-year or multi-year target, as applicable.	Single year target, 2030
3	Scope and coverage:	
(a)	General description of the target;	Economy-wide, net emission reductions by at least 55% in 2030 compared to base year emissions. The target covers all sectors and greenhouse gases. Iceland seeks to fulfil the enhanced ambition through climate cooperation with the European Union and Norway. Iceland's enhanced ambition target of 55 per cent net emissions reduction refers to the joint target of the countries involved; the individual share and commitments of each country is then determined by commonly agreed rules.
(b)	Sectors, gases, categories and pools covered by the nationally determined contribution, including, as applicable, consistent with Intergovernmental Panel on Climate Change (IPCC) guidelines;	<p>Detailed information will be provided in Iceland's NIR that will be consistent with the IPCC guidelines.</p> <p>Sectors covered: Energy, Industrial processes and product use, Agriculture, Waste, Land-use, land-use change and forestry.</p> <p>Gases covered: Carbon dioxide (CO₂) Methane (CH₄) Nitrous oxide (N₂O) Perfluorocarbons (PFCs) Hydrofluorocarbons (HFCs) Sulphur hexafluoride (SF₆)</p>



		Nitrogen trifluoride (NF3)
(c)	How the Party has taken into consideration paragraph 31(c) and (d) of decision 1/CP.21;	Since Iceland's NDC is economy-wide, it complies with this provision.
(d)	Mitigation co-benefits resulting from Parties' adaptation action and/or economic diversification plans, including description of specific projects, measures and initiatives of Parties' adaptation actions and/or economic diversification plans.	Not applicable
4	Planning processes	
(a)	Information on the planning processes that the Party undertook to prepare its nationally determined contribution and, if available, on Party's implementation plans, including, as appropriate:	<ul style="list-style-type: none"> • Iceland announced on 12 December 2020 at the Climate Ambition Summit that Iceland would increase its level of ambition from the currently pledged 40 per cent emissions cuts to 2030, to 55 per cent or more, acting jointly to achieve this enhanced target with other European States. • The Government took a formal decision on the enhanced target at its meeting on 4 December 2020. • The Parliament's Standing Committee for Environment and Communication was consulted in the planning process before the announcement on 12 December 2020. • An updated Climate Action Plan was published in June 2020, with 48 mitigation actions in different sectors aiming to meet the commitments on net emissions reduction. The Action Plan specifically states that it is intended to achieve more net emissions reductions than are strictly required by Iceland's current international commitments, before the formal announcement of enhanced ambition on 12 December 2020. • The work on the Climate Action Plan was carried out by an inter-ministerial working-group, with the Association of Local Authorities also represented, led by the Ministry for the Environment and Natural Resources.
(i)	Domestic institutional arrangements, public participation and engagement with local communities and indigenous peoples, in a gender-responsive manner;	The Climate Action Plan, published in 2020, reflects comments and suggestions received during public hearing as well as conclusions of a consultation process with stakeholders and civil society.



		<p>Institutional arrangements: Through the climate cooperation with the European Union and Norway, specific regulation has been implemented, covering all emission and sectors (see 3(a)).</p> <ul style="list-style-type: none">• The Ministry for the Environment and Natural Resources has the overarching cross-sectoral responsibility for coordination and implementation, whereas different ministries are responsible for actions that falls under their respective sectors. The Ministry for Finance is responsible for tax schemes. The coordination is carried out by inter-ministerial working-group, where the Association of Local Authorities is also represented, led by the Ministry for the Environment and Natural Resources.• With an amendment made to the Climate Act No 70/2012 in 2019, the administration framework regarding climate issues was strengthened. The Act prescribes clear directions on arrangements for the work on the Climate Action Plan and how it should be updated and reviewed on; a framework on adaptation to climate change is established, and guidelines set regarding the scientific reporting on the impact of climate change on Iceland.• A legal base was established for the Climate Council with the amendment to the Icelandic Climate Act in 2019. Members of the Climate Council are appointed for four years at a time. The Climate Council is an independent body whose role is to hold authorities accountable and provide advice on policy objectives and specific measures related to climate change.• In 2011, Iceland ratified the UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (the Aarhus Convention), which links human rights and environmental rights.• Iceland supported the adoption of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).
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(ii)	Contextual matters, including, inter alia, as appropriate:	
a	National circumstances, such as geography, climate, economy, sustainable development and poverty eradication;	<ul style="list-style-type: none"> Information on Iceland's national circumstances, can be found in Iceland's <u>7th National Communication</u> and <u>4th Biennial Report</u>. The UN Sustainable Development Goals (SDGs) serve as an important guide for the Icelandic Government in working towards increased sustainability. Iceland took an active part in the negotiations on the Sustainable Development Goals and adoption of the 2030 Agenda for Sustainable Development in 2015.
b	Best practices and experience related to the preparation of the nationally determined contribution;	Iceland's NDC is prepared in the context of commitments to gender equality and cross-cutting priorities and sustainable development.
c	Other contextual aspirations and priorities acknowledged when joining the Paris Agreement;	<p>Integration of just transition and gender equality is fundamental.</p> <p>The Constitution states that all shall be equal before that law and enjoy human rights without regard to sex, religion, opinion, national origin, race, colour, financial status, parentage and other status. Men and women shall have equal rights in every respect.</p> <p>Act on equal gender right and gender equality No 150/2020 is to prevent gender discrimination and to create and maintain equal rights and opportunities for all genders in all aspects of the community.</p>
(b)	Specific information applicable to Parties, including regional economic integration organizations and their member States, that have reached an agreement to act jointly under Article 4, paragraph 2, of the Paris Agreement, including the Parties that agreed to act jointly and the terms of the agreement, in	<p>Iceland intends to act jointly with the EU and Norway to reach the target of 55 per cent net reduction of greenhouse gas emissions by 2030 compared to 1990, in line with current Decision of the EEA Joint Committee NO 269/1019 on enhanced climate cooperation.²</p> <p>See further in 3(a) above.</p>

² <https://www.efta.int/sites/default/files/documents/legal-texts/eea/other-legal-documents/adopted-joint-committee-decisions/2019%20-%20English/269-2019.pdf>



	accordance with Article 4, paragraphs 16 18, of the Paris Agreement;	
(c)	How the Party's preparation of its nationally determined contribution has been informed by the outcomes of the global stocktake, in accordance with Article 4, paragraph 9, of the Paris Agreement;	Not applicable since Global Stocktake has not taken place.
(d)	Each Party with a nationally determined contribution under Article 4 of the Paris Agreement that consists of adaptation action and/or economic diversification plans resulting in mitigation co-benefits consistent with Article 4, paragraph 7, of the Paris Agreement to submit information on:	Not applicable
(i)	How the economic and social consequences of response measures have been considered in developing the nationally determined contribution;	Not applicable
(ii)	Specific projects, measures and activities to be implemented to contribute to mitigation co-benefits, including information on adaptation plans that also yield mitigation co-benefits, which may cover, but are not limited to, key sectors, such as energy, resources, water resources, coastal resources, human settlements and urban planning, agriculture and forestry; and economic diversification actions, which may cover, but are not limited to, sectors such as manufacturing and industry, energy and mining, transport and communication, construction, tourism, real estate, agriculture and fisheries.	Not applicable
5	Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals:	
(a)	(a) Assumptions and methodological approaches used for accounting for anthropogenic greenhouse gas emissions and removals corresponding to the Party's nationally determined contribution, consistent with decision 1/CP.21, paragraph 31, and accounting guidance adopted by the CMA;	Current approach is in accordance with methodologies and common metrics assessed by the IPCC (see 5 (d), below). It is foreseen that, at the latest by 31 December 2024, the approach will be in accordance with the accounting guidance for NDCs contained in Annex II of decision 4/CMA.1



(b)	Assumptions and methodological approaches used for accounting for the implementation of policies and measures or strategies in the nationally determined contribution;	Not applicable.
(c)	If applicable, information on how the Party will take into account existing methods and guidance under the Convention to account for anthropogenic emissions and removals, in accordance with Article 4, paragraph 14, of the Paris Agreement, as appropriate;	See 5(d) below
(d)	IPCC methodologies and metrics used for estimating anthropogenic greenhouse gas emissions and removals;	Methodologies: IPCC Guidelines 2006. Metrics: Global Warming Potential on a 100 timescale in accordance with IPCC's 5th Assessment Report.
(e)	Sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, as appropriate, including, as applicable:	Information in Section 5(e)(i-iii) and 5(f)(i) refers to the legal framework in force at the time of this submission. This is subject to revision in light of the enhanced target. Iceland's LULUCF policy framework builds on IPCC guidance, TACCC principles and existing accounting rules, updating and improving them for the period from 2021 to 2030. The framework identifies net accounted emissions and removals, contributing to the aim of enhancing Iceland's net land sinks in the long-term.
(i)	Approach to addressing emissions and subsequent removals from natural disturbances on managed lands;	Art 10 and Annex VI of Regulation (EU) 2018/841 sets out provision for natural disturbances on afforested land and managed forest land.
(ii)	Approach used to account for emissions and removals from harvested wood products;	Production Approach is used to account for emissions and removals from harvested wood products, as defined in IPCC Guidelines; see also Art 9 and Annex V of Regulation (EU) 2018/841.
(iii)	Approach used to address the effects of age-class structure in forests;	Within the context of Iceland's climate cooperation with the European Union and Norway, emissions and removals in managed forests in the period 2021-2030 will be accounted for as the deviation from a projected forward-looking forest reference level, with regards to dynamic age-related forest characteristics, as in accordance with Art 8 and Annex IV of Regulation (EU) 2018/841.



		Projected reference levels for Managed Forest Land (Forest Land remaining Forest Land) take into consideration age-class structure of forest so that changes in management practices are accounted; see also Art 8 and Annex IV of Regulation (EU) 2018/841.
(f)	Other assumptions and methodological approaches used for understanding the nationally determined contribution and, if applicable, estimating corresponding emissions and removals, including:	N/A
(i)	How the reference indicators, baseline(s) and/or reference level(s), including, where applicable, sector-, category- or activity-specific reference levels, are constructed, including, for example, key parameters, assumptions, definitions, methodologies, data sources and models used;	<p>The following information in this section is subject to revision in light of the enhanced target. The elements of the approach have been developed in accordance with IPCC 2006 guidelines for GHG inventories; consistent with decision 18/CMA.1</p> <p>Accounting for emissions and removals from LULUCF follows specific rules depending on the land accounting category in accordance with Regulation (EU) 2018/841.</p> <p>Afforested Land and Deforested Land use baseline zero (gross-net accounting). Managed Grassland, Managed Cropland and Managed Wetland use as baseline the average emissions between 2005 and 2009 (net-net accounting).</p> <p>Managed Forest Land uses as baseline a Forest Reference Level based on continuation of Forest Management Practices between 2000 and 2009 and taking into account the age-class structure of forests, projected through the compliance period.</p> <p>The mere presence of carbon stocks is excluded from accounting. LULUCF Categories: Emissions and removals occurring on reported categories of forest land, cropland, grassland, and wetland, including land use change between these categories, and between these categories and settlements and other land. LULUCF Pools: Above-ground biomass; Below-ground biomass; Litter; Dead wood; Soil organic carbon; Harvested wood products.</p>
(ii)	For Parties with nationally determined contributions that contain non-greenhouse-gas components, information on	Not applicable



	assumptions and methodological approaches used in relation to those components, as applicable;	
(iii)	For climate forcers included in nationally determined contributions not covered by IPCC guidelines, information on how the climate forcers are estimated;	Not applicable
(iv)	Further technical information, as necessary;	Not applicable
(g)	The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable.	The target of at least 55% net reduction by 2030 is intended to be achieved through domestic measures, in the context of acting jointly with the European Union and its Member States and with Norway, without contribution from international credits. (See 4(b)).
6	How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances:	
(a)	How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances;	Iceland's updated NDC represents a significant increase in ambition beyond its initial NDC submitted at the time of ratifying the Paris Agreement. Both the initial NDC and this update require significantly higher net emissions reductions than were projected as business as usual at the time of their adoption.
(b)	Fairness considerations, including reflecting on equity;	Iceland regards its nationally determined contribution to represent its fair share of the efforts to achieve the global long-term goal of the Paris Agreement. The IPCC Special Report on global warming of 1.5°C shows that pathways limiting warming to 1.5°C typically achieve net zero greenhouse gas emissions at global level in the second half of this century. This enhanced NDC is in line with Iceland's intention of achieving a climate-neutrality 2040. Iceland therefore considers the enhanced NDC to be a fair contribution towards the global temperature goal of the Paris Agreement.



(c)	How the Party has addressed Article 4, paragraph 3, of the Paris Agreement;	This updated NDC Iceland represents a progression of ambition for Iceland compared to both its 2020 commitment and its initial NDC submission. See 6a
(d)	How the Party has addressed Article 4, paragraph 4, of the Paris Agreement;	By having an economy-wide target, Iceland complies with this provision
(e)	How the Party has addressed Article 4, paragraph 6, of the Paris Agreement.	Not applicable, as applicable only to LDCs and Small Island Developing States.
7	How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2:	
(a)	How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2;	Iceland considers its enhanced NDC to be in line with the objective of the UNFCCC and long-term goal of the UNFCCC Paris Agreement, as explained in 6a and 6b.
(b)	How the nationally determined contribution contributes towards Article 2, paragraph 1(a), and Article 4, paragraph 1, of the Paris Agreement.	See 6a and 7a.



4) Annex II

Additional information on climate change mitigation and adaptation in Iceland

Iceland's anthropogenic emissions of greenhouse gases amounted to almost 4.9 million tons in 2018, without LULUCF. The main sources of emissions are: Industrial processes (42%), burning of fossil fuels, mostly in road transport and fisheries (37%), agriculture (13%) and waste management (6%). Stationary energy – electricity production and heating – is produced almost 100% from renewable resources, hydro and geothermal. Some emissions of CO₂ in geothermal steam are attributed to geothermal energy production (3% of total emissions), while such emissions are much smaller than from energy production from fossil fuels.

LULUCF

The general impacts of land use activities are well understood, and LULUCF is a priority in Iceland's Climate Action Plan. The government supports sustainable land use practices, and nature-based solutions such as restoration of woodlands, wetlands and other native ecosystems in addition to afforestation and revegetation practices. Also, the government discourages further wetlands draining and unsustainable land use practices. Iceland provides only partial information in LULUCF accounting to the Convention, as sufficient knowledge on carbon budgets for all land types is not available. Efforts are under way to improve LULUCF accounting and strengthen its scientific underpinnings, to ensure that Iceland fulfils the requirements of the EU LULUCF Regulation No 2018/841.

There are significant reported and estimated emissions in the LULUCF sector, mostly legacy emissions from wetlands drained in the 20th Century. These emissions can be reduced or halted by reclamation of drained wetlands. Iceland also has great potential for carbon uptake by reforestation, revegetation and afforestation; actions that actively reverse historical soil erosion and loss of woodlands. As for LULUCF activities, Iceland has developed good accounting for afforestation and other activities related to forests, as well as revegetation, but less robust accounting for wetlands draining and reclamation and other activities.

Mitigation

Iceland's main instrument for climate mitigation is the Climate Action Plan. The present plan was presented in 2018, and thoroughly revised in 2020. The plan outlines 48 actions across all relevant sectors intended to help Iceland meet its Paris Agreement targets for 2030 and reach the government's aim to make Iceland carbon neutral before 2040.



Adaptation

Iceland has prioritized mitigation, in order to limit net greenhouse gas emissions to reach the Paris Agreement's target of holding the increase in the global average temperature well below 2 degrees C above pre-industrial levels, and to pursue efforts to limit the temperature increase to 1.5 degrees C. However, adaptation measures will also be needed, in order to tackle the unavoidable impacts that will accompany higher temperatures and associated changes. Impacts of climate change on Iceland include receding glaciers, expanding woodlands, changes in sea level (higher levels in some parts, but lower in other), warming seas with changes in species distributions, and increased risks of many types of natural disasters. Of particular concern is ocean acidification and its possible impact on marine life and fisheries. Work is currently under way for a national adaptation strategy due to be finalized in 2021.

Carbon Neutrality in 2040

The goal of carbon neutrality is to be reached by cutting emissions in all sectors, and by increasing carbon removals from the atmosphere, including by restoration, revegetation, afforestation, and carbon capture and mineralization in rock formations (Carbfix). Efforts are currently under way in all these categories, which need to be strengthened for Iceland to reach carbon neutrality in 2040 and a state of negative net emissions after that. Robust carbon accounting methods are also available for these activities, which will help Iceland keeping track of progress towards the goal. Carbon accounting and reporting in the LULUCF sector in general needs to be improved, as is discussed above.

A new project outlining pathways towards carbon neutrality is currently being launched and will include consultations with stakeholders and the public. It can be guided by currently available accounting methods for carbon removals, but it is foreseen that the accounting framework for the carbon neutrality goal will be revised in a few years' time, when a more robust LULUCF accounting framework will be in place in Iceland.

Iceland is currently working on its long-term low greenhouse gas emission development strategy, in accordance with Art. 4, Para.19, of the Paris Agreement. The project on pathways towards carbon neutrality is seen as providing needed information for the strategy, which is planned to be submitted this year.