



Carbon Fund Annual Report 2021

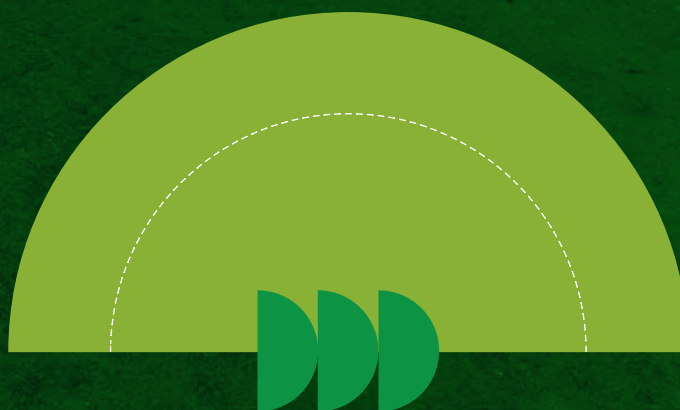


Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency



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Summary

The Environmental Protection Agency (EPA) greenhouse gas emissions estimates for 2013-2020 indicate that Ireland will face compliance gaps in relation to its targets under the EU Effort Sharing Decision (ESD). Ireland's target for 2020 is a reduction of 20% of emissions compared to 2005 levels. Preliminary assessments suggest that ESD emissions (primarily agriculture, transport and residential sectors) in 2020 are 7% below those in 2005. Over the period, estimates indicate that Ireland is projected to cumulatively exceed its compliance obligations by approximately 12 million tonnes carbon dioxide equivalent (Mt CO₂ eq)¹.

While the period (2013-2020) has now ended, final emissions data and a compliance review by the European Commission is likely to take place next year.

The National Treasury Management Agency (NTMA), on instruction from the Department of the Environment, Climate and Communications, has purchased carbon units. This is part of the strategy to address the compliance gaps for the period. During the year 2021, the NTMA bought 1,425,716 Certified Emissions Reduction units (CERs)².

In 2021 there was also a requirement to surrender units. A total of 5,288,933 units were surrendered to meet Ireland's obligations under the EU ESD cycle for the year 2019.

The number of carbon credits held in the fund as at the end of 2021 was 3,621,708. It is expected that a number of these will be surrendered for compliance as part of the final cycle under the ESD for the year 2020.

Section 6 of the Carbon Fund Act 2007 states:

"As soon as may be, but not later than 6 months after the end of each financial year of the Agency, the Agency shall make a report to the Minister of its activities in relation to the performance during the year concerned of the functions delegated to it under this Act, and the Minister shall cause copies of the report to be laid before each House of the Oireachtas."

This report is the fifteenth report to the Minister for the Environment, Climate and Communications under the Carbon Fund Act, and covers the year ended 31 December 2021.

1 EPA: Ireland's Provisional Greenhouse Gas Emissions October 2021. Page 6
https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/Irelands-Provisional-Greenhouse-Gas-Emissions-report-1990-2020_finalv2.pdf

2 The Clean Development Mechanism (CDM) which is a carbon offsetting mechanism introduced in the Kyoto Protocol provides for the creation of Certified Emissions Reduction Units (CERs). For more information and greater detail of different types of carbon units and the Clean Development Mechanism please see:
"Carbon Fund Report 2007" <https://www.ntma.ie/publications/carbon-fund-annual-report-2007>;
and "Achievements of the CDM: Harnessing Incentive for Climate Action 2001-2018"
https://unfccc.int/sites/default/files/resource/UNFCCC_CDM_report_2018.pdf

Background

The Carbon Fund was established under the Carbon Fund Act 2007. The purpose was for the acquisition of Kyoto Units and any other such instruments or assets on behalf of the State. This was intended to meet international climate change obligations under the 1992 United Nations Framework Convention on Climate Change, the 1997 Kyoto Protocol to that Convention, and future agreements to which the state becomes bound. Units purchased in the fund are intended to supplement domestic mitigation action.

Management of the Fund was delegated to the NTMA. The NTMA was also designated as the purchasing agent for the acquisition of the necessary credits. Carbon credits are referred to in the legislation as Kyoto Units.

The NTMA continues to manage the Fund and purchase units as directed to meet Ireland's obligations under the EU Effort Sharing Decision.

Statement of Agency's Responsibilities

The National Treasury Management Agency (the "Agency") is required by the Carbon Fund Act 2007 (as amended) (the "Act") to prepare financial statements in respect of the operations of the Carbon Fund for each financial year.

In preparing those statements, the Agency:

- selects suitable accounting policies and then applies them consistently;
- makes judgements and estimates that are reasonable and prudent;
- prepares the financial statements on a going concern basis unless it is inappropriate to do so;
- discloses and explains any material departure from applicable accounting standards.

The Agency is responsible for keeping in such form as prescribed under Section 5 of the Act, all proper and usual accounts in relation to the performance by it of the functions delegated or granted to it under the Act. The Agency shall whenever requested to do so in accordance with the Act, provide such financial statements and such information in relation to such financial statements as is required under legislation.

The Agency is also responsible for safeguarding assets under its control and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.



Measuring Greenhouse Gas Emissions

Carbon Dioxide (CO₂) is the most common greenhouse gas (GHG) and a tonne of CO₂ is used as the common unit of measure. Carbon Units therefore are each equivalent to a tonne of CO₂. Emissions of other GHGs are measured as equivalents of carbon dioxide (CO₂e) in terms of their Global Warming Potential (GWP) over a 100-year period. By definition, CO₂ has the GWP of 1. See Table 1 for further details.

Table 1³

	GWP-100
Carbon dioxide (CO ₂)	1
Methane (CH ₄)	21
Nitrous Oxide (N ₂ O)	310
Hydrofluorocarbons (HFCs)	140 – 11,700
Perfluorocarbons (PFCs)	6,500 – 9,200
Sulphur Hexafluoride (SF ₆)	23,900

Carbon purchases for compliance with the Kyoto Protocol First Commitment Period (2008-2012)

Ireland's strategy to meet the carbon emission reduction requirements of the Kyoto Protocol involved a number of investments to deliver carbon units.

Multilateral Funds

Between 2006 and 2007 the Irish Government undertook investments in three multilateral funds.

These were:

- The Multilateral Carbon Credit Fund (MCCF)⁴ of the European Bank for Reconstruction and Development;
- The World Bank Carbon Fund for Europe (CFE)⁵;
- The World Bank BioCarbon Fund.⁶

These investments predate the Carbon Fund and the involvement of the NTMA and were managed directly by the Department of the Environment, Climate and Communications. However, the units received from the investments are held in the Carbon Fund. Units received⁷ from investments in multilateral funds were surrendered when the final transaction of the first commitment period took place in 2015 and those not surrendered were carried forward to the next period.

As of the end of 2021 there are no further commitments to be paid to the three multilateral funds. All three are now closed, with the World Bank BioCarbon Fund the most recent to close in 2021. On the closure of this fund, the World Bank returned the remaining money to the participants. Ireland received €415,114.97 in November 2021, which was returned to the Exchequer.

Direct Purchases

As mandated by the Government, the NTMA purchased 5,255,000 carbon units during 2008 and 2009. Following the decline in economic activity during the 2008 economic crisis and consequent reduction in carbon emissions the then Department of the Environment, Community and Local Government (now the Department of Environment, Climate and Communication) suspended the purchase programme in 2009. The unused credits, including those purchased by the NTMA were carried over. The intention was to use them towards Ireland's commitments in the period 2013-2020 under the ESD which is part of European Union's 2020 Climate and Energy Package⁸.

3 UNFCCC: <https://unfccc.int/process/transparency-and-reporting/greenhouse-gas-data/greenhouse-gas-data-unfccc/global-warming-potentials>.

4 The European Investment Bank partnered with the EBRD in managing the MCCF; Ireland's agreement was only with the EBRD. This fund is now closed.

5 The Carbon Fund for Europe was formally closed in April 2018.

6 The World Bank BioCarbon Fund was closed in 2021.

7 The Carbon units received from these funds were ERU, AAU and tCERs. For more information and greater detail of different types of carbon units please see:

"Carbon Fund Report 2007" <https://www.ntma.ie/publications/carbon-fund-annual-report-2007>.

8 For more information about previous commitment period see:

Chapter 9, Report on the Accounts of the Public Services 2018. Greenhouse gas related financial transaction. Office Of The Comptroller & Auditor General. <https://www.audit.gov.ie/en/Find-Report/Publications/2019/2018-Annual-Report-Chapter-9-Greenhouse-gas-related-financial-transactions.pdf>

Ireland's obligations under the 2020 EU Effort Sharing Decision

The European Union's 2020 Climate and Energy Package aimed, by binding legislation, to ensure the EU met its climate and energy targets for the year 2020. The package consisted of key EU-wide targets including a 20% cut in greenhouse gas emissions (from 1990 levels) and a 20% share of energy from renewable sources. While this period has ended, member states are given until after 2022 to submit final figures and surrender units if required.

There were two key parts to the Climate and Energy package to ensure the EU met these targets:

A. The European Union Emissions Trading System (EU ETS)

The industry emissions were covered by the European-wide "cap and trade" scheme for major polluters – the EU ETS. Under the system, 41% of the EU's GHG emissions were controlled in sectors including commercial aviation, aluminium production and extractive and chemical-intensive industries⁹. These bodies were given direct emissions targets and allowances to manage themselves. Over 100 Irish installations participate in the scheme.

B. The Effort-Sharing Decision (ESD) ¹⁰/National emission reduction targets

The 2009 Effort Sharing Decision established 2020 greenhouse gas emission targets for EU Member States including Ireland. Targets were for sectors not included in the EU ETS, such as transport, buildings, agriculture, and waste.

Ireland's target is a reduction of 20% of non-Emissions Trading System (non-ETS) sector emissions compared to 2005 levels, with annual binding limits set for each year over the period 2013-2020. This compares with an EU average reduction of 10%. Along with Denmark and Luxembourg, Ireland's target is the most demanding 2020 reduction target allocated to EU Member States under the ESD.

Table 2 describes the minimum targets for each country.

Table 2

Member State GHG emission limits in 2020 compared to 2005 GHG emissions levels

Denmark	-20%
Ireland	-20%
Luxembourg	-20%
Sweden	-17%
Netherlands	-16%
Austria	-16%
Finland	-16%
United Kingdom	-16%
Belgium	-15%
Germany	-14%
France	-14%
Italy	-13%
Spain	-10%
Cyprus	-5%
Greece	-4%
Portugal	1%
Slovenia	4%
Malta	5%
Czech Republic	9%
Hungary	10%
Estonia	11%
Slovakia	13%
Poland	14%
Lithuania	15%
Latvia	17%
Romania	19%
Bulgaria	20%

⁹ EU Emissions Trading System (EU ETS), European Commission website https://ec.europa.eu/clima/policies/ets_en

¹⁰ Effort sharing: Member States' emission targets, European Commission website https://ec.europa.eu/clima/policies/effort_en

Europe estimated to meet the overall emissions targets

The European Union is estimated to have met the overall targets for 2020. According to the European Environment Agency ('EEA')¹¹ since 1990 greenhouse gas emissions in the EU have been steadily declining. In 2020, emissions in the 27 EU member states were estimated to have fallen by approximately 30% below 1990 levels. This represents a substantial overachievement of the targeted 20% reduction.

These achievements vary by country, with 21 Member States expected to have reached emissions levels below their national target. The remaining countries (Bulgaria, Cyprus, Finland, Germany, Ireland and Malta) may need to make use of flexibilities to comply with their objectives.¹²

The Covid-19 Pandemic has reduced GHG emissions in 2020 but the achievement of the EU target also comes from sustained efforts over the previous decade.

Ireland's progress in meeting its emissions targets

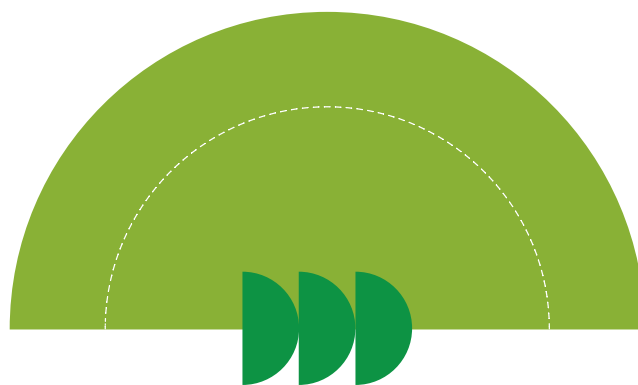
The Environmental Protection Agency (EPA) inventory and projections of greenhouse gas emissions indicate that Ireland will face compliance gaps in relation to its targets under the Effort Sharing Decision (ESD) for the period 2013-2020.

Early estimates of the impact of COVID restrictions on 2020 greenhouse gas emissions indicate a reduction of 3.6% in overall emissions and 2.8% in emissions covered by the ESD (primarily agriculture, transport, and residential sectors) compared to 2019 emissions. Emissions reductions have been recorded in 6 of the last 10 years.

Nevertheless, even with the impact of the pandemic taken into account, Ireland will miss the targets for 2020. ESD emissions are anticipated to be 7% below those in 2005 (against a target of 20% below 2005 levels) based on this provisional assessment¹³.

Emissions during this eight-year span have been characterized by two different intervals. During the period 2013 to 2015 greenhouse gas emissions were below the ESD targets. However, the EPA found that Ireland has exceeded its annual limits for five consecutive years from 2016 to 2020. 2020 estimates indicate an annual deficit of 6.7 Mt CO₂ eq¹⁴.

Over the 2013-2020 period preliminary estimates indicate that Ireland is projected to cumulatively exceed its compliance obligations by 12 million tonnes carbon dioxide equivalent (Mt CO₂ eq).



11 European Environment Agency: Trends and Projections in Europe 2021. October 2021

<https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2021>

12 European Environment Agency: Trends and Projections in Europe 2021. October 2021

<https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2021>

13 EPA: Ireland's Provisional Greenhouse Gas Emissions 1990-2020. October 2021.

https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/Irelands-Provisional-Greenhouse-Gas-Emissions-report-1990-2020_finalv2.pdf

14 EPA: Ireland's Provisional Greenhouse Gas Emissions 1990-2020. October 2021.

https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/Irelands-Provisional-Greenhouse-Gas-Emissions-report-1990-2020_finalv2.pdf

Table 3 Ireland ESD greenhouse gas emissions and targets 2013-2020

Emissions and Targets (Mt CO ₂ eq)	2013	2014	2015	2016	2017	2018	2019 (Provisional)	2020
Total Non-ETS emissions	42.2	41.7	43.0	43.8	43.8	45.4	45.7	44.4
Effort sharing decision targets	46.9	45.8	44.6	43.5	40.9	39.8	38.7	37.7
Distance to target	-4.7	-4.1	-1.6	0.3	2.9	5.6	6.9	6.7
Cumulative Distance to Target (Mt CO₂ eq)	-4.7	-8.8	-10.4	-10.1	-7.1	-1.6	5.3	12.0

Note: 2013 to 2019 data has been reviewed, and compliance agreed, by the European Commission. 2020 is a provisional figure.

Source: SEAI and EPA

Even though the period (2013-2020) has now ended, final emissions data and compliance review by the European Commission is likely to take place after 2022¹⁵. The final surrender for ESD compliance of carbon units held in the Carbon Fund is expected to take place when this is concluded.

Effort Sharing Regulation (2021-2030)

The State's targets under the ESD finished in 2020, at which point they are followed up by the Effort Sharing Regulation. The Effort Sharing Regulation, adopted in May 2018, sets out binding annual greenhouse gas emissions targets for Member States for the period 2021-2030 inclusive.

The regulation sets a binding economy-wide emission reductions target of at least 40% by 2030 compared to 1990. Specified sectors of the economy not covered by the EU ETS must reduce emissions by 30% by 2030 compared to 2005 as their contribution to the overall target. Each member state has its own individual target. Ireland's current target for greenhouse gas emission is for a 30% reduction by 2030 in relation to 2005 levels.

On 14 July 2021, the European Commission adopted a series of legislative proposals setting out how it intends to achieve climate neutrality in the EU by 2050, including the intermediate target of an at least 55% net reduction in greenhouse gas emissions by 2030, relative to 1990 levels. The package proposes to revise several pieces of EU climate legislation, including

the EU ETS, Effort Sharing Regulation, transport and land use legislation, setting out the ways in which the Commission intends to reach EU climate targets under the European Green Deal.¹⁶

2021 Purchases and Disposals

In November 2019 the Minister for Communications, Climate Action and Environment instructed the NTMA to reactivate the carbon credit purchasing programme to purchase units in addition to those already held.

During the calendar year 2020, the NTMA bought a total of 1,117,466 Certified Emissions Reduction units (CERs). A further 1,425,716 units were purchased in 2021.

There was also a requirement to surrender units in 2021. A total of 5,288,933 CER units were surrendered to meet Ireland's obligations under the EU Effort Sharing Decision (ESD) cycle for the year 2019.

The number of carbon credits held in the fund as at the end of 2021 was 3,621,708. It is expected that a number of these will be surrendered for compliance as part of the final cycle for under the ESD for the year 2020.

¹⁵ Implementation of the Effort Sharing Decision.
https://ec.europa.eu/clima/policies/effort/implementation_en

¹⁶ European Commission: Effort Sharing 2021-2030.
https://ec.europa.eu/clima/eu-action/effort-sharing-member-states-emission-targets/effort-sharing-2021-2030-targets-and-flexibilities_en

Financial Statements

of the Carbon Fund
For the year ended 31 December 2021

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Statement on Internal Control

The National Treasury Management Agency (the "Agency") is the manager of the Carbon Fund (the "Fund"). The Agency's system of internal control is set out below.

Scope of Responsibility

On behalf of the National Treasury Management Agency ("the Agency") we acknowledge the Agency's responsibility for ensuring that an effective system of internal control is maintained and operated. This responsibility takes account of the requirements of the Code of Practice for the Governance of State Bodies (2016).

Purpose of the System of Internal Control

The system of internal control is designed to manage risk to a tolerable level rather than to eliminate it. The system can therefore only provide reasonable and not absolute assurance that assets are safeguarded, transactions authorised and properly recorded and that material errors or irregularities are either prevented or detected in a timely way.

The system of internal control, which accords with guidance issued by the Department of Public Expenditure and Reform has been in place in the Agency for the year ended 31 December 2021 and up to the date of approval of the financial statements.

Capacity to Handle Risk

The Agency has a formal risk management and governance framework in place, designed to support the proactive management of risk. The Agency's Risk Management Policy and Framework and Risk Appetite Framework, together set out its risk appetite, its risk management structures and processes and details the roles and responsibilities of staff in relation to risk. The Agency has ultimate oversight and accountability in relation to risk management and provides direction by approving the Risk Management Policy and Framework and the Risk Appetite Framework. Thereafter the Agency assures itself on an on-going basis that executive management is responding appropriately to risks and it is assisted in this regard by the Audit and Risk Committee (ARC), which monitors adherence to

risk governance and risk appetite and ensures risks are properly identified, assessed, managed and reported.

In 2021, the ARC comprised four Agency members, with financial and audit expertise, one of whom is the Chair. The Committee met formally nine times in 2021.

An executive-level Enterprise Risk Management Committee ("ERMC") oversees the effective management of risk and compliance by reviewing and/or approving key risk frameworks and policies, monitoring the organisation's risks and controls and monitoring the overall risk profile and strategic risks.

The Risk Management Policy and Framework and Risk Appetite Framework which were updated in 2021 were published and communicated to all staff who are expected to comply with the requirements therein. The embedding of risk management was supported by a programme of risk training and awareness in the reporting period.

Risk and Control Framework

The Agency's Risk Management Policy and Framework, supported by the Risk Appetite Framework, provides the methodology and processes, by which key risks are identified, assessed, managed, monitored and reported and are supported by a suite of risk management policies.

Individual business units and corporate functions maintain risk registers in which their key risks and controls are recorded and responsibility for operation of the controls assigned. These registers are reviewed twice yearly by the respective business units and corporate functions and the controls therein are attested by the control owners. Risk registers were reviewed by the appropriate risk committees during the reporting period.

The ARC also conducted a review of the Agency's principal risks in the reporting period, based on a top-down risk assessment exercise conducted by the ERMC which was supported by a bottom-up exercise by the business units and corporate functions.

The Agency has an established control environment, as part of which:

- Authority and financial responsibilities are delegated by the Agency Chief Executive to Agency management and staff through the use of delegated authorities which define their authority and financial responsibilities to act on behalf of the Agency.
- It has developed policies and procedures in respect of the management of the key aspects of its activities. These policies and procedures are reviewed by their business owners and updated to align with business processes.
- It has an appropriate financial and budget management system, incorporating accounts payable controls as well as regular reporting of the Agency's costs and monitoring of costs against budget to the Executive Management Team.
- It has an established financial reporting framework to support its external and statutory reporting obligations in respect of its businesses.
- It has established systems, procedures and controls in place to manage and safeguard its business assets including property, equipment and vehicle assets.
- It takes all reasonable measures considered necessary to protect information and systems including the confidentiality, integrity and authenticity of the information stored on Agency systems and to minimise so far as practicable the risk of unauthorised access to information from both internal and external sources. This protection is achieved through the application of recognised standards, policies and controls.
- It has established third party risk policy and procedures to assess and manage risks posed by third parties including the monitoring and oversight of critical third party service providers.
- It has an established Cyber Security Framework to facilitate identification, assessment, and management of the cyber risks that the Agency may be exposed to. Regular Staff Awareness Training on cyber risks is also in place for all Agency staff.

- It has a business continuity framework with a view to ensuring the Agency is able to manage disruptive scenarios, provide contingency premises, recover key systems and maintain as far as possible the continuity of critical operations, and resume normal business operations in a timely manner.

Covid-19

As a result of the Covid-19 pandemic the NTMA continued operating within a predominantly remote-working environment during 2021 (in line with similar organisations and government guidelines), with related changes to processes and controls implemented and documented as required to facilitate this change. NTMA Business Units and Corporate Functions have continued to consider any material changes to the risk and control environment and to key business processes arising from the impact of Covid-19 as part of the semi-annual risk and control self-assessment process. The impact of Covid-19 and the remote working environment was also considered in the 2021 NTMA Strategic Risk Assessment. The key internal controls, both existing and those introduced in response to the Covid-19 pandemic, continue to be effective.

On-going Monitoring and Review

The Agency has established processes for the on-going monitoring and review of the effectiveness of controls which are carried out through its three lines of-defence model which includes:

- The first line, comprising the Agency's business units and corporate functions, owns the risks associated with business activities and are primarily responsible for managing those risks on a day-to-day basis. This includes implementing and monitoring adherence to the Agency's risk management policies and risk appetite, conducting risk and control self-assessments, managing operational events and implementing appropriate responses. They provide reports for the Agency's risk governance committees on their risks and controls and operational events.

Statement on Internal Control (continued)

- The second line comprises the Agency's Risk and Compliance functions and is independent of the first line management and operations. The Risk function oversees compliance with risk management policies across the Agency, provides independent review and challenge to the first line, and provides risk reports and information to the various risk governance committees. The Compliance function and Data Protection Officer promote compliance and personal data protection awareness through training, codes of conduct and relevant policies. They provide compliance and personal data protection support, advice and independent challenge to first line management and submit regular reports to the ERM and ARC.
- Internal Audit is a third line of defence, providing independent risk-based assurance to key stakeholders on the robustness of the Agency's governance, risk management system and the design and operating effectiveness of the internal control environment under a planned programme of work approved by the ARC. The internal auditor provides regular reporting to the ARC on the status of the internal control environment in the context of reviews undertaken and the status of internal audit issues raised previously.

Procurement

The Agency has an established Procurement Policy (published on its website) and a Procurement Procedure. The Agency's procurement practices are in accordance with the aforementioned documents. A corporate procurement plan, based on the template published in the Office of Government Procurement Policy framework document, is in place and is being implemented. The corporate procurement plan is updated annually.

The Agency's Procurement Policy and Procurement Procedure are reviewed on an on-going basis and are updated as required.

Annual Review of Effectiveness

We confirm that the National Treasury Management Agency has procedures to monitor the effectiveness of its risk management and control procedures. The National Treasury Management Agency's monitoring and review of the effectiveness of the system of internal control is informed by the work of the internal and external auditors, the Audit and Risk Committee which oversees their work, and the senior management within the National Treasury Management Agency responsible for the development and maintenance of the internal financial control framework.

We confirm that the Agency conducted an annual review of the effectiveness of the internal controls for 2021.

No weaknesses in internal control in respect of the Carbon Fund were identified in relation to 2021 that require disclosure in the financial statements.

On behalf of the Agency members



Maeve Carton, Chairperson

National Treasury Management Agency



Gerardine Jones, Chairperson

Audit and Risk Committee

National Treasury Management Agency

3 May 2022

Comptroller and Auditor General

Report for presentation to the House of the Oireachtas



Ard Reachtaire Cuntas agus Ciste Comptroller and Auditor General

Report for presentation to the Houses of the Oireachtas

Carbon Fund

Opinion on the financial statements

I have audited the financial statements of the Carbon Fund prepared by the National Treasury Management Agency (the Agency) for the year ended 31 December 2021 as required under the provisions of section 5 of the Carbon Fund Act 2007. The financial statements comprise the statement of financial position, the fund account and the related notes, including a summary of significant accounting policies.

In my opinion, the financial statements properly present

- the balance of the Fund at 31 December 2021, and
- the transactions of the Fund for 2021.

Basis of opinion

I conducted my audit of the financial statements in accordance with the International Standards on Auditing (ISAs) as promulgated by the International Organisation of Supreme Audit Institutions. My responsibilities under those standards are described in the appendix to this report. I am independent of the Agency and have fulfilled my other ethical responsibilities in accordance with the standards.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Report on information other than the financial statements, and on other matters

The Agency has presented certain other information together with the financial statements. This comprises the annual report (including the statement of the Agency's responsibilities) and the statement on internal control. My responsibilities to report in relation to such information, and on certain other matters upon which I report by exception, are described in the appendix to this report.

I have nothing to report in that regard.

Seamus McCarthy
Comptroller and Auditor General

16 May 2022

Comptroller and Auditor General (continued)

Appendix to the report

Responsibilities of the National Treasury Management Agency

As detailed in the statement of the Agency's responsibilities, the Agency members are responsible for

- the preparation of annual financial statements in the form prescribed under section 5 of the Carbon Fund Act 2007
- ensuring that the financial statements properly present the Fund's affairs at year-end and the transactions in the year
- ensuring the regularity of transactions
- assessing whether the use of the going concern basis of accounting is appropriate, and
- such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Responsibilities of the Comptroller and Auditor General

I am required under section 5 of the Carbon Fund Act 2007 to audit the financial statements of the Carbon Fund and to report thereon to the Houses of the Oireachtas.

My objective in carrying out the audit is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement due to fraud or error. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with the ISAs, I exercise professional judgment and maintain professional scepticism throughout the audit. In doing so,

- I identify and assess the risks of material misstatement of the financial statements whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- I obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal controls.
- I evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures.
- I conclude on the appropriateness of the use of the going concern basis of accounting and, based on the audit

evidence obtained, on whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Fund's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my report. However, future events or conditions may cause the Fund to cease to continue as a going concern.

- I evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I report by exception if, in my opinion,

- I have not received all the information and explanations I required for my audit, or
- the accounting records were not sufficient to permit the financial statements to be readily and properly audited, or
- the financial statements are not in agreement with the accounting records.

Information other than the financial statements

My opinion on the financial statements does not cover the other information presented with those statements, and I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, I am required under the ISAs to read the other information presented and, in doing so, consider whether the other information is materially inconsistent with the financial statements or with knowledge obtained during the audit, or if it otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact.

Reporting on other matters

My audit is conducted by reference to the special considerations which attach to State bodies in relation to their management and operation. I report if I identify material matters relating to the manner in which public business has been conducted.

I seek to obtain evidence about the regularity of financial transactions in the course of audit. I report if I identify any material instance where public money has not been applied for the purposes intended or where transactions did not conform to the authorities governing them.

Statement of Financial Position

as at 31 December 2021

	Note	2021 €000	2020 €000
Carbon Fund assets	4	2,104	92,439
Receivables	5	415	266
Other liabilities	6	(415)	(266)
Net assets of Fund		2,104	92,439

The accompanying notes form an integral part of the financial statements.

On behalf of the Agency



Conor O'Kelly, Chief Executive
National Treasury Management Agency



Maeve Carton, Chairperson
National Treasury Management Agency

3 May 2022

Fund Account

For the year ended 31 December 2021

	Note	2021 €000	2020 €000
Income	7	1,528	463
Disposal and derecognition of fund assets	8	(91,863)	-
Movement in Fund during the year		(90,335)	463
Net assets at 1 January		92,439	91,976
Net assets at 31 December		2,104	92,439

The accompanying notes form an integral part of the financial statements.

On behalf of the Agency



Conor O'Kelly, Chief Executive
National Treasury Management Agency



Maeve Carton, Chairperson
National Treasury Management Agency

3 May 2022

Notes to the Financial Statements

1. Background

The Carbon Fund was established under the Carbon Fund Act 2007 for the acquisition of Kyoto Units¹⁷ and any other such instruments or assets on behalf of the State to meet international climate change obligations under the 1992 United Nations Framework Convention on Climate Change, the 1997 Kyoto Protocol to that Convention and future agreements to which the State becomes bound. The National Treasury Management Agency (the "Agency") has been designated as the purchasing agent on behalf of the State and administers and manages purchases of Kyoto Units.

The Agency may use the following mechanisms to purchase Kyoto Units:

- direct purchase of Kyoto Units from other Kyoto Protocol parties
- direct investment in Joint Implementation and Clean Development Mechanism projects
- investment in managed funds
- direct market purchases of Kyoto Units
- or a combination of some or all of these.

Any surplus Kyoto Units held by the State at the end of the 2008-2012 commitment period can be used in a subsequent commitment period of the Kyoto Protocol or any successor treaty. The final accounting transactions for the first commitment period of the Kyoto Protocol (2008-2012) were carried out in 2015. The unused credits were carried over with the intention to use them to meet Ireland's 2020 commitments under the EU Effort Sharing Decision ("ESD") which is part of the European Union's 2020 Climate and Energy Package. The State's obligations under the ESD finished in 2020, at which point it will be followed up by the Effort Sharing Regulation. This Regulation, which was adopted in May 2018, sets out binding annual greenhouse gas emission targets for Member States for the period 2021–2030 inclusive.

The functions of the Minister for Finance under the Carbon Fund Act 2007 were transferred to the Minister for Public Expenditure and Reform on 29 July 2011. The functions of the Minister for the Environment, Community and Local Government under the Carbon Fund Act 2007 were transferred to the Minister for Communications, Climate Action and Environment on 22 July 2016, which became the Department of Environment, Climate and Communications in 2020.

2. Basis of Preparation

The financial statements have been prepared in accordance with section 5(1)(a) of the Carbon Fund Act 2007 in a format that was approved by the Minister for the Environment, Heritage and Local Government, with the consent of the Minister for Finance. Transactions are recognised using the cash basis of accounting as adjusted for accruals for amounts due and from Government entities. The reporting currency is the euro which is denoted by the symbol €. Where used, €m denotes million.

¹⁷ A Kyoto Unit is defined in the Carbon Fund Act 2007 as "a unit, equivalent to one metric tonne of carbon dioxide, issued pursuant to the Kyoto Protocol and the decisions adopted pursuant to the Convention and the Kyoto Protocol". Kyoto Units are generally referred to as carbon credits. The legislation allows for the disposal of Kyoto Units only with the consent of the Minister for Environment, Climate and Communications and the Minister for Public Expenditure and Reform and on such terms as they may specify.

Notes to the Financial Statements (continued)

3. Accounting Policies

3.1 Carbon Fund Assets

Carbon Fund assets represent investments in the following:

Direct Holdings

Kyoto Units purchased are recorded on delivery at cost of acquisition. The cost of acquisition includes Value Added Tax paid and payable in respect of the purchase of the Kyoto Units.

Indirect Kyoto Units

Investments in indirect units are made in managed funds. Investments in these funds are recorded at investment cost. Such investments relate to carbon reducing projects that may or may not produce Kyoto Units. The total number of units, if any, will not be known until a future date when the projects are complete.

The Minister for the Environment, Heritage and Local Government invested €20 million in 2006 in a Multilateral Carbon Credit Fund established by the European Bank for Reconstruction and Development. That investment does not form part of the Fund but the units produced by projects undertaken are included herein as explained in Note 4(d).

3.2 Fund Account

The Fund Account records the accumulated income received or receivable from the relevant Department. Investments are funded initially through repayable advances from the Central Fund under section 3 of the Carbon Fund Act 2007 pending receipt of this income.

3.3 Foreign Currencies

All transactions in foreign currencies are translated into euro at the rates of exchange prevailing at the date of such transactions. Unfunded commitments to non-euro investments are translated into euro using the foreign exchange rates prevailing at the year end date.

3.4 Taxation

The income and profits of the Carbon Fund are exempt from Irish corporation tax. The purchases of Kyoto Units by the Carbon Fund are liable to Value Added Tax as such transactions are regarded as a supply of a service, as defined by Section 25(1) of the Value-Added Tax Consolidation Act 2010. VAT incurred is included in the cost of acquisition of the Carbon Fund assets.

3.5 Asset Surrender/Carry Over to Next Commitment Period

Direct holdings of Kyoto units are surrendered using the first in first out method (FIFO) in which assets purchased or acquired first are disposed of first at the date of surrender.

The indirect holdings fund was closed in 2021. As the assets holdings received from the fund will be surrendered at zero value, we have recognised this and valued the indirect holding accordingly.

Direct and indirect Kyoto units are carried over at cost from the first commitment period of the Kyoto Protocol (2008 – 2012) to meet Ireland's commitments under the European Union's 2020 Climate and Energy Package.

4. Carbon Fund Assets

(a) Summary of Assets

	2021	2020
	€000	€000
Direct Holdings	2,104	90,803
Indirect Holdings	-	1,636
	2,104	92,439

(b) Analysis by Currency of Acquisition

	2021	2020
	€000	€000
Euro	2,104	90,803
US dollar	-	1,636
	2,104	92,439

(c) Indirect Holdings

	2021	2020
	€000	€000
World Bank – Bio Carbon Fund	-	1,636

Direct and indirect holdings are carried at cost which is the initial cost of acquisition inclusive of Value Added Tax.

The Agency administers payments on behalf of the Minister for the Environment, Climate and Communications in respect of the World Bank Fund which closed in 2021. Investments in this fund relate to projects which may yield Kyoto Units but the total number of units will not be known until a future date when the projects complete. At 31 December 2021, there were no uncalled commitments in respect of these investments.

(d) Credits Delivered and Held

The number of carbon credits delivered and held with the Union Registry of the European Commission at 31 December:

	2021	2020
Purchased Directly	2,909,825	6,773,042
Acquired via Indirect Holdings	711,883	711,883
	3,621,708	7,484,925

At 31 December 2021, 30,795 units (2020: 30,795) of the 3,621,708 units (2020: 7,484,925) relate to credits acquired through investments made by the Department of the Environment, Climate and Communications prior to the establishment of the Carbon Fund (Note 3.1). Movement in direct holdings represent direct purchases/surrender of units in the period. Movement in indirect holdings represent units received/surrendered for investments in funds in prior periods.

Notes to the Financial Statements (continued)

5. Receivables

	2021 €000	2020 €000
Receivable from the Department of the Environment, Climate and Communications	415	266

The amounts owed to the Carbon Fund are due under Section 3(4) of the Carbon Fund Act 2007 from the Department of the Environment, Climate and Communications.

6. Other Liabilities

	2021 €000	2020 €000
Amounts owed to the Central Fund	415	220
Amounts owed to the NTMA	-	46
	415	266

Other liabilities will be repaid to the Central Fund and the NTMA when the Carbon Fund receives funds from the Department of the Environment, Climate and Communications.

7. Income

	2021 €000	2020 €000
Income from Department of the Environment, Climate and Communications	1,528	463

8. Disposal and derecognition of fund assets

	2021 €000	2020 €000
Direct holdings credit surrender	(90,227)	-
World Bank Bio Carbon fund closure	(1,636)	-
	(91,863)	-

During 2021 the Carbon Fund surrendered 5,288,933 units to meet Ireland's obligations under the EU Effort Sharing Decision (ESD) cycle for the year 2019. No monetary proceeds were received for this credit surrender.

The World Bank Bio Carbon Fund closed in 2021 resulting in the derecognition of this investment for proceeds of €415,115.

9. Operating Expenses

Operating expenses of the Carbon Fund, where incurred, are charged to the Agency's Administration Account and are paid out of the Central Fund. This charge in 2021 is €nil (2020: €nil).

10. Contingent Liabilities

The Carbon Fund had no contingent liabilities at 31 December 2021.

11. Events after the reporting period

No events requiring adjustment or disclosure occurred after the end of the reporting period.

12. Related Parties

(a) Minister for Public Expenditure and Reform

Under Section 3 of the Carbon Fund Act 2007, the Minister for Public Expenditure and Reform may advance monies to the Carbon Fund from the Central Fund which are reimbursed by the Carbon Fund out of monies made available by the Minister for Environment, Climate and Communications.

(b) Minister for Environment, Climate and Communications

Under Section 2(3) of the Carbon Fund Act 2007, the Minister for Environment, Climate and Communications manages and controls the Carbon Fund.

Under Section 2(4) of the Carbon Fund Act 2007, the management of the Carbon Fund is delegated to the Agency.

Under Section 8 of the Carbon Fund Act 2007, the Minister for Environment, Climate and Communications, following consultation with the Minister for Public Expenditure and Reform, may give directions or guidelines to the Agency in relation to the performance by it of the functions delegated or granted to it under the Act.

(c) National Treasury Management Agency

Under Section 2(4) of the Carbon Fund Act 2007, the management of the Carbon Fund is delegated to the Agency.

Under Section 8 of the Carbon Fund Act 2007, the Minister for Environment, Climate and Communications, following consultation with the Minister for Public Expenditure and Reform, may give directions or guidelines to the Agency in relation to the performance by it of the functions delegated or granted to it under the Act.

13. Approval of Financial Statements

The financial statements were approved by the Agency on 3 May 2022.



Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

Treasury Dock,
North Wall Quay,
Dublin 1, D01 A9T8

T +353 1 238 4000
E info@ntma.ie
www.ntma.ie