

# APPENDIX A

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## Scientific & Policy Context to the Local Authority Climate Action Plan

# Appendix A Scientific & Policy Context

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## Introduction

This appendix accompanies the draft Cavan County Council climate action plan 2024-2029. This appendix set out the scientific and policy context to the development of the plan in line with global, EU and national obligations.

The climate action plan sets out how the local authority can promote a range of mitigation, adaptation and other climate action measures, to help deliver on the national climate obligations and the Government's overall National Climate Objective, which seeks to; pursue and achieve, by no later than the end of 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy.

The national climate objective is set out in the [Climate Action and Low Carbon Development \(Amendment\) Act 2021](#), which also frames Ireland's legally binding climate ambition, to delivering a reduction in greenhouse gas emissions of 51% by 2030. This will place the country on a trajectory to achieving climate neutrality by the end of 2050. In preparing the Draft plan, the Council has also taken account of other relevant climate legislation and policy, a climate change risk assessment and a climate mitigation baseline assessment, at the County scale, which inform and accompany this draft Plan.

The Climate (Amendment) Act 2021 specifically requires all local authorities in Ireland to prepare and make a Climate Action Plan, in consideration of wider national climate and energy targets, addressing both mitigation and adaptation measures:

**Climate Change Mitigation** relates to changing how we live, move, consume and manufacture, so as to reduce and/or eliminate the production of harmful greenhouse gases, it also includes how we best use our land; and

**Climate Change Adaptation** refers to dealing with the impacts of climate change and involves taking practical actions to manage risks, protect communities and strengthen the resilience of the economy (e.g. from flooding, sea level rise etc).

This draft climate action plan sets a clear pathway to:

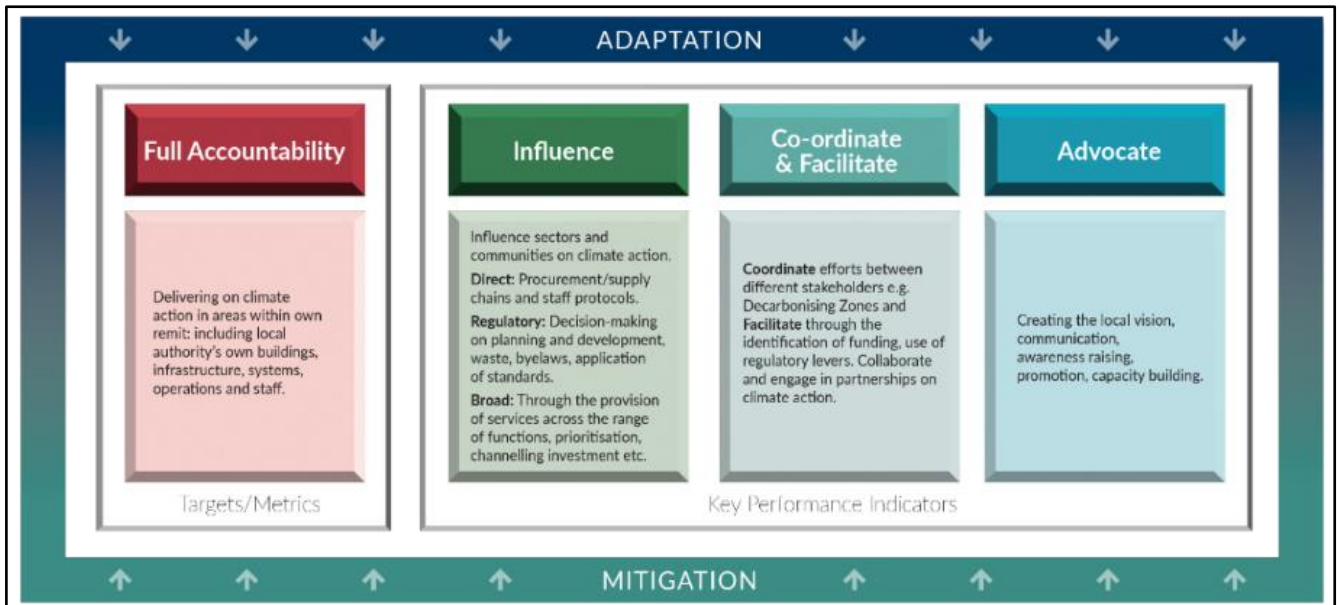
- actively translate national climate policy to local circumstances with the prioritisation and acceleration of evidence-based measures;
- assist in the delivery of the climate neutrality objective at local and community levels; and
- identify and deliver Cavan Town as a Decarbonising Zone (DZ) to act as a test bed for a range of climate mitigation, adaptation and biodiversity measures, through the identification of projects and outcomes that will assist in the delivery of the national climate objective.

Set against the backdrop of an evolving and ambitious framework of national climate policy, Cavan County Council maintains a strong commitment to mainstreaming climate action across its own operations and functions, whilst also pursuing a leadership role on climate action, at the local level.

The draft plan demonstrates a coherent approach to climate action across the administrative and political structure of the local authority. The draft plan is subject to approval by the Elected Members of the local authority, following public consultation and engagement. A range of other plans, including the Council's Corporate Plan and the Cavan County Development Plan 2022 to 2028, also support the draft climate action plan.

The draft plan sets out how **Cavan** County Council will be responsible for enhancing climate resilience, increasing energy efficiency and reducing greenhouse gas emissions, across its own assets, services and infrastructure, to which it is fully accountable for, whilst also demonstrating a broader role of influencing, advocating and facilitating other sectors, to meet their own climate targets and ambitions. This is necessary to ensure that the environmental, social and economic benefits that come with climate action, can be fully realised.

Figure 1 illustrates the the scope of the local authority's responsibility on climate action.



**Figure 1: Local Authority Scope on Climate Action (Source: Local Authority Climate Action Plan Guidelines, 2023)**

The Council will also continue its efforts in rolling out ambitious climate action projects, drawing down available sources of funding, pursuing citizen and stakeholder engagement, all supported by a progressive policy framework. The Council has launched the Climate Action Fund Strand 1 - Building Low Carbon Communities.

This is a fund for local authorities across the country, to support and build low carbon communities.

In a changing climate, the aim is to become more resilient to all future possibilities, allowing local communities to thrive and work towards real solutions that are meaningful, inclusive, fair and accessible for all, thereby prioritising a just transition.

## Overview of Climate Change

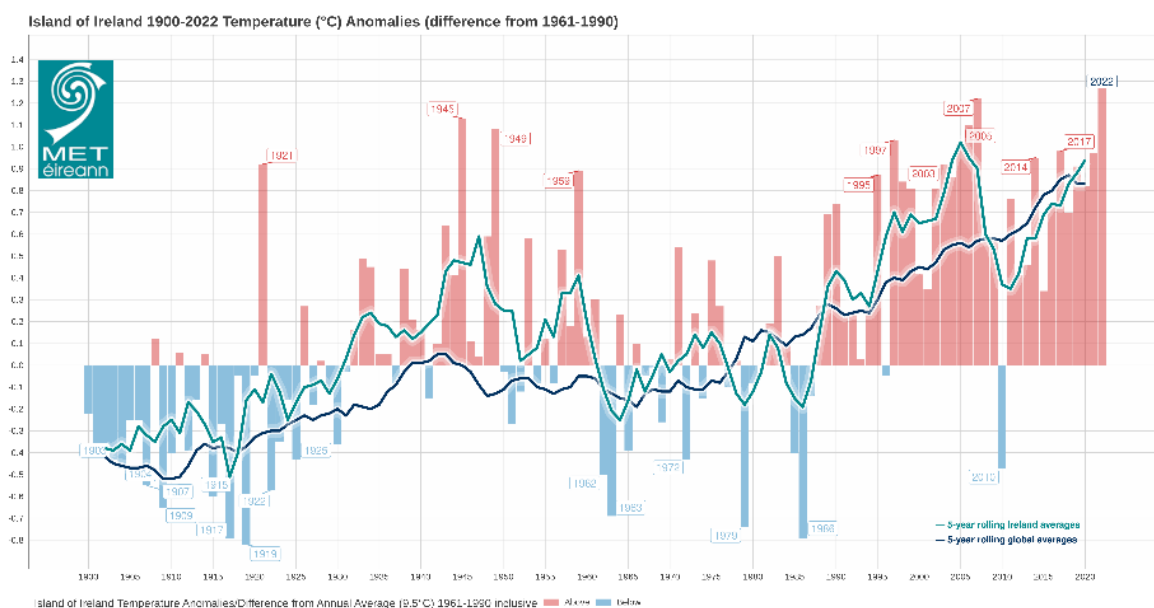
Climate change is increasingly understood to be the most critical, long-term global challenge of our time, its impacts continue to be felt both worldwide and at home. The [Intergovernmental Panel on Climate Change \(IPCC's\) Working Group I Sixth Assessment Report](#), confirms overwhelming evidence that the climate has changed since the pre-industrial era and that human activities, through greenhouse gas emissions, are the principal cause of that change. It states the unequivocal cause of global warming has been human

activities, with global surface temperatures reaching 1.1°C above 1850-1900, in the 2011-2020 period.

Ireland's climate echoes that statement. Figure 2 compares the global temperature rise since 1900 to Irish temperatures. Ireland is in line with the global temperature increases, following 2022, being a year of record-breaking extremes, in both temperature and precipitation (rainfall). Met Éireann stated that 2022 was 'the warmest year on record'. This would see Ireland's temperature above the long-term average for the 12<sup>th</sup> consecutive year. Furthermore, 2022 saw record breaking temperatures observed in Ireland during the summer, recording the second highest temperature ever recorded in Ireland at 33°C.

**Figure 2: Island of Ireland 1900-2022 Temperature (°C) Anomalies (difference from 1961-1990)**

(Source: Met Éireann)



This is reiterated in the precipitation observations from 2022, where rainfall was recorded at below the long-term average at most stations. There was variability in rainfall throughout 2022, with extremes being felt in each of the seasons, resulting in a drier Summer and Spring, and a wetter Autumn and Winter.

Global mean sea level increased by 20 cm between 1901 and 2018. The trend in global mean sea level rise has been consistently rising since 1901. Ireland has so far seen a similar rise in sea level with an average of 2-3 mm per year. A warming climate has caused a rise in sea level,

through the loss of sea ice and thermal expansion (the increase in the volume of water due to heating) resulting from the warming ocean.

Ireland has suffered from adverse climate impacts already and recent extreme weather events have highlighted the vulnerability of individuals, businesses, communities, sectors and infrastructure to climate change, emphasising the need for urgency on climate action across all sectors of society.

For example, storms such as Arwen and Barra in 2021 most notably, left 59,000 homes and businesses without power (Climate Action Plan, 2023). The adverse impacts of climate change can often compound wider reaching social, environmental and economic challenges. This can increase vulnerability and sensitivity to a changing climate and climate extremes.

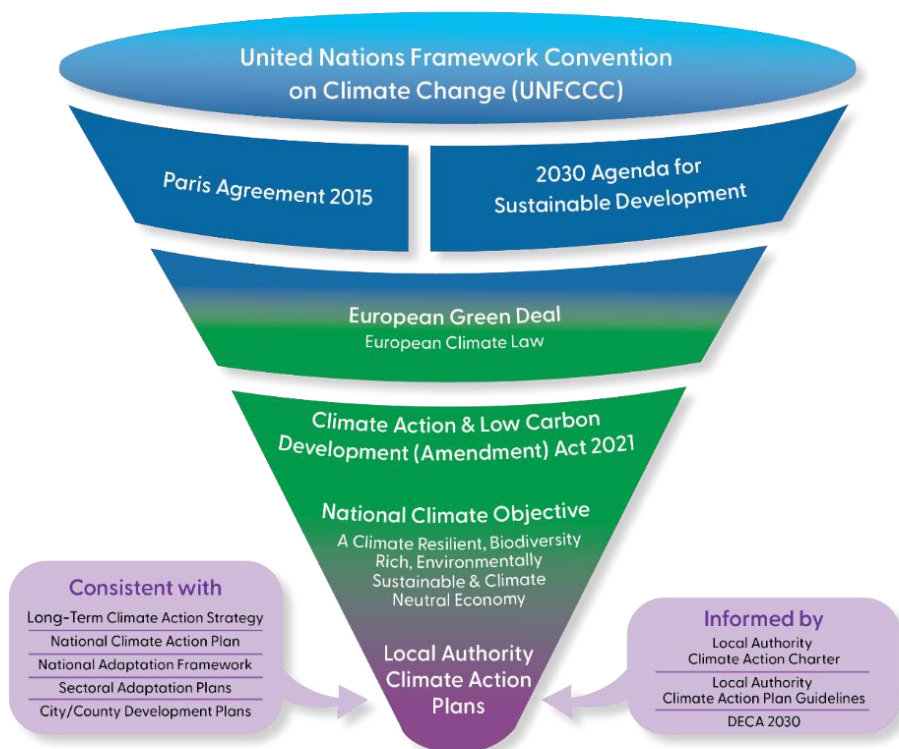
Based on observed changes in climate and its impacts, Met Éireann, the Environmental Protection Agency (EPA) and other climate scientists, are able to make robust projections on future climate patterns in Ireland and globally. The EPA, Marine Institute and Met Éireann published [The Status of Ireland's Climate Report](#) in July 2021.

This report highlights that the climate trends observed over the last century will continue and intensify over the coming decades as follows:

- Temperatures are increasing and are expected to continue to increase and across all seasons;
- Significant reductions in levels of average precipitation (rainfall) are expected in Spring and Summer, whilst projections indicate the increased occurrence of extreme precipitation events, particularly during Winter;
- Projections show little change in average wind speed and direction. The frequency of extreme wind conditions is expected to increase, particularly during Winter;
- Based on current trends, Ireland will see an increase in sea level rise, similar to what has been experienced to date.
- Increases in the frequency of fluvial (river) and pluvial (surface water) flooding;
- Increases in the frequency and intensity of summer heat waves, extreme temperatures and drought;
- Reductions in the frequency of frost and snowfall; and
- An increase in the duration of the growing season (phenological cycle).

The state of Ireland’s climate today and how it may look in the future can be brought together in one simple conclusion. Ireland’s climate has changed relative to the 1900’s, it has undoubtedly warmed along with global temperatures, bringing about an array of impacts that are associated with a warmer climate and more extreme weather events.

## Climate Policy Context



**Figure 3: Legislation and Policy Context for the Climate Action Plan** (Source: Climate Action Regional Offices)

Climate action is given impetus by the scientific evidence that supports the findings of human influence on climate change and the most recent legally binding international treaty on climate change, which sets the framework for ambitious and strengthened policy responses, the Paris Agreement 2015. Consequently, this draft climate action plan is set within a broader context of international, EU, national and sectoral climate policy.

- i. Holding global average temperature increases to well below 2<sup>0</sup>C and pursuing efforts to limit the temperature increase to 1.5<sup>0</sup>C above pre-industrial levels; and
- ii. Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience.

### **International Climate Change Policy**

It has been recognised that successfully tackling climate change requires cooperation and ambition on an international level. Since the establishment of the [United Nations Framework Convention on Climate Change \(UNFCCC\)](#) in 1994, countries have sought to build international cooperation to limit the increase in the average global temperature and deal with the impacts of climate change, that result from these temperature increases.

These efforts led to the signing of the Paris Agreement 2015 at the [Conference of the Parties 21 \(COP21\)](#). The [Paris Agreement 2015](#) is a legally binding international treaty on climate change which was signed by all 196 member countries, including Ireland, and entered into force on 4<sup>th</sup> November 2016. Through two clearly defined goals the Paris Agreement strives for progressive and ambitious climate action over time to avoid dangerous climate change by:

Another International agreement closely linked with the Paris Agreement is the [2030 Agenda for Sustainable Development](#) which was adopted by UN Member States in September 2015. At the Agenda's core are 17 [Sustainable Development Goals \(SDGs\)](#). These goals aim to “end poverty, protect the planet and improve the lives and prospects of everyone, everywhere.” The 17 SDGs contain 169 targets to be achieved by 2030. In 2019, World leaders called for a ‘decade of action’ to achieve the Goals within this timeframe.

Towards achieving greenhouse gas emission reductions as part of Paris Agreement commitments the European Commission, in December 2019, announced the [European Green Deal](#) aimed at making Europe the first climate neutral continent. The Deal seeks to achieve no net emissions of greenhouse gases by 2050, to decouple economic growth from resource use, and to leave no one behind. The EU introduced a set of proposals to align the EUs climate, taxation, energy, and transport policies to support achieving this aim. The [European Climate Law](#) made these targets legally binding, which also includes achieving a reduction in net greenhouse gas emissions of at least 55% by 2030.



## Climate Change Policy in Ireland

Climate change policy in Ireland now reflects the ambition of the EU and that required to confront the challenges of climate change. Working towards the National Climate Objective the [Climate \(Amendment\) Act 2021](#), promotes a sustainable economy and society where greenhouse gas emissions are balanced or exceeded by the removal of greenhouse gases. Through progressive economy-wide carbon budgets, sectoral ceilings, a suite of strategies devised to promote a combination of adaptation and mitigation measures, as well as robust oversight and reporting arrangements, climate policy is working to scale up efforts across all of society and deliver a step change on ambitious and transformative climate action to 2030 and beyond to 2050.

The [Climate Action Plan 2023](#), launched on 21<sup>st</sup> December 2022, is the second annual update to the States' Climate Action Plan 2019 and the first to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021, and following the introduction, in 2022, of economy-wide carbon budgets and sectoral emission ceilings. Climate Action Plan 2023 sets out a roadmap to 2025 towards taking decisive action to halve emissions by 2030 and reach net zero, no later than by the end of 2050, as committed to in the Programme for Government.

Ireland published its first [National Adaptation Framework \(NAF\)](#) in 2018, which set out the context to ensure key sectors and local authorities, can assess the key risks and vulnerabilities of climate change, implement climate resilient actions, and ensure climate adaptation considerations are mainstreamed into national, regional and local policy making.

Ireland's current [Long-term Strategy on Greenhouse Gas Emissions Reductions](#) sets out indicative pathways, beyond 2030, towards achieving carbon neutrality for Ireland by 2050. The Strategy builds upon the decarbonisation pathways set by the carbon budgets, sectoral emissions ceilings and the national Climate Action Plan, to ensure coherent and effective climate policy. It is underpinned by analysis of transition options across each key sector of the economy and provides a crucial link between Ireland's 2030 climate targets and the long-term goal set by Ireland's National Climate Objective and the European Climate Law.

[Sectoral Climate Adaptation Plans](#) have been published across Government departments, in response to the National Adaptation Framework. Each Plan identifies the key risks faced

across the sector and the approach being taken to address these risks and build climate resilience for the future. They were developed applying a six-step adaptation planning process described in Sectoral Planning Guidelines for Climate Change Adaptation, published by the Department of the Environment, Climate and Communications. The Plans address the following sectors: Agriculture, Forestry and Seafood, Biodiversity, Built and Archaeological Heritage, Transport infrastructure, Electricity and Gas Networks, Communications Networks, Flood Risk Management, Water Quality and Water Services Infrastructure and Health.

The [Local Authority Climate Action Charter](#), signed by Cavan County Council in October 2019, represents a commitment to scale up efforts and play a key role locally and nationally in delivering effective climate action. It tasks all local authorities with providing robust leadership in advancing climate action at regional and local levels, with adhering to the UN SDGs, in particular Goal 13 Climate Action, as well as reducing emissions from their own operations and to collaborate and partner with local enterprise, community groups, citizens as well as public, private, and educational sectors on climate action initiatives.

[Delivering Effective Climate Action 2030 \(DECA 2030\)](#) is the local government strategy on climate action published in April 2021. The strategy represents an overarching sectoral commitment to ensuring a coherent approach to climate action across the administrative and political structures of all 31 local authorities. At a sectoral level the strategy communicates a general strategic intent through an envisaged leadership position, to engage the local authority network in effective climate action. Within the sector, the overall strategy represents a top-level consensus on the approach to climate action and a strong commitment to the prescribed leadership role. The strategy is a stated roadmap for local authorities in delivering the required decarbonisation and adaptation responses to climate change.

### **Local Authority Climate Action Planning**

The Cavan climate action plan strengthens the links between national and international climate policy and the delivery of effective climate action at local and community levels, through place-based climate action. The intrinsic value of the climate action plan is that it plays a significant role in reinforcing the commitment by the local government sector to lead on climate action at local and national levels, as reflected in the local government strategy DECA 2030. Over its preparation and implementation, the Council's climate action plan offers

an opportunity to bring together critical stakeholders across communities and businesses to build a vision for a climate neutral future.

Cavan County Council and other local authorities across Ireland, are already well positioned at the forefront of climate action in Ireland. Cavan County Council plays a significant role in terms of delivering adaptation and mitigation measures at local and community levels. We are entrusted to work through our regulatory and strategic functions to operationalise the ambitious national climate targets and policy at local levels, to assist in the delivery of the National Climate Objective.

This plan is part of longer-term efforts that require a sustained and planned response to support the delivery of the climate neutrality objective at local and community levels. It provides a mechanism for bringing together both adaptation and mitigation actions to help drive positive climate action and outcomes across the local authority and the County of Cavan. The framework of climate actions set within the plan, configures the arrangement of climate actions within a defined structure that ensures alignment between on the ground actions and the high-level vision that the plan aspires to deliver.

This draft plan has been prepared in accordance with the [Local Authority Climate Action Plan Guidelines, published by the Department of the Environment, Climate and Communications in March 2023.](#)