



Step 01 - Understand Your Context

What is Climate Change Mitigation Reporting?

Introduction

This document aims to clarify climate change mitigation reporting and provides a brief overview of the elements you may want to consider when reporting. It will help you answer the questions:

- What should my organisation consider when developing a mitigation action plan?
- How can I ensure I include all relevant elements of a mitigation action plan and ensure it is fit for purpose?
- Annex 1 provides an explainer on Territorial vs Consumption Emissions.

What is Climate Change Mitigation Reporting?

Mitigation Reporting is the collection and analysis of yearly greenhouse gas emissions (GHGs) data by an organisation. This involves establishing a ‘baseline year’ for emissions, against which subsequent yearly emissions data are compared, with the goal of achieving a steady, incremental reduction in GHG emissions towards the target set by your organisation.

Mitigation Reporting typically includes:

- creating an emissions statement identifying sources and levels of greenhouse gas emissions, based on an organisational GHG Inventory;
- creating an emissions reduction plan – stating actions the organisation will take to reduce their emissions; and
- providing progress updates on implementing actions, commitments, and plans set out in previous emissions reduction plans.

Establish strong governance structures

It is important that climate change is considered at all levels when decisions are being made for an organisation. This can be achieved in a number of ways, for example:

- senior level engagement on the working group who attend regular meetings and review the plans and progress towards reducing emissions;
- include climate change and the Mitigation Action Plan as a standing agenda item at decision making meetings, minuting how emissions reductions have been considered;

- appointing a person or team with responsibility for ensuring climate change and the Mitigation Action Plan are being considered across departments in the organisation;
- a communication and engagement plan to ensure employees at all levels of the organisation can contribute and take ownership of actions to reach the organisational mitigation target.

Principles of Greenhouse Gas Reporting

The Net Zero NI toolkit aims to provide a consistent and robust approach to producing Mitigation Action Plans for organisations in Northern Ireland. This Toolkit also aims to align with – and endorses the use of – internationally recognised standards from:

- [The World Resources Institute Mitigation Goal Standard](#)
- [World Business Council for Sustainable Development](#)
- [The Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard](#)

Table 1: Five Principles of Greenhouse Gas Reporting

Principle name	Description
Relevance	The data collected and reported should reflect the activities of the reporting organisation and should be directly useful for measuring and progressing towards meeting organisational targets.
Completeness	Reporting should provide a complete, accurate and consistent account of emissions within your defined boundary. Document any exclusions where activity data is not available.
Consistency	Use consistent methodologies to allow for meaningful comparisons of emissions over time. Transparently document any changes to the data, boundary, methods, or any other relevant factors in the time-period you are reporting on.
Transparency	Reporting needs to clearly state the boundary, methods, data sources, uncertainty, and assumptions used for emissions and removals. Maintain clear documentation on these elements.
Accuracy	Organisations should aim to reduce uncertainty in reported emissions data and improve the accuracy of reporting where possible.

What should be included in the Mitigation element of your Climate Action Plan?

The mitigation content of your Climate Action Plan will depend partly on the context of your organisation. Below are some of the main points typically covered in the Mitigation elements of a Climate Action Plan, however this is not an exhaustive list.

Boundary of your report

The first step in mitigation reporting is for an organisation to define its reporting boundary. A reporting boundary identifies the entities, assets, and operations to be included in a reporting organisation’s greenhouse gas emissions inventory, accounting and reporting. It consists of both the ‘organisational’ and ‘operational’ boundaries.

Once a reporting boundary has been set, the next step for an organisation is to identify and collect emissions data from all sources within that boundary. In Step 2 of the Net Zero NI Toolkit, you will define these boundaries.

Reporting Timescale

Frequency of mitigation reporting can vary, however typically, organisations collect and account for their GHG emissions on a yearly basis.

Baseline Year

Setting a baseline year for GHG emissions and sources provides you with a reference point against which you can report your future emissions, to track trends and progress. Your baseline year should be representative, reliable and include verifiable emissions data where possible.

If choosing a baseline year, it is best practice to choose a recent year and avoid choosing a year with unusually high or low emissions. For example, the years within the COVID-19 pandemic period should be avoided, as they are likely to show emissions that are different to your average.

Greenhouse Gas Inventory

This is the name given to the data gathered that represents the emissions from your operations, including sources and the associated quantified emissions under Scope 1, 2 and 3 (emissions Scoping is explained in Step 2 of the Toolkit under 'Setting the boundary of your Mitigation Plan').

In most cases, a reporting organisation will not directly measure each GHG emitted from its activities. Instead, it will collect and record the 'activity data' associated with its activities that generate GHG emissions. The activity data is converted to emissions data using conversion factors. Calculated as equivalent to carbon dioxide and reported as CO₂e; this helps to account for the full range of GHGs. The calculation that is used is as follows:

$$\text{Activity Data} \times \text{Emission Conversion Factor} = \text{kgCO}_2\text{e emissions}$$

Typically, this data is then converted to tonnes of CO₂e (tCO₂e) for consistent reporting and accounting.

For example, estimating CO₂ emissions from the use of electricity on your organisation's site would involve; gathering your electricity consumption data in kilowatt-hours (kWh) from utility invoices of the reporting period (i.e. the Activity Data) and multiplying it by [the current year's emission factor](#) (i.e. the Emission Conversion Factor) for UK grid electricity. The resulting number will be your emissions in kilograms (kgCO₂e), which you divide by 1000 for the equivalent in tonnes (tCO₂e).

Emissions Conversion Factors

In the UK each year, the Department for Energy Security and Net Zero (DESNZ) publish emission conversion factors which can be used to report on GHG emissions. The UK Government GHG Conversion Factors for Company Reporting is a standard set of factors used by all UK organisations and therefore allows for consistency across reporting. These conversion factors mainly cover energy, travel, water and waste management emissions-releasing activities. These factors are usually published in June.

DESNZ/DBEIS: [Conversion factors for company reporting of GHG emissions](#)

Sometimes the DESNZ emission conversion factors may not include a suitable activity type or conversion factor for an organisation's emissions data. In these cases, the organisation may use other reliable sources to find an appropriate emission conversion factor. However, alternative factors should only be used if there is no suitable DESNZ emission conversion factor available.

Mitigation Action Plan

Organisations need to consider how, and in what order, to reduce their emissions and what actions they can take. The Action Plan is a set of actions, proposals, and policies for reducing emissions in your organisation. This should include a timescale for implementing these actions. This part of the Mitigation Reporting process is covered more comprehensively in Step 3 of the Net Zero NI toolkit, where you will use the information you are gathered at this stage in identifying priority actions to reduce your emissions.

You may wish to follow best practice in setting a science-based target which aligns with the ultimate target set-out in the Climate Change Act (Northern Ireland) 2022 of Net Zero by 2050. If you are undertaking both Mitigation and Adaptation actions, you can undertake your Mitigation Action Plan in close alignment with NIAdapts Step 3.

Progress

Action plans should contain monitoring and evaluation mechanisms to monitor progress in reducing emissions and implementing the actions and plans. Organisations should also make a commitment to review and update the plan as necessary.

Following implementation, regular monitoring and meticulous review are essential to gauge efficacy and ensure the plan's continued success. Analysing your progress will help you define the metrics of success and assess progress towards those benchmarks.

It is also important during this process to identify supplementary information, actions, or resources that could bolster progress, and pinpoint obstacles hindering advancement. With each iteration of your net zero plan, integrating enhancements will streamline the process and amplify the impact of your actions.

Appendix 1: Territorial vs Consumption Emissions

UK greenhouse gas (GHG) emissions are measured in three ways. As you begin your mitigation reporting process, it would be useful to understand the distinctions between these three types of reporting and how they apply to your organisation.

Territorial Emissions

Territorial accounting account for emissions only in the geographical area where they are physically emitted. This measure is used to track progress on UK-wide emissions targets and are published by the Department for Energy Security and Net Zero (DESNZ). These estimates include emissions produced within the UK's geographical borders.

For example, the emissions involved in the manufacture of a vehicle in France would be accounted for in France's GHG inventory. If that vehicle was then sold and driven in Northern Ireland, the emissions associated with the fuel combustion while driving it would be accounted for in the Northern Ireland GHG inventory, as those emissions physically occur within Northern Ireland.

Residence Emissions

Residence emissions, or 'production' emissions, measure the greenhouse gas emissions associated with activities by UK residents and resident-owned businesses, whether they happen in the UK or overseas. Unlike territorial accounting, which only counts emissions within a specific geographical boundary, residence accounting includes emissions from UK residents and UK-registered entities both at home and abroad.

An important use of this measure is that it enables direct comparison of emissions by sector of UK industry with main economic indicators, published by the Office for National Statistics as part of the UK's Environmental Accounts. This measure covers Scope 1, which means direct emissions from owned or directly controlled sources.

Consumption/Footprint Emissions

Consumption (or Footprint) emissions includes GHG emissions based on what an organisation consumes, rather than where emissions physically occur. Under this approach, emissions embodied in imported goods and services are included. Emissions embodied in exports are excluded, as responsibility is assigned to the final consumer.

For sub-national governments and organisations, this approach is typically applied through value chain or supply chain accounting, capturing emissions associated with purchased goods and services, contracted activities, capital projects, and other expenditure-driven activities in addition to direct operational emissions. This is the "widest" measure of UK emissions.

Appendix 2 Additional Resources:

ONS: [Measuring UK greenhouse gas emissions. Summary of the three measures of UK greenhouse gas \(GHG\) emissions](#) (territorial, residence and footprint)

DAERA: [Northern Ireland Greenhouse Gas Inventory](#) (Territorial)

DESNZ: [UK local authority and regional greenhouse gas emissions statistics](#) (Territorial)

ONS: [Measuring UK greenhouse gas emissions - Office for National Statistics](#) (Residence)

[The World Resources Institute Mitigation Goal Standard](#)

[World Business Council for Sustainable Development](#)

[The Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard](#)

DESNZ/DBEIS: [Government conversion factors for company reporting of greenhouse gas emissions](#)

References

Greenhouse Gas Protocol. 2015. *The GHG Protocol Corporate Accounting and Reporting Standard*. <https://ghgprotocol.org/corporate-standard>

DESNZ. 2024. *Government conversion factors for company reporting of greenhouse gas emissions*. <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

Greenhouse Gas Protocol. 2024. *Homepage*. <https://ghgprotocol.org/>

ONS. 2024. *Summary of the three measures of UK greenhouse gas (GHG) emissions: territorial, residence and footprint*. <https://www.ons.gov.uk/economy/environmentalaccounts/methodologies/measuringukgreenhousegasemissions>

DAERA. 2024. *Northern Ireland greenhouse gas inventory*. <https://www.daera-ni.gov.uk/articles/northern-ireland-greenhouse-gas-inventory#toc-0>

DESNZ & DBEI. 2022. *UK local authority and regional greenhouse gas emissions statistics*. <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>