

July 2025



Carbon markets

Challenges and opportunities
for Iceland



Government of Iceland
Ministry of the Environment, Energy, and Climate

Carbon Markets

Carbon markets Challenges and opportunities for Iceland

Report prepared by a working group on carbon markets, appointed by the Minister of the Environment, Energy, and Climate in spring 2023. Members of the group were Jónas Fr. Jónsson, Supreme Court Attorney, Chair; Helga Barðadóttir, specialist with the Ministry of the Environment, Energy, and Climate; and Salóme Hallfreðsdóttir, specialist with the Ministry of Food, Agriculture, and Fisheries. Björn Helgi Barkarson, Director General, replaced Salome in February 2024, and Rafn Helgason, specialist, replaced Björn in May 2024.

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Summary

This report was prepared by a working group appointed by the Minister of the Environment, Energy, and Climate in spring 2023. Its purpose is to analyse the status of carbon markets in Iceland, explore Icelandic companies' opportunities in these markets, and assess whether the Government could use carbon credits to comply with Iceland's international climate obligations. The bulk of the report centres on the voluntary carbon market, which has developed rapidly in recent years. Also discussed is Article 6 of the Paris Agreement, which covers international cooperation on transactions with carbon units.

The report explains how international cooperation on climate issues has shaped carbon markets, including through agreements such as the Kyoto Protocol and the Paris Agreement. Because of this cooperation, many countries, including Iceland, are exploring the possibility of using carbon markets to mitigate greenhouse gas emissions.

The report also describes how Iceland's objectives, particularly in the context of the Paris Agreement, affect the possibility of its participating in carbon markets. In addition, it outlines Iceland's carbon neutrality strategy, the goals the country has set for reducing emissions, and its cooperation with the European Union and Norway on climate issues.

The report discusses Article 6 of the Paris Agreement, which centres on international trade in carbon units, and the potential for Iceland to participate in such trading. It outlines the two main options available under Article 6: on the one hand, bilateral cooperation between countries with the aim of reducing emissions; and on the other, an international market for carbon units, which will be strictly supervised by a designated supervisory body. It also discusses projects relating to carbon capture and storage/mineralisation in Iceland.

The report places primary emphasis on the discussion of the voluntary carbon market, where Icelandic companies can produce and sell carbon units without being legally obliged to do so. This is a rapidly growing field that could create opportunities for various Icelandic projects centring on afforestation, ecosystem restoration, and other sequestration efforts. The report gives an overview of key certification systems, standards, and business processes relating to these markets.

It also provides an overview of the Icelandic and international regulatory frameworks for carbon markets. It explores ways to shape the Icelandic framework so as to ensure integrity and transparency of transactions with carbon units, which is important in order to prevent problems such as double-counting and greenwashing.

Recommendations to the authorities concerning remedial action can be found at the end of the relevant sections, and a complete list of the recommendations can be found

at the end of this summary. These recommendations are intended to support the development of carbon markets in Iceland and make it easier for stakeholders to take advantage of the opportunities offered by the markets. Among other things, it is recommended that the Icelandic authorities formulate a policy on participation in global carbon markets. Other recommendations centre on ways to improve the structural and regulatory framework for trading of carbon units. The working group also emphasises that an assessment should be made of whether or not to authorise the exportation of international carbon units that would affect Iceland's climate accounting, and how it would be possible to promote Icelandic companies' further participation in the voluntary carbon market.

During the preparation of the report, the working group consulted extensively with stakeholders and held a large number of meetings with them so as to elicit their views on the project at hand. It is clear that there is rapid development in this area, and a number of points were clarified during the preparation of the report.

The working group sought out consultants on certain aspects of the project, particularly to include a summary of other countries' regulatory frameworks for trading in carbon units, prepared by Cathrine Wenger of Wenger Law in Norway. The report contains a summary of Ms. Wenger's findings, and the full report can be found on the website of the Ministry of the Environment, Energy, and Climate.¹ At the end of the report is an Appendix containing a glossary and explanations of abbreviations and acronyms.

The working group presents the following recommendations, which fall into five categories: *A. The State as purchaser of carbon units; B. Strategy formulation; C. Statutory amendments; D. International cooperation; and E. Unclassified (Other).*

A. The State as purchaser of carbon units

1. The law should require the adoption of a set of guidelines for the quality of carbon units purchased by the State.
2. Carbon units and projects that produce them – and that public entities purchase – should have received confirmation from an accredited/credible certification body and should be of genuine benefit to the climate.
3. Carbon units purchased by public entities should be listed in a third-party registry that is deemed satisfactory.
4. Projects generating carbon units that are purchased by public entities should satisfy basic requirements; i.e., they should be real, measurable, permanent, and traceable. It is also necessary to demonstrate additionality, uniqueness, and the absence of double-counting.

¹ [Ministry of the Environment, Energy, and Climate website](#)

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5. Individual purchasers (public entities) should publicly disclose the number of purchased and utilised units and the types of projects underlying the units. Furthermore, they should report annually on the scope of their emissions.
 6. The Environment Agency of Iceland should revise the 2020 guidelines on carbon offset for public entities and should undertake such revisions regularly (albeit with consideration given to the execution of Item 1 above).
 7. The possibility should be explored of holding public tenders for the purchase of carbon units by entities falling within the scope of Article 5(c) of Act no. 70/2012.
 8. The State as landowner shall take the initiative to identify land to be allocated for climate action with an implementation plan for improved land use for the benefit of the environment. The allocation of land for climate action shall be carried out in a non-discriminatory manner; for instance, via public tender.
-

B. Statutory amendments

1. The term carbon unit should be defined by law.
 2. A bill of legislation on a carbon registry should be prepared in cooperation with the business community, with the aim of creating a general framework for such activities, including provisions on establishment, eligibility requirements for owners, requirements concerning the process of registering and deregistering carbon units, the legal effect of registration, and participants in the registration/deregistration process.
-

C. Policy formulation

1. A policy should be adopted on the purchase of carbon units from other countries so as to meet targets for reduced emissions and carbon neutrality within the scope of effort-sharing, to the extent that such targets cannot be met through domestic action.
 2. The Government should formulate a policy – for instance, with an appendix to its Climate Action Plan – prohibiting the exportation from Iceland of internationally transferred mitigation outcomes (ITMO) that would have a detrimental effect on Iceland's emissions accounting. The policy can be reviewed when Iceland has fulfilled its emission reduction commitments.
 3. The tax framework for operations involving the production and purchase of carbon units should be reviewed with an eye to possible incentives and to deductibility of operating expenses.
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- i. Additional scope for deductions of expenses relating to carbon offset in a company's own operations, with further specification of when targets (concerning carbon neutrality, for instance) can be considered related to revenue generation. This could include deciding when the purchase of carbon units from third parties could be considered actual operating expenses (instead of gifts/contributions) (and also with value-added tax).
 - ii. Specified depreciation provisions regarding investments in real estate (including land) or equipment for the production of carbon units and/or reduction or removal in the company's own operations.
 - iii. The possibility of reimbursement of a specified percentage of capital expenditure on projects contributing to permanent carbon reduction/removal and the production of carbon units for sale.
 - iv. Whether companies should be authorised to use carbon units to pay environment taxes (or lower their tax base).
-

D. International cooperation

- 1. It is proposed that the Icelandic authorities participate in a pilot project on international trading based on Article 6 of the Paris Agreement, which entails, among other things, mapping out the administrative infrastructure needed to carry out such projects.
 - 2. The Ministry of the Environment, Energy, and Climate (URN) requests that the Ministry for Foreign Affairs, in cooperation with the URN, examine how climate-related development cooperation projects could help developing countries to meet their targets on the path to carbon neutrality on the basis of Article 6 of the Paris Agreement. All factors covered in Article 6 should be considered and information gathered on how similar countries operate in this regard.
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E. Other

- 1. The authorities should take the initiative to bring stakeholders together so as to determine their interest in establishing a venue for trade in carbon units. Public entities could also consider using such venues, including auction markets, with the aim of promoting efficiency in public sector operations and ensuring competition and equality among sellers, which could also foster innovation and development of solutions to climate issues.

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1. Introduction



In April 2023, the Minister of the Environment, Energy, and Climate appointed a working group whose role was to map out the current situation and opportunities for trade in carbon credits in Iceland. The working group's letter of mandate can be found in Section 7.4.

This report reviews the status of carbon markets in Iceland and discusses whether the Icelandic Government could use carbon markets to satisfy Iceland's international climate obligations. The bulk of the report centres on the voluntary carbon market, which has developed rapidly in recent years. Also discussed is international cooperation on transactions with carbon credits on the basis of Article 6 of the Paris Agreement.

During the preparation of the report, the working group placed strong emphasis on extensive consultation with stakeholders and held a large number of meetings with them so as to elicit their views on the project, both at the outset and during the course of the work. The group also sought out expert advice on certain aspects of the project, including a summary of other countries' regulatory framework for trade in carbon credits.

1.1 Carbon markets

Carbon markets are a mechanism that enables the production of carbon credits that should reflect the progress delivered by a given project. A carbon credit is a unit that can be bought and sold. It entails proof that the emission of one tonne of carbon dioxide equivalent (tCO₂e) into the atmosphere has been avoided or captured in comparison with a baseline situation.

In the so-called voluntary market, a buyer of such a unit can use it to demonstrate that it has offset one tonne of its own greenhouse gas (GHG) emissions stemming from, for instance, electricity use, air travel, and motor vehicle travel. Upon using the unit, the party in question must deregister or retire it, as a single unit may only be used once for carbon offset purposes. Issuing carbon credits is one way to finance climate-related projects.²

To simplify somewhat, it can be said that carbon offset occurs when individuals or legal entities compensate for their own GHG emissions by financing projects that:

² Environment Agency of Iceland website [in Icelandic]: "Carbon offset", (Accessed 11 October 2024).

a) prevent the emission of a corresponding volume of GHG elsewhere, or b) remove a corresponding volume of GHG from the atmosphere.³

Carbon markets are the markets where carbon credits are bought and sold. In general, there are two types of carbon markets, but it should be noted that the term covers a broad range, markets are diverse, and clear boundaries do not necessarily exist. The two main types of markets are *voluntary* markets and *compliance* markets. In the latter case, buyers and sellers participate in the market in response to obligations established by statute law, regulation, or rules. This report does not specify whether compliance markets derive from statute law, regulations, or rules; instead, it refers to them collectively as compliance markets.

It is commonly said that compliance markets are established under the auspices of national or regional schemes and that participation in them is based on fulfilling participants' obligation to reduce emissions in their own operations.⁴ It can also be said that voluntary markets are those where participants freely choose to buy carbon credits; i.e., without being obliged to do so.⁵ There is no single, universally accepted definition of these two markets.

It is worth noting that there is much discussion internationally about how to distinguish between the voluntary and compliance markets, and opinion varies widely. The Organisation for Economic Co-operation and Development (OECD) recently published a report covering these issues from various perspectives:⁶

1.2 Background — the origins of carbon markets

International cooperation on climate issues is based on the United Nations Framework Convention on Climate Change (UNFCCC) (also referred to hereinafter as the Framework Convention or the Convention). This cooperation entails, for instance, harmonising measures taken to mitigate climate change and prepare for the inevitable adaption to it.

The Convention was approved in 1992 and took effect two years later. Its objective is to “prevent dangerous anthropogenic interference with the climate system [...] to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.” Another objective is to foster international cooperation aimed at enabling the contracting parties to facilitate socio-economic adaptation to climate change.

³ *ibid.*

⁴ Commodity Futures Trading Commission (CFTC): “Commission Guidance Regarding the Listing of Voluntary Carbon Credit Derivative Contracts; Request for Comment”, Federal Register/Vol 88 No. 247, dated 27 December 2023, p. 89,412.

⁵ OECD: The interplay between voluntary and compliance carbon markets, dated 12 July 2024; CFTC: same as Footnote 4.

⁶ OECD Environment Working Paper: <https://www.oecd-ilibrary.org/deliver/500198e1-en.pdf?itemId=%2Fcontent%2Fpaper%2F500198e1-en&mimeType=pdf>

In 1997, with the adoption of the Kyoto Protocol to the Convention, contracting parties were authorised to fulfil a portion of their obligations via so-called market-based mechanisms. This enabled parties to join together with other countries to adopt measures to reduce emissions or sequester carbon, thereby utilising economies of scale to make progress in climate issues at a lower cost than would otherwise be possible.⁷ For example, Country A could satisfy its obligations with projects carried out in Country B, through cross-border transfer of carbon credits generated by the projects. In other words, Country A would use the credits in its own climate accounting.

The Kyoto Protocol provided for two types of trading systems based on the underlying ideology that progress made in reducing/capturing carbon would be equally useful in the fight against climate change, no matter where that progress took place.

One of these was the Clean Development Mechanism (CDM), which enabled countries with emission reduction targets under the Protocol to undertake emission reduction projects in developing countries, thereby producing emission reduction units that the former countries could use to meet their own targets. It should be noted that under the Kyoto Protocol, only developed countries were obliged to implement emission reduction targets. On the other hand, the Protocol provided for a mechanism called joint implementation (JI), where two developed countries could enter into a bilateral agreement under which one of the countries would undertake an emission reduction project in the other, and the investing country could use the resulting carbon units towards meeting its own target.

The Kyoto Protocol expired at year-end 2020, whereupon the Paris Agreement took effect.

Alongside the above-described developments in carbon markets under the Framework Convention and the increased emphasis placed on climate issues, a voluntary market for carbon units evolved outside the systems that had been established by the Convention. The market that developed gave parties the opportunity to finance climate action and utilise their carbon units to offset their own emissions, either partly or fully. These markets have changed and developed significantly in recent years, as regards both the projects themselves and the requirements made concerning project quality and the credits issued.

The Paris Agreement, which took effect at the beginning of 2021, covers carbon markets in Article 6, which provides for two distinct market systems: one involving cooperation between countries, as laid down in Article 6.2, and the other involving the establishment of an international carbon market with recognised emission allowances, as laid down in Article 6.4. Parties to the agreement may use allowances issued on the basis of Article 6, whether they are based on Article 6.2 or Article 6.4, towards the satisfaction of their obligations according to the Paris Agreement. For further discussion, see Section 3.

⁷ Climate law: Hrafnhildur Bragadóttir and Aðalheiður Jóhannsdóttir. University of Iceland 2021, p. 110.



2. Iceland's obligations, climate targets, and connections to carbon markets



2.1 The Paris Agreement and cooperation with the EU

One of the main objectives of the Paris Agreement, which took effect at the beginning of 2021, is to limit the increase in the global average temperature to 1.5°C above pre-industrial levels.

In order to attain the objective of the Paris Agreement, it is necessary to reduce anthropogenic greenhouse gas emissions as quickly as possible through reduced use of fossil fuels for energy production and transportation, while simultaneously increasing carbon sequestration – i.e., absorption by carbon sinks such as soil and vegetation through ecosystem restoration and afforestation, injection of carbon dioxide into geological layers for permanent storage, or other accepted methods – so that a balance is achieved between anthropogenic emissions, on the one hand, and removal via uptake and sequestration of carbon in a sink, on the other.

Iceland is a party to the Paris Agreement, which obliges signatories to set forth ambitious targets for the reduction of greenhouse gas emissions. The targets are presented as nationally determined contributions (NDC), which reflect the contribution of the country concerned to the overall target provided for in the Agreement.

In **Iceland's** NDC,⁸ which was notified to the Framework Convention in February 2021, it is stated that Iceland intends to work towards a 55% overall reduction in GHG emissions by 2030 relative to its 1990 level, in cooperation with EU member states and Norway. It is also stated that **Iceland will not utilise credits from carbon markets under Article 6 of the Paris Agreement to satisfy its obligations according to the Agreement. This is in accordance with the EU's NDC.**⁹

It must be concluded from the above that when Iceland presented its NDC, it did not intend to use trading with carbon credits on the basis of Article 6 of the Paris

⁸ [Iceland's nationally determined contribution](#)

⁹ [The EU's nationally determined contribution](#)

Agreement as means of achieving its climate targets. It should also be pointed out that few, if any, of Iceland's comparison countries are planning to undertake projects under Article 6 with the aim of selling carbon credits. It can be assumed that this is mainly because the countries in question have their hands full reaching their own targets and see no reason to sell Article 6 credits before satisfying their own NDCs. On the other hand, many of these countries are exploring the possibility of setting up projects in or buying credits from Article 6 projects in other jurisdictions, usually developing countries.

According to the EU's NDC, member states are not authorised to use internationally transferred carbon credits (Article 6) to satisfy their own reduction targets. The same will apply to Norway and Iceland, which act jointly with the EU to reach joint emission reduction targets under an effort-sharing agreement.

The Norwegian authorities have long been active in international carbon markets. Norway's NDC, which is unlike Iceland's in many respects, states that if the country is unable to achieve its emission reduction targets domestically, it will utilise internationally transferred carbon credits according to Article 6;¹⁰ that is, for emissions not covered by its cooperation agreement with the EU. In addition, the Norwegians have set a target of achieving carbon neutrality by 2030, which is not provided for in its NDC. It is assumed that reaching this target will involve the purchase of international carbon credits.¹¹

The Swedes, who have set forth more stringent emission reduction targets than the EU has, have presented a plan that includes the use of international carbon credits to achieve more ambitious carbon neutrality goals, and in this context, they have made contractual agreements with several non-European countries on the basis of Article 6 of the Paris Agreement.

Iceland, like other parties to the Framework Convention, is required to submit annual accounts covering emissions and removals of greenhouse gases, in accordance with guidelines issued by the UN's Intergovernmental Panel on Climate Change (IPCC). The Environment Agency of Iceland oversees the submittal of the accounts (see the Environment Agency website).¹²

Every other year, Iceland must also submit reports to the Framework Convention on its targets and on the progress of the measures it takes, in accordance with the presentation of targets in its NDC. The next biennial report is to be submitted on 1 January 2025.

The Climate Action Plan is the Government's key plan for reaching its targets regarding emissions and removals of greenhouse gases. It was revised in late summer 2024 and can be found on the website www.co2.is.¹³

¹⁰ Norway's NDC

¹¹ [Wenger Law: The Role of Carbon Markets in Norway](#)

¹² [Environment Agency of Iceland Greenhouse gas emissions](#)

¹³ www.co2.is

In addition to the targets presented to the Framework Convention in Iceland's NDC, the Icelandic authorities have adopted an independent target of achieving a 55% contraction in collective emissions by 2030 (relative to 2005)¹⁴ via effort-sharing and have enshrined Iceland's carbon neutrality target in law via the Climate Act, no. 70/2012.

2.2 Cooperation with the EU and Norway on a joint emission reduction target

An element in the cooperation among Iceland, Norway, and the EU on their joint climate target is the implementation of climate-related EU regulatory instruments. This regulatory framework provides for three types of mechanisms: an emissions trading scheme (ETS) pursuant to Directive no. 2003/87, which is part of the EEA Agreement; Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions (called the Effort-Sharing Regulation, ESR); and Regulation (EU) 2018/841 on the inclusion of greenhouse gas emissions and removals from land use, land use change, and forestry (LULUCF). The latter two of these can be found in Protocol 31 to the EEA Agreement, on cooperation in specific fields outside the four freedoms. Emission reduction targets are set within each category.

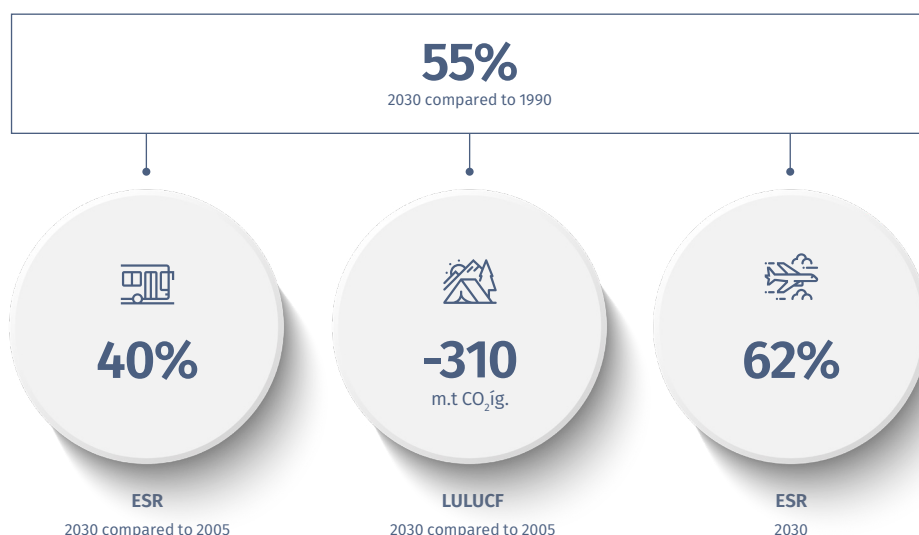


Figure 1. EU, Norway, and Iceland's aggregate target of a 55% contraction in total greenhouse gas emissions and distribution across the three commitment mechanisms: the Effort-Sharing Regulation, the LULUCF Regulation, and the EU emission trading scheme (ETS).

¹⁴ [Government platform](#)

2.2.1 The emission trading scheme

In 2005, the European Union (EU) established an emissions trading scheme (ETS), which is one of its main policy instruments in the area of climate action. The ETS is intended to create economic incentives for entities operating within its scope to reduce GHG emissions. Operators receive emissions allowances up to a given limit, based on rules laid down in the system.

Each year, a cap is placed on the total number of allowances in the system. The cap is reduced annually, in accordance with the target of achieving a 62% reduction in emissions by 2030. Participating entities may trade their allowances within the system and must purchase allowances to cover emissions exceeding their allocation.

One allowance confers the right to emit one tonne of carbon dioxide equivalent (one tCO₂e). One tCO₂e corresponds to one tonne of carbon dioxide or the volume of greenhouse gases with comparable global warming potential.¹⁵ The ETS was adopted in 2005 and is part of the EEA Agreement. It took full effect in Iceland in 2012 and currently applies to certain local industrial operators, such as companies in the aluminium, air transport, and shipping sectors. The system assumes that a 62% reduction in emissions will be achieved by 2030. No individual targets are assigned to specific countries.

From the inception of the ETS in 2005, emissions from operations falling within the scope of the system have been reduced by 47%.¹⁶ The price of emissions allowances within the system has risen in recent years. For instance, it increased from EUR 8 on 1 January 2018 to EUR 72 on 14 August 2024, peaking at over EUR 100 during the intervening period. It can be assumed that higher prices will encourage operators to reduce their GHG emissions, thereby lowering costs.

2.2.2 Collective emissions according to the Effort-Sharing Regulation

The Effort-Sharing Regulation (ESR) sets targets for emissions deriving from transportation, fishing, waste, and general industry and not falling under the ETS.

The total reduction in collective emissions by all EU member states, Iceland, and Norway between 2005 and 2030 shall be 40%. Iceland, like EU member states, will be subject to a framework laying down emissions allowances for each year until 2030, called emission allocations, based on a linear reduction in emissions over the period. Individual countries will be subject to differing reduction requirements, which will depend on the cost-effectiveness of the measures needed and the proportion of renewable energy in the country concerned.

EU member states' share in the joint target for minimum reduction in emissions by 2030 has now been established. The required reductions range from 10% to

¹⁵ [Act on the EU Emissions Trading System, no. 96/2023.](#)

¹⁶ [European Commission](#)

the maximum, which is 50%. No formal targets for Iceland and Norway have been presented, but according to the formulae used for target-setting, it is assumed that Iceland's target will be 41%.

According to Regulation (EU) 2018/842, called the Effort-Sharing Regulation (ESR), all EU countries plus Iceland and Norway will receive annual emission allocations for each year of the period 2021-2030. The allocations are used by the countries in question to prepare emissions accounts for each year. Collective emissions for each year shall not exceed the emission allocations for that same year. Accounting rules under the Effort-Sharing Regulation include rules on international transfer of emission allocations between countries within the system; furthermore, countries can take advantage of flexibility provisions (also called *flexibilities*) aimed at making it easier for them to fulfil their commitments. Furthermore, Iceland is authorised⁵⁴ to use 200,000 allowances from LULUCF to fulfil its effort-sharing obligations, upon satisfying certain conditions.

Further information on the flexibility provisions can be found in the Appendix in Section 7.1.

2.2.3 Land use, land use change, and forestry (LULUCF)

Land use, land use change, and forestry (LULUCF) includes emissions and removals from grasslands, croplands, wetlands, and forest lands.

The net LULUCF removal of all EU member states combined shall total -310 million tCO₂e by 2030. No formal LULUCF targets have been set for Iceland and Norway.

According to the current obligations pertaining to LULUCF emissions and removals in Iceland, it appears that Iceland will fulfil its commitments for 2021 and 2022, as average net emissions for those years may not exceed average net emissions for reference periods. The way in which emissions and removals from land use are counted towards EU obligations depends on land use categories, and furthermore, the accounting rules for the first period (2021-2025) differ from the rules for the second (2026-2030). Final figures on this will be available after the EU has carried out its 2027 appraisal.

2.3 Carbon neutrality

As has previously been stated, Iceland and many other countries have set targets for achieving carbon neutrality, or net-zero emissions. Iceland's aim is to reach the net-zero target by 2040. The EU aims at net-zero by 2050, Norway by 2030, and Finland by 2035, for example.

The comments on the bill of legislation on Act no. 95/2021 amending the Climate Act, which incorporated Iceland's carbon neutrality objective into law, state that the definition shall be based on Article 4.1 of the Paris Agreement, which discusses the importance of achieving a balance between anthropogenic emissions by sources

and removals by sinks in the second half of this century, so as to achieve the long-term temperature goal of limiting the global temperature increase to 1.5°C above pre-industrial levels.¹⁷

It is also stated in the comments that in order to reach net-zero, it is most important to reduce emissions rapidly, but that improved land use, increased ecosystem restoration, and afforestation will be highly important as well. Sequestering carbon in soil and vegetation will be key to achieving carbon neutrality, both in Iceland and on a global level, but technological solutions such as the permanent geological storage of carbon also have a role to play.

The comments on the bill of legislation read as follows: “It must be borne in mind that it has not been decided whether and how net-zero will be accounted for vis-à-vis the Framework Convention, nor is it clear whether Iceland will work towards reaching its net-zero target in cooperation with the EU. It is therefore necessary to consider that the international groundrules will be clarified further in coming years.”

On Iceland’s target of achieving carbon neutrality no later than 2040, which was enshrined in law¹⁸ in 2021, the comments state as follows (Section 3.6): **“It is not assumed that it will be possible to achieve the target by purchasing carbon credits relating to climate projects in other countries.”**

Some of the countries that have adopted net-zero targets have declared their intention of buying carbon credits from abroad in order to reach their objectives. Among them is Sweden, which has set forth plans for the purchase of internationally transferred carbon units on the basis of Article 6 to achieve its domestic goals for reduced emissions and carbon neutrality, which are more stringent than the targets laid down by the EU. These more ambitious targets are not part of Sweden’s NDC under the Framework Convention.

→ Recommendation C1

Many of Iceland’s comparison countries, including Sweden and Norway, have presented strategies and/or made contractual agreements with other countries concerning the purchase of carbon credits to fulfil their climate obligations and targets. Setting policy on this provides predictability, irrespective of whether the aim is to meet obligations and targets with or without buying carbon credits.

- A policy should be adopted on the purchase of carbon units so as to meet targets for reduced emissions and carbon neutrality through effort-sharing, to the extent that such targets cannot be met through domestic action.
-

¹⁷ 151st legislative session (2020–2021), Case no. 711, Parliamentary Document no. 1190.

¹⁸ Comments on the bill of legislation passed as Act no. 95/2021 Amending the Climate Act, no. 70/2012.



3. International cooperation



3.1 Article 6 of the Paris Agreement

Article 6 of the Paris Agreement authorises countries to pursue cooperation in order to reach the emission reduction targets laid down in their NDCs. This Article is considered an important tool for strengthening international cooperation on climate issues and expanding countries' opportunities to meet their climate targets in the most economical way possible, while also attracting financing from private sources.

On the basis of projects initiated under Article 6, it is permissible to issue special units called internationally transferred mitigation outcomes (ITMO).¹⁹ ITMOs can be transferred between countries according to special rules applying to them. Under these rules, it must be ensured that the reduction in emissions is verified and quantifiable, and the trades must be accounted for in special reports provided for in the Paris Agreement. This reporting is intended to ensure that the ITMOs are counted only once, thereby preventing repeat use of the same unit (double-counting).²⁰

Three types of cooperation are provided for.

According to **Article 6.2**, countries may enter into voluntary bilateral cooperation on reductions in emissions, on the assumption that progress made in one country can be

¹⁹ ITMOs

²⁰ [Managing the Risk of Corresponding Adjustment \(worldbank.org\)](https://www.worldbank.org/)

used for the benefit of the other. The countries themselves determine the arrangements and decide how progress is accounted for, although within the regulatory framework set forth in the Paris Agreement. such as by making corresponding adjustments.

This creates the foundation for bilateral cooperation on reduced emissions in the implementation of NDCs under the Paris Agreement. On the basis of such a bilateral agreement, one country may transfer ITMOs to another, thereby helping the recipient country to achieve its climate objectives. The contracts that have thus far been made on the basis of Article 6.2 provide for the transfer of ITMOs from a developing country, which hosts the project, to a developed country, which records the transferred units in its own national inventory document (NID).

Many countries have already begun cooperating on the basis of Article 6.2, although further orchestration of the rules via the Framework Convention is still underway. Switzerland is an example of a country that has adopted ambitious climate targets under the Paris Agreement and has declared its intention of investing in ITMOs to achieve its own climate targets. It has entered into numerous agreements with developing countries such as Peru, Vanuatu, and Ghana.²¹ Switzerland will count the ITMOs in its national inventory document, or NID, and its counterparties will make a corresponding adjustment in their NIDs in connection with the projects in which Switzerland has invested, thereby avoiding double-counting. To simplify, this means that emissions are reduced in Switzerland's NID and increased in partner countries' NIDs.

On the basis of **Article 6.4**, an international market for carbon units will be established, subject to supervision under the Framework Convention. In this instance, countries can buy or sell carbon credits from projects certified by a designated supervisory body.²² The regulatory arrangements for this proposed market are still being developed under the Paris Agreement, where various technical points such as a registration system have yet to be finalised.

Article 6.8 covers cooperation on projects that lead to a contraction in emissions but for which no carbon credits are issued. This is referred to as a non-market approach.

Iceland has set forth ambitious climate objectives, but as is the case for most of its comparison countries, reaching these targets will be highly challenging. The Climate Action Plan does not discuss the possibility of transferring ITMOs out of the country, as it is assumed that such exportation would have a negative effect on Iceland's emissions accounts.²³ On the other hand, the working group considers it important to formulate a position on this, so that Icelandic companies can evaluate the possibilities inherent in their climate projects on the basis of that position.

²¹ [Ghana, Vanuatu, and Switzerland launch world's first projects under new carbon market mechanism set out in Article 6.2 of the Paris Agreement | United Nations Development Programme \(undp.org\)](#)

²² [Article 6.4, Supervisory Body](#)

²³ To clarify, this applies only to internationally transferred mitigation outcomes that can be used for national emissions accounting, not to trading in carbon credits via the voluntary market.

→ Recommendation C2

- The Government should formulate a policy – for instance, with an appendix to its Climate Action Plan – prohibiting the exportation from Iceland of internationally transferred mitigation outcomes (ITMO) that would have a detrimental effect on Iceland's emissions accounting. The policy can be reviewed once Iceland has fulfilled its emission reduction commitments.

3.2 Carbon capture, transport, and storage

The capture, transport, and storage of carbon dioxide is an important element in the fight against climate change, but according to the IPCC, adoption of the relevant technology is far less advanced than previously hoped.²⁴

Directive 2009/31/EC on the geological storage of carbon dioxide (the Carbon Capture and Storage Directive, CCS) was implemented in Iceland with the Act on Health and Hygiene and Pollution Control, no. 7/1998; therefore, Iceland's rules are comparable to those elsewhere in the EEA. In Europe, carbon storage takes place mostly in voids such as depleted oil and gas deposits into which the carbon can be injected, and the regulatory framework is undeniably adapted to these European conditions. On the other hand, strong emphasis is placed on the “tech-neutrality” of the framework and its applicability to the uniquely Icelandic technology used by the company Carbfix.

In the new EU regulation commonly called the Net-Zero Industry Act (NZIA), which applies to carbon capture and storage, among other things, it is assumed that member states will map out geographical areas or sites for carbon storage.²⁵ When this report was prepared, the NZIA was still being reviewed by EEA member states, and no decision on implementation had been handed down.

When discussing the cross-border transport of carbon for storage, several factors must be borne in mind, including international agreements, regulatory frameworks, and taxation. As a result, consideration must be given to obligations under the EEA Agreement and other international conventions, such as Article 6 of the Paris Agreement.

Carbon dioxide falls under customs classification 2811-2110, irrespective of its origin; that is, no distinction is made concerning whether the CO₂ is the product of industrial manufacturing or has been captured by technological means.²⁶ It can be concluded from this that CO₂ is a product and that trade with it is classified as goods trade fall-

²⁴ [IPCC](#)

²⁵ [Regulation \(EU\) on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem.](#)

²⁶ According to information from Iceland Revenue and Customs, 18 September 2024.

ing within the scope of Article 8, Paragraph 3 of the EEA Agreement. It follows from this that cross-border trade should generally be unrestricted, within the framework of the rules pertaining to the product in question.

When a country accepts imported CO₂ for permanent storage according to the CCS Directive, it does not have to recognise it in its emissions accounting. On the other hand, any leaks occurring during transport must be reported. Furthermore, the storage entity must account for those emissions within the ETS mechanism, which shows that responsibility for the storage of the carbon could be shifted to the recipient country if a leak occurs during transport.

Further discussion of issues relating to the importation, capture, and geological storage of CO₂ can be found in a report by Wenger Law.²⁷

3.2.1 Projects in Iceland

Iceland is currently engaged in projects centring on carbon capture for geological storage, both from local emissions and directly from the atmosphere. There are also plans to import CO₂ for geological storage.²⁸ Projects focusing on the harnessing of CO₂ for electrofuel production are being examined as well. As a result, there could be opportunities for the production of ITMOs in Iceland.

Since 2012, the company Carbfix has been capturing CO₂ from Reykjavík Energy's geothermal plant on the Hellisheiði moors and injecting it into geological layers where it is mineralised within two years. Furthermore, injection began at the Nesjavallavirkjun geothermal plant in 2023. The Swiss company Climeworks has been operating in Iceland in recent years and captures CO₂ directly from the atmosphere, for injection by Carbfix. These projects have garnered international attention as new solutions in carbon sequestration.

Switzerland is one of the countries that have adopted a policy on using ITMOs to satisfy climate obligations. In this connection, the Swiss authorities have shown interest in taking advantage of the results of Climeworks' activities and transporting CO₂ to Iceland for geological storage, whereupon it would include the projects in its emissions accounting. In order for this to take place, the Swiss and Icelandic authorities would have to enter into formal cooperation based on Article 6 of the Paris Agreement.

Even though the Icelandic authorities have not made a cooperation agreement on the importation of CO₂, Carbfix has participated in pilot projects on importation and geological storage of small amounts of CO₂ from Switzerland. These pilot projects have no impact on either country's emissions accounting.

²⁷ [Wenger law: Cross-Border transactions for CCS](#)

²⁸ [Carbfix- Coda terminal](#)

It is worth noting that under a general declaration of cooperation between the two countries, which has been in place since July 2021, they will explore the possibility of cooperation on the basis of Article 6, although this has not yet led to any formal projects.

Various projects in Iceland have the potential to offer the possibility of international cooperation, including the importation of CO₂ for geological storage. Even though CO₂ importation and storage do not affect Iceland's NID, exporting countries could be interested in reaping the benefits.

To assess the feasibility of this, it would be preferable to initiate a cooperative project based on Article 6 of the Paris Agreement, which would specify how the technological and administrative implementation of the Article would be handled, including information disclosure requirements.

→ Recommendation D1

- It is proposed that the Icelandic authorities participate in a pilot project on international trading based on Article 6 of the Paris Agreement, which entails, among other things, mapping out the administrative infrastructure needed to carry out such projects.

3.3 Development cooperation

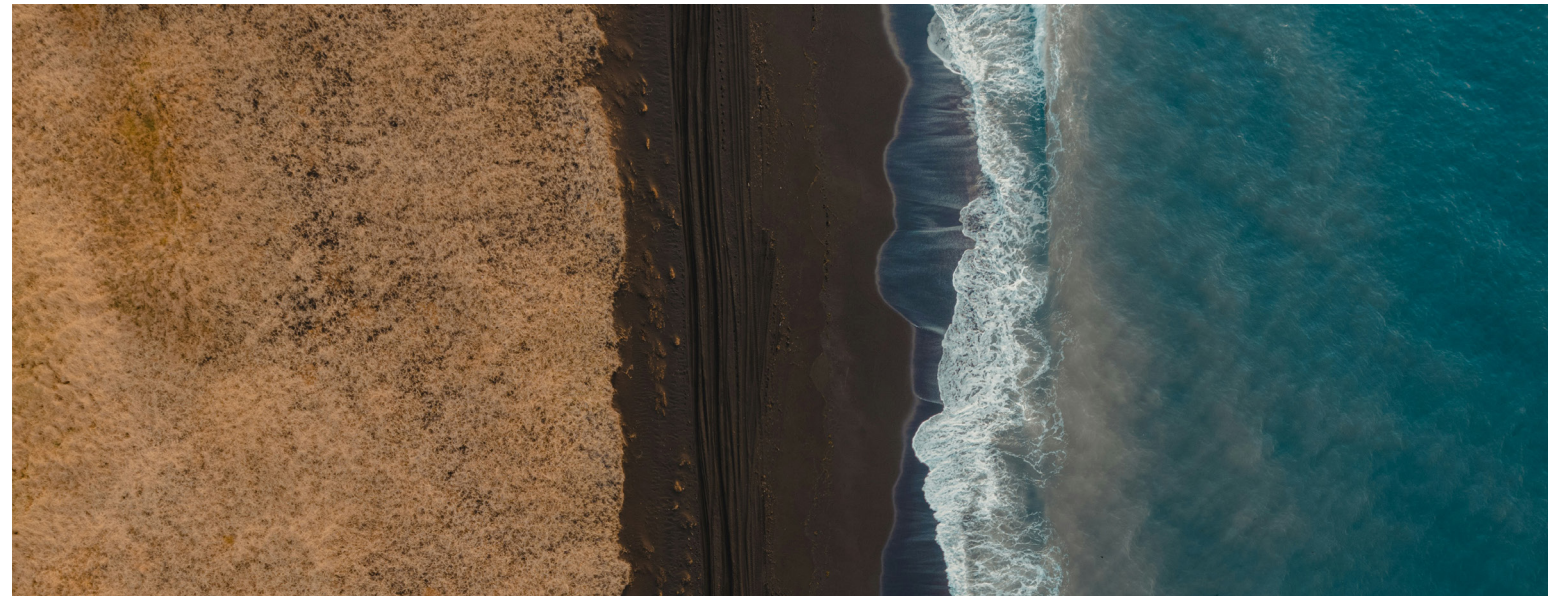
International development work plays a key role in resolving the challenges the world is facing, and it promotes increased prosperity, sustainability, and equality in the world's poorest countries. Iceland's Development Cooperation Policy for 2024-2028 is one of the cornerstones of its foreign policy. It is based on the UN Sustainable Development Goals, the Paris Agreement, and other international conventions to which Iceland is a party or has approved or ratified, in addition to international commitments on development financing. The policy rests on a foundation of environment and climate issues, human rights, and gender equality.

Many developing countries have prepared plans on how they could use Article 6 of the Paris Agreement to reach their goals in accordance with their plans for addressing climate change and achieving net-zero targets. Cooperation on the basis of Article 6 has already begun between some contributing countries and developing countries, but one of the main premises for such projects is that they must be financed with additional capital; i.e., it is not possible to shift funding intended for development cooperation over to Article 6 projects.

In the working group's opinion, there is every reason for the Icelandic authorities to explore the possibility of providing development aid via cooperative projects based on Article 6 of the Paris Agreement, as it can be assumed that Icelandic expertise and intelligence could be useful.

→ Recommendation D2

- The Ministry of the Environment, Energy, and Climate (URN) requests that the Ministry for Foreign Affairs, in cooperation with the URN, examine how climate-related development cooperation projects could help developing countries to meet their targets on the path to carbon neutrality on the basis of Article 6 of the Paris Agreement. All factors covered in Article 6 should be considered and information gathered on how similar countries operate in this regard.



4. The voluntary carbon market



Global measures to expedite the shift to a low-carbon economy have gained ground steadily in recent years. Companies and other non-governmental agents have increasingly adopted targets in parallel with countries' targets for achieving carbon neutrality in coming decades, in an attempt to adapt their processes and operations to the goals of the Paris Agreement. In many cases, this shift in emphasis has taken place independent of direct legislation requiring companies to take action.

One of the ways that countries and other parties can achieve their climate targets, apart from direct reductions in GHG emissions, is to invest in projects outside their own value chain that contribute to reduced emissions and/or sequestration of greenhouse gases. In this way, parties can purchase carbon credits that they can use in accounting related to their climate objectives. One of the challenges accompanying this trend is the wide range of projects, which means that buyers are not always certain about the quality of the projects in question.

Historically, voluntary carbon markets have been characterised by wide fluctuations (in volume, price, and supply). This has stemmed in particular from a lack of project standardisation. Significant progress has been made internationally in developing definitions of certified carbon projects with respect to regards standards and required characteristics. Worth mentioning in this context is the Voluntary Carbon Market Integrity Initiative (VCMI), which developed the *VCMI Claims Code of Practice* for companies and institutions, defining how they may present assertions about the use of carbon units; the Integrity Council for the Voluntary Carbon Market (ICVCM), which created the *Core Carbon Principles* for carbon projects; and the International Carbon Reduction and Offset Alliance (ICROA), which produced a *Code of Best Practice* introducing a quality system for responsible trade in carbon credits and a list of reliable standards. There have also been considerable advances in emissions-related target-setting and accounting. In this context, it is worth mentioning the Science-Based Targets initiative (SBTi), which has produced guidelines on how companies can set targets and work towards them, while simultaneously adapting to the key objectives of the Paris Agreement.

4.1 Various types of units

In the voluntary carbon market, units have been placed into various categories, by the type of action involved. Chief among them are removal, reduction, and avoidance.⁸² Carbon avoidance credits are created when action is taken to prevent GHG emissions; for example, when measures are taken to prevent deforestation. Reduction credits are created when an action reduces GHG emissions in comparison with a baseline situation; for instance, wetland reclamation. Removal occurs when greenhouse gases are permanently taken out of the environment, such as by capturing carbon and depositing it into geological layers. The durability or permanence of the removal is an elastic concept, but according to the proposal for the Carbon Removal Certification Framework (CRCF) regulation, removal is considered permanent when carbon has been captured and stored for several centuries.²⁹

In the Integrity Council for the Voluntary Carbon Market glossary,³⁰ mention is made of removal and reduction, but not avoidance. The Nordic Council of Ministers report on voluntary carbon markets³¹ also makes reference to removal and reduction only. Furthermore, at the UN, particularly at the COP28 conference, there has been considerable discussion in connection with Article 6 of the Paris Agreement as regards avoidance credits, and it was broadly agreed there that avoidance credits should not be issued. In the 14th edition of the *CDM Methodology Booklet*, however, avoidance is defined as follows: “Activities where the release of greenhouse gas emissions to the atmosphere is reduced or avoided.” The concept of reduction, however, is not defined specifically.

It must be concluded from the above that definitions of the various actions are highly uncertain in terms of what is considered avoidance and what is considered reduction. No attempt is made in this report to harmonise the various perspectives on these definitions. Therefore, reference is made hereafter to only two categories of carbon credits: carbon removal credits and emission reduction credits.

Carbon credits can be pending (future) or active (see **Figure 4**). In the case of depositing carbon in soil, trees, the sea bed, or geological structures, the credits are initially designated as pending. Before this designation is made, a certifying body must confirm that the design of the carbon project satisfies the requirements set for it and that the carbon credit will materialise; i.e., it will capture carbon in the future. Once such validation is made, the credit is classified as pending. In other words, and according to the ISO 9001 standard, validation indicates that the design of the project satisfies all requirements set forth in the standard/certification system and the project design documents.

²⁹ [Proposal for a regulation establishing a Union certification framework for permanent carbon removals, carbon farming and carbon storage in products](#), 2022. (Accessed 24 October 2024).

³⁰ ICVCM website: „[Definitions](#)“, January 2024. (Accessed 24 October 2024).

³¹ Nordic Council of Ministers website: „[Harnessing voluntary carbon markets for climate ambition](#)“, 28 November 2022.

Pending units are not reclassified as active units until a certifying body has verified that sequestration has taken place. Thus verification provides certainty that the project has resulted in the contraction or sequestration described in the specifications. When the project has been verified, the carbon credit becomes active, and it is then possible to use it to offset emissions.³² When this has been done, the credit is deregistered (retired).

Some 170 types of projects have been defined worldwide, as can be seen in **Figure 2**, and they vary greatly, as is shown in **Figure 3**. Examples of carbon projects in Iceland include afforestation projects, carbon capture and storage, and various reduction-related projects, such as the rapid introduction of renewable energy. As of October 2024, a total of 19 Icelandic and 105 international projects were listed in the International Carbon Registry (ICR) as being in preparation or in operation.

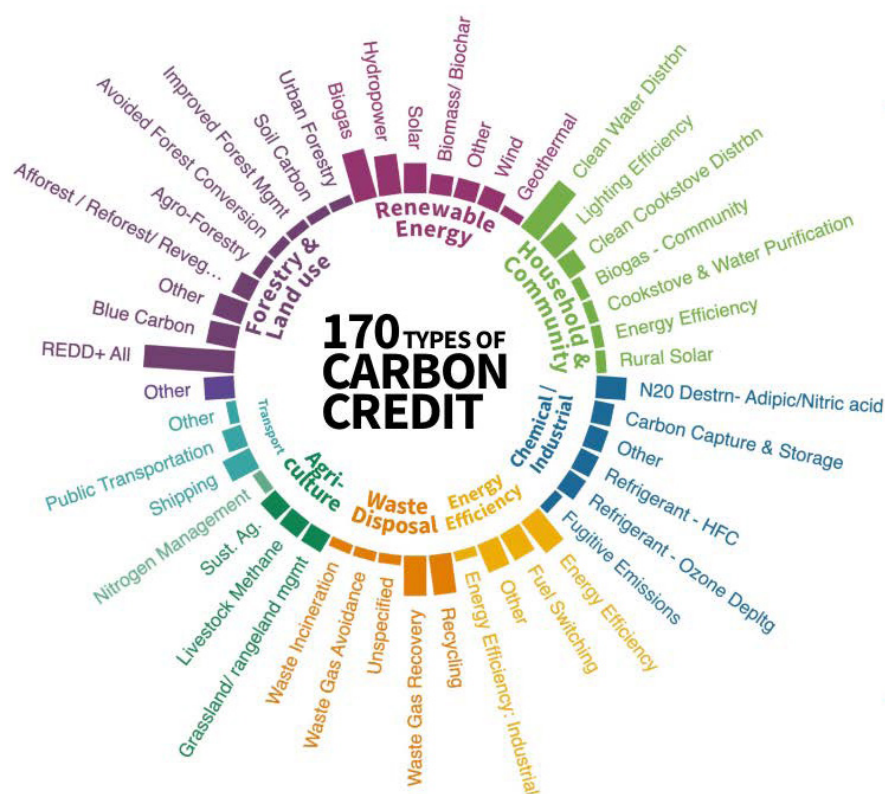


Figure 2. 170 types of carbon credit projects (Ecosystem Marketplace, 2022)

³²See the more detailed technical specifications on carbon offset in ÍST TS 92:2022 on claims.

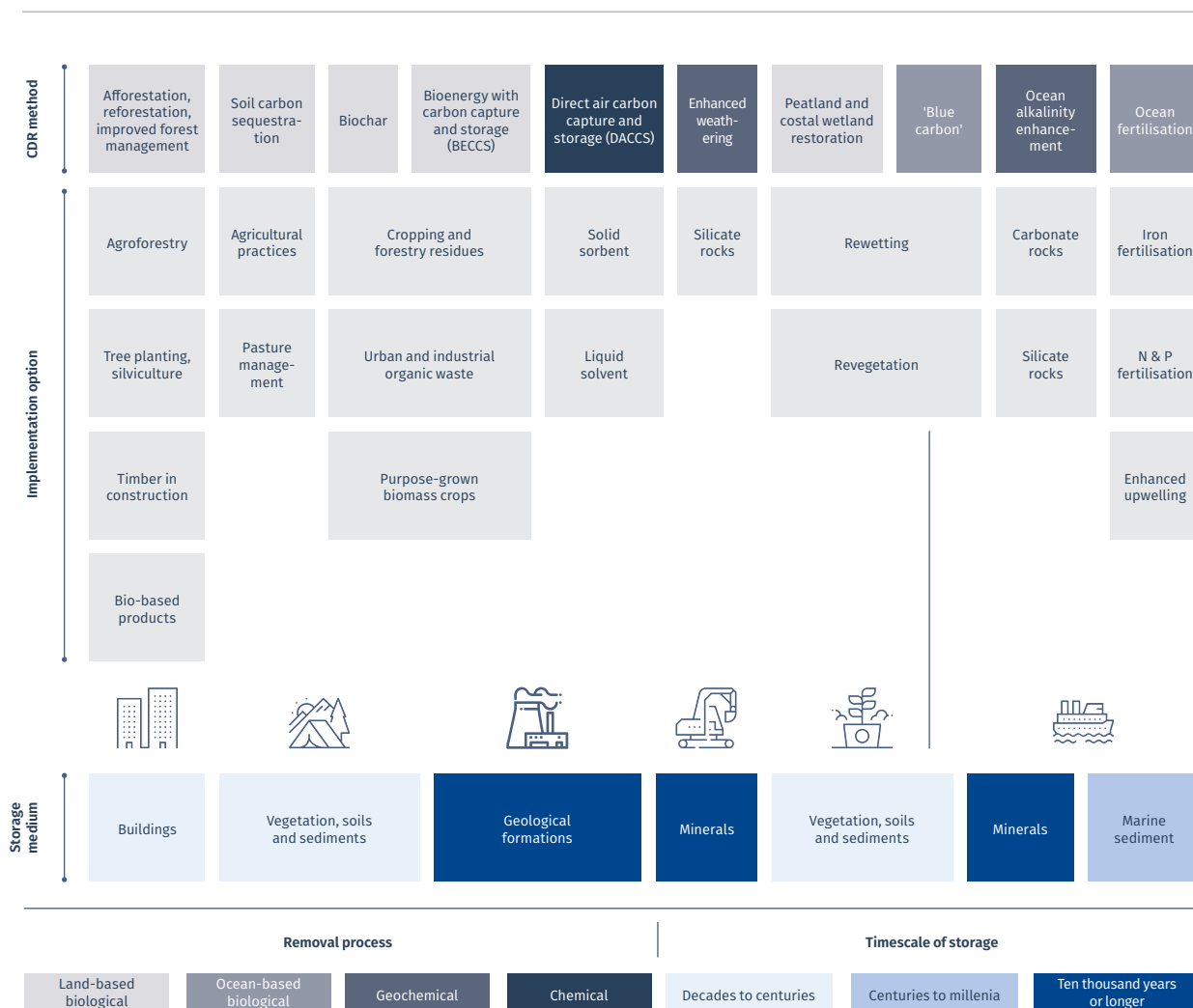


Figure 3. Carbon Dioxide Removal Taxonomy – unconfirmed Icelandic translation by URN, based on Figure (IPCC AR6).³³

4.2 Overview of certification systems and standards

In order to create, certify, register, and sell certified carbon credits, carbon projects must satisfy certain requirements laid down in designated certification systems and/or standards. Standards are generally made public and confirmed by international standardisation bodies. The standards may be international, European, national, or sectoral in scope. They contain provisions on topics such as standardised variables,

³³ IPCC, AR6, p. 1,262

requirements intended to ensure efficacy of processes, or methods for production, development, and design. A good example is the ISO standards.

Certification systems play a similar role but are not confirmed by international standardisation bodies. Certification systems apply to approved methodologies issued by stakeholders such as Verra, Puro Earth, Isometric, CDM, and Gold Standard. They provide a framework for projects that are reviewed by accredited certification bodies, which confirm whether or not carbon projects fulfil the conditions laid down in the certification system concerned. The choice of whether to use certification systems or standards is in the hands of the project proponents.

In the voluntary market, most certification systems are developed by technical advisory committees at carbon registries. These committees comprise impartial experts and stakeholders within the relevant professional disciplines. When carbon projects are registered by their proponents, it is required to use certification systems recognised by carbon registries. Furthermore, the project design documents (PDD), or specifications, and the monitoring plan must be designed and written according to recognised standards and/or certification systems. Thereafter, accredited certification bodies review the PDDs and validate them, and later, they verify that the conditions laid down by carbon registries have been met. **Figure 4** illustrates the path of an afforestation project with respect to the requirements laid down in the Skógarkolefni – Forest Carbon Code, and **Figure 5** shows the difference between validation and verification of projects registered by the International Carbon Registry.

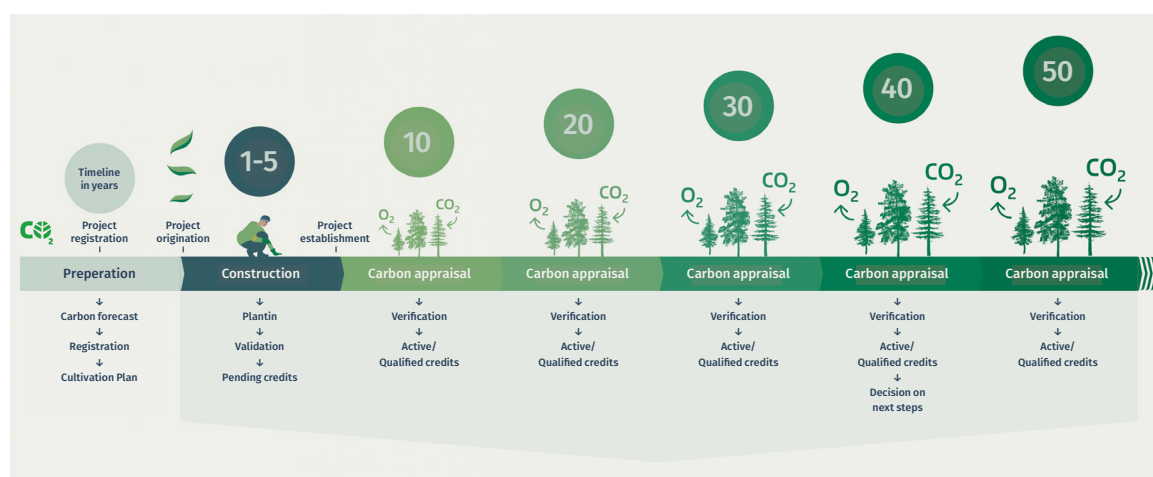


Figure 4. Path of afforestation projects (registration, validation, verification, and issuance) with respect to the [Skógarkolefni – Forest Carbon Code](#) requirements.

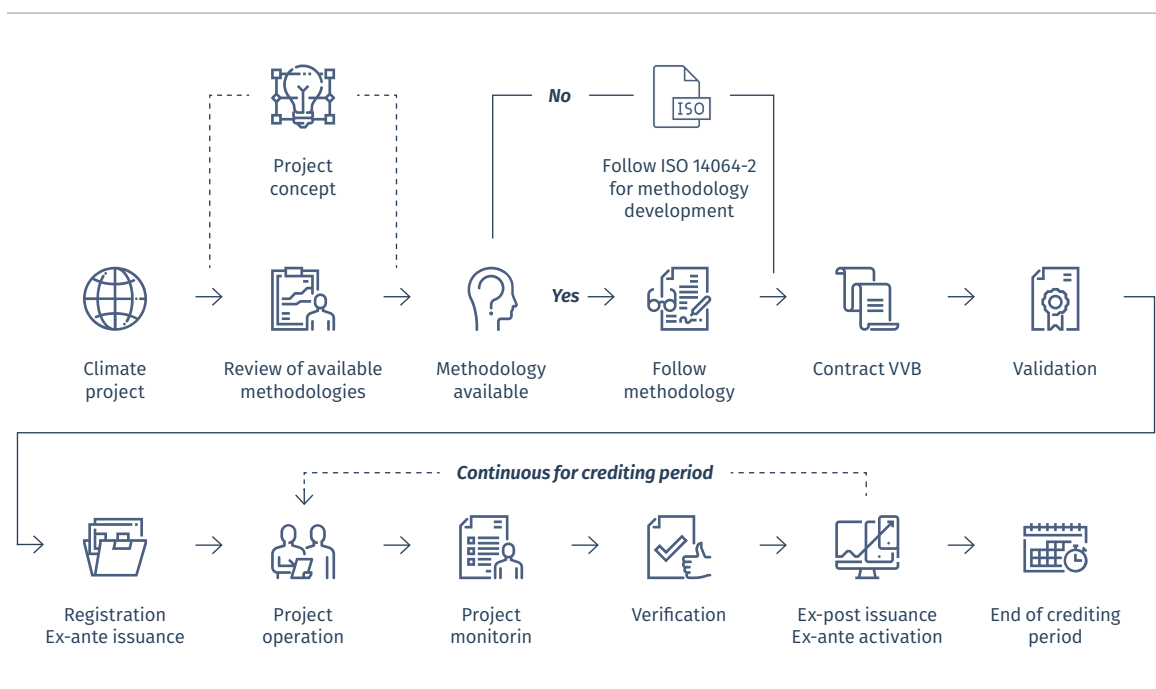


Figure 5. The difference between validation and verification and the development process of carbon projects Example from the International Carbon Registry (ICR).³⁴

Figure 6 illustrates capital flows in the voluntary market between suppliers (certification bodies, project proponents, carbon projects, investors), intermediaries (standards/certification systems, carbon registries, quality control), and demand (utilisation of units, buyers of units).

³⁴ ICR website: „[ICR Registration Process](#)“. Accessed 1 November 2024.

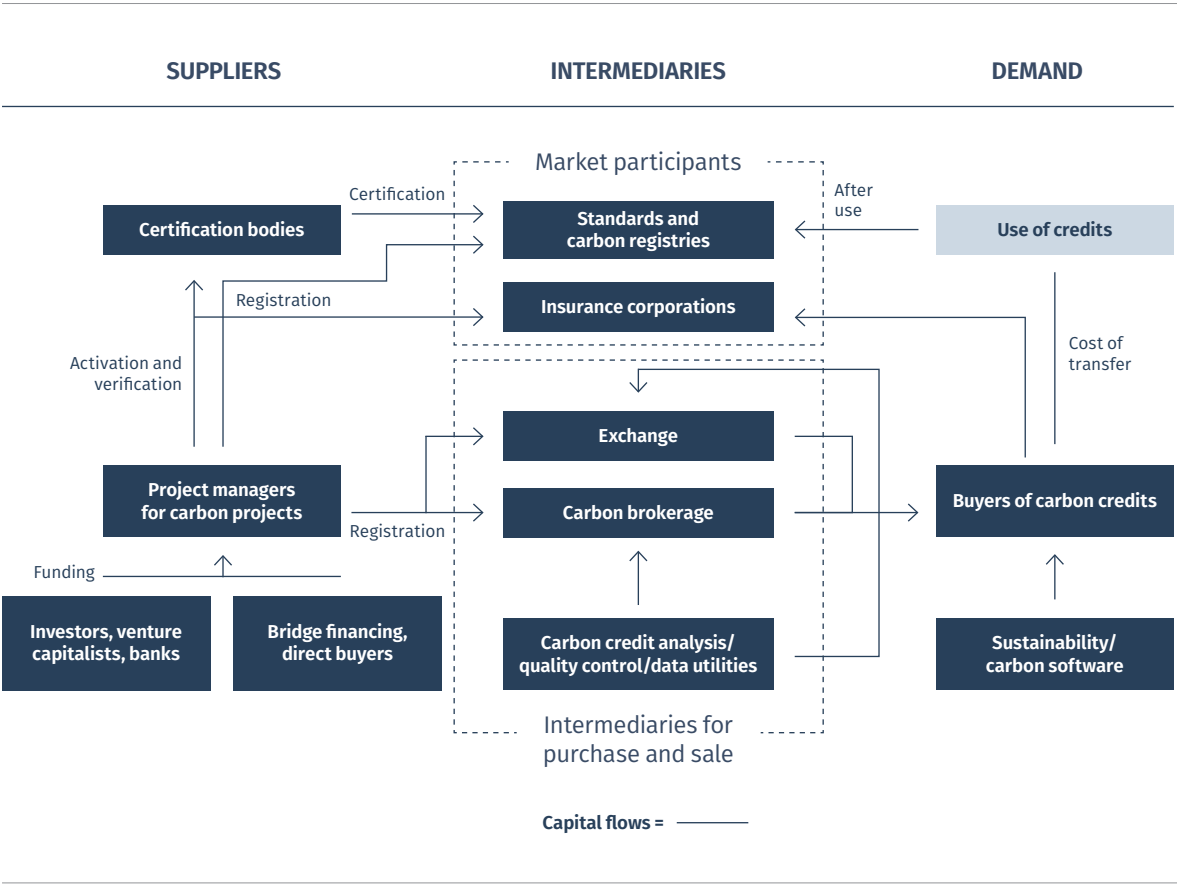


Figure 6. Capital flows in the carbon market (based on The Carbon Credit Ecosystem – Paia Team).

In general, a single body oversees accreditation in each country. In Iceland, the Icelandic Board for Technical Accreditation (ISAC), an independent division of the Icelandic Intellectual Property Office (ISIPO), is in charge of both legally mandated and voluntary accreditation. The statutory basis for accreditation can be found in the Accreditation Act, no. 24/2006. Technical regulations laying down general and specific requirements for certain disciplines have also been issued. Examples of certification bureaus that have been accredited to conduct appraisals of carbon projects and other climate change services are DNV, Bureau Veritas, and Earthood, which base their certification on the requirements in two standards: ISO 17029:2019 Conformity assessment – General principles and requirements for validation and verification bodies, and ISO 14065:2020 – General principles and requirements for bodies validating and verifying environmental information. Certification systems generally require that validation and verification bodies (VVB) have such accreditation.

4.3 Technical specifications issued by Icelandic Standards concerning carbon offset for the Icelandic business community

In Iceland, developments have taken place in the field of carbon markets, certifications, and standards. New technical specifications were issued in autumn 2022: ÍST TS 92 – Carbon offset, and ÍST EN ISO 14064. The specifications are based on the workshop agreement ÍST WA 91 – Responsible carbon offset, which was issued in spring 2021. In the agreement, key stakeholders in the Icelandic market called for the establishment of a carbon offset system, as it was not considered fully verified that carbon offset declarations made by companies in the market were validated and genuine. Among other things, the Climate Council had issued an opinion on responsible carbon offset, as it was of the view that reforms of weaknesses in carbon offset in Iceland should be undertaken and that carbon offset was an important element in Iceland's climate policy.³⁵

The Climate Council concluded, among other things, that:

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- The use of internationally recognised methodology for measurement and issuance of carbon credits was severely lacking, with the result that units in the market were not comparable, and there was reason to doubt whether some of them satisfied minimum quality requirements.
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- A centralised registry of issuance, trading, and retirement of carbon units was lacking.
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- There was a need to develop benchmarks for responsible declarations, both in the competitive market and from public entities, to the effect that products or services had been carbon-offset. Such benchmarks should extend both to information on the carbon footprint to be offset and to the characteristics of the carbon units that could be utilised for offset.⁹²
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The purpose of issuing ÍST TS 92 – Carbon Offset and ÍST EN ISO 14064 was to create trust about carbon offset and trade with carbon units in the voluntary market. The same applied to climate projects connected with the production of certified carbon credits.

Declarations of carbon offset or production of certified carbon credits require the attainment of certain targets for emission reduction or plans to capture carbon or prevent it from being released into the atmosphere. Following standardised practices creates trust and ensures outcomes, as well as providing guidance on best practice.

³⁵ Climate Council website: „Álit Loftslagsráðs um ábyrga kolefnisjöfnun“, [in Icelandic]. October 2020. (Accessed 11 October 2024).

By complying with ÍST EN ISO 14064 – Greenhouse Gases and ÍST TS 92 – Carbon Offset, companies can engage in carbon offset in accordance with the requirements in the standards/technical specifications on emissions from operations, or in climate projects that intend to produce certified carbon credits. The intention was that the technical specifications should extend to a wide range of projects, whether they involved afforestation, land restoration, wetland reclamation, or new technology.

The specifications were developed by all key stakeholders in Iceland, including representatives of the Government, businesses, and climate projects, and are based on these parties' knowledge and experience of environmental and climate issues. Before the specifications were issued, it had not been possible to rely on domestic guidelines for carbon credit issuance and carbon offset. Although carbon offset was defined in the Climate Act, information on technical execution was lacking.

In view of the developments that have taken place in carbon markets, work on updating the technical specifications has already begun.

4.4 Overview of carbon registries

Carbon registries play an important role in the voluntary carbon market. When the certification process begins, carbon credits are entered to a carbon registry and classified as either active or pending. Carbon registries are databases where information on carbon credits is stored in a secure and transparent manner. Thus they function as a centralised database for ownership and trading in the carbon market. When an active carbon credit has been purchased and used to offset emissions, it is deregistered, or retired, which reduces the risk of double-counting.

There is still no official supervision of carbon registries, but appraisals of monitoring systems in carbon registries such as those carried out by the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and the International Carbon Reduction and Offset Alliance (ICROA) are considered a certain hallmark of quality.

Carbon registries can also receive independent certification of their activities through the use of ISO standards that are certified and then validated annually by accredited appraisal bodies. Examples of ISO certification are the ÍST EN ISO 9001 international quality management system standard and the ISO 27001 international standard for information security management systems.

→ Recommendation B2

The working group considers it important that there be a sound framework for the issuance and registration of carbon credits (a carbon registry). In this context, it

should be noted that such registration fosters the transferability of carbon credits from specified climate projects via trading between third parties. Such registries and registration of carbon units clearly resemble securities depositories and electronic registration of securities in many respects.

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- The working group recommends that a bill of legislation on a carbon registry be prepared in cooperation with the business community, with the aim of creating a general framework for such activities, including provisions on establishment, eligibility requirements for owners, requirements concerning the process of registering and retiring carbon units, the legal effect of registration, and participants in the registration/deregistration process.
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4.5 Developments and outcomes in international markets

The voluntary carbon market has grown rapidly since 1997, when it became part of global markets in connection with the Kyoto Protocol. In 2020 and 2021, the voluntary market grew fourfold and was valued at USD 2bn by the end of the period.³⁶ Its value is projected at USD 10-40bn by 2030.³⁷ This surge is due in part to companies that have adopted the Science-Based Targets initiative (SBTi) in order to reduce their emissions and achieve carbon neutrality no later than 2050.

Prices in the voluntary carbon market have fluctuated since its inception, owing in part to challenges relating to quality and transparency and to divergent rules, benchmarks, and methodologies.

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- **Quality:** Carbon projects vary in quality, and some projects from leading standards bodies such as Verra have been criticised for exaggerating the emission reduction resulting from various projects.³⁸ Thus there may be uncertainty about whether carbon credits from the projects in question reflect the stated volume of removed or reduced emissions.³⁹ Uncertainty about the quality of projects on which carbon credits are based undermines buyers' and consumers' confidence and has a negative impact on pricing.
 - **Transparency:** Each carbon product is unique from the time it is launched until it is classified as producing a certified carbon unit. Both buyers and sellers are faced with uncertainty about the appropriate price for a carbon unit, particularly
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³⁶ ClimateTrade website: „[Voluntary carbon market value tops US\\$2B](#)“, dated 4 August 2022. (Accessed 11 October 2024).

³⁷ Boston Consulting Group website: „[The Voluntary Carbon Market Is Thriving](#)“, dated 19 January 2023. (Accessed 11 October 2024).

³⁸ The Guardian website: „[Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows](#)“, dated 18 January 2023. (Accessed 11 October 2024).

³⁹ Commodity Futures Trading Commission. “Commission Guidance Regarding the Listing of Voluntary Carbon Credit Derivative Contracts; Request for Comment”, Federal Register/Vol 88 No. 247, dated 27 December 2023, p. 89,413.

in the case of projects whose origins are difficult to trace and verify. This creates challenges for investors that must rely on the market for spot trading. It is hoped that with advanced technology – blockchain, for instance – it will be possible to enhance the transparency of carbon units and thereby improve the pricing mechanism.

- **Divergent rules, benchmarks, and methodologies:** Voluntary carbon markets are currently based on a patchwork of registries and exchanges with a range of rules and benchmarks.

It is assumed that prices will rise with increased demand for certified carbon credits as part of companies' long-term carbon neutrality objectives. On the other hand, carbon credits have varied greatly in terms of origin, and market prices have been volatile in recent years (see **Figure 7**).

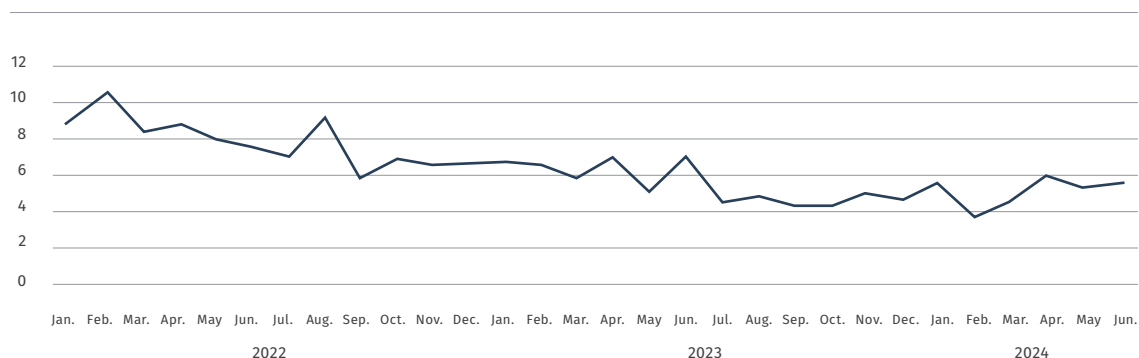


Figure 7. Monthly average price (USD/tCO₂e) for carbon credits across all project types.⁴⁰

Monitoring systems (CORSIA, ICROA, and ICVCM), certification systems and standards (ISO 14064-2, VCS, Puro Earth, Gold Standard), and frameworks for certification from accredited monitoring bodies have evolved rapidly in recent years, and it appears that the gap between the voluntary and compliance markets is narrowing continuously.⁴¹ As a result, companies and official supervisory bodies such as the International Organization of Securities Commission (IOSCO)⁴² and the Commodity Futures Trading Commission (CFTC) have shown increased interest in the voluntary market.⁴³ This has

⁴⁰ [The MSCI Sustainability Institute Net-Zero Tracker](#). Registries included: Verra, Gold Standard, ACR, CAR, CDM - NDC Eligible, Climate Forward, ART Trees, Puro Earth, EcoRegistry, BioCarbon, GCC & ACCU. Source: MSCI Carbon Markets, as of June 30, 2024. ⁴¹ Sylvera. „Compliance vs Voluntary: How Carbon Credit Market Convergence Creates New Opportunities“. (Sótt 11. október 2024).

⁴² IOSCO. „[IOSCO Consultation Report to promote the integrity and orderly functioning of the Voluntary Carbon Markets](#)“, dated 3 December 2023. (Accessed 11 October 2024).

⁴³ Commodity Futures Trading Commission. „[Second convening on voluntary carbon markets](#)“, dated 19 July 2023. (Accessed 11 October 2024).

bolstered buyers' and sellers' interest in investing in carbon projects during the initial phase (i.e., before the carbon credits are created), thereby participating in project development from the outset.

4.6 Requirements for production of carbon credits in the voluntary market

Because there is no comprehensive legislative framework for the voluntary market, it has developed its own set of requirements that carbon projects must meet in order for a recognised certification bureau (an independent third party) to validate it and verify that the project generates active carbon credits. It is worth noting that certification bodies are numerous and varied, and they approach certification in different ways. Furthermore, insurance companies have begun to offer insurance on carbon projects, including the insurance companies KITA⁴⁴ and Howden, which offer buyers of certain certified carbon credits the option of insuring against natural disasters or third-party negligence and fraud, thereby reducing the risk that the carbon credits will lose their value.

There are also examples of carbon projects that create their own insurance units, called buffer pools or buffer reserves, to address leakages and losses in carbon capture, such as in afforestation projects. According to *Skógarkolefni* -- Forest Carbon Code, each phase of a forest cultivation plan must contain a risk analysis and must set aside buffer credits.⁴⁵ The purpose of buffer credits is to ensure that the security of the carbon credits produced in accordance with the requirements of the Code will be preserved in the event of deforestation or losses. For example, each participant must contribute 20% of afforestation credits based on Code requirements to the buffer pool, which implies that, at least initially, only 80% of the credits will become active.

This section contains a summary of the main requirements that are laid down by leading carbon registries and standards/certification systems, and that carbon projects must satisfy in the voluntary market.

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- **Project Design Document (PDD):** Document (PDD): A description of how the project promotes reduced emissions or carbon sequestration.
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- **Baseline scenario:** The baseline emissions level – i.e., the emissions that would have occurred in the absence of the project – must be assessed. The baseline is then used as a benchmark over the duration of the project in order to quantify the emission reduction deriving from the project.
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⁴⁴ KITA website: „Why insure carbon“. (Accessed 24 October 2024).

⁴⁵ *Skógarkolefni* 2.0: Section 2.3. Security and Durability [in Icelandic]



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- **Additionality:** Carbon projects must show incontrovertibly that the emission reduction would not have been achieved if the project had not been undertaken. Furthermore, the project must demonstrate *financial additionality* – i.e., it must show that it could not have been carried out without income from the sale of carbon credits; and *statutory additionality* – i.e., that it is not subject to any legal obligation to capture carbon or reduce emissions in the relevant geographical area using the method concerned.
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- **Project boundaries:** Project boundaries must be well defined on a map, with coordinates, so that it will not be possible to count emission reductions in areas outside the boundaries of the project in question.
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- **Monitoring plan:** A plan covering the operational phase of the project, making it possible to measure and confirm the emission reduction. The monitoring plan must also name the project proponents and monitoring body that are responsible for measurements over the timeline of the project.
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- **Measurement, reporting, and verification (MRV):** Validation and verification during the operational phase of the project, where measurements are made according to the monitoring plan and the results of monitoring are reviewed and validated by accredited certification bodies, either with on-site visits and/or via remote meetings.
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- **Issuance of carbon credits:** When carbon capture or emission reductions have been verified by an accredited certification body, carbon credits are created in accordance with the outcome of the project. One tonne of carbon dioxide equivalent (tCO₂e) is equal to one carbon credit.
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- **Entry to a carbon registry:** According to international best practice guidelines, the project should be entered to a carbon registry in order to ensure transparency and prevent double-counting.⁴⁶
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- **Measures to ensure permanence and mitigate leaks:** Carbon projects must have assessed the probability of leakage and the risk that the carbon sequestration could reverse during the operational phase of the project.
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⁴⁶ ICROA. Code of Best Practice, Version 2.5, February 2024. (Accessed 25 October 2024).

In addition to this are fundamental principles laid down by ICROA, CORSIA, and ICVCM – CCP, which are mainly as follows:

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- Effective governance.
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- Tracking.
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- Transparency.
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- Additionality.
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- Permanence.
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- Verification.
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- Robust quantification of emission reductions and removals.
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- Absence of double-counting.
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4.7 Domestic buyers in the voluntary market

Pursuant to Article 5(c) of the Climate Act, no. 70/2012, the Government of Iceland, Government-run institutions, and companies that are majority-owned by State and local authorities must adopt a climate strategy that *“shall contain explicit targets for reduced greenhouse gas emissions and carbon neutralisation of operations, together with measures to achieve these targets.”*

In the Act, carbon neutralisation (or carbon offset) is defined as follows: *“When a party intervenes in another party’s actions to reduce greenhouse gas emissions and/or sequester carbon from the atmosphere and uses confirmation of such contraction or sequestration to offset its own emissions in part or in full.”*

The Environment Agency of Iceland is tasked with monitoring to ensure that the aforementioned parties adopt a climate strategy and implement measures in accordance with it. The Agency is also required to provide advice on quantifying greenhouse gas emissions and the outcomes of measures connected with companies’ internal operations. In 2020, the Agency issued guidelines on carbon offset for public entities and published them on its own website and that of Græn skref (the Green Steps Program). The guidelines are an element in the advisory services the Agency provides to Government institutions and companies that are majority-owned by State and local authorities as regards quantification of outcomes from operational measures to achieve emission reductions; cf. Article 5(c) of the Climate Act.

In the guidelines, the Environment Agency advises public entities to purchase certified carbon credits that ensure genuine benefits to the climate and stem from projects that have received certification by impartial third parties. Institutions interested in buying certified carbon credits should direct queries to the UN Carbon Offset Platform and to ICROA member companies. Markets for certified carbon credits have evolved significantly, both in Iceland and abroad, since the guidelines were issued, and the Environment Agency of Iceland has shared information on the supply of such credits with participants in the Green Steps Program.

Through the Green Steps Program and the associated Green Accounting, the Agency has overseen the preparation of climate strategies and emission reduction outcomes from internal measures undertaken by the Government, Government institutions, and companies that are majority-owned by State and local authorities (referred to collectively in this context as Government entities). Each year, these entities submit accounts to Green Accounting, and they must specify whether, and how many, carbon credits were purchased to offset emissions for a specified year.

The Environment Agency of Iceland has advised public entities to buy certified carbon credits that initially could only be purchased abroad. The Agency does not keep records on where Government entities buy carbon credits, but according to the best knowledge available, credits purchased are both domestic and foreign and may or may not be certified. Some institutions sponsor carbon capture projects themselves (for instance, land reclamation and afforestation) and consider these efforts sufficient to fulfil their carbon offset obligations. According to information from the Agency, some entities have reported that they cannot afford to buy carbon credits and/or that they think their funds are put to better use if they take emission reduction measures.

In 2022, these entities bought a total of 2,598 carbon credits, whereas their total emissions from operations came to 16,959 tCO₂e. This indicates that purchased carbon credits equal only 15% of these entities' total emissions.

In discussions with Government entities, the Agency has detected some confusion about these arrangements because it is not clear enough how the Act will be implemented. In a 17 January 2023 memorandum to the Ministry of the Environment, Energy, and Climate, the Agency recommended that the State buy certified carbon credits corresponding to the aggregate emissions from all Government institutions each year.⁴⁷ This would generate some streamlining in that expert knowledge of carbon credits would accumulate in a single place. In this context, Iceland's Financial Management Authority has begun a preliminary survey of the framework for auctions of carbon credits, with reference to the needs of entities falling under Article 5(c) of Act no. 70/2012.

⁴⁷ Environment Agency of Iceland memorandum and recommendations concerning advice on carbon offset for public entities, 17 January 2023.



When nearly four years have passed from the issuance of the Agency guidelines, it can be concluded that requirements concerning public entities' actions aimed at offsetting emissions in their operations could be clearer. It follows from this that few Government entities buy carbon credits in connection with emissions from their operations. Those that do purchase them do not always buy certified credits that meet international requirements for integrity and genuine outcomes.

Because of this, the working group considers it appropriate that the Government should clarify the requirements concerning carbon offset and purchase of carbon credits, thereby taking the initiative as a buyer.

→ Recommendations A1-A7

- The law should require the adoption of a set of guidelines for the quality of carbon units purchased by the State.
 - Carbon units and projects that produce them – and that are purchased by public entities – should have received confirmation from a professional/credible eco-certification body and should be of genuine benefit to the climate.
 - Carbon units purchased by public entities should be listed in a third-party registry that is deemed satisfactory.
 - Projects generating carbon units that are purchased by public entities should satisfy basic requirements; i.e., they should be real, measurable, permanent, and traceable. It is also necessary to demonstrate additionality, uniqueness, and the absence of double-counting.
 - Individual purchasers (public entities) should publicly disclose the number of purchased and utilised units and the types of projects underlying the units. Furthermore, they should report annually on the scope of their emissions.
 - The Environment Agency of Iceland should revise the 2020 guidelines on carbon offset for public entities and should undertake such revisions regularly (albeit with consideration given to the execution of the first item above).
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- The possibility should be explored of holding public tenders for the purchase of carbon units by entities falling within the scope of Article 5(c) of Act no. 70/2012.
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4.8 Public entities' involvement in the voluntary market

Public entities have been involved in the voluntary carbon market in various ways. In 2019, the Government presented a climate strategy stating that it would offset all of its greenhouse gas emissions from then on. Furthermore, Article 5(c) of the Climate Act, no. 70/2012, requires that Government institutions reduce and offset the emissions from their operations. It can be expected that the indirect effects of this will be seen in a larger number of climate action projects and a strengthening of the voluntary market because of increased demand for carbon credits. In addition to being a buyer of carbon credits, Government institutions participate in the voluntary market by setting benchmarks for issuance of carbon credits, an example of which is the Code prepared for afforestation projects.

4.8.1 Skógarkolefni -- Forest Carbon Code

The Skógarkolefni -- Forest Carbon Code is a voluntary, Government-owned set of requirements for carbon projects involving the cultivation of new forests. The working group contacted Land and Forest Iceland with questions pertaining to the Code and its future.⁴⁸

Skógarkolefni -- Forest Carbon Code came into being at the behest of the Iceland Forest Service (now Land and Forest Iceland). It was developed by experts within the institution, in cooperation with a number of parties. The purpose of developing the Code was to further afforestation as a climate action in Iceland. The model for the Code was the UK Woodland Carbon Code, developed and operated by the UK Forestry Commission.

Land and Forest Iceland does not own projects under the Code, but to some extent it has contributed planning and advisory services to project owners. According to information from Land and Forest Iceland, such work has tapered off, and private entities have scaled up their specialised advisory services. It can be considered favourable – and this is Land and Forest Iceland's perspective – that the Government institution should be involved solely in the development of the Code and should not participate in projects otherwise.

⁴⁸ E-mail correspondence with representatives of Skógarkolefni -- Forest Carbon Code, 4 June 2024.

It is possible to choose from among various standards when designing afforestation projects, but in Land and Forest Iceland's opinion, the Skógarkolefni Code is comparable to commonly used standards. Therefore, public entities should be able to invest in carbon credits certified under the Code in order to offset emissions in their operations in accordance with the Climate Act.

4.8.2 Ecosystem restoration

— Cooperation with private entities on carbon offset projects

Land and Forest Iceland has worked towards creating methodologies for further climate action in the field of land use. The most advanced of these is in wetland reclamation, which can be a very quick and successful mitigating action, not only for the climate but also for habitat restoration, thereby supporting biodiversity.

In this instance – as is also the case with Skógarkolefni – it can be debated whether the State should take the initiative in formulating methodologies of this type. On the other hand, it can be said that harnessing the voluntary market represents a pioneering effort that helps Iceland to move more quickly towards its climate targets, while safeguarding biodiversity and reclaiming ecosystems.

4.8.3 State-owned and publicly owned lands

The Climate Action Plan provides for a measure⁴⁹ that entails analysing where land use can be improved, for the benefit of the climate, on lands that are publicly held or State-owned. This analysis is then to be used to create a comprehensive implementation plan with defined targets and priority ranking of the measures to be undertaken. The plan states that the Icelandic Government owns nearly 430 farmsteads, and it is desirable that the State set an example in changing land use so as to benefit the environment. Measure L.1.A1 in the action plan states as well that it is important that the Government have a clear policy on utilisation of State-owned and publicly held lands, with climate impact and preservation of biodiversity as guiding principles. The Climate Action Plan also recommends that the following be examined in connection with State-owned and publicly held lands:

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- Determine whether the sale of State-owned lands should be subject to conditions on ecosystem protection and restoration.
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- Determine whether the voluntary carbon market should be subject to requirements concerning participation in ecosystem restoration and afforestation projects on State-owned and publicly held lands.
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The measure is presented following work by a project management team on ecosystem restoration and carbon sequestration on publicly held lands. The project

⁴⁹ Climate action plan: "Land use appendix. Action L.1.A1: Implementation plan for climate-focused land use improvements on State-owned farmsteads and publicly held lands," June 2024. (Accessed 25 October 2024).

management team, which was appointed by the Prime Minister, recommended that this matter be addressed in the action plan; i.e., how the Government aims to change land use on State-owned and publicly held lands for the benefit of climate action. It is clear that there is strong demand, from domestic and foreign parties, for land to be used in carbon sequestration projects.

→ Recommendation A8

- The State as landowner shall take the initiative to identify land to be allocated for climate action with an implementation plan for improved land use for the benefit of the environment. The allocation of land for climate action shall be carried out in a non-discriminatory manner; for instance, via public tender.
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4.9 Execution of trades

— Trading venue — Intermediaries

Internationally, there are various examples of trading with carbon credits in a voluntary carbon market via exchanges. On these exchanges, carbon credits are sold to companies, investors, and institutions through both spot trades and futures. The main exchanges currently in the market are ICE ECX⁵⁰ and Xpansiv/CBL.⁵¹

Exchanges set their own benchmarks regarding the requirements that carbon credits must satisfy; i.e., that they must comply with recognised standards and certification systems. For instance, Xpansiv/CBL specifies three entities: American Carbon Registry, Climate Action Reserve, and Verra Registry. Furthermore, certain requirements are placed on sellers and buyers; for example, Xpansiv/CBL requires, among other things, that market participants have a good reputation and business integrity, that they maintain adequate financial resources, and that they agree to provide the exchange with all of the banking information that is necessary, for instance, to prevent money laundering.

In essence, the execution of trades resembles electronic securities trading, where the exchange pairs buyers and sellers on the basis of the bids and offers that are active at any given time. The exchange then ensures that settlement is reliable and that both carbon credits and funds are delivered to the correct parties when the trade is finalised. An example of such execution can be seen in **Figure 8**, which clearly illustrates the process carried out by Xpansiv/CBL. Further information on the execution and settlement of trades can be found in Xpansiv/CBL's Standard Instruments Program document.⁵²

⁵⁰ ICE website: „[Carbon Credit Auctions](#)“. (Accessed 24 October 2024).

⁵¹ Xpansiv website: „[Auctions](#)“. (Accessed 24 October 2024).

⁵² Xpansiv website: „[Standard Instruments Program](#)“, dated 24 mars 2023. (Accessed 24 October 2024).

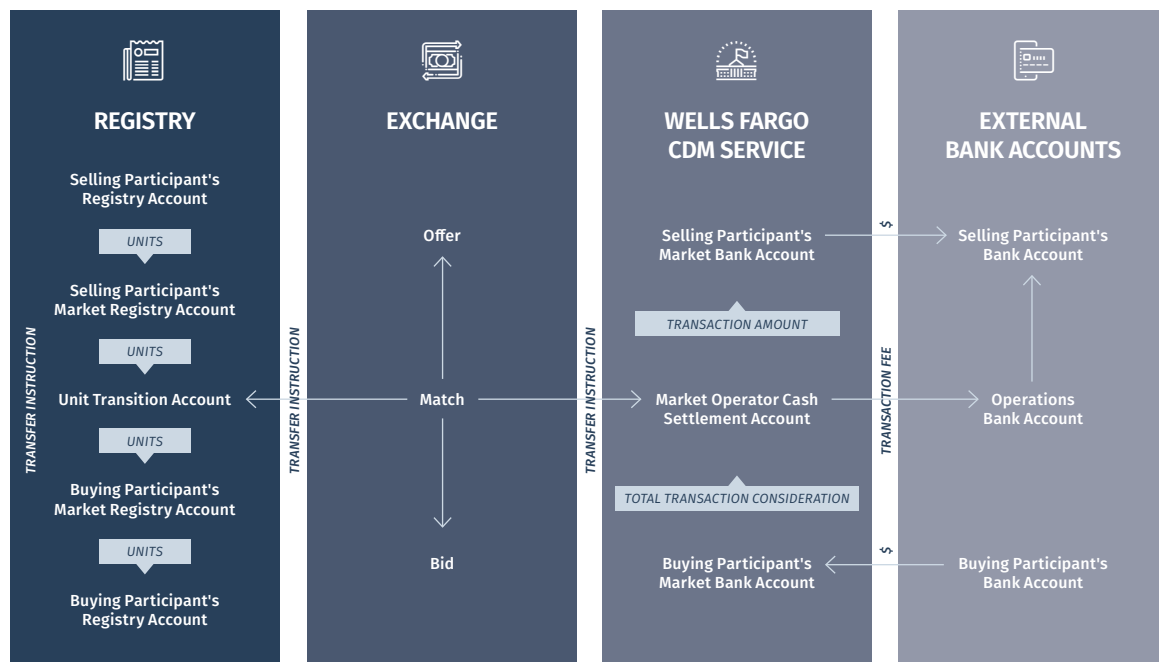


Figure 8. Xpansiv/CBL exchange: example of execution and settlement of carbon credit trades.⁵³

There are other venues for trading in carbon credits, including the following:

Marketplaces: Parties that sell credits to companies and individuals, usually in smaller lots but with larger commissions. The main difference between a marketplace and an exchange is that an exchange generally has the sole purpose of pairing buyers and sellers, whereas marketplaces often provide additional services, such as registration and advertisement of projects. Examples of such marketplaces are Climate Trade,⁵⁴ Cloverly,⁵⁵ and Abatable.

Over-the-counter (OTC) trading: When a carbon project developer sells credits directly to a buyer, this is an example of an OTC trade.

Carbon-as-a-service/Embedded carbon credits: An example of this is a software solution that offers carbon-related calculation and reporting but can also connect customers directly for transactions with carbon credits.

⁵³ Xpansiv website: „GEO Product Guide“. (Accessed 24 October 2024).

⁵⁴ ClimateTade website.

⁵⁵ Cloverly website.

Trading with carbon credits in Iceland appears to take place mainly in OTC transactions, but in some instances intermediaries may connect the parties to one another and companies may carry out trades with the assistance of foreign exchanges/marketplaces. There are no organised markets in Iceland, and the working group is not aware of any domestic marketplace or auction market⁵⁶ for trading in carbon credits.

→ Recommendation E1

A domestic trading venue (such as a marketplace) that would bring a number of buyers and sellers together in accordance with predetermined rules may tighten requirements, boost activity, and enhance transparency in connection with carbon credit trading in Iceland.

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- The working group recommends that authorities take the initiative to bring stakeholders together so as to determine their interest in establishing a venue for trade in carbon units. Public entities could also consider using such venues, including auction markets, with the aim of promoting efficiency in public sector operations and ensuring competition and equality among sellers, which could also foster innovation and development of climate solutions.^o
-

4.10 Financial settlement of carbon credits and incentives

The financial settlement of trades with carbon units is carried out in accordance with international generally accepted accounting principles (iGAAP) (see **Figure 9**). If a company buys carbon credits for resale (in the role of broker or investor) or uses them in its own manufacturing operations, the credits are part of the cost price of the manufactured product and are entered to its accounts as inventories. An example of this is a company involved in pollution-intensive manufacturing, such as an aluminium smelter. If a company buys carbon credits for other purposes – as part of its sustainability or climate policy, for instance (see the section on private entities) – the credits are recognised in its accounts as intangible assets.

In Decision Letter no. 2/2021, Iceland Revenue and Customs takes the position that the receipt of money as such does not confer a value-added tax liability, but that such liability depends on the fee charged for the payment of the money, whether this involves goods or services. It follows from this that if no fee is paid for funds received as payment for carbon credits, such transactions are **not subject to value-added tax**,

⁵⁶ In this context, auction markets are trading venues where buyers and sellers offer or request products and counterparties present bids in accordance with predetermined rules.

while if a fee is paid, value-added tax must be collected on the payment unless the fee falls under the exemption provisions found in Article 2, Paragraph 1 or 3 of the Value-Added Tax Act, no. 50/1988.⁵⁷

It follows from the foregoing that the sale of carbon credits must be considered the delivery of a financial asset (a fee), and not a grant or subsidy, if issuers of the credits are to be classified as engaging in activities subject to value-added tax. Furthermore, if a buyer is to be able to declare such fees as tax-deductible operating expenses, that buyer must be able to demonstrate that the purchase of such credits can be classified as an operating expense incurred to generate operating revenues, ensure such revenues, or maintain them.



3.3.8-1B

Classification of carbon offsets

IAS 38:2

IAS 2:6

Carbon offsets meet the definition of an intangible asset. [IAS 38:8] They are identifiable non-monetary assets without physical substance. They do not give the holder any right to receive cash or another financial asset.

However, carbon offsets should be accounted for as inventories under IAS 2 if the scope exclusion in IAS 38:2 applies.

- When intangible assets are held for sale in the ordinary course of business, they are scoped out of IAS 38 and instead accounted for as inventories under IAS 2. [IAS 38:3(a)]
- If facts and circumstances (including the nature of an entity's operations) indicate that carbon offsets form part of the "materials or supplies to be consumed in the production process or in the rendering of services" and, therefore, would otherwise meet the definition of inventories in IAS 2:6(c), the entity should exercise judgement in assessing how broadly the scope exclusion in IAS 38:2 can be applied and whether it can be extended to cover not only intangible assets held for sale in the ordinary course of business (as illustrated in IAS 38:3(a)), but also intangible assets that otherwise meet the definition of inventories.

When carbon offsets are accounted for as intangibles under IAS 38, the purchase of carbon offsets will be measured initially at cost. [IAS 38:24] After initial recognition carbon offsets that are classified as intangible assets will be measured using either the cost model or the revaluation model. [IAS 38:72] To be able to apply the revaluation model, the fair value of the carbon offsets must be capable of being measured by reference to an active market. [IAS 38:75] Carbon offsets have an indefinite life and will need to be assessed for impairment at least annually. [IAS 36:10 & IAS 38:108]

See 3.3.8-1C for an example of carbon offsets being classified as intangibles and 2.1-5A in chapter A11 for an example of carbon offsets being classified as inventories.



3.3.8-1C

Classification of carbon offsets as intangibles – Example

IAS 38:2

Entity A is an advertising entity. The employees of Entity A regularly travel to meet with customers. Entity A makes an internal decision to voluntarily offset the CO₂e emissions arising from its employees' travel by using carbon offsets to be purchased from a certified supplier. However, Entity A does not have a detailed plan on how regularly it will purchase offsets and how regularly it will offset its emissions. Entity A may also prefer to purchase offsets in excess of its current needs when their price is favourable, as well as to sell them into the market when it will give rise to a short-term profit.

Entity A concludes that the carbon offsets acquired should be accounted for as intangible assets under IAS 38 as the facts and circumstances indicate that they do not qualify for the scope exception in IAS 38:2 to be classified as inventories (see 3.3.8-1B).

Figure 9. Discussion of iGAAP.

⁵⁷ [Decision Letter no. 2/2021](#): Value-added tax – Contributions to actions intended to promote carbon offset.

Companies in Iceland prepare their accounts in accordance with the Annual Accounts Act, no. 3/2006 (unlisted companies), or in accordance with international financial reporting standards (IFRS) (companies with shares listed on the market or those that use IFRS by choice).

Neither the Annual Accounts Act nor Governmental directives contain explicit provisions on the accounting treatment of carbon credits in Iceland. As a result, all companies in Iceland, including those that prepare their accounts in accordance with the Annual Accounts Act, must use the IFRS with regard to accounting treatment of carbon credits.

Carbon credits are identifiable non-monetary assets without physical substance. Thus they fall under the definition laid down in IAS 38 - Intangible assets. Intangible assets are recognised at the original cost price, net of amortisation and impairment. The cost price of an intangible asset with a limited useful life is amortised over the expected period over which the asset is expected to be available for use, and in the case of carbon credits, amortisation takes place upon utilisation.

Amortisation reduces the book value of the asset with an offsetting expense entry in the profit and loss account. There is an exception to this, however, if a company buys carbon credits for resale or uses the credits to offset emissions from its own operations. Under such circumstances, the carbon credits are recognised as inventories in accordance with IAS 2 – Inventories, and they are expensed upon the sale of either the credits themselves or the goods produced by utilising the credits.

Below are some examples of accounting treatment of carbon credits by companies that utilise them for various purposes.

4.10.1 A company that uses carbon credits as part of its climate action targets

Company A is a consultancy, and its employees travel abroad regularly by air to attend conferences or meet with clients. In line with the company's sustainability strategy and climate target of achieving long-term carbon neutralisation, the company board decides to purchase certified, active carbon credits. At the end of Year 1, the company buys 500 certified, active carbon credits for ISK 2.5m (at ISK 5,000 per credit). Company executives decide to use the entire stock of carbon credits to offset emissions in Year 2. Because the company does not resell the credits or use them to offset emissions from its own production, the credits are recognised not as inventories but as intangible assets under fixed assets on its balance sheet.

Below are entries due to the purchase and utilisation of the carbon credits in Years 1 and 2.

Purchase of carbon credits (ISK m) – year 1	Debit	Credit
Intangible assets	2,5	—
Cash and cash equivalents	—	2,5
Carbon credits utilised (ISK m) – year 2	Debit	Credit
Intangible assets	—	2,5
Amortisation	2,5	—

In Year 2, company executives decide to buy 1,500 pending carbon credits. The purchase price of each is ISK 4,000, and the company therefore pays ISK 6m for the pending credits. In Years 3-5, the company surrenders (and uses for offset) 500 certified credits per year.

Below are entries due to the purchase and utilisation of the carbon credits in Years 2-5.

Purchase of carbon credits (ISK m) – year 2	Debit	Credit
Intangible assets	6	—
Cash and cash equivalents/accounts payable	—	6
Carbon credits utilised (ISK m) – annual entries in years 3-5	Debit	Credit
Intangible assets	—	2
Amortisation	2	—

4.10.2 A company that buys carbon credits for resale

Company C is a broker that buys and sells products and other assets (including carbon credits) in order to profit on short-term price movements. Because the company buys the credits with the aim of selling them and not to use them for its own carbon offset, it recognises the credits as inventories under current assets on its balance sheet. In Year 1, the company buys 5,000 carbon credits for ISK 20m. At the end of Year 1, it has sold half of the credits for ISK 12.5m.

Below are entries due to the purchase and sale of carbon credits in Year 1.

Purchase of carbon credits (ISK m)	Debit	Credit
Inventories	20	—
Cash and cash equivalents/accounts payable	—	20
Sale of carbon credits from inventory (ISK m)	Debit	Credit
Income from sales	—	12,5
Cash and cash equivalents	12,5	—
Inventories	—	10
Cost of goods sold	10	—

4.10.3 A company that produces pending carbon credits

Company C is engaged in climate projects that generate certified carbon credits through afforestation. In Year 1, the company sells 10,000 carbon credits for ISK 40m (at ISK 4,000 each). The pending carbon credits will become active credits, for example, 10 years after they are sold. Company C enters ISK 40m from the sale of the pending units as accrued income on the liabilities side of its balance sheet and redeems the income linearly over a 10-year period. Accrued income redeemed within 12 months of the accounting date is recognised among current liabilities on the balance sheet, while the income redeemed later is recognised among long-term liabilities.

Below are company C's entries for the sale of pending carbon credits in Years 1-5.

Sale of pending carbon credits (ISK m) – year 1	Debit	Credit
Cash and cash equivalents	40	—
Pre-paid income	—	40
Income recognition (ISK m) – annual entries in years 1-5	Debet	Credit
Income from sales	—	8
Pre-paid income	8	—

4.11 Double-counting and double-claiming

Double-counting of carbon credits occurs when the benefits of a carbon project are used two or more times.⁵⁸ In this context, one of the fundamental requirements in Article 6 of the Paris Agreement is that countries must make a corresponding entry adjusting for the entire environmental benefit approved for use against another country's NDC. This ensures that the same climate benefit is not used by more than one member country of the Paris Agreement and that carbon credits are not double-counted.

In the context of the voluntary carbon market, consideration has not been given to corresponding adjustments, which creates a situation where environmental benefits could be counted in two ways: by the country hosting the climate project and by the party that buys the credits in the voluntary market. This has been referred to as double-claiming.⁵⁹ For the purposes of this report, it is assumed that as long as environmental benefits are recognised in the accounts of one country only, double-counting is not deemed to exist, even if the company that buys the credits also claims to have contributed to reduced emissions or increased sequestration (like the country hosting the project).

⁵⁸ [Double Counting Guideline, Version 10 Gold Standard](#) (2015).

⁵⁹ [The interplay between voluntary and compliance carbon markets: Implications for environmental integrity](#), OECD (2024).

5. Regulatory framework



Carbon credits and transactions with them have not been provided for in special legislation, but various statutory provisions apply to them, depending on circumstances, including the type of operations underlying the issuance of the credits. Furthermore, it can be expected that various acts of law will have an impact on increased activity in carbon credit trading. This section gives a broad overview of these topics.

5.1 Carbon credits as a concept in law

The Climate Act, no. 70/2012, lays down a general framework for the Government's climate objectives and contains definitions of various terms, including *carbon sequestration*, *carbon offset*, and *carbon neutrality*, but neither there nor elsewhere in legislation passed by Iceland's Parliament is there a definition of a carbon credit. Furthermore, it cannot be said that the term carbon credit has a fixed meaning in the implementation of Icelandic law.

According to the Environment Agency of Iceland, a carbon credit is defined as “a unit that can be bought and sold, and which entails proof that the emission of one tonne of carbon dioxide equivalent (tCO_2e) into the atmosphere has been avoided in comparison with a baseline situation.”⁶⁰

The definition above assumes that such a unit has been created and demarcated in some way. When and how this happens is not made clear in the law and may vary according to the “production method” that creates the unit. Nevertheless, it is assumed that demarcation can follow from practice or by contract between parties.

Based on this definition, a carbon credit, once it has been demarcated, must be considered a store of financial value and an asset by law.^{61 62}

A carbon credit that has been demarcated is therefore considered a right that is protected by property law and presumably falls within the category of some type of intangible good. It can then be presumed that underlying the production of such a unit are various contractual agreements that provide for the contracting parties' rights and responsibilities.

⁶⁰ Environment Agency of Iceland definition [in Icelandic]: <https://ust.is/hringrasarhagkerfi/graenn-lifstill/kolefnisjofnun/>

⁶¹ The term asset has been defined as “any type of financial good that is protected by rules of law and belongs to a given party in a manner making it appropriate to consider that good to be that party's property, irrespective of whether the good is tangible or intangible, and irrespective of whether it rests on a civil or statutory foundation”; cf. Þorgeir Örlygsson et al. [in Icelandic]: Property Law I – general section, p. 101.⁶² Kolefniseiningar sem hafa verið afmarkaðar, t.d. staðfestar í samræmi við viðeigandi reglur eða staðla, fela í sér viðskiptaverðmæti sem hvíla á trausti þess að eigandi þeirra hafi dregið úr eða fjarlæggt úr andrúmsloftinu eitt tonn af koldíoxíðsiðgildi.

⁶² Carbon credits that have been demarcated – i.e., validated in accordance with the applicable rules or standards – have a trading value that rests on confidence that their owner has reduced or removed one tonne of CO_2 equivalent from the atmosphere.



For comparison, it is worth noting that an emissions allowance, which is the object traded under the EU Emissions Trading Scheme (ETS), has been defined in law, cf. Act no. 96/2023. It is demarcated with the issuance of allowances according to specific rules and is deposited to an account held by the appropriate parties in a registry, either without charge or following an auction. The allowances are then used in a party's operations or disposed of by means of trading and must be considered an asset in the above-specified sense.⁶³ In addition, it should be noted that emissions allowances in the form of units pursuant to Act no. 96/2023 are considered financial instruments; cf. Article 4, Paragraph 1, Item 17(e) of the Act on Markets in Financial Instruments, no. 115/2021, and therefore fall under the provisions of that Act.

In general, demarcated carbon credits will not be considered financial instruments; instead, transactions with them fall under the general rules of claims law. Nevertheless, it is not impossible that contracts for the delivery of carbon credits could be structured so that they could be considered derivatives; cf. Article 4, Paragraph 1, Item 2 of Act no. 115/2021.

→ Recommendation B1

- In the working group's opinion, it would be preferable to define the term carbon credit in the law. Such a process must also take into account that a carbon credit is a valuable that could be a traded object.. Furthermore, the definition can be important; for instance, as regards the collateral value of such an asset and its treatment in case of the owner's insolvency.⁶⁴ In the working group's opinion, this would reduce the uncertainty that could have a dampening effect on trade with carbon credits.
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⁶³ See, for example, the Court of Appeals ruling in Case no. 598/2020, *Environment Agency of Iceland vs. WOW Air* (particularly the section on the District Court ruling).

⁶⁴ See, for example, "UNICITRAL/UNIDROIT study on the legal nature of verified carbon credits issued by independent carbon standards setters" March 2024: <https://documents.un.org/doc/undoc/gen/v24/017/18/pdf/v2401718.pdf>

5.2 Various rules pertaining to issuance and trading of carbon credits

When carbon credits are created, various laws may apply, depending on how the credits are produced. Carbon credits may be produced by preventing emissions, reducing emissions, or capturing and storing greenhouse gases from the atmosphere. Various pieces of special legislation could have bearing on the matter, depending on the type of project involved.

The production of carbon credits through capture and storage of greenhouse gases is a method that could fall under the scope of various acts of law. For example, sequestration through the cultivation of new forests is covered by the Act on Forests and Forestry, no. 33/2019, and the Planning Act, no. 123/2010. Sequestration via wetland reclamation requires a development permit from local authorities and must be in compliance with zoning plans in accordance with the Planning Act. Sequestration via geological storage, such as that carried out by Carbfix, requires a development permit from local authorities and is therefore subject to the Planning Act, as are new forest cultivation and wetland reclamation. Furthermore, the Public Health and Pollution Control Act, no. 7/1998, applies to the geological storage of greenhouse gases, and permits to undertake such activity are subject to the Act on Environmental Impact Assessments of Projects and Plans, no. 111/2021. In addition, an operating permit from the Environment Agency of Iceland is required, cf. Act no. 90/2002, as are permits from the relevant municipal Board of Public Health and the National Energy Authority; cf. Art no. 87/2003.

The production of carbon credits via prevention and/or reduction of emissions takes place, for instance, with electricity production from renewable resources such as hydropower or wind. It can therefore be said that both the Inland Waters Act, no. 15/1923, and the master plan provided for in the Act on Nature Protection and Energy Utilisation, no. 48/2011, are examples of legislation that could affect the production of carbon credits. Moreover, the Electricity Act, no. 65/2003, applies to the production of electricity, as does the Act on the Guarantee of Origin of Electricity Produced from Renewable Energy Sources, etc., no. 30/2008.

With reference to Section 5.1, it can generally be assumed that trade with carbon credits will fall under the fundamental principles of claims law and other related legislation, such as the Act on Conclusion of Contracts, Power of Attorney and Invalid Legal Instruments, no. 7/1936, and the Act on the Sale of Goods, no. 50/2000.⁶⁵ If contracts involving carbon units were considered derivatives, they would be subject to the Act on Markets in Financial Instruments, no. 115/2021.

⁶⁵ See for instance, the comments on Article 1 of the bill of legislation subsequently passed as the Act on the Sale of Goods, no. 50/2000 (125th legislative session (1999-2000), Case no. 110, Parliamentary Document no. 119): "All liquid assets fall under the scope of the Act. The Act covers tangibles such as furniture and securities and intangibles such as verbal claims and rights." See also the judgment handed down by the Supreme Court in Cases no. 8/1964 and 3/1974, on disputes concerning the sale of "usage rights to a method for plastering" and "facilities and naming of a retail store". See also similar perspectives in Norwegian law; cf. [Wenger Law: The role of Carbon markets in Norway, bls. 22](#).

In instances where carbon credits are sold directly to consumers, such as when a petrol merchant offers fuel for sale at a higher price and then offsets the emissions from fuel that it sells, it can be assumed that the Act on the Sale of Goods to Consumers, no. 48/2003, will apply to the transaction.⁶⁶

5.3 Trade with carbon credits and “greenwashing”

Greenwashing is the term used to describe the deceptive use of incorrect or misleading information to advertise a given product as environment-friendly.⁶⁷ It also refers to an entity’s use of incorrect or misleading information about its environmental activities in the marketing of goods and services, or as an element in image creation.

Icelandic law contains general provisions to combat greenwashing, in both civil and public law. For example, greenwashing in a case involving marketing of goods/services could result in the goods/services being deemed defective in the sense of the Act on the Sale of Goods, no. 50/2000,⁶⁸ or the Act on the Sale of Goods to Consumers, no. 48/2003.⁶⁹ Such a situation would give the buyer the option of seeking appropriate redress via cancellation, damages, or discount.

Greenwashing can also entail unfair commercial practices and can may be in violation of the Act on the Supervision of Commercial Practices and Marketing, no. 57/2005. Commercial practices are companies’ marketing activities or other conduct relating to the promotion of goods/services or trading with them. They are unfair if they are in violation of sound business practices vis-à-vis consumers and significantly distort consumers’ financial conduct or are likely to do so; cf. Article 8 of Act no. 57/2005. This applies in particular when consumers decide to engage in a transaction that they would not otherwise have undertaken.⁷⁰

Furthermore, commercial practices are misleading (and unfair) if they are likely to deceive consumers or are such that consumers are provided with incorrect information aimed at affecting their decision on a transaction. The same applies to the concealment or omission of information that is generally important to consumers, in a manner conducive to affecting consumers’ decision to engage in a transaction.

⁶⁶ Special scope under the Act pertains to the purchase of rights, cf. Article 2, and reference can also be made to the Act on the Sale of Goods to Consumers, as the word “thing” has been construed to include both tangible and intangible “things.”

⁶⁷ Environment Agency of Iceland website [in Icelandic]: “Greenwashing”. (Accessed 7 April 2024). <https://ust.is/hringrasarhagkerfi/graenn-lifstill/vottanir-og-adrar-merkingar/graenthvottur/>.

⁶⁸ The rules on defective products apply “when a sold item does not correspond to the information provided by the seller, in marketing or by other means, about the item, its characteristics, or its use, and it can be assumed that this has affected the purchase”; cf. Article 18, Paragraph 1 of the Act.

⁶⁹ A sold item is considered defective if “it does not correspond to the information provided by the seller, in marketing or by other means, about the item, its characteristics, or its use, unless the seller demonstrates that the correct information was provided to the consumer at the time of purchase or that the information did not affect the purchase”; cf. Article 16, Paragraph 1, Item (c) of the Act.

⁷⁰ See the comments on Article 2, Item (d) of the bill of legislation subsequently passed as Act no. 50/2008 (and amending Act no. 57/2005), 135th legislative session (2007–2008), Case no. 362, Parliamentary Document no. 603.

As regards environmental declarations and unfair business practices, guidelines on advertisements and environmental protection have long been in place (Guidelines no. 559/1994).⁷¹ The guidelines state that in connection with the use of the term “environment-friendly” or other comparable terms, there must exist a detailed report on the product’s full impact on the environment, from beginning to end; i.e., during production and use, and after being discarded or retired. Furthermore, it is stated that the term “environment-friendly” is difficult to justify if the production and use of the product puts significant strain on the environment. Moreover, it must be possible to cite research findings in support of general declarations on the product’s environmental impact.

Violations of the aforementioned statutory provisions could result in action taken by the Consumer Agency, such as the prohibition of certain conduct or the imposition of administrative fines. There are examples of such action in cases involving declarations that could be classified as greenwashing. Furthermore, gross violations of the law could be punishable by fines or a prison sentence of up to six months. The Consumer Agency has taken action, for instance, in the case of companies’ declarations (and insignias) regarding environment-friendliness, such as statements that a company’s activities are net-zero, carbon-neutral, sustainable, or more environment-friendly (than others).⁷² The Consumer Agency’s stated position includes emphasis on the following:

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- Declarations of the environmental benefits of activities/goods may not be set forth without reference to certification by an external party or the fulfilment of a specified standard.
-
- Declarations of positive environmental impact (of activities or goods) must be presented clearly and unequivocally and must be supported by sufficient data.
-
- A company’s compliance with legislation on its activities (and manufactured goods) does not mean that either the company or its activities or production is environment-friendly.
-

Act no. 57/2005 implements EU Directive 2005/29/EC on unfair business-to-consumer commercial practices. That Directive has recently been amended with Directive (EU) 2024/825,⁷³ whose aims include protecting consumers against misleading environmental claims and laying down a precise definition of an environmental claim.⁷⁴

⁷¹[The Consumer Agency](#)

⁷²See, for instance, the Consumer Agency’s decisions in Cases no. 5/2017 and 27/2017 (and the Appeals Committee ruling in Case no. 7/2017), and its decision in Cases no. 10/2021 and 41/2023. Various older cases can also be found, such as the decision in Case no. 20/2007 (and the Appeals Committee ruling in Case no. 11/2007) on the advertisement of a “green” motor vehicle due to the merchant’s pledge of carbon offset in one year after purchase.

⁷³Directive (EU) 2024/825 of the European Parliament and of the Council of 28 February 2024 amending Directives 2005/29/EC and 2011/83/EU as regards empowering consumers for the green transition through better protection against unfair practices and through better information, which is set to take effect in the EU in September 2026.

The EU is currently working on a proposal for a so-called Green Claims Directive,⁷⁵ which focuses on greenwashing and requires that environmental claims in commercial activities be reasoned, transparent, and verifiable. In addition, the proposal assumes that member states will ensure the existence of a forum that will verify such claims.

5.4 Rules aimed at promoting more active trade with carbon credits

5.4.1 Companies' non-financial information disclosures

The so-called Corporate Sustainability Reporting Directive (CSRD) is a new EU directive on sustainability reporting by large and/or listed companies.⁷⁶ It can be expected that the Directive will be implemented into the EEA Agreement and will take effect in Iceland in 2025 or 2026 and will take the place of Article 66(d) of the Annual Accounts Act, no. 3/2006, as regards non-financial information disclosures.

The CSRD adheres to the new European Sustainability Reporting Standards (ESRS), which are based on environmental, social, and governance benchmarks, including the ESRS E1 Climate Change standard, which is intended to enhance the quality of companies' sustainability reporting on their climate targets and actions, including carbon offset with reference to the voluntary carbon market. The standard specifies the importance of purchasing carbon credits that are certified by independent validation and verification bodies (VVB). It also notes the importance of ensuring that the carbon credits in question have materialised in accordance with accepted standards. The standard lays down requirements for additionality and permanence of carbon projects, as well as of making information on these matters publicly available. Furthermore, it stipulates that carbon capture or emission reductions from such projects must be quantified and monitored. It requires also requires the publication of information on carbon projects initiated within the EU, the share of projects falling under Article 6 of the Paris Agreement and the number of pending credits to be cancelled in the future.

The CSRD can be expected to incentivise further trade with carbon credits.

⁷⁴ „**Environmental claim**“ means any message or representation which is not mandatory under Union or national law, in any form, including text, pictorial, graphic or symbolic representation, such as labels, brand names, company names or product names, in the context of a commercial communication, and which states or implies that a product, product category, brand or trader has a positive or zero impact on the environment or is less damaging to the environment than other products, product categories, brands or traders, or has improved its impact over time.

⁷⁵ Proposal for a Directive of the European Parliament and of the Council. Brussel 22.3.2023. COM(2023) 166 final 2023/0085 (COD) <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023PC0166>

⁷⁶ Sjä Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting.

5.4.2 Tax benefits

Legislation on support for innovation or granting tax incentives for environment-friendly activities can promote the production of carbon credits and their purchase by entities wishing to shrink their carbon footprint.

Article 31 of the Income Tax Act, no. 90/2003, focuses on tax-deductible operating expense in commercial activities. It specifies the general rule that expenses undertaken for revenue generation – i.e., that are used to generate, ensure, or maintain revenues – are considered operating expenses. It must be concluded from this that companies' expenses for the purchase of carbon credits that are a necessary element in revenue generation are tax-deductible as operating expenses.

The Income Tax Act has long contained a provision authorising entities in commercial activities to deduct contributions to charitable causes from their income tax, including causes relating to afforestation and land reclamation. This authorisation, which may range up to 1.5% of revenues, can be found in Article 31, Item 2 of the Income Tax Act, no. 90/2003. In addition, entities engaged in commercial activities are authorised to deduct contributions to measures aimed at fostering carbon offset from their income tax, up to the same 1.5% maximum.

The former authorisation pertains to gifts and contributions to parties that are engaged in non-profit activities and are listed on the Iceland Revenue and Customs register of entities operating in the public interest. The latter authorisation, however, applies to commercial entities' purchases of carbon credits to offset emissions from their own operations; for instance, in accordance with their environmental policies. In both instances, the recipient must provide the donor with a written confirmation of the contribution, which must contain further specified information.

Further requirements for the authorisations in question can be found in Regulation no. 1300/2021. The Regulation states, among other things, that the latter authorisation is subject to the requirement that measures undertaken by a legal entity receiving gifts and/or contributions must promote carbon offset; cf. Article 3, Item 6 of the Climate Act, no. 70/2012. It is specified that this includes afforestation, cultivation of barren areas and damaged vegetated lands, reclamation of wetlands and land-based natural resources, and other similar measures such as improvements in land use. Also included are the injection of CO₂ into bedrock for mineralisation – cf. Article 3, Paragraph 24 of the Act on Health and Hygiene and Pollution Control, no. 7/1998 – and projects involving the capture and storage of greenhouse gases; cf. Article 3, Item 4 of the Climate Act, no. 70/2012. No other requirements are made of the carbon credits that such projects would generate, nor are there any verification requirements.

⁷⁷ [New sustainability regulations | Deloitte Iceland](#)

Tax deductions for contributions to carbon offset were negligible in operating entities' 2022 tax returns, or just over ISK 9.3m, whereas the total amount of deductions for gifts and contributions to other activities in the public interest totalled just over ISK 4.6bn.⁷⁸

Governmental authorities around the world have adopted measures to use taxation and tax incentives (tax breaks) as a tool to move closer to climate action targets. Taxes levied on goods or activities that have a harmful impact on the environment are referred to as environmental taxes, ecotaxes, or green taxes. Green tax incentives, on the other hand, are incentives for companies to adopt sustainable business processes and for individuals to engage in sustainable conduct or investments.

The Organisation for Economic Co-operation and Development (OECD) has pointed out that well-designed tax incentives have the potential to increase investment, thereby making a positive impact on output and productivity, as well as contributing to the achievement of sustainability objectives. There are many benefits to using tax breaks as an incentive in climate-related measures – as compared with subsidies, for instance – as tax breaks can only be used by entities that bear full tax liability in the country concerned.

→ Recommendation C3

- In order to increase Icelandic companies' incentive to invest in the voluntary carbon market, it is recommended that the tax framework for operations relating to the production and purchase of carbon credits be examined with an eye to potential tax breaks and deductions for operating expenses. The following could be worth exploring:
 - Additional scope for deductions of expenses relating to carbon offset in a company's own operations, with further specification of when targets (concerning carbon neutrality, for instance) can be considered related to revenue generation. This could include deciding when the purchase of carbon units from third parties could be considered actual operating expenses (instead of gifts/contributions) (and also with value-added tax).
 - Specified expiry authorisations for investments in real estate (including land) or equipment for the production of carbon units and/or reduction or sequestration in a company's own operations.
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⁷⁸ Taxes and tax incentives in the field of environmental affairs – report by a working group appointed by the Minister of Finance and Economic Affairs, February 2023 [in Icelandic], p. 50.

⁷⁹ EU statistical bureau Eurostat's standards on environmental taxes contain a discussion of the definition of environmental taxes and green tax incentives: <https://ec.europa.eu/eurostat/web/environment/information-data/environmental-taxes-subsidies>

⁸⁰ OECD Investment Tax Incentives Database 2022 update: <https://www.oecd.org/investment/investment-policy/oecd-investment-tax-incentives-database-2022-update-brochure.pdf>



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- The possibility of reimbursing a specified percentage of investment spending on projects contributing to permanent carbon sequestration and the production of carbon units for sale.
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- Whether companies should be authorised to pay environment taxes (or lower their tax base) by relinquishing carbon credits.⁸¹
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5.5 Examples of international policies that can affect the production and trading of carbon credits

Because Iceland cooperates with the EU, both within the EEA and on climate-related matters, it can be expected that various policies and regulatory instruments from the EU and elsewhere will affect domestic trading of carbon credits. Below are some examples.

5.5.1 EU Industrial Carbon Management Strategy

In February 2024, the EU published a new strategy for carbon capture, sequestration, and utilisation, called the EU Industrial Carbon Management Strategy (ICM).⁸² The strategy describes how technology for carbon capture and storage (CCS) from industrial and energy processes, on the one hand, and removal of CO₂ from the environment (carbon dioxide removal, CDR), on the other, can play a major role in reducing greenhouse gas emissions by 90% by 2040 and help the EU to achieve carbon neutrality by 2050.

⁸¹In Singapore, a carbon tax is levied on companies, and they can use carbon credits to offset 5% of emissions, thereby lowering their tax base. See, for example: <https://www.nea.gov.sg/our-services/climate-change-energy-efficiency/climate-change/carbon-tax>

⁸²See the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Towards an ambitious Industrial Carbon Management for the EU, COM (2,024) 62 final.

The strategy recommends that the EU work towards the development of reception and storage facilities for some 280m tonnes of CO₂ by 2040. It also provides comprehensive guidelines on how to achieve these targets. Furthermore, the strategy explains the need to establish a joint carbon market for Europe and describes the preparations for a future regulation covering the transport and storage of CO₂ within Europe.

It can be assumed that European policy and joint rules on transport and storage in the common market will affect companies that provide service in the field of carbon capture and storage in Iceland.

5.5.2 EU Carbon Removal Certification Framework (CRCF)

In April 2024, the European Parliament and the Council reached an agreement concerning a proposed directive on certification of carbon capture and storage (CRCF).⁸³ The objective is to develop a framework for voluntary certification of carbon capture and sequestration projects within EU member states, but also to encourage technological development, enhance transparency, and reduce greenwashing relating to such projects.

According to the proposal, certification will extend to three main types of carbon projects in the voluntary market:

1. Carbon projects aimed at reducing emissions and increasing carbon sequestration in soil through carbon farming; i.e., changes in land use and cultivation methods, new forest cultivation, and forest preservation. Carbon projects falling under this category involve short-term sequestration.
2. Permanent storage of carbon through methods such as biochar production (BCR), direct-air capture with carbon storage (DACCS), direct-air capture and storage (DAC+S), bioenergy with carbon capture storage (BECCS), and enhanced weathering (ERW). Carbon projects falling under this category involve long-term sequestration.
3. Carbon storage in products such as construction materials or concrete. Carbon projects falling under this category involve both long- and short-term sequestration.

The proposal includes requirements on verification and certification of carbon capture and storage, as well as definitions of project duration in the three categories above. It also contains requirements made of certification bodies.

If the proposal is approved as a directive within the EU and it is decided to incorporate it into the EEA Agreement, it will affect requirements made of Icelandic carbon capture projects such as those in the fields of afforestation and wetland reclamation.

⁸³ See the Proposal for a Regulation of the European Parliament and of the Council establishing a Union certification framework for carbon removals, COM (2022) 672 final, 2022/0394.

5.5.3 CORSIA

CORSIA is a global market-related system intended to address carbon emissions from international air traffic, with the aim of achieving carbon-neutral growth in international air travel starting in 2020.⁸⁴

The system, which was developed by the International Civil Aviation Organization (ICAO), applies to flight operators that generate more than 10,000 tonnes of CO₂ emissions from international flights using aircraft with a take-off mass of more than 5,700 kg. The system was developed in response to the EU's decision to include international flights in its emissions trading scheme (ETS).

According to CORSIA, flight operators in countries that have pledged their participation⁸⁵ are obliged to monitor, report, and verify their carbon emissions from international flights. From 2021 onwards, as part of the experimental phase of the system, airlines are required to offset a specified percentage of annual emissions from their operations; i.e., the emissions that exceed a baseline value calculated from average year-2019 emissions.⁸⁶ The system is linked to the ETS in that monitoring requirements under CORSIA were incorporated into the current monitoring under the ETS; cf. Article 25a of Directive 2003/87/EC. It has also been incorporated into Icelandic law with the Act on the EU Emissions Trading System, no. 96/2023; cf. Article 23 of the Act.

Only carbon units from specified registries are eligible for use by airlines to offset their emissions under the system, and they are different from units used in the ETS, which is discussed in Section 1.1.1. These eligible credits are called CORSIA Eligible Emissions Units (CEEU). The units must satisfy certain requirements regarding, for instance, methodology, scope, traceability, and certification.⁸⁷

CORSIA-approved units can come from various sources, including projects in the fields of renewable energy, energy harnessing, and afforestation. The rules on the units are outlined in the Standards and Recommended Practices (SARP),⁸⁸ and the units that have been approved are listed in a separate document entitled CORSIA Eligible Emissions Units, where the units and their characteristics are described in detail.⁸⁹

Icelandic flight operators engaged in international flights must monitor and surrender carbon units for emissions to and from airports in participating countries. These requirements are in addition to those imposed on flight operators under the ETS.

⁸⁴ Carbon Offsetting and Reduction Scheme for International Aviation.

⁸⁵ The system applies only to flights between two countries that are both bound by its requirements. As of April 2024, a total of 126 countries, including Iceland, had pledged their participation. Further information on participating countries can be found here: <https://www.icao.int/environmental-protection/CORSIA/Pages/state-pairs.aspx>

⁸⁶ For further information, see: International Civil Aviation Organization (ICAO) Assembly Resolution A40-19.

⁸⁷ ICAO: CORSIA Emissions Unit Eligibility Criteria.

⁸⁸ The standards and practices, called Standards and Recommended Practices (SARP), are laid down in Annex 16, Volume IV of the Chicago Convention on International Civil Aviation. <https://www.icao.int/environmental-protection/CORSIA/pages/default.aspx>

⁸⁹ See: ICAO: CORSIA Eligible Emissions Units.

Nevertheless, EU regulatory instruments provide for joint reporting together with ETS reports, which reduces the administrative burden to the extent possible, but given Iceland's geographical location, it is clear that the cost of purchasing carbon credits will increase.

5.5.4 The Net-Zero Industrial Act

In March 2023, the European Commission introduced a proposal for a new regulation on measures to strengthen carbon-neutral industry, generally called the Net-Zero Industry Act (NZIA). The NZIA was formally approved by the EU in May 2024 and took effect in June 2024; cf. Regulation (EU) 2024/1735.

It represents an element in both ensuring that the EU achieves its climate objectives and promoting energy security within the Union. The NZIA aims to support the EU's carbon neutrality target, and its purpose is to facilitate the development of carbon-neutral technology. This includes reducing the administrative burden; for instance, by laying down simpler and more effective permit granting procedures. The technology falling under the scope of the NZIA centres on carbon capture and storage. The Regulation sets out homogeneous targets for carbon storage within the EU. It also provides for measures for innovation and increased production of net-zero technology. It presents definitions of net-zero technologies and innovative net-zero technologies. It also specifies a target of 50 million tonnes of annual operational CO₂ injection capacity by 2030 in storage sites within the EEA and its economic jurisdiction.

Particular emphasis is placed on supporting infrastructure for carbon capture and storage (CCS). The Regulation therefore encourages the development of such technology to capture and store carbon from industrial processes that cannot be easily decarbonised. The technology is considered a key element in achieving net-zero targets, and according to the regulatory framework, the objective is to substantially increase CCS capacity within the EU. To this end, it is recommended that investments be made in development and build-up of CCS infrastructure and support for projects whose aim is to store carbon securely and permanently.



6. Comparison with other countries



This section contains a discussion of several countries' regulatory frameworks for carbon markets and climate policy. The purpose is to gain an overview of the role of carbon markets in climate policy, policy-making concerning the voluntary market and trade in carbon credits, and policy-making regarding the utilisation of carbon markets on the basis of Article 6 of the Paris Agreement. The discussion is based on the work of Cathrine Wenger, lawyer with Wenger Law in Norway. This report contains a summary of the highlights, but the materials in their entirety will be posted on the Ministry's website.⁹⁰

It was decided to examine Norway, which has the same type of rules regarding the EEA Agreement; Sweden, which is an EU member state; Switzerland, which is outside the EU but has certain ties with it, including trade in ETS units; and the UK, which is also outside the EU (in the case of the UK, the examination is limited land use projects).

6.1 Norway: Highlights⁹¹

- Norway has adopted a political goal of achieving carbon neutrality by 2030. According to that target, Norway intends to use Article 6 of the Paris Agreement to meet its net-zero target by 2030. This target is however, not part of Norway's NDC,.

⁹⁰The descriptions are adapted from the Wenger Law summaries.

⁹¹[The role of carbon markets in Norway](#)

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- Norway's target of achieving carbon neutrality by 2030, which is provided for in its Climate Act and is part of its NDC, entails reducing greenhouse gas emissions by 55% by 2030, as compared with the 1990 level. Norway will cooperate with the EEA in order to meet its 2030 target by participating in the EU's ETS system, as well as using the flexibility provisions in the Effort-Sharing Regulation (ESR) and the LULUCF Regulation.
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- To achieve this target, Norway will rely on cooperation under Article 6 of the Paris Agreement to reduce emissions, but only if there are insufficient ESR flexibilities under the EU joint implementation mechanism (i.e., if emission reductions in the EU are insufficient).
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- Norway has no explicit rules or regulations on voluntary carbon markets, nor does it have any policies or guidelines for private sector participation in them.
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- Norway relies on cooperation with the World Bank's transformative carbon asset facility (TCAF) for climate finance and for the purchase of ITMOs according to Article 6. Furthermore, TCAF relies on the Article 6 Rulebook and relevant policies according to the CDM and the World Bank to ensure environmental integrity.
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- There are no explicit guidelines or requirements for administration of voluntary carbon markets in Norway. Private entities apparently take advantage of the regulatory vacuum, particularly in the forestry sector. On the other hand, it is likely that the European Commission's proposal on carbon credits from the LULUCF sector, if and when it is implemented in Norway, will provide greater quality assurance for potential buyers of carbon credits from the sector.
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- Carbon capture and storage (CCS) in Norway is developed through the project Longship, and it is likely that Article 6 of the Paris Agreement will play a role in ensuring the financial viability of these projects.
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6.2 Sweden: Highlights⁹²

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- Sweden is an EU member state, and EU policies and regulations strongly affect how its climate policy can be developed. Sweden's NDC is the same as that for the EU.
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- Sweden is part of the EU ETS, as well as non-trading sectors such as those falling under the scope of the ESR and LULUCF regulations.
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⁹²[The role of carbon markets in Sweden](#)

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- Due to the roll-back of the policy on mandatory fuel blending for domestic transport, Sweden is not on track to meet its 2030 and 2050 emission reduction targets.
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- In order to reach the 2030 target, Sweden will have to rely on supplementary measures, including the option of using bio-CCS, LULUCF projects, and the purchase of international emission reductions under Article 6.2 of the Paris Agreement. In practice, Article 6.2 will probably be the most important of these measures.
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- The EU does not allow the use of Article 6 of the Paris Agreement for the achievement of NDC targets. On the other hand, Sweden has set a net-zero target that is more ambitious than that required by the EU; therefore, it will be permitted to use Article 6 to reach its domestic climate targets and intends to do so. Because the EU does not allow the use of Article 6, Sweden will not make corresponding adjustments for those carbon credits.
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- The Swedish authorities have not set out any specific requirements for the voluntary carbon market apart from the voluntary trade provided for in Article 6.2 of the Paris Agreement. In that regard, the Swedish authorities are utilising international frameworks such as Gold Standard to ensure compliance with robust environmental standards.
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- Furthermore, Sweden is developing a framework for assessing sustainable development for Article 6.2 trading and will require third-party verification via a sustainable development report before authorising Article 6.2 units.
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6.3 Switzerland: Highlights⁹³

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- In spring 2024, Switzerland passed an amended CO₂ Act for the period 2025-2030. The Act took into account the results of a referendum and gives the government greater flexibility in the use of Article 6.2 carbon units.
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- Switzerland is not part of EU ETS, but it has its own national trading scheme that has been linked to the EU system since 2020.
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- A domestic compensation scheme for importers of petrol and diesel fuel enables these companies to utilise Article 6.2 of the Paris Agreement and purchase emission reductions abroad to comply with domestic emission reduction requirements. According to the compensation scheme, the flexibility to use Article 6.2 is 25% of total emissions.
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⁹³[The role of carbon markets in Switzerland](#)

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- Article 6.2 carbon units purchased in accordance with the fuel compensation scheme are used by the Swiss government to meet its NDC.
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- A carbon levy is imposed on companies that are not part of the Swiss emissions trading scheme. On the other hand, the CO₂ Act stipulates that the levy shall not be imposed if the company in question has pledged to reduce its carbon emissions and has communicated specific reduction targets to the government. This exception has only been applied to companies in specific sectors.
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- Switzerland's NDC assumes that Article 6.2 units, or ITMOs, can be used, but it does not specify how large a share of international purchases (as opposed to domestic emission reductions) will be used to achieve the NDC.
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- Switzerland has blacklisted certain Article 6.2 project activities, including land use and forestry projects. This is not apply to domestic projects, where forestry activity is permitted.
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- Switzerland is interested in developing regulatory frameworks for direct air capture with carbon storage (DACCS), partly or exclusively, in geologically suitable locations abroad. This includes arranging for direct air capture technologies and storage of greenhouse gas emissions in the territory of the host country, which will then be counted (wholly or partly) towards Switzerland's national and international emission reduction targets (i.e., its NDC).
-
- For voluntary purchases of Article 6.2 carbon units, the buyer can decide whether or not to surrender them to the Swiss government. If they are not surrendered, the host country will have made a corresponding adjustment, but the Swiss government will not have done so. In this way, the emission reduction not surrendered to the Swiss government will contribute to closing the emissions gap.
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6.4 United Kingdom: Highlights⁹⁴

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- The UK government has endorsed two key standards for establishing high-quality guidelines for private sector participation in the domestic voluntary carbon market (often referred to as the nature market) for woodland creation and peatland restoration: the Woodland Carbon Code and the Peatland Code.
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- Only companies with emissions within the UK border are allowed to participate in these two domestic voluntary carbon markets.
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⁹⁴[Woodland and Peatland VCM's in the UK](#)

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- There are no legal requirements for companies to purchase the carbon units from the Woodland Carbon Code or the Peatland Code. However, the government views the two codes in connection with the obligations/recommendations for company reporting on greenhouse gas emissions. In addition, the UK government encourages companies to purchase emission reductions from the voluntary carbon market to be aligned with the voluntary carbon emission targets, including units from the Woodland Carbon Code and the Peatland Code.
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- The UK relies on UK-endorsed, globally recognised independent verification bodies to undertake the validation and verification of the emission reduction units created under these two codes.
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- There are ongoing governmental discussions on whether to include forests in the UK emissions trading scheme (UK ETS). If so, it is likely that the Woodland Carbon Code will be relevant to assess due to its high standard and alignment with UK laws and regulations.
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7. Appendices



7.1 Flexibility provisions for effort-sharing accounting

If emissions for a given year exceed the emissions allocation, it is required to obtain allowances from other EU member states or Norway or use one of the flexibilities provided for under the regulatory framework.

- **Banking:** If emissions fall short of allowances for a given year, the country is authorised to save the excess and use it in any year through 2030. In 2021 and 2022, Iceland's emissions under the ESR were below its emissions allowances; therefore, it will be able to use the difference – i.e., the unused allowances – later in the settlement period.
- **Borrowing:** If emissions exceed the allowance for a given year, a country is permitted to borrow allocations from a later year during the period. Limits are placed on such borrowings, however.
- **Transferring:** Countries participating in the scheme – EU member states, Iceland, and Norway – may trade annual emission allowances among themselves; i.e., a country that is performing well and owns unused allowances can sell them to a country that needs them. The supply of such unused allowances is uncertain, but demand already exists.
- **Flexibility with ETS allowances:** Countries that participate in the ETS receive ETS emissions allowances that they can offer via a special auction venue. Eleven countries were granted permission to use a portion of their ETS auction allowances to meet effort-sharing requirements, subject to a previous decision to this effect. In 2019, it was decided that Iceland would exercise this provision. This decision applies for the period 2021-2030. The decision may be reviewed before 31 December 2024 for the years 2026-2030, and again before 31 December 2027 for 2028-2030. This means that Iceland is authorised to use ETS emissions allowances that would otherwise be auctioned to fulfil its commitment to reduce emissions through effort-sharing, in an amount up to 4% Iceland's year-2005 emissions.
- **Flexibility due to LULUCF:** Iceland is authorised to use 200,000 allowances from the LULUCF sector to fulfil effort-sharing commitments. This flexibility is subject to certain conditions:
 - Countries must fulfil LULUCF commitments first in order to take advantage of this flexibility.

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- Half of the allowances may be used in the former period (2021-2025) and the other half in the latter period (2026-2030).
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- Countries are required to give notification annually of their planned use of this flexibility; otherwise, they may not use it.
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7.2 Stakeholder meetings

On 18 April 2023, the Minister of the Environment, Energy, and Climate appointed a working group tasked mapping out the current situation and opportunities for trade with carbon credits. Since its inception, this group has worked on mapping out the project, gathered relevant information, and consulted with representatives of at least 40 stakeholders at seven meetings.

The stakeholder meetings were held in the Ministry of the Environment, Energy, and Climate as in-person meetings, with the option of remote attendance upon request. Stakeholders were divided into six categories, depending on their involvement in the matter. The division was as follows: a. Environmental and nature conservation organisations; b. Purchasers and sellers of carbon credits; c. Standards and frameworks for carbon markets; d. Consultants and data vendors; e. Public sector institutions; f. Other stakeholders.

The aim of the meetings was to give stakeholders the chance to express their points of view and make comments and suggestions. In some cases, stakeholders submitted data relating to the working group's project, both in general and on specific points. These include voluntary markets and the trading now taking place; the opportunities and challenges associated with Article 6 markets; and the advantages and disadvantages of the Icelandic Government's using such markets; and the regulatory framework for carbon credits and carbon trading. The working group received data from 15 stakeholders.

The following stakeholders were invited and sent representatives to the aforementioned meetings on 18 and 19 October 2023.

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- Environmental and nature conservation organisations: Landvernd, the Iceland Nature Conservation Association, Ungir umhverfissinnar [*Young Environmentalists*], Vinir íslenskrar náttúru [*Friends of Icelandic Nature*], and the Icelandic Forest Service.
-
- Purchasers and sellers of carbon credits: Carbfix, Climeworks, Kolviður, Running Tide, Pure Recycling, SoGreen, Súrefni [*Oxygen*], Yggdrasill Carbon, Vaxa, and the Wetland Fund.
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-
- Standards and frameworks: The Board of Accreditation, Skógarkolefni – Forest Carbon Code, Iceland Standards, and Yggdrasill Carbon.
-
- Consultants and data vendors: Deloitte, EY, Festa – Centre for Social Responsibility, KPMG, and PWC.
-
- Public sector institutions: Marine & Freshwater Research Institute, Landgræðslan soil conservation service, the Climate Council, the Icelandic Institute of Natural History, the Environment Agency of Iceland, the Association of Local Authorities in Iceland, the Central Bank of Iceland, the Icelandic Forest Service, and the Consumer Agency.
-
- Other stakeholders. The Icelandic Federation of Labour, the Farmers' Association of Iceland, the Confederation of Icelandic Employers, the Icelandic Travel Industry Association, Fisheries Iceland, the Federation of Icelandic Industries, and the Federation of Trade and Services.
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Furthermore, an extra meeting was held on 12 October for interested parties that were unable to attend the other meetings. Attendees were: The Register of Annual Accounts, the International Carbon Registry, and the National Planning Agency.

7.3 Consultation and data gathering

The working group obtained information from a number of experts and specialists during the preparation of the report. Particular emphasis was placed on consulting with those who had been involved in analysing the legislative framework on climate issues, especially as regards carbon credits, carbon accounting, and other countries' experience in the field.

During the course of its work, the group made contractual agreements on the above matters with consultancies such as Wenger Law and Deloitte. Wenger Law's role was to analyse the legislative framework and experience from Sweden, the UK, Switzerland, and Norway in connection with carbon credits. Their findings are presented in the Appendix to this report and were used during report preparation. An agreement was made with Deloitte ehf. on analysis and contributions relating to various aspects of the work.

The working group met with all stakeholders and specialists that requested meetings. Furthermore, the working group made special requests for meetings with specific experts in order to obtain answers to specialised questions.

7.4 The working group's letter of mandate



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Reykjavík 18. apríl 2023
Tilv.: UMH23030010/2.3.5

Hér á landi hefur til skamms tíma verið virkur valkvæður markaður með kolefniseiningar, þar sem fyrirtæki og stofnanir hafa getað keypt kolefniseiningar frá skógrækt og endurheimt votlendis, til að sýna fram á kolefnisjöfnun á starfsemi sinni. Fram til þessa hafa engar vottaðar heimildir verið á markaði hérlandis, þ.e. seljendur hafa ekki getað sýnt fram á það með afgerandi hætti að kolefnisbinding eða samdráttur í losun hafi átt sér stað.

Viða erlendis eru starfræktir kolefnismarkaðir og eru einingar á þeim mörkuðum í flestum tilfellum vottaðar af þar til bærur aðilum. Íslensk fyrirtæki hafa getað keypt kolefniseiningar á þeim mörkuðum.

Á grundvelli 6. gr. Parísarsamningsins er unnið að því að setja á laggirnar tvenns konar kerfi. Annars vegar er um að ræða alþjóðlegan markað með kolefniseiningar (gr. 6.4). Verkefni og einingar sem frá þeim koma munu lúta ströngu eftirliti/vottunaarferli. Einingar sem til verða á þeim markaði geta ríki nýtt til að standa við skuldbindingar sínar gagnvart loftslagssamningum um samdrátt í losun, að því gefnu að sett hafi verið fram áform um slíkt í landsmarkmiðum (NDC) viðkomandi ríkis. Þau ríki sem hýsa verkefni þurfa að gefa heimild fyrir því að slík verkefni séu starfrækt innan þeirra lögsögu. Hins vegar er um að ræða kerfi sem byggir á tvíhliða samstarfi ríkja um verkefni sem leiða til samdráttar í losun eða stuðla að bindingu kolefnis (gr. 6.2). Nokkur ríki hafa þegar sett á laggirnar verkefni á grundvelli greinar 6.2, þar sem árangur verður nýttur gagnvart alþjóðlegum skuldbindingum. Forsenda er að sérstakur samningur milli liggi fyrir milli viðkomandi ríkja. Þess má geta að stjórnvöld í Sviss hafa sýnt því mikinn áhuga að koma á laggirnar slíku tvíhliða samstarfi við Ísland, með það í huga að hingað til lands verði fluttur koltvísýringur frá svissneskri starfsemi, sem fyrirtækið Carbflix myndi dæla niður. Í gangi er tilraunaverkefni, sem felst í innflutningi lítils magns koltvísýrings frá Sviss, sem Carbflix dælir niður.

Hér með ert þú skipuð í starfshóp sem falið er það hlutverk að kortleggja stöðu og tækifæri til viðskipta með kolefniseiningar hér á land, sem og horfi til ávinnings af verkefnum sem framleitt geta slíkar einingar. Í vinnunni þarf að horfa bæði til möguleika íslenskra fyrirtækja á slíkum markaði sem mögulegir framleiðendur eininga sem og kosti þess og galla að íslensk stjórnvöld nýti slíka markaði til að uppfylla skuldbindingar í loftslagsmálum. Í því samhengi þarf að horfa sérstaklega til loftslagsskuldbindinga á grundvelli samstarfs við ESB og hvaða möguleikar eru innan þess kerfis til að nýta einingar, t.d. frá landnýtingarverkefnum (LULUCF). Rétt er að hafa í

huga að ESB hefur gefið það út að ekki verði nýttar alþjóðlegar kolefniseiningar til að ná markmiðum um 55% heildarsamdrátt í losun. Hins vegar má ætla að slíkar einingar verði nýttar inna Corsia-flugkerfisins.

Starfshópurinn er þannig skipaður:

Jónas Friðrik Jónsson, formaður,

Helga Barðadóttir, sérfræðingur í umhverfis-, orku- og loftslagsráðuneytinu,

Salome Hallfreðsdóttir, sérfræðingur, tilnefnd af matvælaráðuneytinu.

Gert er ráð fyrir að lokaafurð vinnuhópsins verði tillögur að stefnumörkun stjórnvalda varðandi viðskipti með kolefniseiningar.

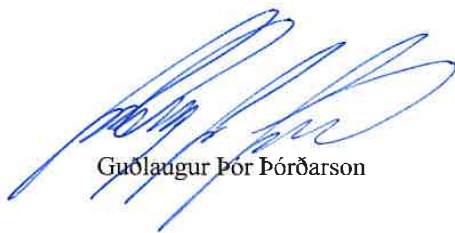
Starfshópurinn fær heimild til að leita til sérfræðinga á þessu sviði, bæði innlendra og erlendra, sérstaklega hvað varðar útfærslu lausna sem byggjast á 6. gr. Parísarsamningsins. Með hópnum mun starfa sérfræðingur á vegum ráðuneytisins.

Í vinnunni verð m.a. lagt mat á eftirfarandi þætti í íslensku samhengi:

- Kolefnismarkaðir á grundvelli 6. gr. Parísarsamningsins, bæði tvíhliðasamstarf á grundvelli greinar 6.2 og um alþjóðlega kolefnismarkaði á grundvelli greinar 6.4.
- Valkvæður kolefnismarkaður – kolefnisjöfnun – þátttaka íslenskra fyrirtækja, framleiðsla, vottun o.fl.
- Kolefnismarkaðir og skuldbindingar Íslands í loftslagsmálum svo sem gagnvart Loftslagssamningi Sameinuð þjóðanna (UNFCCC) og ESB.
- Verkefni á sviði föngunar og förgunar kolefnis og tenging við alþjóðlega kolefnismarkaði.

Skal starfshópurinn afla sjónarmiða lykilaðila á þessu sviði innan og utan stjórnkerfisins.

Farið er fram á að starfshópurinn skili niðurstöðum sínum til ráðuneytisins eigi síðar en 1. febrúar 2024.



Guðlaugur Þór Þórðarson



Stefán Guðmundsson

7.5 Links to unpublished materials

The group asked Wenger Law to provide analysis of the legal environment in several comparison countries. The findings were delivered in five unpublished reports that are linked in the present report. Specific reference is made to these in the appropriate places in this report.

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1. [Cross-border Transactions for CCS – a Legal Analyses](#)

 2. [The role of carbon markets in Norway](#)

 3. [The role of carbon markets in Sweden](#)

 4. [The role of carbon markets in Switzerland](#)

 5. [Woodland and Peatland VCM's in the UK](#)

7.6 Definitions

Below are definitions of key concepts and regulatory instruments used in the report so as to contribute to harmonised terminology in the field:

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- **Methodology:** A process or method used to measure, verify, and certify greenhouse gas emissions or carbon credits, which defines the steps that must be taken to comply with a standard or code.

 - **Direct air capture (DAC):** Capture of carbon from the atmosphere.

 - **Certification:** Formal acknowledgement by a competent authority that an entity is eligible to carry out specified projects pursuant to a conformity assessment.

 - **Carbon dioxide removal (CDR):** A process that causes carbon dioxide (CO₂) to be taken out of the atmosphere and stored in a greenhouse gas reservoir such as forest, soil, or geological layer, for a defined duration or period of time.

 - **Internationally transferred mitigation outcomes (ITMO):** Units that represent mitigation of greenhouse gas emissions and can be transferred to another country according to Article 6.2 of the Paris Agreement.

 - **Carbon offsetting:** Investment by an institution/company in projects that reduce CO₂ emissions outside its own value chain.

 - **Carbon insetting:** Investment by an institution/company in projects within its value chain in order to offset excess CO₂ emissions.

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- **Carbon credit:** A transferable instrument that verifies that one tonne of CO₂ has been saved through methods such as capture, storage, or prevention of emissions.
-
- **Carbon registry:** A centralised record-keeping system for carbon credits, which ensures the registration of projects and the issuance of electronic carbon credits from such projects.⁹⁵
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- **Requirements:** Conditions, set by a carbon registry, that parties to a project must satisfy in order to register it.
-
- **Code:** A collection of requirements or criteria that a specified product, process, or service must meet. Codes are often specialised and intended for specific entities without official recognition.
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- **Land use, land use change, and forestry (LULUCF):** Emissions falling under the scope of Regulation (EU) 2018/841 on the inclusion of greenhouse gas emissions and removals from land use, land use change, and forestry.
-
- **Nationally determined contribution (NDC):** Individual countries' contribution to climate action on the basis of the Paris Agreement.
-
- **National inventory document (NID):** A national report containing accounting for greenhouse gas emissions.
-
- **Framework Convention:** The United Nations Framework Convention on Climate Change (UNFCCC)
-
- **Emissions allowances:** Allocations that countries receive in order to satisfy their emissions requirements vis-à-vis the EU, which reflect the maximum amount the country concerned may emit in accordance with its proportional targets.
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- **Compliance markets:** Markets established under the auspices of national or regional schemes, with participation based on fulfilling participants' obligation to reduce emissions in their own operations.
-
- **Climate targets:** Domestic objectives that have been laid down in governmental policies and/or agreements.
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- **Net sequestration:** Sequestration of greenhouse gases, net of emissions, within specified boundaries such as a company or a country.
-
- **Net emissions:** Emission of greenhouse gases, net of sequestration, within specified boundaries such as a company or a country.
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⁹⁵ Defined as follows in ÍST TS 92:2022: "a centralized electronic registry that provides registration of GHG projects and issuances of electronic carbon credits generated by such projects. Further transfers of such credits and retirement for offsetting emissions."

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- **Collective emissions:** Emissions falling under the scope of Regulation (EU) 2018/842, the Effort-Sharing Regulation, which covers collective efforts to reduce emissions.
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- **Obligation period:** A period of time demarcated by special rules applying to the settlement of commitments during that period.
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- **Verification:** The process of ensuring that carbon credits have been confirmed⁹⁶
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- **Standard:** A document, determined by consensus and approved by a recognised body, and intended for common and repeated use, setting forth rules, guidelines, or characteristics of operations or their produced output, with the aim of achieving maximum uniformity in a given context.
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- **Validation:** Confirmation that the design of a carbon project satisfies the requirements set for the project.
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- **Flexibilities (flexibility provisions):** : Rules applying to the settlement of obligations and pertaining to the transfer of emissions allowances/emissions allocations between accounting systems.
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- **Technical specifications:** A detailed description of the technical properties of a product, process, service, or system, with requirements concerning performance or quality.
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- **Corresponding adjustment:** An offsetting entry made to prevent double-counting of emissions in countries' emissions accounts.
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- **Settlement rules:** Rules applying to the settlement of targets/obligations.
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- **Issuance of pending credits:** Issuance of credits that have been validated by a certification body and are listed in a carbon registry but have not yet been verified. At this stage, the units are not considered active and eligible for use in carbon offset. A purchaser of pending units has been given a pledge of a given carbon offset within a given time, based on estimated sequestration or reduction of emissions, but the units cannot be used until verification has taken place, whereupon the unit will be formally issued.
-
- **Issuance of validated (active) credits:** Issuance of credits that have been validated and verified.⁹⁷
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⁹⁶ Defined as follows in ÍST TS 92:2022: "a specific set of procedures and standards to verify GHG emission reduction or removal projects."

⁹⁷ Defined as follows in ÍST TS 92:2022: "Carbon Credit/Ex post: a unique transferable instrument issued electronically in a centralized registry representing a GHG emission mitigation in an amount of one (1) metric tonne of CO₂ equivalent, that has been verified in that its impacts are real and can be used for offsetting emissions by organizations."

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- **Voluntary carbon markets (VCM):** Markets where participants freely choose to buy carbon credits; i.e., without being obliged to do so. There is no single, universally accepted definition of voluntary carbon markets.
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- **Project design documents (PDD):** A description of a project according to the requirements and conditions laid down by carbon registries.
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- **Certification system:** Processes or criteria developed by a demarcated group of stakeholders – such as Verra, Puro Earth, Isometric, and Gold Standard – without the wide consultation occurring during the development of standards. Although both certification systems and standards perform the role of establishing a framework for a given methodology and requirements for certification of projects, standards are official and are developed through broad-based consultation and cooperation among a diverse group of stakeholders, while certification systems are developed in a closed cooperation process among small groups, often with limited involvement by the parties concerned.
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- **Certification bodies** Entities that confirm a project's capacity to reduce emissions and that regularly monitor its outcomes after investments have been made in it.
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