



Comhairle Chontae na Gaillimhe
Galway County Council

DRAFT LOCAL AUTHORITY

Climate Action

Plan 2024 - 2029

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Glossary of Terms

TERM	DESCRIPTION
Baseline Emissions Inventory (BEI)	The sum and categorisation of the total greenhouse gas emissions accounted for in your area in a given year. This is the year against which future progress is compared.
Baseline year	This is the year in which the BEI was calculated, with which future progress in emissions reductions is compared.
Biodiversity	The variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important and desirable.
Climate adaptation	The process of adjustment to actual or expected climate and its effects in order to moderate harm or take advantages of beneficial opportunities.
Climate hazard	Extreme weather events or natural disasters that are primarily caused by climate-related factors. They can cause harm to human health, livelihoods or natural resources.
Climate mitigation	The process of reducing climate change which involves reducing the flow of greenhouse gases into the atmosphere either by reducing the sources of these gases or enhancing the sinks that accumulate and store these gases.
Climate neutrality	The idea of achieving net zero greenhouse gas emissions by balancing those emissions so they are equal to or less than the emissions that get removed through the planet's natural absorption. This reduction of emissions would occur through climate action.
Climate Risk Assessment	A process for identifying and evaluating the potential impacts of climate change on various sectors and activities.
Decarbonisation Zone (or decarbonising zone)	A spatial area identified by the local authority. It is an area in which a range of climate mitigation measures can co-exist to address local low carbon energy, greenhouse gas emissions and climate needs.
Evidence-based	An approach that emphasises the practical application of the findings of the best available current research.
Extreme weather events	A time and place in which weather, climate, or environmental conditions rank above a threshold value near the upper or lower ends of the range of historical events.
Greenhouse gas emissions	Greenhouse gases (GHGs) trap solar energy and prevent the sun's energy from bouncing back into space thus creating the greenhouse effect. The main GHG emissions are water vapor (H ₂ O), carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF ₆). Greenhouse gas emissions from human activities compound the greenhouse effect, contributing to climate change.
Local Authority Climate Action Plan (LACAP)	Plans to help local authorities address in an integrated way the mitigation of greenhouse gas emissions and climate adaptation. Under the Climate Action and Low Carbon Development (Amendment) Act 2021, each local authority is required to prepare a local authority climate action plan for its respective administrative area. Once adopted by the local councils, each plan will be valid for five years and is subject to update at least every five years.

Abbreviations

ABBREVIATION	TERM
BEI	Baseline Emission Inventory
CAP	Climate Action Plan
CARO	Climate Action Regional Office
CO ₂	Carbon Dioxide
DZ	Decarbonisation Zone
EU	European Union
GCC	Galway County Council
GHG	Greenhouse gas
KPI	Key Performance Indicator
ktCO ₂ e	Kilotonnes of carbon dioxide equivalents
LACAP	Local Authority Climate Action Plan
SEAI	Sustainable Energy Authority Ireland
SPC	Strategic Policy Committee
UN	United Nations

Foreword



CATHAOIRLEACH

LIAM CARROLL

A handwritten signature of Liam Carroll in blue ink. The signature is cursive and reads "Liam Carroll".

Galway County Council's first Draft Climate Action Plan represents a blueprint for a sustainable and resilient future for the County of Galway. The draft plan sets out 97 climate actions across the areas of governance and leadership, energy, built environment, transport, communities and partnerships and the natural environment. The plan recognises that climate action is a collective responsibility that affects every aspect of our lives and will involve public bodies, individuals, communities, and businesses throughout the county.

Ireland has committed to play its part in the global efforts to stop climate change and, in so doing, harness the opportunities and rewards that will come from moving quickly to a low-carbon society. Through this Climate Action Plan, Galway County Council is setting out its roadmap for 2024 – 2029 which will enable us to support this commitment.

As we embark on this transformative journey, we recognise the unique challenges faced by different sectors. Galway County Council is committed to ensuring that all residents have the opportunity to participate in and benefit from these transformative actions. This Climate Action Plan is a call to action and a promise of hope. It reflects our collective resolve to protect our environment, support our communities, and ensure a prosperous and sustainable future.



CHIEF EXECUTIVE

LIAM CONNEALLY

A handwritten signature in black ink that reads "Liam Conneally". The signature is written in a cursive style and is positioned above a long, thin horizontal line that tapers to a point on the right side.

As the Chief Executive of Galway County Council, I am pleased to introduce our draft Climate Action Plan 2024 to 2029 which has been co-created with stakeholders including young people, community and public representatives, local businesses, public bodies, and our own staff. Their valuable input was instrumental in shaping the strategies detailed in this document. We also wish to acknowledge the considerable support of the Climate Action Regional Office and the City and County Managers Association in the development of the draft plan.

The draft plan outlines our vision of a climate-resilient, biodiversity-rich and sustainable economy which will help to ensure a safe future for all those who live, work, and visit our county. It sets out how the Council will work to further reduce greenhouse gas emissions and improve energy efficiencies in its own buildings and operations while reducing the risks associated with climate change. Progress on the plan will be monitored by dedicated staff across the organisation who will report to and be guided by the Management Team, the Climate Action and Biodiversity Strategic Policy Committee and Elected Representatives.

Targeted emission reduction measures and initiatives in the Aran Islands Decarbonising Zone will build on the extensive work already underway by the local community. The lessons learned here and in other Decarbonising Zones across the country will be shared with other communities. The Council will support local groups to implement similar actions through programmes such as the Community Climate Action Fund.

Whilst Galway County Council has taken significant strides in progressing its climate actions, it is imperative that we continue to show leadership in the area and build on these actions over the coming years. Being able to turn these commitments into real action requires effort, but together with the people of the County of Galway, we will be able to help drive positive change both now and in the future.

Executive Summary

Climate Change has been identified as the defining social, economic and environmental challenge of our time. Local Government has been identified as a key player in leading climate action at a local, community-based level and planning for the effects of climate change has now become a key challenge. Local Authorities (LAs) have been tasked with leveraging support and resources to deliver effective climate action from the ground up. This approach has been made into law requiring each Local Authority in the country to lead in Climate Action at a county level. It is envisaged that leadership will be plan-led namely through a Local Authority Climate Action Plan (LACAP).

These LACAPs will be key instruments that strengthen the links between local, regional, national and international climate policy. The

plans will need to deliver effective climate action at the local and community level through place-based and evidence-based climate action. The LACAPs are statutory 5-year plans and are required to include mitigation and adaptation actions that ultimately provide pathways to achieve a decarbonised society. Each LACAP is to be adopted by Elected Members in 2024 and will last for 5 years.

Over this period Galway County Council (GCC) will be responsible for enhancing climate resilience, increasing energy efficiency and reducing greenhouse gas emissions, across its own assets, services and infrastructure. GCC will also need to proactively use its broader role of influencing, coordinating/facilitating and advocating other sectors to meet their own climate targets and ambitions, as envisaged in the infographic below.

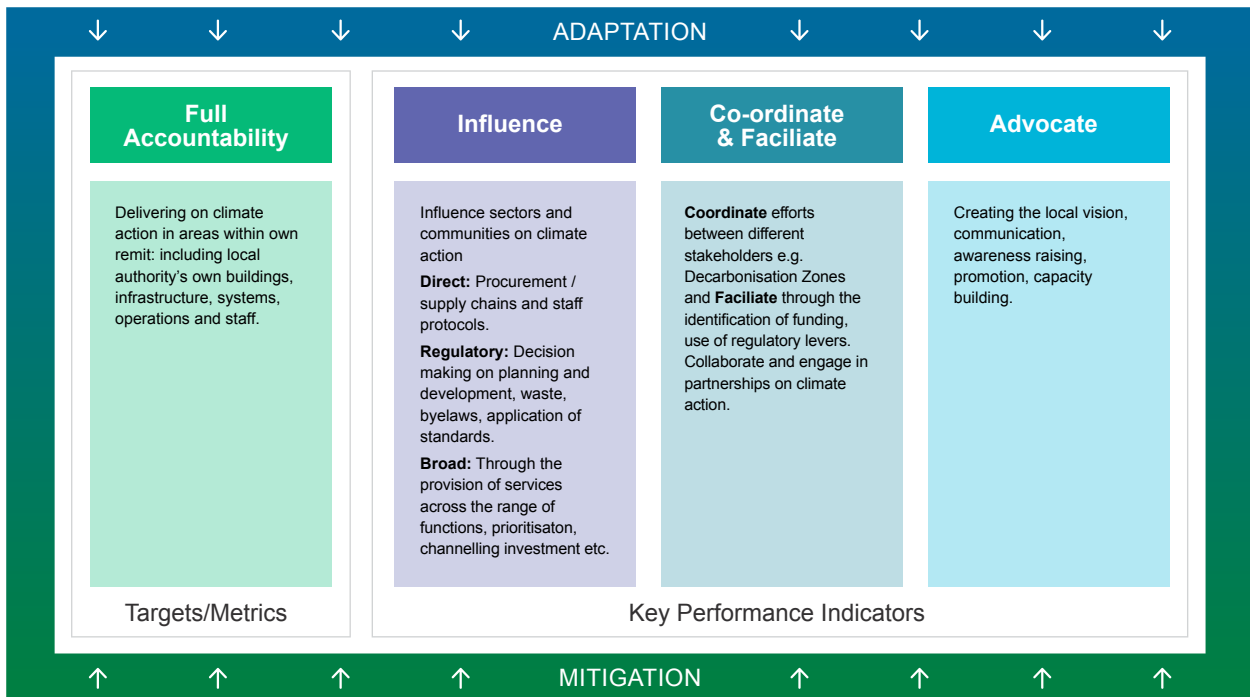


Figure 1 Role of Galway County Council (Source: Local Authority Climate Action Plan Guidelines, 2023)

This plan outlines the ambition of GCC in climate action and sets out a clear Vision and Mission. The Vision describes how a climate-resilient county will look in 2030 and on to 2050. The Mission Statement outlines how GCC will meet that vision. Internally the ambition is to meet its own emissions and energy efficiency targets. They are a 51% reduction in greenhouse gas (GHG) emissions and a 50% improvement in energy efficiency by 2030. Externally the LA seeks to influence, advocate and facilitate climate action ambitions within the local community. These ambitions and pathways to achieve targets are outlined in this plan.

The plan is divided into several sections.

SECTION 1 | Local Authority Climate Action Planning

Provides an introduction to the plan-making process, placing in context the scope and ambition of the LACAP relative to national legally binding targets.

SECTION 2 and 3 | Risk Assessment and Evidence Base

Provides information on the baseline emissions data used to inform the plan and an overview of the Climate Change Risk Assessment prepared for the LACAP. Both have been used to inform the plan-making process, placing in context the challenges faced by the county in meeting national emissions targets.

SECTION 4 | Framework of Climate Action

The focus of the plan, outlining the strategic goals, objectives and actions that aim to bring to fruition the vision and mission. The actions aim to be specific, measurable, action-focused, realistic and timebound (SMART).

SECTION 5 | Aran Islands Decarbonising Zone

As required, the plan also includes a Decarbonising Zone (DZ). The area identified in Galway is the Aran Islands. The aim of the DZ is to identify pathways to meet the national emission reduction target of 51% by 2030 and net zero by end of 2050 (from the baseline year of 2018). Learnings will be gathered in the DZ on the real-life experiences and challenges to meet these targets across all sectors. This specific place-based approach seeks to promote wider collaboration with all stakeholders to create tailored policies to deliver climate action.

SECTION 6 | Implementation

The ability of the Local Authority sector to demonstrate performance on climate action will form a crucial component in successfully illustrating if and how the sector is leading by example, and what role Local Authorities are playing in national climate action targets. This section outlines three key activities that GCC must consider once the plan is adopted: planning for Implementation;

tracking progress through Key Performance Indicators (KPIs) and reporting requirements and arrangements.

As required the Galway LACAP 2024-2029 has been subject to a Strategic Environment

Assessment (SEA) and Appropriate Assessment (AA). Mitigation as required by environmental assessment has been incorporated into this LACAP.

Climate Action Plan Vision and Mission



Vision Statement

The communities, environment and economy of the County of Galway are thriving, climate-resilient, biodiversity-rich, environmentally sustainable and carbon neutral.



Mission Statement

Deliver and enable transformative change and measurable climate action across our county and within our own organisation, ensuring a just transition to a carbon neutral and climate resilient future.



1. Introduction



1. Introduction

1.1 Purpose of the Climate Action Plan

Climate Change has been identified as the most pressing long-term global challenge of our time. National and local governments are increasingly required to take ambitious action to decrease greenhouse gas emissions that cause climate change (mitigation) and increase resilience to climate change impacts and risks (adaptation).

Galway County Council has prepared this Draft Climate Action Plan 2024-2029, to deliver and support best practice in climate action, at the local level. This 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. It is aligned to 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.

This is set out in the [Climate Action and Low Carbon Development \(Amendment\) Act 2021](#), which also frames Ireland's legally binding climate ambition, to deliver 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, Galway County Council has also

taken account of other relevant legislation and policy and the climate change risk assessment and baseline emissions assessment, which are included as part of this Plan.

The Act requires all local authorities in Ireland to prepare a five-year Climate Action Plan setting out a clear pathway towards reducing greenhouse gas emissions at the local level through the implementation of mitigation measures and reducing the risk to communities from climate change through adaptation measures.

- **Climate Change Mitigation** relates to changing how we live, move, consume and manufacture, 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).

Achieving the targets will be challenging and will require fundamental changes in many parts of Irish life. In rising to the challenge, we will improve the health, welfare and security of our people, while also protecting our environment and delivering new opportunities.

This is not a standalone document; its goals and objectives will be incorporated into future



plans and policies of Galway County Council to ensure climate change is at the forefront of its service delivery. A range of other plans, including the Council's Corporate Plan and County Development Plan, also support this Draft Climate Action Plan.

The Council will also continue its efforts in rolling out ambitious climate action projects, allowing local communities to thrive and work towards real solutions that are meaningful, inclusive, fair and accessible for all, thereby prioritising a just transition. This is necessary to ensure that the environmental, social and economic benefits that come with climate action, can be fully realised.

1.2. Climate Action Framework

A local authority climate action plan is a key instrument to strengthen 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 a local authority 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.

Over its preparation and implementation, this plan offers an opportunity to bring together critical stakeholders across communities and businesses to build a vision for a climate neutral future. The guiding principles underpinning the plan is that it should be Ambitious, Action-focused, Evidence-based, Participative and Transparent.

The Climate Action Plan provides a mechanism for bringing together both climate adaptation and climate mitigation actions to help drive positive climate action and outcomes across the local authority and its administrative area. To ensure alignment between potential on-the-ground actions and the vision that the plan aspires to deliver, actions are arranged within a defined structure, comprising of:

1. An overarching **Vision** that reflects the shared perspective of a climate resilient and climate neutral future for the County of Galway.
2. A plan **Mission** that speaks practically to the grounded purpose of the local authority in delivering effective climate action in County Galway.
3. **Strategic Goals** that set the context for the climate actions and establish a structured or thematic arrangement of actions.
4. **Objectives** that support the delivery of the strategic goals whilst framing the appropriate emphasis of the actions.
5. **Actions** that are specific, realistic, action-focused, time-bound, and measurable reflecting a scaling up of ambitious local level climate action.

1.3. Environmental Governance

Environmental governance plays a pivotal role in safeguarding our ecosystems and natural resources. Galway County Council ensures that its policies, regulations, and



decisions regarding the environment are made with sustainability in mind, balancing its communities needs with the protection of the environment.

Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) processes are important mechanisms to ensure that environmental protection and nature conservation management considerations are integrated into the development and implementation of the local authority climate action plan.

EU Strategic Environmental Assessment (SEA) Directive

The Local Authority Climate Action Plan is subject to compliance with the SEA Directive (Directive 2001/42/EC) on the assessment of the effects of certain plans and programmes on the environment. SEA is the process by which environmental considerations are required to be fully integrated into the preparation of plans and programmes developed by public authorities, prior to their adoption. SEA is the formal and systematic evaluation of the likely significant effects of implementing any plan or programme on the environment.

The European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004), as amended by S.I. No. 200 of 2011, gives effect to the transposition of the SEA Directive into Irish law.

For the purposes of compliance with the SEA Directive, each local authority as the 'competent authority' is required to carry

out an environmental assessment of the likely significant effects on the environment of implementing the climate action plan in accordance with the provisions of the above-mentioned regulations. The SEA report accompanies this Plan.

EU Habitats Directive-Appropriate Assessment

The local authority climate action plan is also subject to Appropriate Assessment under Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) to determine if its implementation is likely to have significant effects on any Natura 2000 sites. Local authorities, as the prescribed 'competent authorities', may only adopt the plan after having ascertained that it will not have a significant impact on the integrity of a Natura 2000 site on its own, or in combination with other plans or projects.

The directive provides legal protection for habitats and species of European importance through the establishment of the Natura 2000 network. The Natura 2000 network includes sites designated as Special Areas of Conservation (SACs) under the Habitats Directive and Special Protection Areas (SPAs) designated under the EU Birds Directive (Directive 79/409/EEC, amended by Directive 2009/147/EC).

1.4. Opportunities of Climate Action

Implementation of the Climate Action Plan will result in new investments and opportunities that will provide multiple

co-benefits, such as improved wellbeing and quality of life, and potentially new business and job opportunities.

This will support other Galway County Council objectives, such as:

This list is not exhaustive and there are multiple additional co-benefits that can emerge from the effective implementation of the plan.

 <p>Job creation and skills development</p>	 <p>Improved public health and wellbeing</p>	 <p>Enhanced Governance</p>
 <p>Improved civic engagement</p>	 <p>Enhanced service delivery</p>	 <p>Economic Growth</p>
 <p>Reduced costs</p>	 <p>Improved air quality and reduced noise pollution</p>	 <p>Improved Infrastructure</p>
 <p>Improved Mobility</p>	 <p>Enhanced education and awareness</p>	 <p>Social inclusion</p>
 <p>Increased Energy Security</p>	 <p>Increased food security</p>	 <p>Reduced waste</p>



1.5. Profile of the County of Galway

Given the size and geographical features of the County, as well as the infrastructure assets and responsibilities of Galway County Council, the negative impacts of climate change pose a significant risk to residents, the economy, the environment, and the delivery of local government services into the future.

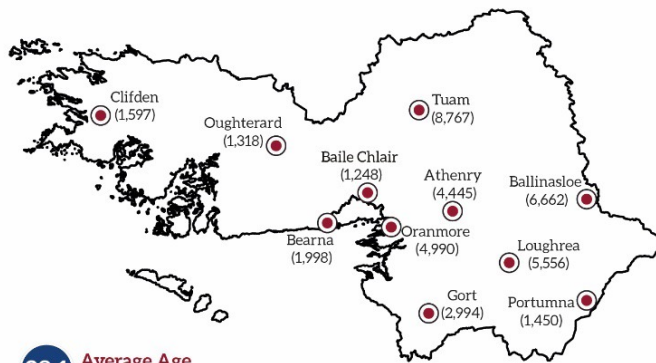
It is therefore imperative to build upon our climate adaptation and climate mitigation measures in a planned and co-ordinated approach across the county.

Galway is the second largest County in Ireland having an area of almost 6,149 square kilometres, with a coastline stretching to almost 2,000 kilometres. In 2016 the CSO recorded a population of almost 180,000 persons in the County of Galway outside of Galway City. The county borders Mayo to the north, Clare to the south and Roscommon and Offaly to the east and Tipperary to the south-east. Other natural boundaries include Galway Bay to the west along with Shannon and Lough Derg to the east and southeast respectively. The county is characterised by a diverse and natural landscape that includes features such as the mountainous Connemara region west of the River Corrib, fertile agricultural lands to the east and a limestone area to the south. These topographical attributes combine to give Galway its outstanding and widely varied landscape setting.

There is a considerable network of

settlements of varying scales and the largest Gaeltacht population in Ireland, which accounts for approximately 49.7% of the Gaeltacht population nationally as recorded by the CSO in 2016. The Regional Spatial and Economic Strategy (RSES) identifies a new metropolitan area which includes the entirety of Galway City and the settlements of Baile Chláir, Bearna and Oranmore. Ballinasloe and Tuam are designated as Key Towns and Athenry is identified as an area with Strategic Potential. Other significant towns include Clifden on the west coast and Loughrea, Portumna and Gort to the east of Lough Corrib. There are also four main inhabited islands, Inis Móir, Inis Óírr, Inis Meáin and Inisbofin. Galway is now served with a motorway network to the east of the county (M6 and M17/M18) and rail service from Galway to Dublin and Limerick.

Figure 2 illustrates key demographic data relating to the 2016 census. It includes reference to the overall population, where people live, work and household formation. This will be updated with 2021 census data prior to adoption of the plan.



Comhairle Chontae na Gaillimhe
Galway County Council

Population in 2016
179,390

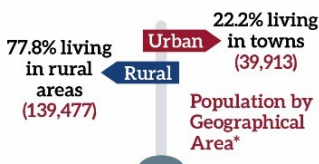
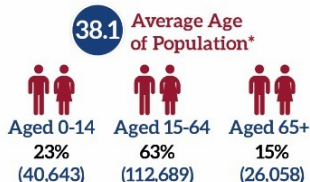
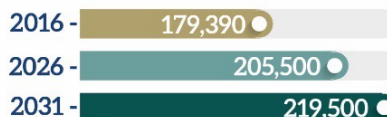


+4,266 (+2.4%) from 2011
+20,134 (+10.7%) from 2006

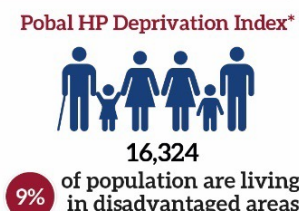
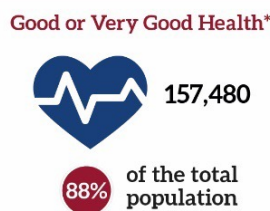
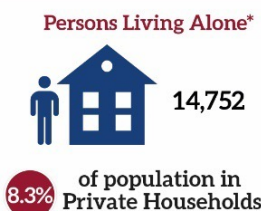
7.3% of State (4.76m)

7th Highest Population in State

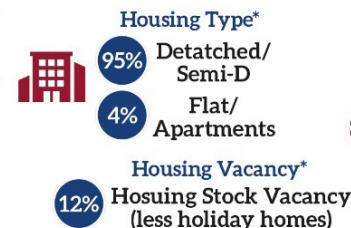
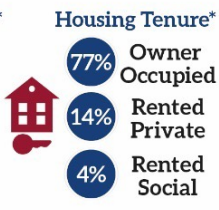
+39,500 (+21.9%) 2016 to 2031



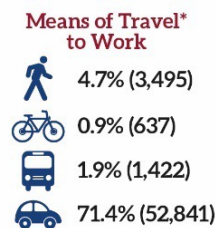
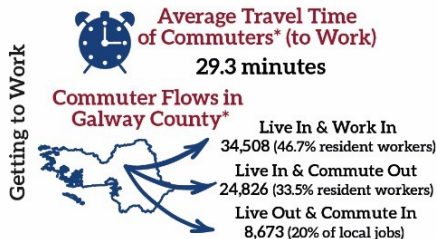
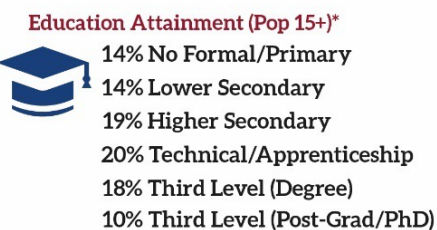
Our Community



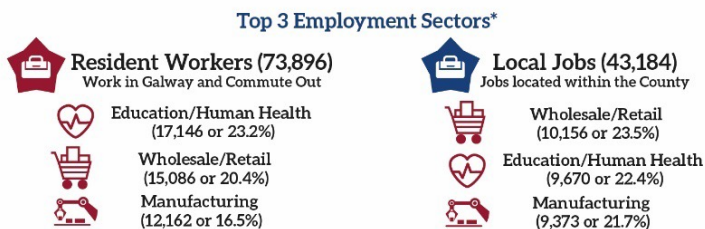
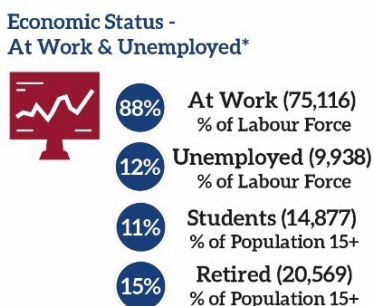
Homes & Housing



Education



Economy, Jobs & Income



* Data sourced from CSO Census 2016





1.6. Galway County Council Scope on Climate Action

Local authorities are key drivers in advancing climate policy at the local level. Galway County Council is responsible for increasing energy efficiency and reducing greenhouse gas emissions, across its own assets and infrastructure, in line with the 51% target prescribed to 2030 and the trajectory towards the goal of climate neutrality by 2050.

This Draft Plan also sets out our broader role of influencing and facilitating others to meet their own targets and ambitions. While the Climate Action Plan will be ambitious to reflect our leadership role, the Plan will not include actions which fall outside the remit and governance of Galway County Council. A summary of our role is set out in Table 1.

1.7. Climate Action by Galway County Council to Date

Galway County Council has delivered adaptation and mitigation measures at local and community levels and intends to accelerate this work through the Draft Plan. This is in addition to the many and important climate actions led by local communities and businesses throughout the county. Such actions include:

- **Galway County Council Internal Energy Use:** The national Energy Efficiency target for public bodies of 33% by 2020 was achieved by Galway County Council through the upgrade of the public lighting system, implementation of efficiency measures, the retrofit of buildings and the installation of renewable energy systems.

- **Just Transition:** By December 2023, 284 units of our social housing stock will have been retrofitted, which equates to approximately 10% of the total stock. This work included the removal of fossil fuel heating systems and the installation of heat pumps and solar panels. This has resulted in increased comfort and reduced energy bills and an estimated reduction of 475 tonnes of greenhouse gas emissions per annum.
- **Active Travel:** Multiple Active Travel projects have been implemented including cycle lanes, footpath improvement projects, pedestrian road safety measures, speeding interventions, Safe Routes to School supports and the development of footbridge projects.
- **Community Supports:** Galway County Council are supporting 10 communities to develop Energy Masterplans. A Climate Opportunity Fund was opened in 2021 which provided funding for 17 community projects including upgrades to lighting systems for sports clubs, upgrades to building fabrics, installation of community bike shelters, recycling facilities and community gardens. This will be expanded through the Community Climate Action Fund which we expect to open shortly with a fund of €750,000 for community projects.
- We are actively involved in a number of projects including:
 - **CONNECTED Project** – This Northwest Region Decarbonisation Zone project is coordinated by the University of Galway and supported by many other partners

including local community groups in the decarbonisation zones in the region. The aims are to develop a decarbonisation engagement, dialogue and participation tool and a low-carbon action campaign tool, develop a guide to ensure input from marginalised communities, exemplar case studies and provide training.

- **LEAP** - Local Energy Agencies in Peripheral Regions - LIFE Project whose aim is to create multiple local social enterprise “integrated home renovation services” in the North and West of Ireland including one which will serve peripheral communities in the west of the county including the Aran Islands.

- **Galway Partner Forest Programme** is a collaboration between ATU, Galway County Council, Wood Connects and Cities4Forests. The Cities4Forests Partner Forests programme is an initiative seeking to establish mutually beneficial connections between European municipalities and tropical forest communities around the world. The expected outcome from the project includes a high-level Green Public Procurement Strategy for Galway County Council and increased capacity to source wood products in a sustainable manner.

Case Study: Public Lighting

Galway County Council manages a network of over 12,300 public lights. Through an extensive upgrade programme, the percentage of high efficiency LED lighting increased from 35% in January 2022 to 57% in June 2023. This will result in an estimated reduction of 286 tonnes of greenhouse gas emissions per annum.

Public lighting upgrades will continue under the Electric Skyline programme and the National Public Lighting Energy Efficiency Project (PLEEP); Galway County Council aims to achieve 100% high efficiency LED lighting by 2030. Galway County Council will have due regard to the potential effect of light on biodiversity during the planning of these programmes.





1.8. Supporting a Just Transition for the County of Galway

Just transition aims to ensure that the shift to a low-carbon economy is fair and equitable for all stakeholders, especially those who are most vulnerable or affected by the changes. Supporting a just transition is a core element of this Plan, from the high-level mission statement through to the specific actions. A just transition can mean new jobs, new skills, new investment opportunities, and the chance to create a more productive and resilient economy.

Key actions included in the plan that will support a just transition include the retrofitting of the social housing stock, increase resilience to the effects of climate change, improve access to public transport and active travel and support for communities in peripheral regions. Galway County Council are committed to working with partners and communities to support a just transition.

The Midlands region, including the Ballinasloe Municipal District, has been identified as being impacted by the transition away from fossil fuels with the ending of peat extraction for power generation. The EU Just Transition Fund has been established to assist those areas that were identified as being impacted. The priority for the fund is to generate employment by diversifying the local economy, restore degraded peatlands and regenerate industrial heritage assets and develop smart and sustainable mobility options. The Programme will deliver €169

million in investment to the region in the period to 2030. Galway County Council will work with the funding bodies to maximise the drawdown of funding in the Ballinasloe Municipal District.



In making that transformation, it is necessary to move past the assumptions which have failed us and to work together for such a different set of values as will enable us to build a sustainable social economy and a society which is profoundly ethical and inclusive.

Michael D. Higgins' Inauguration Speech



2. Climate Change Overview



2. Climate Change Overview

2.1. Scientific Context of Climate Change

2.1.1. Global 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.

Climate change risk assessments identify the likelihood of future climate hazards and their potential impacts. This is fundamental for informing the prioritisation of climate action and investment in climate action. The Intergovernmental Panel on Climate Change (IPCC's) Working Group Sixth Risk Assessment Report, confirms that there is 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.

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. 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.

2.1.2. Climate Projections for Ireland

Ireland's temperature has increased in line with global temperature increases, with 2022 being a year of record-breaking extremes, in both temperature and rainfall. Ireland's temperature has been above the long-term average for 12 consecutive years and there has been a rise in sea level in line with global increases, with an average of 2-3 mm per year.

Recent extreme weather events have highlighted the vulnerability of individuals, businesses, communities and infrastructure to climate change, emphasising the need for urgency on climate action across all sectors of society. 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, climate scientists can make robust projections on future climate patterns in Ireland. Future climate projections were set out in The Status of Ireland's Climate Report, July 2021 and can be summarised as follows:

- Climate trends observed over the last century will continue and intensify over the coming decades.
- Temperatures are increasing and are expected to continue to increase across all seasons.
- Significant reductions in levels of average rainfall are expected in Spring and Summer



with increased occurrence of extreme rainfall events, particularly in Winter.

- The frequency of extreme wind conditions is expected to increase, particularly during Winter.
- An increase in sea level rise, similar to what has been experienced to date. Ireland is extremely vulnerable to sea level rise, due to its expansive coastline and the large population on the coast.
- Increases in the frequency of river and surface water flooding.
- Increases in the frequency and intensity of coastal flooding and erosion.
- Increases in the frequency and intensity of summer heat waves, extreme temperatures and drought.
- Reductions in the frequency of frost and snowfall.
- 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.

2.1.3. Risk Assessment for the County of Galway

2.1.3.1. Purpose of Climate Change Risk Assessments

Risk Assessment is a crucial component of climate action planning process, as it

helps to identify the potential risks and vulnerabilities that climate change poses, and to identify appropriate measures (actions) to mitigate them. To understand how Galway County Council needs to adapt to observed and projected changes in climate, KPMG supported Galway County Council to build a Climate Change Risk Assessment (CCRA).

2.1.3.2. Climate Change Projections

Projecting future climate change involves assessing several different uncertainties. Scenarios, called Representative Concentration Pathways (RCPs) have been developed to simulate how the climate might change in the future in response to different levels of greenhouse gases. In assessing climate change risk for County Galway, information for two future climate scenarios were employed, RCP4.5 and RCP 8.5. The RCP8.5 scenario was used as it represents a 'worst-case' scenario which allows for a conservative risk assessment approach.

RCP4.5

Represents an 'intermediate emissions' scenario with an average global warming of 1.4°C for the 2046-2065 period.

RCP8.5

Represents a 'very high emissions' scenario with an average global warming of 2°C for the 2046-2065 period.

2.1.3.3. Observed Climate Changes for the County of Galway

In line with global trends, the climate of

Ireland and Galway is changing, temperatures are increasing, and patterns of precipitation are changing. A summary of key climate and weather-related changes already observed for the County of Galway are detailed below.

For each climate hazard identified through the climate hazard profile, an assessment of frequency of occurrence was conducted.

Severe storm events were identified as the most significant climate hazard over the period 1973-2022, with river and pluvial flooding, heatwaves and drought, coastal erosion and flooding also affecting the County on a number of occasions. Cold spells, heavy snowfall and groundwater flooding, have also impacted County Galway, but less frequently.

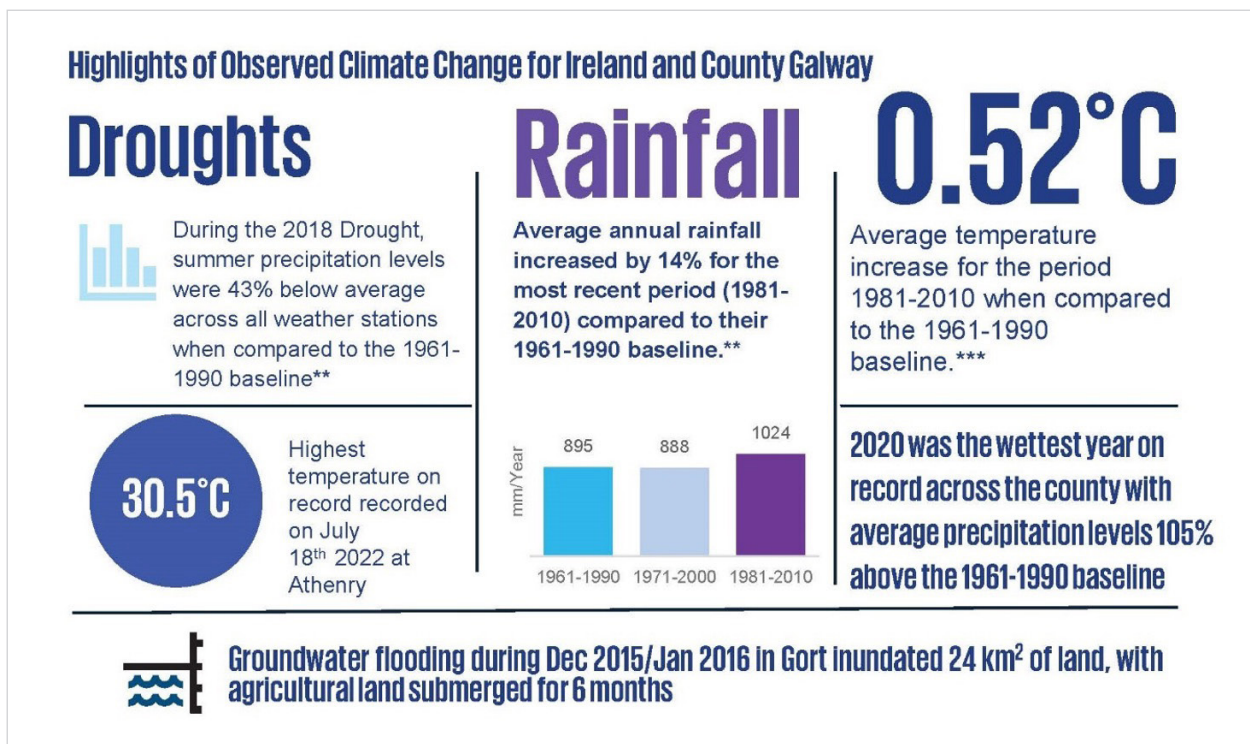


Figure 3 Synopsis of observed changes in the County of Galway from 1961 to 2022



Frequency of Identified Events According to Category (1973-2022)

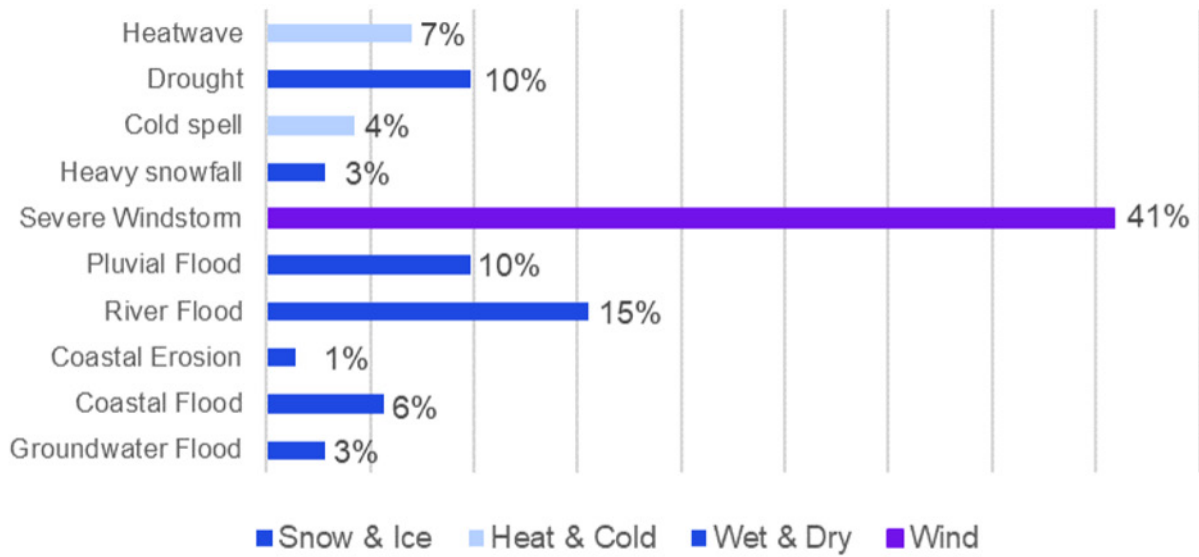


Figure 4

A comprehensive summary of the information that underpins the exposures, vulnerabilities and impacts for the hazards that exist within the County of Galway was detailed in the Climate Change Risk Assessment Technical Report.

2.1.3.4. Climate Projections for the County of Galway

Having identified and assessed the range of climate hazards already experienced in the County of Galway, the projected changes in the frequency and intensity of climate

hazards was assessed to understand how existing climate impacts and risks faced by Galway County Council may look in the future.

In line with global trends, the frequency and intensity of some hazards (e.g. coastal, river and surface water flooding, coastal erosion, heatwaves and drought) will increase while others (e.g. severe windstorms) will remain the same. These changes are projected to continue and intensify with a wide range of impacts for the County of Galway.











HAZARD	PROJECTED CHANGE	FUTURE FREQUENCY
 Heatwaves	<ul style="list-style-type: none"> Projections indicate an overall increase in average temperature (bottom left) of between 1.1 and 1.5°C for County Galway relative to the 1981-2000 period. Under a high emission scenario, projections indicate that heatwaves will become more frequent (bottom middle) by mid-century. 	Frequent ↑
 Droughts	<ul style="list-style-type: none"> Summer rainfall is expected to reduce by between 4 and 15% in the future when compared with the baseline period of 1981 to 2000, in both the RCP4.5 and RCP8.5 scenario contributing to potential drought conditions. 	Frequent ↑
 Cold Spell	<ul style="list-style-type: none"> As a consequence of the increasing temperatures, a decrease in the number of frost days and ice days in the 2041-2060 future period when compared with the baseline period of 1981 to 2000, is projected for both the RCP4.5 and RCP8.5 scenario. 	Rare ↓
 Heavy Snowfall	<ul style="list-style-type: none"> The annual snowfall in the region is projected to decrease substantially by the middle of the century for the RCP4.5 and RCP8.5 scenarios (bottom right). 	Rare ↓
 Severe Winstorms	<ul style="list-style-type: none"> Projections of storms are subject to a high level of uncertainty. By mid century, projections indicate that average wind speed will remain similar to those currently experienced. There is limited evidence of a potential increase in the frequency of more intense storms which are currently rare events. However, more research is needed to confirm this increase. 	Frequent =
 Coastal Flooding	<ul style="list-style-type: none"> Rising sea levels projections under a high emissions scenario indicate an increase of up to 0.24 m by 2050 which will increase the frequency of coastal inundation (bottom left). 	Frequent ↑
 Coastal Erosion	<ul style="list-style-type: none"> A rising sea level is strongly linked with coastal erosion and an increase in erosion rates and extent. 	Frequent ↑
 Pluvial Flooding	<ul style="list-style-type: none"> Projections indicate an increase in the frequency of heavy rainfall days (days with precipitation >30mm) for County Galway with some areas projected to see increase of up to 55% (bottom right). This will likely result in an increased frequency of associated fluvial and pluvial flooding. 	Frequent ↑
 River Flooding		
 Groundwater Flooding	<ul style="list-style-type: none"> Projections of changes in groundwater flooding are currently not available, therefore there is uncertainty in the change in groundwater flooding frequency that can be expected. 	Occasional =

Table 1 Change in Frequency of Climate Hazards in the County of Galway

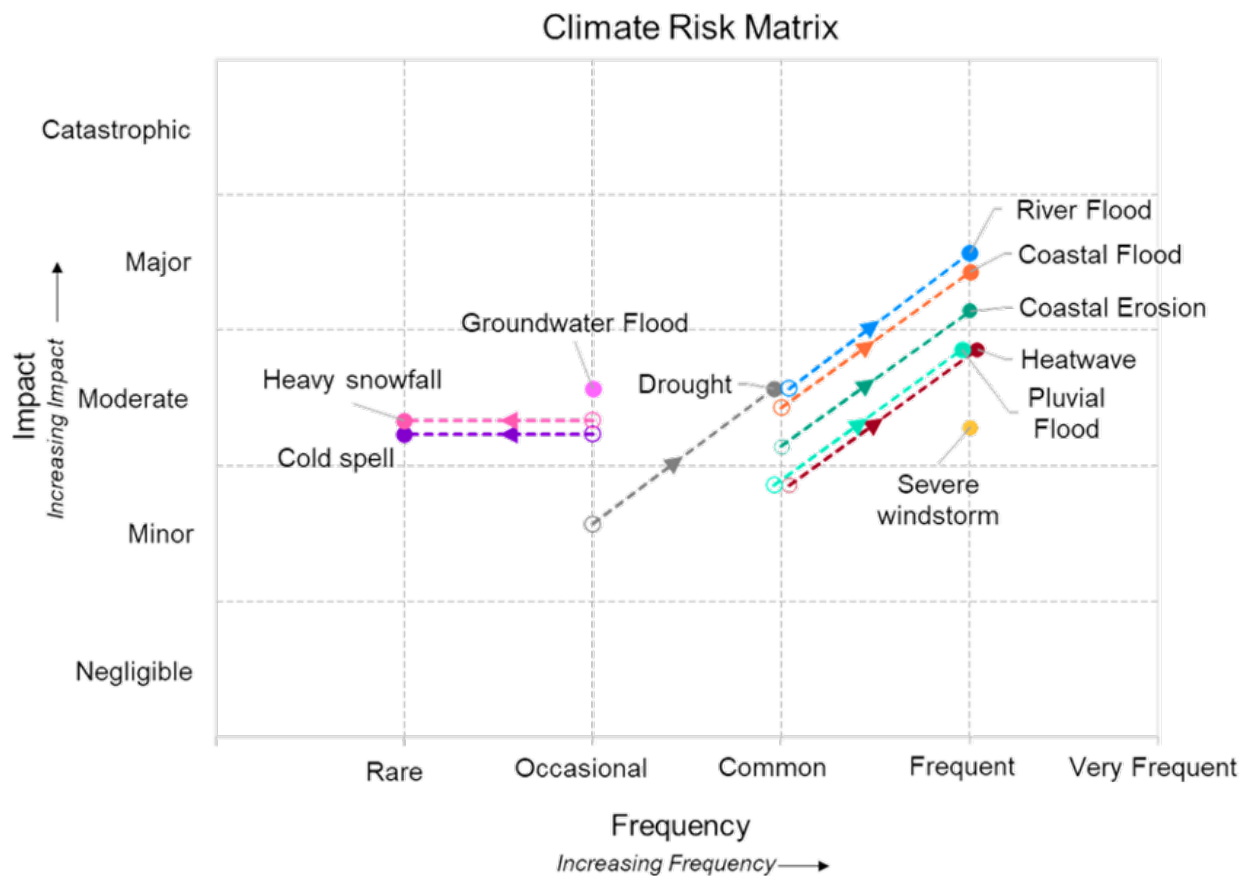


Figure 5 The County of Galway Climate Risk Matrix

National, regional and local strategies that outlined expected and possible sociodemographic and infrastructure developments within the County of Galway were reviewed to understand how exposure and vulnerability may change by 2050.

The Risk Assessment was developed based on the most-up-to-date climate projection data available at the time of writing. The underlying models are updated on a regular basis and the level of risk may increase as a result. In addition, feedback loops, which would likely make the effects more impactful, could not be considered, due to a lack of local modelling. Other indirect risks

from climate change, while not part of this Risk Assessment, should be noted, such as forced migration of populations, increases in vector-borne disease and disruption of supply chains. The Climate Risk Assessment Report can be viewed [here](#).

2.2. Legislative and Policy Context

Climate action is given impetus by the scientific evidence that supports the findings of human influence on climate change and

legally binding ambitious and strengthened policy responses. Consequently, this Climate Action Plan is set within a broader context of international, EU, national and sectoral climate policy.

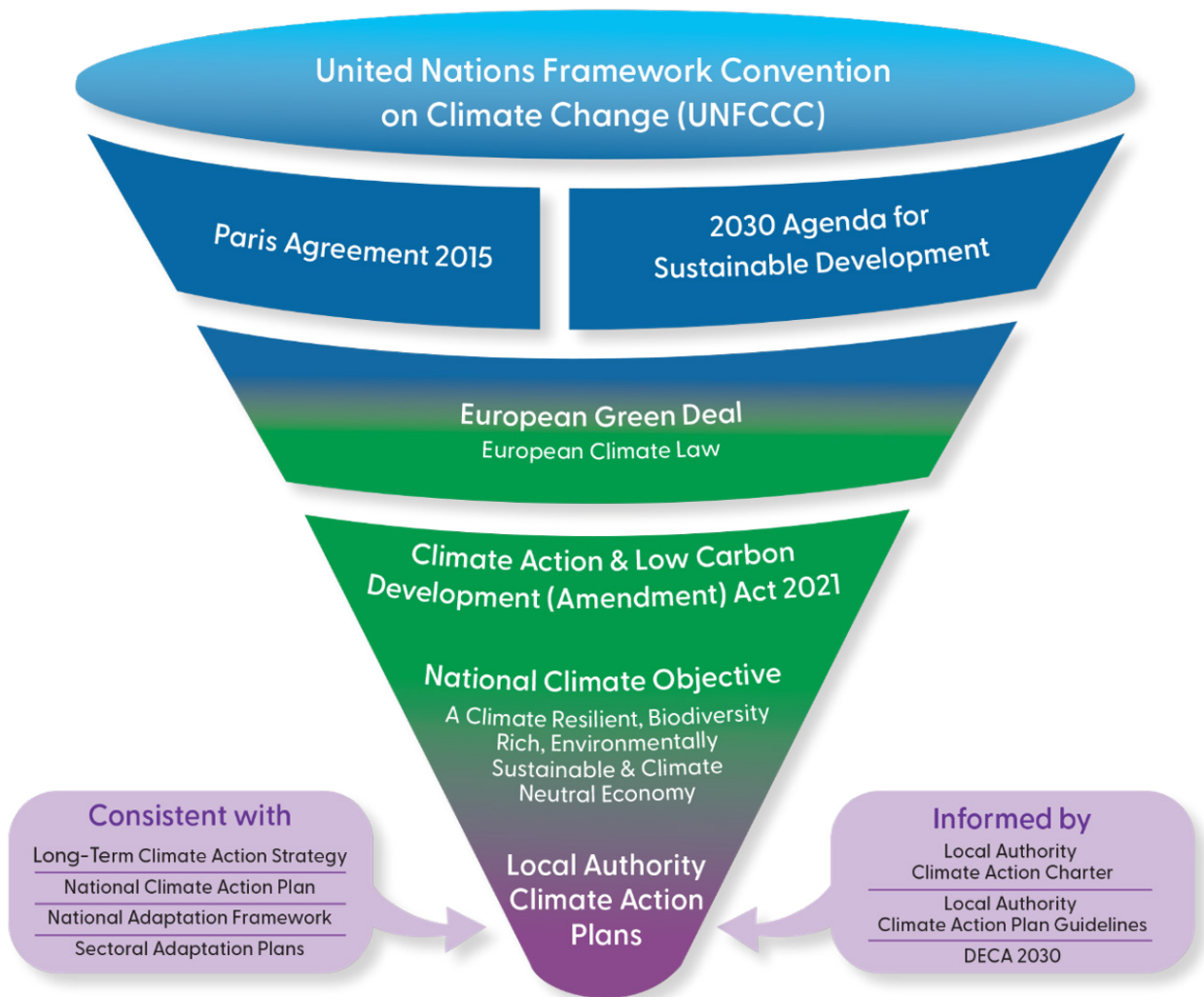


Figure 6 (Source: Climate Action Regional Offices)



2.2.1. Global

It has been recognised that successfully tackling climate change requires cooperation and ambition on an international level.

Countries have sought to build international cooperation to limit the increase in the average global temperature and deal with the impacts of climate change.

Paris Agreement

These efforts led to the signing of the Paris Agreement 2015 by all 196 UN member countries in November 2016. This is a legally binding international treaty which strives for progressive and ambitious climate action over time to avoid dangerous climate change by holding global warming to well below 2°C and seek to limit the temperature increase by 1.5°C, in comparison to pre-industrial levels. It also seeks to increase the ability to adapt to the adverse impacts of climate change and foster climate resilience.

Agenda 2030 for Sustainable Development and Sustainable Development Goals

The [2030 Agenda for Sustainable Development](#) 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.

The 17 Sustainable Development Goals (SDGs), are an urgent call for action by all countries - developed and developing - in a global partnership. They recognise that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. Each action within this Climate Action Plan is aligned to at least one SDG.

The SDG National Implementation Plans acknowledge that local government “has a crucial role to play in translating national policies into tangible practical actions that can help to concretise the SDG objectives into our individual and communities’ behaviours and goals.”

Galway County Council is working to advance the SDGs, through the incorporation of the SDGs into our plans and policies, participation in local and international partnerships and the provision of training and information events both internally and externally.

To understand and maximise the alignment between the actions in this plan and the SDGs, a mapping assessment has been conducted. This supports our understanding of the co-benefits of the actions including benefits to livelihoods, economic growth, gender equity, and health and well-being.



2.2.2. European

European Union Green Deal (2020)

In December 2019, the European Union 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.

European Climate Law

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 2021 made these targets legally binding with an intermediate target of reducing net GHG emissions by at least 55% by 2030.

EU Fit for 55

EU Fit for 55 is a package that aims to bring the EU’s climate and energy legislation in line with the 55% GHG emission reduction target set by the EU for 2030.

2.2.3. National

Climate Action and Low Carbon Development (Amendment) Act 2021

Climate change policy in Ireland now reflects the ambition of the EU. The Climate Action and Low Carbon Development (Amendment) Act 2021 frames Ireland’s legally binding climate ambition to delivering a reduction in GHG emissions of 51% by 2030, and to achieve climate neutrality by the end of 2050. The Act aims to provide for the approval of plans by the Government in relation to climate change for the purpose of



pursuing the transition to a climate resilient, biodiversity rich and climate neutral economy by no later than the end of the year 2050.

The Act enshrines the National Climate Objective 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.”

Local Authority Climate Action Plans

A key element of the Climate Action and Low Carbon Development Act (Amendment) 2021 relevant to all local authorities is the requirement for all local authorities to prepare an individual Local Authority Climate Action Plan (LACAP) for their functional area. The purpose of the LACAP will be to deliver effective climate mitigation and climate adaptation actions at local authority and community levels. Local Authority Development Plans must also be aligned with their LACAP. Local authorities are well positioned at the forefront of climate action in Ireland, and play 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.

National Climate Action Plans

The 2023 Climate Action Plan outlines the challenges across key sectors including electricity, transport, built environment, industry, and agriculture. The Plan outlines

the final agreed emissions reduction targets for each of the key sectors. The GHG emissions reduction targets in the 2023 Plan include: 75% reduction from electricity generation, 40% reduction from the residential sector, 45% reduction from commercial/public sector, 50% reduction from the transport sector, 25% reduction from the agriculture sector, 35% reduction from industry. A reduction target for land use, land use change and forestry (LULUCF) has yet to be determined.

The 2023 Climate Action Plan reaffirmed two high-level targets for public bodies that had been originally introduced in previous iterations of the National Climate Action Plan:

- The public sector must improve its energy efficiency by 50% by 2030, based on a 2009 baseline.
- The public sector must reduce its GHG emissions by 51% by 2030, based on a 2018 baseline.

2.2.4. Sectoral

National Adaptation Framework (NAF)

Ireland published its first National Adaptation Framework (NAF) in 2018, to assist key sectors to assess the risks of climate change, implement climate resilient actions, and ensure climate adaptation considerations are mainstreamed into national, regional and local policy making. 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. 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.

Climate Action Charter

The Local Authority Climate Action Charter, signed by Galway 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

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.

Climate Action, Transport, Circular Economy, and Networks Committee

The County and City Management Association (CCMA) is the 'representative voice' of the local government management network. The CCMA operates through several established committees, each of which is concerned with a specific policy area. Each Committee is made up of county and city council chief executives and directors of service / heads of finance which interface with senior management of government departments and other relevant organisations. The relevant committee in this area is the Climate Action, Transport, Circular Economy, and Networks Committee.

Climate Action Regional Offices

The Climate Action Regional Offices (CAROs) were initially established in 2018 to support the preparation and delivery of the Local Authority Climate Change Adaptation Strategies, to enable engagement across sectoral climate adaptation plans, and to coordinate climate action undertaken by



the sector. The CAROs provide guidance, advice, and support to local authorities to leverage the capability, reach, and resources of the sector to effectively address climate change across Ireland. Galway County Council is part of the Atlantic Seaboard North region.

Galway County Development Plan

The Galway County Development Plan 2022 to 2028 sets out the overall strategy for the proper planning and sustainable development of the County over a 6-year period. Climate action is integrated into

every chapter and strategy in the plan. To facilitate the sustainable growth of renewable energies a Local Authority Renewable Energy Strategy (LARES) was prepared as part of the County Development Plan. The LARES outlines the potential for a range of renewable energy resources and developments and acknowledges the significant contribution that they can make to the county in terms of energy security, reduced reliance on traditional fossil fuels, enabling future energy exports, meeting assigned national targets and the transition to a low carbon economy.



Photo source: Courtesy of Chris Hill Photography



3. Evidence Based Climate Action



3. Evidence Based Climate Action

3.1. Stakeholder Engagement

Stakeholder engagement is a vital component of any climate action plan, as it ensures that the plan reflects the needs, interests and values of the people who are affected by or involved in the transition to a low-carbon and climate-resilient society. A significant programme of Stakeholder Engagement was undertaken in Spring and Summer 2023. A Climate Action Plan Summary Report was developed to serve as evidence base and an engagement tool.

The Stakeholder Engagement Programme included:

- national sectoral workshops,
- internal department workshops,
- decarbonisation zone meetings and workshop,
- stands and presentations at local festivals and sectoral events,
- public surveys,
- Climate Youth Assembly and other conferences

Galway County Council is also engaged in existing public participation structures and approaches that are bottom-up, local community centred and are outcome focused including Public Participation Networks (PPN), Tidy Towns, Sustainable Energy Communities (SECs) and a range of other programmes and initiatives and

communities were consulted via these networks.

Over 200 items of feedback were received



Active citizenship requires the will and the opportunity to participate at every level and in every way – to be the arrow; not the target.

President Michael D Higgins

from the individuals and community groups via the various means of engagement. This included 177 responses to the Climate, Biodiversity and Heritage Survey, workshop reports and submissions from groups such as Irish Wildlife Trust, An Taisce, Bird Watch Ireland, Tidy Towns Groups, Sustainable Energy Communities, Galway Green Party, the Galway Cycling Campaign, LAWPRO, the Heritage Council, and the National Federation of Group Water Schemes. The submissions and reports were an integral part of the development of the draft actions.

Some findings of note from the Climate, Biodiversity and Heritage Survey are presented below:

- 80% of survey respondents considered it important to set ambitious targets and timelines in the plan.
- The areas identified as highest priority



for focus in the development of the plan were:

- Sustainable transport
 - Renewable energy
 - Energy efficiency
 - Water protection
- 91.5% of respondents said they would like to improve the energy efficiency of their homes or businesses and cost was reported as the greatest barrier.
 - Respondents identified that improvements in the following areas would help them to move to avail of more sustainable modes of travel:
 - Improved public transport,
 - Improved cycle lanes/footpaths,
 - Improved safety
 - More EV charging points

3.1.1. Youth Engagement



Delivering on our climate ambition requires that the Government and the people of Ireland come together in a strengthened social contract for climate action and the co-creation of real solutions to these challenges.

Climate Action Plan 2023

Climate change is a global challenge that will have significant long-term impacts, and young people will inherit the consequences of decisions made today. Engaging with young people in climate planning ensures that their future interests and well-being are considered and was a key aspect of the development of the plan. Young people can also be an important driver of positive change in their communities.

CASE STUDY – Youth Climate Assembly

In Galway, our ability to engage with young people has been significantly enhanced through the work of SAUTI-Youth (Sustainable Accountability Uniting Tanzanian and Irish Youth) which is an initiative co-funded by the European Union, World Vision Ireland, Youth Work Ireland Galway and World Vision Tanzania. It is a youth led initiative which aims to monitor local government commitments to climate action, in Galway and Tanga (Tanzania). Young people are provided with the skills to monitor their local government's climate action commitments and spending. Youth are empowered to engage with local authorities to ensure young people's voices are taken into consideration in decisions which effect their future.

In conjunction with the SAUTI Youth Project and Youth Work Ireland Galway, a Youth Climate Assembly was held in Athenry on the 19th of April 2023. The Assembly was one of the first events of its kind to happen at a local level in Ireland. 57 students from 13 schools across the county attended the event.





Youth Climate Assembly April 2023

The innovative event provided a space for young people from secondary schools and youth organisations in the county to gather to discuss an issue that is increasingly impacting our planet. The participants were introduced to policies, projects and research being undertaken in The County of Galway

to tackle the Climate and Biodiversity Crises. They were encouraged to initiate positive change through their school and/or youth/ community group and were also facilitated to develop recommendations to influence and shape local government policies.

The feedback from the event was gathered into a report and their ideas were incorporated into this plan.

KEY ISSUES IDENTIFIED	
 <p>Transport</p> <p>Lack of public transport and unsafe conditions for active travel</p>	 <p>Waste</p> <p>Illegal dumping/littering and a lack of bins</p>

RECOMMENDED ACTIONS

Waste and Circularity

- Increase the availability of segregated bins in communities
- Encourage local businesses to reduce waste and use sustainable packaging
- Provide public water refill stations

Transport and Energy

- Improve public transport in rural areas and reduce the cost for young people
- Improve active travel facilities including cycle lanes, cycle parking and lighting
- Support renewable energy while ensuring open communication with communities

Leadership and Education

- Provide training and education in relation to climate action, biodiversity, sustainable food
- Support renewable energy while ensuring open communication with communities

Biodiversity

- Carry out actions to protect biodiversity and support the public to do likewise



Feedback from the attendees included:

“I really enjoyed the Q&A and the way we could express how we feel about climate change, and we learned what we could do to help change Galway for the better”.

“There is a bigger community concerned about climate change than I previously thought. You can combat climate change in any career and there’s a lot of opportunity to get involved”.

“I would love to regularly participate in events like these with like-minded young people”.

“I liked today because I got to learn more about climate change and our economy”

“I enjoyed having my opinions and questions valued”.

3.2. Partnerships

Developing strong partnerships is necessary for transformational change. Galway County Council does not always have direct control in relation to emissions, however, there are many areas where the Council can advocate for necessary actions.

Galway County Council will continue to create and encourage partnerships with

businesses, institutions, industries, and organisations to develop and implement climate actions and projects. Galway County Council welcome interested parties to engage in the delivery of the Climate Action Plan. We will also work closely with local authorities in the Atlantic Seaboard North through the Climate Action Regional Office. These partnerships can provide opportunities for collaboration on projects, shared learnings, technical support and leveraging of funding opportunities during the implementation of actions in the plan. Galway County Council’s efforts in citizen and stakeholder engagement will continue to be supported by the CAROs, the Environmental Protection Agency, the National Dialogue on Climate Action, and other partners.

3.3. Baseline Emissions Inventory

Understanding where our Greenhouse Gas Emissions (GHG) are coming from at a local level provides an evidence base for developing our Climate Action Plan and enables us to identify appropriate local actions. As part of the Climate Action Plan planning process, a baseline GHG emissions inventory was carried out to understand our starting point and how our actions could reduce overall emissions. The report evaluates and determines the baseline GHG emissions from various sectors in the county, including insights into Galway County Council’s own emissions, for the year 2018. The year 2018 was selected nationally as the baseline year to inform this Climate



Action Plan. This baseline also aims to raise awareness of climate change and the impact that different sectors within the county have on Ireland’s overall GHG emissions.

The sectors included in the county wide analysis are: residential, commercial and industrial, industrial processes, agriculture, transport, waste and wastewater, and land use land use change and forestry (LULUCF). The methodology is based on the Tier 1 ‘Top- down’ Approach defined in Technical Annex C of the Local Authority Climate Action Plan Guidelines. The GHG emissions calculations that inform this report are based on data from Map Elre and Ireland’s National Emissions Inventory 2021.

The GHG emissions for the County of Galway in the baseline year were approximately 5% of the national emissions. Overall, the GHG emissions generated in the County of Galway equated to 1,905 ktCO₂-eq in the baseline year. The top four sectors in the county in terms of emissions were Agriculture, Transport, LULUCF and Residential producing 44%, 16%, 16% and 15% respectively of the total GHG emissions in the county. As shown in Table 2, emissions are broadly in line with National GHG emissions data although Agriculture and LULUCF are slightly higher as would be expected in a rural county.

Emissions Category	County Galway Emissions (ktCO₂e)	National Emissions¹ (ktCO₂e)
Residential	450 (15%)	9,552 (15%)
Commercial Services	117 (4%)	4,618 (7%)
Manufacturing Combustion	99 (3%)	6,737 (10%)
Industrial Processes	23 (1%)	2,267 (3%)
Transport	478 (16%)	12,196 (19%)
Waste	21 (1%)	991 (1%)
Agriculture	1,343 (44%)	22,134 (34%)
LULUCF	478 (16%)	6,657 (10%)
Total	3,009 (100%)	65,152 (100%)

Table 2: The GHG emissions for the County of Galway

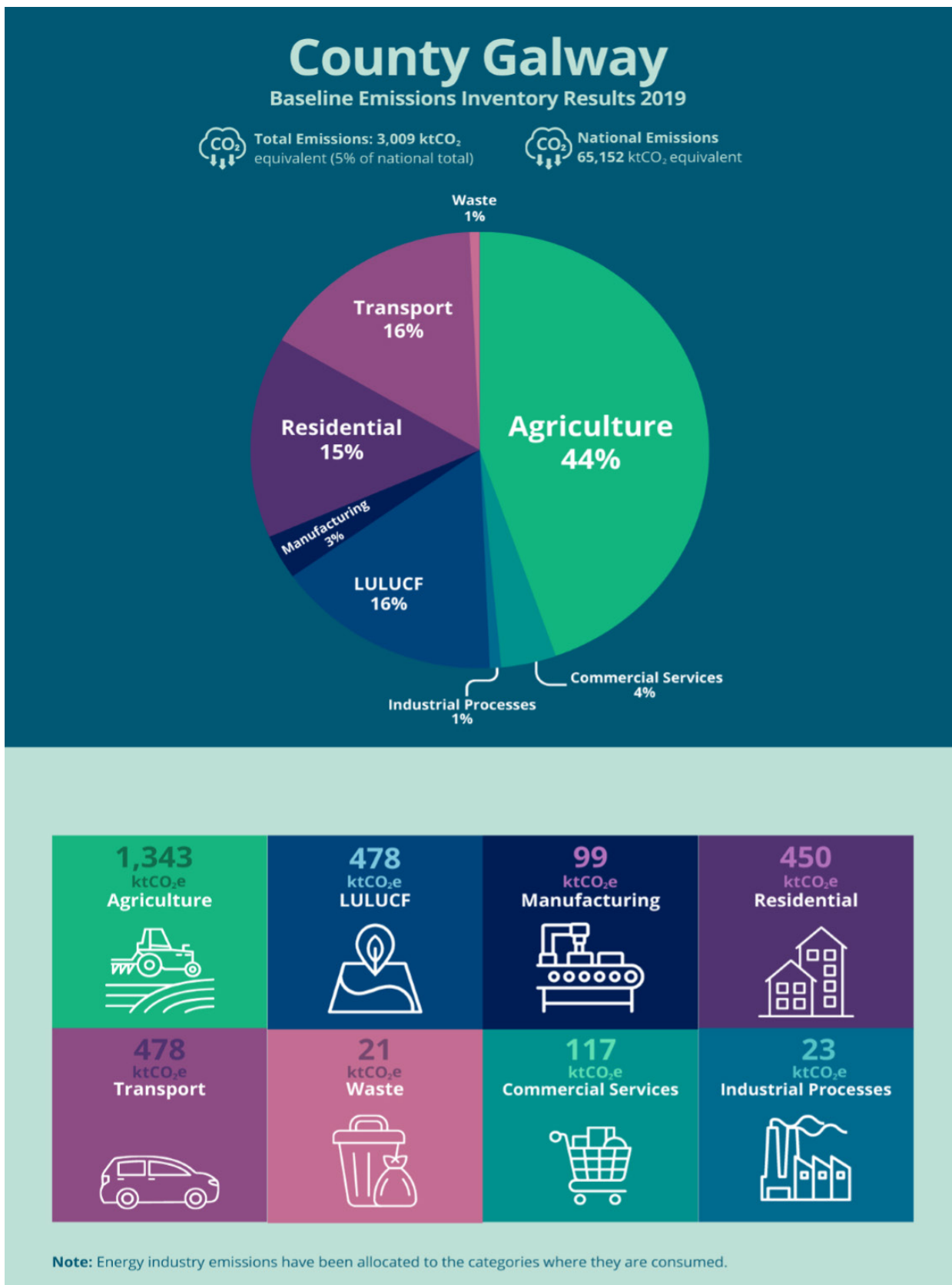


Figure 7 County of Galway Emissions Summary

Agriculture

Agriculture is a vital part of Ireland's economy, generating 8% of the country's gross value added and providing over 8.5% of national employment in 2019.

Ambitious targets have been set nationally to reduce GHG emissions from the sector by 25% by 2030. Emissions are generated from enteric fermentation, manure and soils management, liming, and the use of fertilisers and urea as well as from the use of energy-intensive machinery and equipment.

Galway is a rural county where Agriculture plays a vital role in underpinning the rural economy. It is a diverse geographic region with dry stock mixed farming and dairy farming dominating in lowland areas, whilst in the mountainous parts suckling, sheep, and mixed farming are common. The dominant greenhouse gas emitted in the sector is Methane, followed by Nitrous Oxide. 57% of Agricultural emissions in the county are from enteric fermentation in cattle.

Residential

Within the Residential Sector, 76% of emissions are from hot water and space heating while electricity consumption accounted for 24%.

Transport

Within the Transport Sector, 57% of the total emissions are from private cars and heavy-duty vehicles and buses account for 27%. Private car usage in the county is high, with 67% of residents relying on personal

vehicles. This is primarily attributed to the county's predominantly rural nature with dispersed settlements and a relatively low population density of 42 people per square kilometre.

Land Use, Land Use Change and Forestry (LULUCF)

LULUCF is responsible for emissions as well as carbon sinks. It involves emissions and sequestration within forest land, cropland, grassland, wetlands, settlements and other land types, as well as through the harvesting of wood products. Cropland and forest land were responsible for the removal of 420 ktCO₂ equivalents of emissions, whilst grassland, settlements, wetlands, and other land were responsible for emitting 900 ktCO₂ equivalents of emissions. County Galway has a wide variety of wetlands, grasslands, and forestry. There is a large variation in soil types in the region with significant areas of peat, rock (grey), brown earth and gleys. When peatlands and wetlands are drained and damaged, it generates emissions.

3.3.1. Galway County Council Emissions and Targets

Galway County Council, along with all public bodies in Ireland must achieve a 51% reduction in energy related GHG emissions and a 50% improvement in energy efficiency by 2030. This target builds on the previous 33%-by-2020 energy efficiency target. Galway County Council must also reduce its GHG emissions by 51% by 2030. The target is a 51% reduction of direct energy-related emissions (thermal and transport



consumption), plus projected supply side reductions in indirect energy-related emissions from electricity. This is tracked through the SEAI's Monitoring and Reporting (M&R) system.

Electricity usage related GHG emissions for the local authority are a result of building and facility electricity usage and public lighting electricity usage. Thermal GHG emissions for the local authority are a result of building and facility space heating. Transport GHG emissions for the local authority are associated from the diesel and petrol usage among the local authority's vehicles and plant fleet. In the 2016 to 2018 period, the average emissions amounted to 6.3 ktCO₂ equivalents. This represents less than 1% of the total emissions for the County. Transport was the highest contributor, accounting for 35% of total emissions. This was followed by public lighting, contributing 30% of total emissions, with thermal contributing 16%.

A summary of the gap to meeting the 51% greenhouse gas emissions reduction target, and graphical representation of the workload required is outlined in the figure below. Our overall target by 2030 is a reduction of 4.1 kg of CO₂e when compared to the 2016-18 baseline. A significant proportion of the reduction to date is due to public lighting upgrades.

The requirements for public sector bodies is to lead by example in the Climate Action Plan, and a commitment by local authorities to monitor, evaluate and report annually on the implementation of activities contained in the Local Authority Climate Action Charter, means that there is a need to measure, demonstrate and improve climate action performance to support national climate ambitions to 2050.

The following chapter will identify climate actions focused at achieving Galway County Council's Climate targets.

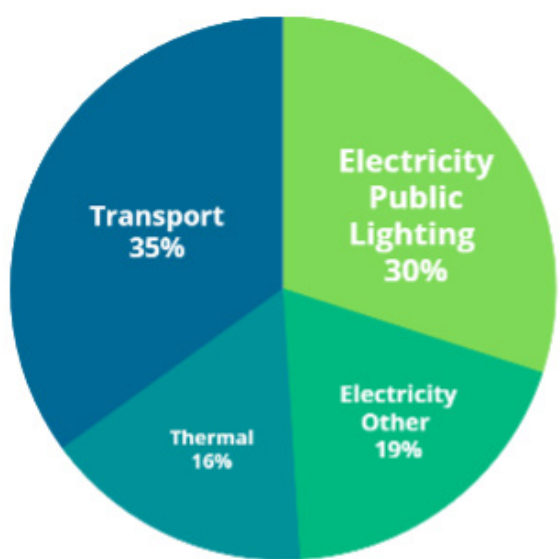


Figure 8 Galway County Council Emissions

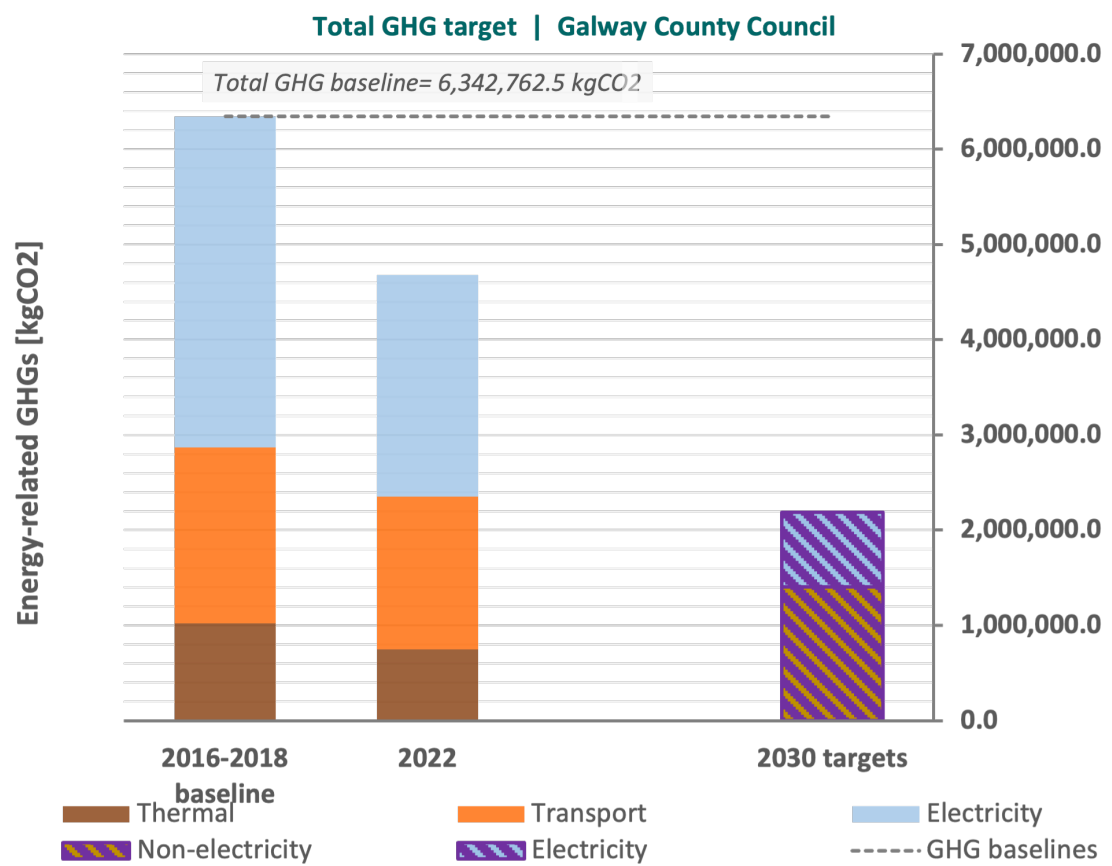


Figure 9: Total GHG Target Galway County Council



4 ● Our Climate Actions



4. Our Climate Actions

Strategic Goals, Objectives and Actions have been identified under the following themes to deliver on the Vision and Mission:

Governance and Leadership

Energy and Built Environment

Transport

Communities and Enterprise

Circular Economy

Land Use and Green Infrastructure

Adaptation to Climate Risk

4.1. Governance and Leadership

STRATEGIC GOAL:

Foster strong governance and leadership to drive climate action and ensure resilience.

Effective governance and leadership at Local Authority level requires the formulation and implementation of policies, regulations, and strategies to ensure a clear pathway towards our climate objectives. This Plan will align all services, policies, and projects of Galway County Council with existing international, national, and regional Climate policy, and will further mainstream climate thinking into the culture of Galway County Council.

Leadership in climate change requires long-term vision and planning whilst recognising the framework within which the Local Authority functions. In that regard, seeking to create collaborations with other public bodies and stakeholders is crucial to enabling other

sectors within County Galway to meet their climate objectives. We will work to ensure that the appropriate resources, both human and financial, are secured to enable positive climate action to take place and seek to ensure that available funding sources are maximised.

Galway County Council Energy Use

Galway County Council has a dedicated Energy Management Team in place. This multidisciplinary team is led by an Energy Performance Officer and includes a dedicated Energy Manager and a Fleet Manager. The team works to identify and deliver energy efficiencies across Council operations and buildings. The Energy Management team is in the process of developing an ISO 50001 compliant Energy Management System which will support the identification of projects and funding streams to deliver the Councils 2030 energy targets. The team is supported by the Regional Energy Bureau and local Energy Bureau Officer.

Social Housing Retrofits

All new social houses are developed to Near Zero Energy Building Standard, and the upgrade of existing social housing stock is underway. The Government launched a revised ten-year Energy Efficiency Retrofitting Programme for social housing upgrades in 2021. The revised programme provides significant upscaling in the levels of funding in line with the Programme for Government commitments; and focuses on ensuring that the fabric of the home is



upgraded, and an energy efficient heating system is provided. This enables local authorities to move to a 'deeper retrofit' programme. The retrofit works result in significant savings for Council tenants and more comfortable homes. The Council will continue to carry out social housing retrofits in line with Government funding allocations. Funding levels under this programme are expected to increase annually to deliver a total of 36,500 social houses nationally, retrofitted to BER B2 or equivalent, by 2030.

Green Public Procurement

Green Public Procurement (GPP) is a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle. Under the National Climate Action Plan, all procurement using public

funds must include green criteria. By undertaking GPP Local Authorities and public bodies will harness their significant buying power to help shape Ireland's transition to a sustainable and carbon-neutral economy and society. Galway County Council is in the process of developing a Green Public Procurement Strategy.

Staff Awareness & Training

In partnership with the CAROs and the Local Authority Services National Training Group (LASTNG), climate action training continues to be rolled out for the entire local authority sector, including elected representatives, to empower and upskill staff to act as leaders on climate action. In addition to this, there is regular climate action awareness messaging through internal Council communication channels.



OBJECTIVES



Objective GL1

Establish effective governance and leadership practices that facilitate the successful implementation of the plan.



Objective GL2

Implement effective energy management and projects across Galway County Council assets aligned with 2030 targets and net zero trajectory.



Objective GL3

Integrate climate action into the local authority's policies, plans, strategies and functions. Ensure prioritisation of the decarbonisation zone.



Objective GL4

Facilitate climate action throughout the county, by engaging and collaborating with stakeholders and citizens in the development, implementation and review of the local authority climate action plan, and provide them with information and support.

SDG Alignment



Co-Benefits



Enhanced Governance



Civic Engagement



Increased Energy Security



Improved Service Delivery



Goal 1. Governance and Leadership

Objective GL1 Establish effective governance and leadership practices that facilitate the successful implementation of the plan.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action GL 1.1 Continue to develop and support the Climate Action Steering Group, Climate Action Team, and Energy Team within Galway County Council. Ensure the Climate Action Unit is adequately resourced.	Ongoing	GCC Management Team	Number of staff in place; Minuted meetings - Steering Group (Biannual), Climate Action Team (Quarterly), Energy Team (Quarterly)	Both
Action GL 1.2 Build expertise within the GCC Management Team, Climate Action Steering Group, Climate Action Team, Energy Team, Climate Ambassadors, Elected Members and Staff by identifying training needs and organising relevant training.	Ongoing	GCC Management Team, GCC Human Resources	Annual training plan prepared and completed.	Both
Action GL 1.3 Develop and approve annual Climate Action Implementation Plans to support delivery of Climate Action Plan.	Ongoing	GCC Management Team	Annual work programme developed and completed;	Both

Objective GL 2 Implement effective energy management and projects across Galway County Council assets aligned with 2030 targets and net zero trajectory.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
<p>Action GL 2.1 Obtain and maintain ISO50001 Energy Management certification by Q4 2024. Establish data management system. Provide adequate funding and resources to achieve target of 51% reduction in energy-related emissions, 51% reduction in thermal emissions, and 50% improvement in energy efficiency by 2030.</p>	31/12/2024	GCC Management Team	ISO50001 achieved. ISO50001 maintained. Data management system in place. Energy reductions achieved in line with target.	Mitigation
<p>Action GL 2.2 Approve and implement annual retrofit programme for GCC buildings under the SEAI Pathfinder Programme and Community Energy Grant Scheme.</p>	Ongoing	GCC Management Team, GCC Corporate Services	Annual CO2 saving; € grant received; kWh of installed renewable energy	Mitigation
<p>Action GL 2.3 Enable staff to utilise practical lower-carbon options for undertaking business travel through provision of electric bikes and vehicles, carpooling, etc. Support the uptake of remote working and online conferencing tools to reduce commuting and business travel.</p>	Ongoing	GCC Management Team, GCC Infrastructure and Operations Department	Fleet Management Strategy developed and implemented.	Mitigation
<p>Action GL 2.4 Conduct feasibility study and integration of renewable alternative fuel options for Galway County Council vehicle fleet ensuring appropriate regard is had to the sustainability of sourced alternative fuels.</p>	31/12/2025	GCC Infrastructure and Operations Department	Completion of Assessment	Mitigation

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action GL 2.5 Prepare, approve and implement a Fleet Management Strategy in line with LA Re-Imagining Transport Study while ensuring sustainability criteria are appropriately considered during procurement processes.	Ongoing	GCC Management Team, GCC Infrastructure and Operations Department	Fleet Management Strategy developed and implemented.	Mitigation
Action GL 2.6 Continue the programme of upgrading of public lighting within County Galway to energy efficient lighting systems while having due regard to the impact of light on biodiversity.	31/12/2029	GCC Infrastructure and Operations Department	Annual CO2 saving; 100% public lighting LED by 2030	Mitigation
Action GL 2.7 Continue to make energy efficiency retrofits to social housing under the DHLGH-supported Energy Retrofit Programme having due regard to biodiversity and the need to appropriately conserve protected structures.	31/12/2029	GCC Housing Department	Number and % of houses retrofitted	Mitigation

Objective GL 3 Integrate climate action into the local authority's policies, plans, strategies and functions. Ensure prioritisation of the decarbonisation zone.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action GL 3.1 Encourage and facilitate internal Climate Action initiatives and campaigns including water conservation, energy management, habitat creation and waste management.	Ongoing	GCC Environment Section	Number of initiatives; Energy Saved; Waste Reductions; Water Usage Decreased	Mitigation

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
<p>Action GL 3.2 Support the development, implementation and sharing of best practice in relation to Green Public Procurement. Develop a Sustainable Wood Procurement Strategy and overall Green Public Procurement Strategy through the Cities4Forests Programme. Develop a monitoring and reporting tool to ensure GPP is embedded into all procurement.</p>	31/12/2025	GCC Management Team	GPP Strategy Developed; Monitoring and Reporting Tool Developed	Mitigation
<p>Action GL 3.3 Establish a baseline inventory of the embodied carbon emissions associated with the construction materials used in Galway County Council projects, such as roads, bridges, etc. Determine a feasible target for reducing the embodied carbon emissions. Implement measures to achieve the target. Where feasible, include estimated potential reductions in emissions as a result of the project in the calculation.</p>	31/12/2025	GCC Environment Section	Establish baseline inventory, set target and identify measures to achieve the target.	Mitigation
<p>Action GL 3.4 Commit that new public housing and buildings incorporate the principles of climate action in terms of design, services and amenities with careful consideration in the choice of materials, roof types (i.e. green roofs), water conservation, taking advantage of solar gain/passive housing, the provision of low-carbon and renewable energy technologies and public transport infrastructure such as bus stops and shelters as appropriate to the scale of the development.</p>	Ongoing	GCC Management Team	All designs reviewed for potential climate actions	Both

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
<p>Action GL 3.5 Advance the implementation of climate-related objectives in the County Development Plan and Local Authority Renewable Energy Strategy.</p>	Ongoing	GCC Planning Department	CDP and LARES Climate Actions Progressed	Both
<p>Action GL 3.6 Review draft internal and external plans that arise during the lifetime of the Climate Action Plan and advise on the integration of climate mitigation and adaptation measures where appropriate.</p>	Ongoing	GCC Environment Section	Climate action integrated into all new plans and policies.	Both
<p>Action GL 3.7 In implementing this County Galway Climate Action Plan, ensure compliance with Galway County Development Plan 2022-2028 and local area plan objectives and policies relating to environmental management, the protection of statutory Conservation Areas and ensure compliance with specific environmental management measures relating to this plan. Landuse plans and proejcts arising from this Climate Action Plan will be underpinned by Strategic Environmental Assessment, Environmental IMpact Assessment, Appropirate Assessment, and Ecological Impact Assessments as relevant. Galway County Council will take account of any relevant recommendations in the EPA State of Our Environment Report 2024, once published, in implementing the Galway Climate Action Plan over its lifetime. Galway County Council will consider any relevant updated actions, measures or recommendations that may arise in updates to the National Climate Action Plan over the lifetime of the plan.</p>	Ongoing	GCC Management Team		Both

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action GL 3.8 Seek national guidance on the development of Carbon Budgets and Accounting for actions/objectives in GCC plans to ensure consistency with the sectoral carbon targets. Seek national guidance on long-term multi-decade sea level rise and consider as part of long-term land use planning, including in the development of the next iteration of the County Development Plan.	Ongoing	GCC Environment Section, GCC Planning Section	National guidance obtained. Carbon budgets and sea level rise considered in relevant GCC plans.	Adaptation

Objective GL 4 Facilitate climate action throughout the county, by engaging and collaborating with stakeholders and citizens in the development, implementation and review of the local authority climate action plan, and provide them with information and support.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action GL 4.1 Establish a network of stakeholders and ensure ongoing communication. Cultivate and actively participate in partnerships with regional local authorities and public bodies, enterprise, community, voluntary sectors, third level institutions and the research community. Maximise on potential funding streams for the county and work in partnership to develop and implement Climate Action projects and initiatives. Continue to support existing projects including LEAP, CONNECTED, Cities4Forests etc.	Ongoing	GCC Environment Section	Stakeholder network established; Number of projects in place	Both



4.2. Energy and Built Environment

STRATEGIC GOAL

Energy and Built Environment: Transform to low-carbon, resilient and sustainable energy and buildings, enhancing the well-being of our community.

Built Environment - To decarbonise the built environment by supporting and facilitating improvements in the energy efficiency and reductions in the greenhouse gas emissions of existing and new residential, commercial and public buildings.



OBJECTIVES



Objective EB1

Support the development of renewable energy sources, such as wind, solar, tidal, and biomass in suitable locations.



Objective EB2

Ensure the integration of climate action in spatial planning to enable the County of Galway to transition to a low carbon and resilient society.



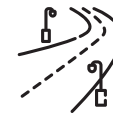
Objective EB3

Reduce urban sprawl and encourage compact and transit-oriented development that maximises the use of green infrastructure.

SDG Alignment



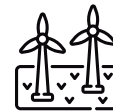
Co-Benefits



Improved Infrastructure



Enhanced Governance



Increased Energy Security



Economic Growth



Goal 2. Energy and Built Environment

Objective EB 1 Support the development of renewable energy sources, such as wind, solar, tidal, and biomass in suitable locations.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action EB 1.1 Support renewable energy research and development at the commercial and community scale whilst advocating and exerting influence to ensure such projects promote climate action co-benefits and do not contravene relevant environmental protection requirements.	Ongoing	GCC Planning Department	MW of renewable energy in the County	Mitigation
Action EB 1.2 Conduct a feasibility study to identify and assess the potential areas and sources for district heating in the county.	31/12/2025	GCC Environment Section	Study Completed	Mitigation

Objective EB 2 Ensure the integration of climate action in spatial planning to enable the County of Galway to transition to a low carbon and resilient society.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action EB 2.1 Assess the feasibility of a policy requiring planning applications to include an assessment of the embodied carbon emissions associated with the proposed development and options for nature-based solutions and biodiversity enhancement, using a standardised and consistent methodology.	31/12/2025	GCC Planning Department	Study Completed	Mitigation

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action EB 2.2 Communicate details of case studies and guidance on the upgrade of traditional building to promote as exemplar, ensuring appropriate guidance is provided on the protection of architectural and heritage value and protected species associated with such buildings during upgrade works.	31/12/2025	GCC Planning Department	Case studies available; Communication programme implemented.	Both

Objective EB 3 Reduce urban sprawl and encourage compact and transit-oriented development that maximises the use of green infrastructure.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action EB 3.1 The provision of public Waste Water Treatment Plants in towns and villages that are not currently served is vital to facilitate compact and sustainable growth. Support Irish Water and the national government to prioritise locations and seek funding for provision of these services.	31/12/2029	GCC Management Team	Number of towns/ villages served by public wwtp	Both
Action EB 3.2 Encourage the upgrade of existing residential and commercial properties to promote sustainable compact growth and regeneration having due regard to biodiversity and the need to appropriately conserve protected structures.	Ongoing	GCC Community and Rural Development	Number of buildings upgraded	Both



4.3. Transport

STRATEGIC GOAL

Transport: Support the provision and uptake of sustainable mobility solutions.

Transitioning towards a more sustainable transport systems is one of the major challenges facing Irish society. Approximately 18% of Ireland's GHG emissions are associated with transport, the figure for County Galway is similar at 16%. The primary source of the transport sector's GHG emissions come from the burning of diesel and petrol in combustion engines. There is a high dependence on private passenger cars, which are responsible for the largest share of transport GHG emissions in County Galway at approximately 57%. How we choose to

travel for work, education, shopping and leisure has a big impact on Ireland's and the County of Galway's GHG emissions.

The National Transport Strategy is framed around the Avoid-Shift-Improve approach: reducing or avoiding the need for travel, shifting to public transport, walking and cycling and improving the energy efficiency of vehicles. The transport-related actions within this Plan will support the uptake of active travel and public travel options and enable the development of electric vehicle charging infrastructure across the county. Additionally, the promotion of sustainable travel and road safety initiatives can improve the safety of the roads and improve air quality in towns and villages throughout the county.



OBJECTIVES



Objective TR1

Support active travel and modal shift to advance sustainable, accessible, and safe mobility.



Objective TR2

Support the development and use of low-carbon technologies such as electric vehicles and low-carbon fuels.

SDG Alignment



Co-Benefits



Improved air quality and reduced noise pollution



Improved public health and wellbeing



Improved Infrastructure



Improved Mobility



Goal 3. Transport

Objective TR 1 Support active travel and modal shift to advance sustainable, accessible, and safe mobility.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action TR 1. 1 Complete Transportation Modelling across the county based on a sustainable transport and smarter travel approach. Develop and implement Local Transportation Plans for Tuam, Athenry, Loughrea, Gort and East Galway Suburbs. Implement the adopted Ballinasloe Local Transport Plan. Complete Community Transport Studies for Headford, Clifden, Kinvara, Oughterard, Portumna and Maigh Cuilinn. Prepare traffic management plans.	31/12/2024	GCC Infrastructure and Operations Department	Number of plans completed.	Mitigation
Action TR 1. 2 Develop County Walking and Cycling Strategy.	31/12/2024	GCC Infrastructure and Operations Department	Strategy developed	Mitigation
Action TR 1. 3 Identify opportunities for reallocation of existing road space to promote active travel and improve public space and implement related projects.	Ongoing	GCC Infrastructure and Operations Department	km of road reallocation identified and implemented.	Mitigation
Action TR 1. 4 Work with communities to identify potential active travel, greenway and public transport projects and support modal shift.	Ongoing	GCC Infrastructure and Operations Department, GCC Environment Section, GCC Community and Rural Development	Number of areas / projects identified and implemented	Mitigation

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action TR 1. 5 Support and promote community mobility schemes including bike share schemes, mobility hubs, bike libraries, community EV carsharing and EV charging, carpooling, and community taxis.	Ongoing	GCC Environment Section, GCC Urban and Rural Regeneration Team, GCC Community and Rural Development	Number of projects supported/developed	Mitigation
Action TR 1. 6 Design and deliver new and improved road crossings, cycle lanes and walkways giving priority to disabled users, pedestrians and cyclists.	Ongoing	GCC Infrastructure and Operations Department	# of crossing delivered; number and km of cycle lanes per annum; number and km of walkways per annum	Mitigation
Action TR 1. 7 Ensure adequate road maintenance for active travel users.	Ongoing	GCC Infrastructure and Operations Department	Annual maintenance programme developed and completed.	Both
Action TR 1. 8 Support the Safer Routes to Schools programme and School Streets Initiative, providing education and training on cycle buses and walking buses	Ongoing	GCC Infrastructure and Operations Department	# of schools with measures implemented.	Mitigation
Action TR 1. 9 Expand the greenway network in the County establishing linkages with towns and villages in line with the strategic national cycle network and best practice requirements in the accompanying SEA, ER and NIS.	31/12/2029	GCC Infrastructure and Operations Department	Total km Greenway	Mitigation

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action TR 1.10 Conduct a comprehensive feasibility assessment, including safety, environmental, and cost considerations, for the potential implementation of Dutch-style roundabouts within Galway County Council's transportation infrastructure.	31/12/2025	GCC Infrastructure and Operations Department	Assessment completed	Mitigation
Action TR 1.11 Engage with public transport providers to support enhanced public transport outcomes including rural bus and train service expansion and service interconnectivity. Support public transport providers to estimate emission reductions resulting from increased public services.	31/12/2029	Multiple Partners	Number of engagements	Mitigation

Objective TR 2 Support the development and use of low-carbon technologies such as electric vehicles and low-carbon fuels.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action TR 2.1 Work with the Roads and Transport Dept and regional LAs/CARO to develop and implement a Regional EV Strategy. Identify locations required to meet relevant national targets and ensure no blackspots.	31/12/2024	GCC Infrastructure and Operations Department	Strategy developed and number of EV chargers required identified. Chargers installed at identified locations.	Mitigation

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action TR 2.2 Support the roll out of EV infrastructure in the county in line with the strategy including submission of applications for ZEVI programmes, incorporation of EV infrastructure in streetscape design and requiring EV in new developments.	Ongoing	GCC Infrastructure and Operations Department	Level of coverage of EV chargers in line with Strategy	Mitigation



4.4. Communities and Partnership

STRATEGIC GOAL

Communities and Partnership: Empower and support climate action across society ensuring a just transition to a low carbon and resilient future.



Communities are key to tackling biodiversity loss and driving down emissions.

Public Submission

The national Climate Action Plan 2023 states that delivering on our climate ambition requires the Government and citizens of Ireland, to come together in a strengthened ‘social contract’ for climate action and the co-creation of real solutions to climate change, that are meaningful, inclusive, fair, and accessible for all.

Climate action is growing across different sectors of Irish society as we become more aware of the risks associated with climate change. Local communities and partnerships are key to achieving the County of Galway’s GHG emissions targets and the objectives of this climate action plan.

Creating opportunities for community engagement and partnerships are essential

in generating new and impactful climate action projects and initiatives. A significant objective of this climate action plan is to create community awareness, engagement, and motivation to act in relation to the challenges presented by climate change.

The community and partnerships actions identified in this Climate Action Plan will promote community engagement in a manner that promotes mutual learning and establishes meaningful opportunities to find new ways to adapt to and mitigate against the challenges posed by climate change. This plan aims not just to inform about probable futures relating to climate change but also to enable, empower, and support communities to take positive climate action in a way that is inclusive, fair, and equitable.

By recognising different capacities and starting points, the community and partnerships actions aim to develop knowledge and build capacity to accelerate processes of change by supporting and empowering communities, enterprises, and individuals to develop new skills and access the resources necessary to partake in climate action.

Engaging and empowering communities can make it possible to realise the multiple opportunities that a transition to a carbon-neutral society and economy presents, such as new sustainable careers, warmer more energy-efficient homes, better travel options, more sustainable consumer choice, integrated spatial planning, cleaner air and water and a better environment for future generations.



By continuing to demonstrate leadership on Climate Action, and actively engaging with communities on climate action, the Council hopes to increase collaboration with communities for positive change in various aspects of community life.

COMMUNITY CLIMATE ACTION FUND

The aim of the Community Climate Action Fund is to help support and build low carbon communities. This funding is part of the National Community Climate Action Programme, which aims to support projects and initiatives that facilitate community climate action through education, capacity

building and learning by doing. Community projects eligible for funding will address the following five themes:

- Community and Energy Projects
- Travel
- Food and waste
- Shopping and recycling
- Local climate and environmental action

Galway County Council has appointed a dedicated Community Climate Action Officer to guide and support communities to develop projects and initiative.



OBJECTIVES



Objective CP1

Support communities, enterprises, and individuals to access the capacity, skills, and investment necessary to accelerate climate action.



Objective CP2

Foster social inclusion and cohesion by engaging diverse stakeholders and promoting a just transition to a low-carbon economy.

SDG Alignment



Co-Benefits



Improved civic engagement



Economic growth



Job creation and skills development



Enhanced education and awareness



Goal 4. Communities and Partnership

Objective CP 1 Support communities, enterprises, and individuals to access the capacity, skills, and investment necessary to accelerate climate action.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action CP 1. 1 Administer Community Climate Action Fund and support communities in the implementation of the projects.	Ongoing	GCC Environment Section	Number and type of projects supported and implemented	Both
Action CP 1. 2 Establish a training, information and support programme for community groups/ community event organisers on Climate Action and Biodiversity. Carry out annual training programme.	31/12/2024	GCC Environment Section	Annual calendar of activities developed from January to December each year. # of activities promoted.	Both
Action CP 1. 3 Establish network of communities to disseminate information from the DZ areas across the country (Connected Project). Consider the inclusion of additional categories related to Climate Action in the Cathaoirleach Awards.	31/12/2024	GCC Environment Section	Number and Types of Projects Implemented	Both
Action CP 1. 4 Include ‘Sustainability and Climate Change’ scoring on relevant grant assessments to ensure that community groups/ stakeholders consider and incorporate Climate Mitigation and Adaptation in all their grant-funded activities.	Ongoing	GCC Community and Rural Development	Develop scoring matrix.	Both

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action CP 1. 5 Engage with the GAA ‘Green Club Programme’ on sustainability and climate action projects.	31/12/2029	GCC Environment Section	Number of projects supported	Both
Action CP 1. 6 Develop and Implement a Signage Strategy highlighting, educating and encouraging Climate Action.	31/12/2024	Multiple Partners	Development of Signage Strategy. Signage Erected.	Both
Action CP 1. 7 Support the SEAI Sustainable Energy Communities Program and the development and updating of Energy Master Plans.	Ongoing	GCC Environment Section	Number of Energy Masterplans Supported.	Mitigation
Action CP 1. 8 Encourage and support low carbon events including external events requiring permissions of GCC. Develop guidelines for events and a checklist to be incorporated into event licensing.	Ongoing	GCC Infrastructure and Operations Department, GCC Environment Section	Guidelines and checklist developed.	Mitigation
Action CP 1. 9 Encourage Climate Action within Creative Arts programmes and support relevant projects.	Ongoing	GCC Community and Rural Development	Number of projects implemented	Both
Action CP 1.10 Support businesses to become more aware of their climate responsibilities and risks, as well as the commercial opportunities arising from sustainability and evolving consumer sentiment. Support businesses to carry out energy assessments and complete sustainability plans.	31/12/2024	LEO	No of businesses that avail of the LEO's 'Green for Business' and 'Energy Efficiency Grant' supports; Number of training events delivered.	Both

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action CP 1.11 Advance the implementation of climate-related objectives and actions in the Tourism Strategy.	Ongoing	GCC Community and Rural Development	Climate related initiatives implemented	Both
Action CP 1.12 Support the Green Schools initiative and enable an increase in the number of schools actively participating	Ongoing	GCC Environment Section	Number of supporting interventions / Number of Schools	Both

Objective CP 2 Foster social inclusion and cohesion by engaging diverse stakeholders and promoting a just transition to a low-carbon economy.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action CP 2.1 Actively seek funding through the ‘EU Just Transition Fund’ programme with a focus on Climate Action measures.	Ongoing	GCC Infrastructure and Operations Department, GCC Community and Rural Development	Amount of funding awarded. Number of projects implemented.	Both
Action CP 2.2 Develop and implement an updated Local Economic and Community Plan ensuring climate change is factored into the Plan’s development.	Ongoing	GCC Community and Rural Development	Plan adopted. Annual reports developed.	Both



4.5. Circular Economy

STRATEGIC GOAL

Circular Economy: Promote and support a circular economy to reduce waste, conserve resources and enhance sustainability.

Transitioning from traditional linear economic models to a more circular economy, is a priority for the EU and Ireland. Increasing population and prosperity, results in increasing consumption of the earth's finite resources and this has environmental and climate impacts. A circular economy maximises the use of resources, products, and assets, and minimises resource consumption and wastage in all forms. This is in contrast to the traditional linear take-make-use-dispose production and consumption approach, which is unsustainable. A transition to a circular economy will not only conserve resources, but also reduces environmental and climate impacts. It will foster innovation and thereby increase competitiveness and create new jobs. Everyone can play a part by choosing how we consume and use resources, and by reusing, recycling and minimising waste in our daily lives.

Key national objectives are to minimise the amount of waste we produce, maximising the value of materials that are already in use, and reuse and repair as much as possible. The Council will work to support targets in The National Waste Plan for a Circular Economy 2023-2029 by promoting, encouraging, and facilitating high levels

of recycling and reuse, and by providing Civic Amenity sites and a network of bring banks across the County. The Council will also support various waste reduction/repair & reuse / circular economy initiatives in partnership with stakeholders and will continue to collaborate with the Regional Waste Planning Office and national bodies to promote waste prevention and circular economy related campaigns at a local level. The Council in its role as a Waste Regulator will continue to work to improve compliance with waste legislation.

The success of Circular Economy and Resource Management Policies and Plans relies on behavioural change. As a society and individually, we need to become more aware of the links between our own daily choices and activities, and the impact on the environment.

OBJECTIVES



Objective CE1

Support communities, businesses and individuals to reduce the generation of waste and increase the quantity of waste reused and recycled.



Objective CE2

Ensure waste is properly managed and reduce the quantity of waste that is sent to landfill or incinerated.

SDG Alignment



Co-Benefits



Improved civic engagement



Improved public health and wellbeing



Reduced costs



Reduced waste



Goal 5. Circular Economy

Objective CE 1 Support communities, businesses and individuals to reduce the generation of waste and increase the quantity of waste reused and recycled.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action CE 1.1 Support circular initiatives such as prevention, reuse, repair and recycling of resources. Support the development of cooperative, community-owned and other collaborative ventures to foster more effective use and sharing of resources.	Ongoing	GCC Environment Section	Number of initiatives supported	Mitigation
Action CE 1.2 Implement a pilot project focused on reducing single-use coffee cup consumption with the aim of subsequently scaling successful strategies across the county.	Ongoing	GCC Environment Section	Pilot project implemented	Mitigation
Action CE 1.3 Implement initiatives to continue to reduce, reuse and recycle waste across the county in partnership with the private sector e.g. increased number of public recycling bins and Civic Amenity sites, increased number of water fountains, expanded textile/glass collection.	Ongoing	GCC Infrastructure and Operations Department, GCC Environment Section	Number and type of initiatives supported	Mitigation

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action CE 1.4 Assess Construction & Demolition Waste Management Plans for proposed developments to ensure all potential waste streams are identified at an early stage and appropriate measures put in place to promote prevention, reuse, recycling and recovery of waste in line with the waste hierarchy.	Ongoing	GCC Planning Department	# of assessments undertaken yearly and compliance with best practice guidance for Construction & Demolition waste management.	Mitigation
Action CE 1.5 Investigate the potential for the reuse of waste materials from roads in new construction projects.	31/12/2025	GCC Infrastructure and Operations Department	Feasibility assessment completed.	Mitigation

Objective CE 2 Ensure waste is properly managed and reduce the quantity of waste that is sent to landfill or incinerated.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action CE 2.1 Support the roll out of the segregated brown bin collection systems across the County to enable recovery of biomethane in line with the National Waste Management Plan for a Circular Economy.	Ongoing	GCC Environment Section	% households with 3 bin collection	Mitigation

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
<p>Action CE 2.2 Identify households who currently don't have a standard waste collection service in place, and determine how they are managing their waste. Inspect commercial premises to ensure compliance in relation to waste segregation and in particular food waste.</p>	Ongoing	GCC Environment Section	# of households engaged with and # of engagements resulting in bin service put in place; # of commercial premises engaged with and the # of commercial premises with 3 bin system in place with an emphasis on management of food waste.	Mitigation
<p>Action CE 2.3 Carry out inspections of permitted waste collectors and waste facilities and illegal waste activities and carry out enforcement action as required.</p>	Ongoing	GCC Environment Section	# of compliant Annual Return validations/ verifications completed; Number of inspections and enforcement actions	Mitigation

4.6. Land Use and Green Infrastructure

STRATEGIC GOAL

Land Use and Natural Environment: Preserve and enhance our natural environment through the implementation and promotion of sustainable land use practices to protect biodiversity and combat climate change.

Biodiversity and natural habitats in County Galway are vulnerable to the effects of climate change, however, they also have an important role to play in building adaptive capacity. The declaration of a climate change and biodiversity emergency by Dáil Éireann in May 2019 recognises the urgency to act on these interconnected global crises. It is therefore critical to protect, restore, and enhance biodiversity and natural habitats in County Galway in order to increase the

resilience of natural and human systems to climate change.

There is consensus that climate change has direct and indirect effects on biodiversity, and that by the end of the 21st century it is likely to become one of the most significant drivers of biodiversity loss. The actions in this section aim to protect against these effects by protecting, conserving, and enhancing County Galway's biodiversity and heritage, ensuring a safe and healthy environment that is resilient to the effects of climate change and by implementing and supporting effective waste management.

The actions listed below are not exhaustive of all planned climate-related actions with respect to biodiversity and heritage, the forthcoming Biodiversity Plan and Heritage Plan will provide a more comprehensive and co-ordinated viewpoint of these areas.



Photo Source: Courtesy of @Kathleen Bell-Borjean

OBJECTIVES



Objective LN1

Support food security and sustainable local food production and ensure a safe and healthy environment that is resilient to the effects of climate change.



Objective LN2

Protect, conserve and enhance County Galway's biodiversity and heritage.



Objective LN3

Support nature-based solutions to mitigate against and adapt to climate change and provide additional co-benefits.

SDG Alignment



Co-Benefits



Increased food security



Improved public health and wellbeing



Goal 6. Land Use and Natural Environment

Objective LN 1 Support food security and sustainable local food production and ensure a safe and healthy environment that is resilient to the effects of climate change.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action LN 1.1 Support farmers in the shift toward low-carbon and climate-resilient agricultural practices. Work with relevant agencies to develop and implement a joined-up awareness/knowledge transfer strategy for the agricultural and food sectors. Develop a tool kit and training programme for engagement during routine farm visits.	Ongoing	External Agencies	Awareness Strategy and Tool Kit developed. No. of engagements with Farmers and Food Producers. Agricultural Emissions (tonnes per hectare)	Both
Action LN 1.2 Work with the BIA Innovation Centre to support climate action in the food and agriculture sector.	Ongoing	GCC Environment Section, GCC Community and Rural Development	Agricultural Emissions (tonnes per hectare)	Both
Action LN 1.3 Protect water quality and air quality by carrying out inspections of domestic wastewater treatment systems, discharge licences, farms and fuel suppliers as per national requirements and as required. Support remediation and mitigation measures required to maintain or achieve good or high quality water status in the county including nature based solutions where possible.	Ongoing	GCC Environment Section	Number of inspections completed	Both

Objective LN 2 Protect, conserve and enhance County Galway's biodiversity and heritage.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
<p>Action LN 2.1 Identify priority areas appropriate to receiving environment for habitat restoration, enhancement for wildlife and protection for carbon and biodiversity benefits. Work with stakeholders including landowners to identify opportunities to deliver restoration of habitats and landscapes appropriate to the receiving environment.</p>	31/12/2025	GCC Planning Department	Ha identified for protection/restoration; ha protected/restored	Both
<p>Action LN 2.2 Audit local authority land, carry out ecological/habitat surveys and highlight areas at risk (as well as areas which are thriving or providing sequestration services) and those suitable for restoration and enhanced carbon storage, also identifying potential wildlife corridors for protection through statutory plans.</p>	31/12/2025	GCC Planning Department	Ha identified for protection/restoration; ha protected/restored	Both
<p>Action LN 2.3 Conduct a tree cover survey and devise and adopt a tree management policy that recognises the ecosystem services provided by existing woodland habitat and seeks to retain and support such habitats.</p>	31/12/2025	GCC Planning Department	Survey completed; Policy adopted.	Both
<p>Action LN 2.4 Implement a pesticide and herbicide reduction plan for Galway County Council.</p>	Ongoing	GCC Planning Department	% reduction pesticide use	Both

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action LN 2.5 Implement a county-wide pollinator conservation initiative, creating and maintaining pollinator-friendly habitats based on the most up-to-date scientific advice.	31/12/2025	GCC Planning Department	County Plan created and implemented. Number of sites included. Actions recorded with NBDC/ AIPP	Both
Action LN 2.6 Develop and implement an updated Heritage and Biodiversity Action Plan to protect and enhance local biodiversity ensuring climate change is factored into the plan's development and provides appropriate co-benefits for biodiversity and climate adaptation and resilience.	31/12/2024	GCC Planning Department	Plan developed and adopted. Annual report completed.	Both
Action LN 2.7 Support citizen science projects to target climate-sensitive species and habitats	Ongoing	GCC Planning Department	Number of citizen science projects supported	Both

Objective LN 3 Support nature-based solutions to mitigate against and adapt to climate change and provide additional co-benefits.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action LN 3.1 Ensure all LA-led projects consider nature-based solutions including building for biodiversity as appropriate.	Ongoing	GCC Environment Section, GCC Planning Department	Number and description of NBS measures implemented per year	Both



4.7. Adaptation to Climate Risk

STRATEGIC GOAL

Adaptation to Climate Risk: Enhance climate resilience through proactive adaptation measures to safeguard our community's wellbeing and infrastructure.

Galway County Council is active across all aspects of flood risk management. This includes actions that consider flood risks arising from climate change through development policies, collaboration with the Office of Public Works (OPW) as the lead state agency in relation to flood risk management in Ireland on flood defence projects, own delivery of minor flood defence projects, use of nature-based solutions to manage flood risks, activation of flood emergency response plans, and rebuilding

infrastructure in the aftermath of extreme weather events. As we move into a more uncertain weather-related future, this Plan aims to ensure Galway County Council will remain responsive and resilient to the needs of our communities.

Through the Climate Change Risk Assessment undertaken in the development of this Plan, it is evident that already 'locked in' climate change will result in greater levels of precipitation and potential flooding, and a greater probability of prolonged dry spells in the coming decades. Through the identification of vulnerable areas and communities, Galway County Council will work to provide the necessary upgrades and projects to ensure that all communities are resilient to these threats.



Photo Source: Courtesy of Chaosheng Zhang

OBJECTIVES



Objective AD1

Increase the resilience and adaptive capacity of the local authority and the local community to the current and projected impacts of climate change.



Objective AD2

Ensure an appropriate, coordinated and resourced Emergency Response during climate-related emergencies and events.

SDG Alignment



Co-Benefits



Enhanced Governance



Improved civic engagement



Enhanced service delivery



Social inclusion



Goal 7. Adaptation to Climate Risk

Objective AD 1 Increase the resilience and adaptive capacity of the local authority and the local community to the current and projected impacts of climate change.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action AD 1.1 Collaborate with OPW in assessing the likely impacts of climate change including sea level rise and coastal erosion on the built environment. Prioritise areas for further assessment and seek funding/support to mitigate the risk. Assist CARO in the development of a register of critical infrastructure, systems and assets at risk from existing and projected climate events.	31/12/2025	GCC Infrastructure and Operations Department, GCC Environment Section	Assessment Complete. Register Developed.	Adaptation
Action AD 1.2 Collaborate with Government organisations to provide capital measures for identified priority areas incorporating nature based solutions, biodiversity and water quality enhancement.	Ongoing	GCC Infrastructure and Operations Department, GCC Environment Section	Funding received. Areas protected.	Adaptation
Action AD 1.3 Ensure the continued incorporation of Flood Risk Management and Climate Change Sectoral Adaptation Plans into the spatial planning of the County, having due regard to the need to promote nature based solutions and Sustainable Urban Drainage Systems (SuDS), and environmental sensitivities at these locations.	Ongoing	GCC Planning Department	Adoption of CDP/LAPs	Adaptation

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action AD 1.4 Develop and implement annual Climate Adaptation Strategies for Regional and Local Roads.	Ongoing	GCC Infrastructure and Operations Department	Annual strategies developed and implemented.	Adaptation
Action AD 1.5 Identify and implement operational measures necessary to protect critical infrastructure/ equipment from climate events, and develop any necessary maintenance/upgrade programmes to address climate risk.	Ongoing	GCC Infrastructure and Operations Department	Operational measures identified and annual programme implemented.	Adaptation
Action AD 1.6 Promote and encourage community involvement in the retrofit of SuDS in existing developments, maintaining community rain gardens, discourage hard paving in gardens and retrofit raingardens / water butt installations.	Ongoing	Multiple Partners	No of promotional initiatives (social media posts, articles etc) and engagement events per year.	Both
Action AD 1.7 Work with the OPW and other stakeholders to identify and support Minor and Major Flood Protection and Flood Proofing Schemes throughout the county that supports Nature Based Solutions to increase co benefits.	Ongoing	GCC Infrastructure and Operations Department	Number of projects completed. Funding spent.	Adaptation
Action AD 1.8 Support private group water schemes to identify drinking water sources vulnerable to climate change and to develop source protection or alternative sources in order to maintain water quantity and quality levels	31/12/2024	GCC Water Services	Number of GWS supported.	Adaptation

Objective AD 2 Ensure an appropriate, coordinated and resourced Emergency Response during climate-related emergencies and events.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
<p>Action AD 2.1 Review Major Emergency Plan and other relevant risk management plans to ensure incorporation of up-to-date climate risk information</p>	31/12/2025	GCC Infrastructure and Operations Department	Plans Updated.	Both
<p>Action AD 2.2 Identify contingency plans for climate events that have the potential to impact critical infrastructure, the failure of which would have major consequences and/or a cascading effect on other services. Prepare strategic wildfire management plan for high-risk areas. Provide clear communication to communities.</p>	31/12/2025	GCC Emergency Services, GCC Infrastructure and Operations Department	Contingency plans developed.	Adaptation
<p>Action AD 2.3 Review countywide low temperature (snow & frost) policies for roads and footpaths.</p>	31/12/2025	GCC Infrastructure and Operations Department	Policies reviewed.	Adaptation
<p>Action AD 2.4 Capture the impact of extreme weather events by integrating existing incident recording and management systems including WIRE and SWEMS, carry out training and record incidents.</p>	Ongoing	Multiple Partners	WIRE and SWEMS integrated	Adaptation



5. Aran Islands Decarbonising Zone



5. Aran Islands

Decarbonising Zone

WHAT IS A DECARBONISING ZONE?

A Decarbonising Zone (DZ) is a chosen area where local authorities and communities work together to reduce the amount of carbon produced by their everyday activities. By looking within the community for ways to live and work more sustainably, these zones can find local solutions to global problems, such as reducing greenhouse gas emissions, improving air quality, saving energy and reducing waste.

The main objective of a Decarbonising Zone is to find innovative but achievable ways to reduce greenhouse gas emissions from the area by 51% by 2030, based on 2018 levels, in line with the National Climate Objective. Each zone's plan will be based on the characteristics of the area, what is of benefit to the local community, and how these elements can work together to reduce or remove greenhouse emissions from the zone.

By creating these zones nationwide, different approaches and projects can be tested and perfected, allowing other communities to apply these ideas based on their own needs.

WHY IS THE 'DECARBONISING ZONE' PROJECT HAPPENING?

Under the National Climate Action Plan 2019, every local authority in the country is required to plan a Decarbonising Zone. Further to this, as part of the Climate Action

and Low Carbon Development (Amendment) Act 2021, every local authority is also required to produce a detailed Climate Action Plan. The Guidelines for Local Authority Climate Action Plans published in 2023, clarified that Decarbonising Zones must now be included in all local authority Climate Action Plans.

Why was the Aran Islands chosen?

To qualify as Decarbonising Zones, the chosen areas need to have certain characteristics that have the potential for climate action across a variety of sectors. The Aran Islands were chosen as a Decarbonising Zone as it was considered; 1) to be ready to support climate action, 2) to have a strong sense of community, and 3) a distinct area with measurable inputs and outputs.

As a Decarbonising Zone, Aran Islands also have a lot of potential for developing new and existing climate projects, with opportunities for tackling a host of issues. For example, energy security and sustainability could be addressed with new energy infrastructure, like electricity network upgrades and by improving efficiency and renewable heat in residential and commercial sector buildings. There are also opportunities for reducing the carbon footprint of the tourism sector by decarbonising the transport to and from the islands.

Vision for the Decarbonisation Zone

A Vision for the Aran Islands Decarbonisation

Zone was discussed with local stakeholders during a workshop on Inis Mór in October 2023 and the following themes were identified. This will be developed further as the Decarbonisation Zone Plan is implemented.

1. Energy self-sufficient, generating community-owned energy.
2. Fuel poverty eliminated with comfortable, well-insulated homes. All homes B2 (minimum) with decarbonised heat source.
3. Sustainable transport to the islands as well as on the islands
4. Low waste
5. Carbon neutral

The Aran Islands Decarbonising Zone

INTRODUCTION

To achieve the target of a 51% reduction in carbon emissions by 2030, we first need to know; 1) the current emissions in the decarbonising zone, 2) what activities are producing them, and 3) the purpose of these activities.

In this section we look at everything from the population breakdown and travel patterns, to the types of buildings and heating systems within the area. This gives us a detailed overview in terms of knowing existing behaviours, activities and infrastructure so that we can decide how best to develop solutions together that are tailored to the Aran Islands and everyone living, working and travelling there.

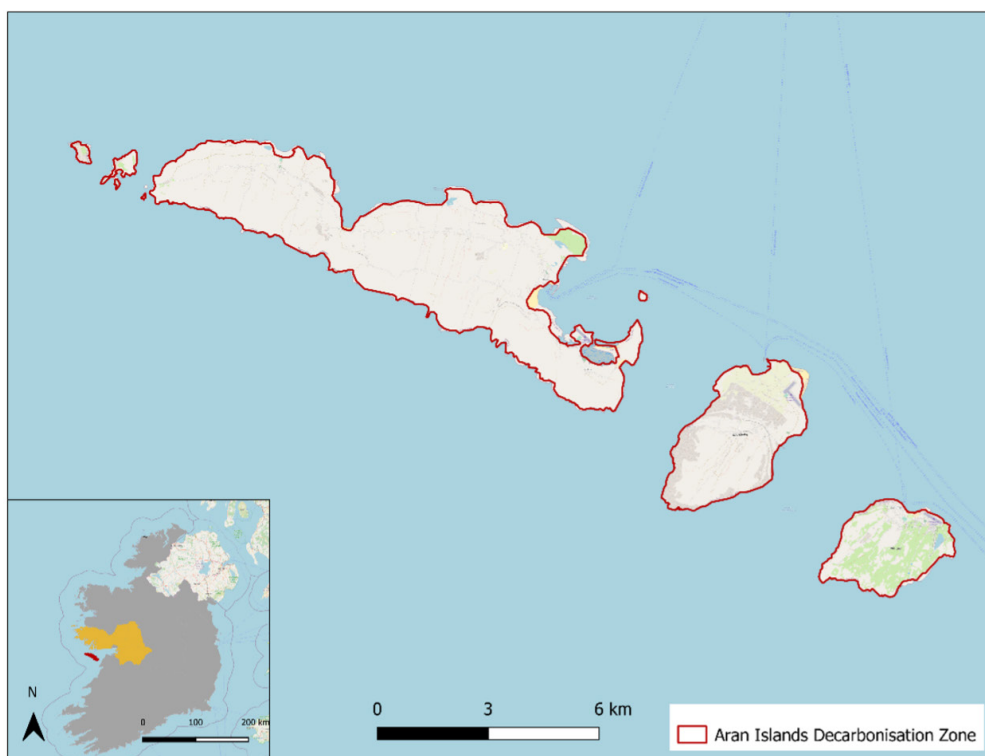


Figure 10 Map of the Aran Islands Decarbonisation Zone

Profile of the Aran Islands

The Aran Islands consist of a group of three islands at the mouth of Galway Bay, off the west coast of Ireland, with a total area around 46 km². From west to east, the islands are Árann / Inis Mór, which is the largest; Inis Meáin, the second largest; and Inis Oírr.

There is a population of 1,347 (as of 2022) and the area is designated as an official Gaeltacht. There has been a shift away from the traditional industry on the islands of agriculture and fishing towards tourism, especially as year-round tourism gains traction. Many residents of the islands are employed in the tourism industry, with the islands receiving 270,000 to 300,000 tourists annually. Most tourists visit on day trips.

There are year-round ferry passenger services from Rossaveal in County Galway, connected by a bus service from Galway city. A heavy-cargo service operates several times a week from Galway Harbour. Seasonal ferries are also available from Galway City and Doolin in County Clare. Aer Arann Islands operates an air service from Inverin to Inishmore Airport, which has a connecting bus from Galway city. Many visitors hire bikes to travel around the islands.

The Aran Islands hold Natura 2000 status, and 75% of their land area is designated as Special Areas of Conservation.

EXISTING KEY CONTACTS AND STAKEHOLDERS

Stakeholder engagement is essential to the development of the Decarbonising Zone

plans. The National Guidelines of the Local Authority Climate Action Plans recommends early and continued engagement of stakeholders throughout the project. Additionally, the guidance highlights that the Local Authority does not possess “the control or power to directly influence all of the energy and emission reductions within the boundaries of the DZ area”. Therefore, it is crucial to engage a wide range of sectors and stakeholders in the DZ process to identify actions and progress the development and implementation of the plan.

To ensure a fair and just process in developing and implementing the Galway County Council has started the process of engaging stakeholders from the local area and worked with the Comharchumann Fuinnimh Oileáin Árann Teoranta (CFOAT), a community-owned energy cooperative, the three local Comhar Cumann, educational facilities, local businesses and individuals in the development of this plan. This process will be continued and strengthened as part of this plan.

The Comharchumann Fuinnimh Oileáin Árann Teoranta (CFOAT) and the three local Comhar Cumann are key intermediaries with the wider community.

Case Study

(source: <https://climateconnected.ie/case-studies/>)

Comharchumann Fuinnimh Oileáin Árann Teo (CFOAT) is a community owned energy cooperative representing the 3 Aran Islands: Árann, Inis Mheáin and



Inis Oírr. Life membership is open to all residents for €100. The cooperative is non-profit with all of the benefits going back into the community. CFOAT's aim is to make the 3 islands fossil-fuel-free using green energy generated on the islands and owned by the cooperative. Their project involves upgrading and retrofitting homes and buildings; introducing electric cars and buses; encouraging households to install heat pumps, photovoltaic and battery storage; generating electricity locally; being partners on numerous EU funded research projects; making the Aran Islands an Energy Research Hub; creating new employment opportunities in the energy field; running Energy Tours on the islands.

Establishing as a co-operative in 2012, CFOAT commenced its work by engaging in the SEAI's then Better Energy Community Grant schemes (now the Community Energy Grant Programme). Since 2012, 50% of the houses and many of the community buildings on the islands have had some energy related retrofitting done.

A number of buildings on the island are now operating completely fossil-fuel-free.

Starting with a group purchase scheme in 2027 with just three electric cars, there are now more than 15 electric cars on Árainn alone. Many of these are second hand vehicles with reduced range. This is not an issue on the island where travel distances are quite short in comparison to the mainland: Árainn, the largest island is only 17km long in total.

Up to 100 buildings on the islands now have heat pumps and photovoltaic panels which means that they use much less fossil fuel for space and hot water heating. Heat pumps use electricity which can be more expensive. However, the PV panels cut down on the need to buy electricity from the grid.

At present, CFOAT is involved in three EU funded projects (H2020 and InterReg): for example, SEAFUEL and HUGE. This means that it is now able to employ 3 local people (not on a government scheme), one full-time, in high skilled sustainability jobs. This is a huge achievement in an area where much employment is seasonal, and tourism related. An initial challenge was finding access to early finance to help with set up and administration costs. Their co-op structure enabled members to contribute a small fee (€100 for life-time co-op membership) to fund our setting up. It meant that there was money in the co-op bank account which helped established a finance record that allowed us look for bridging loans when they were needed. We benefited from the services of Clann Credo in our retrofitting programmes because the SEAI grants were retrospectively paid and so we needed finance.

Emissions within the Aran Islands Decarbonisation Zone

A Baseline Emissions Inventory (BEI) is a way of taking a snapshot of how much greenhouse gases are currently being released in a specific area. It looks at sources of emissions as well as electricity



usage and waste management and helps guide the actions to be taken in the decarbonising zones. The Baseline Emissions Inventory was developed using methodologies from national guidelines for local authority climate action plans.

BEI for Decarbonising Zones Nationally were required to use a baseline of 2018 or closest available data. By comparing 2030 emissions data to the 2018 baseline, it will be possible to see the progress made and measure the success of climate actions across the zone.

The BEI draws from multiple data sources to calculate emissions in various sectors. The Residential, Non-residential, and Transport sectors were assessed using data from the

joint 2018 Energy Master Plan (EMP) for Árainn and Inis Meáin, as well as the 2020 EMP for Inis Oírr. Galway County Council is very grateful to Comharchumann Fuinnimh Oileáin Árann Teoranta (CFOAT), and the local Comhar Cumann who developed these plans as they have significantly helped in developing the BEI.

The following graphic shows a breakdown of emissions by sector with Galway and National figures included for comparison. The total GHG emissions within Aran Islands DZ for 2018 equate to approximately 16 ktCO₂e. The main sources of GHG emissions within the area are: agriculture (35%), transport (34%) and residential (13%).

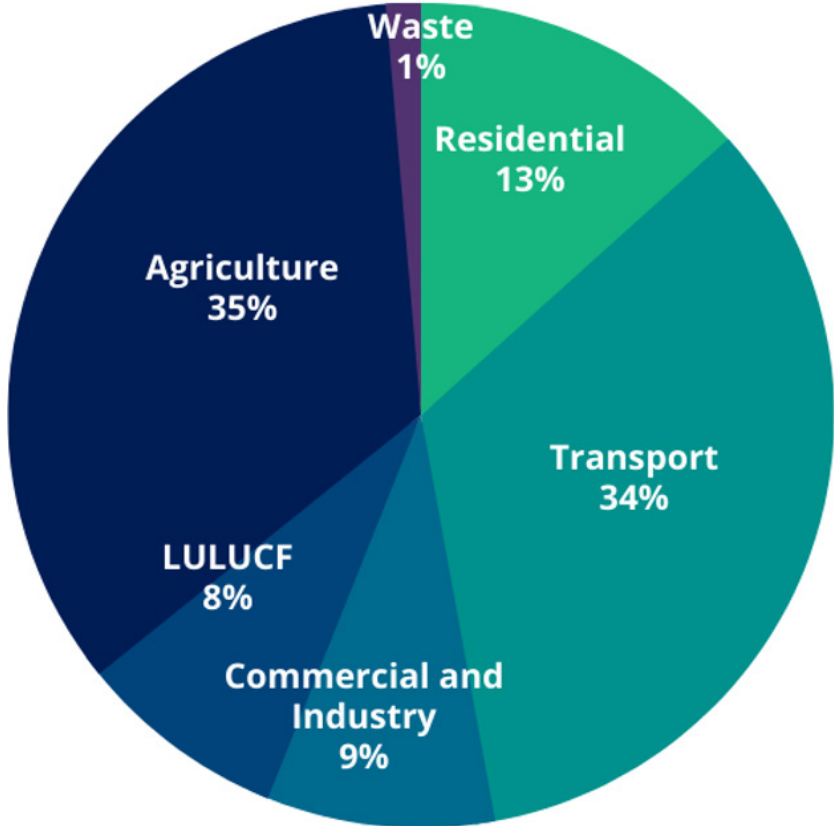
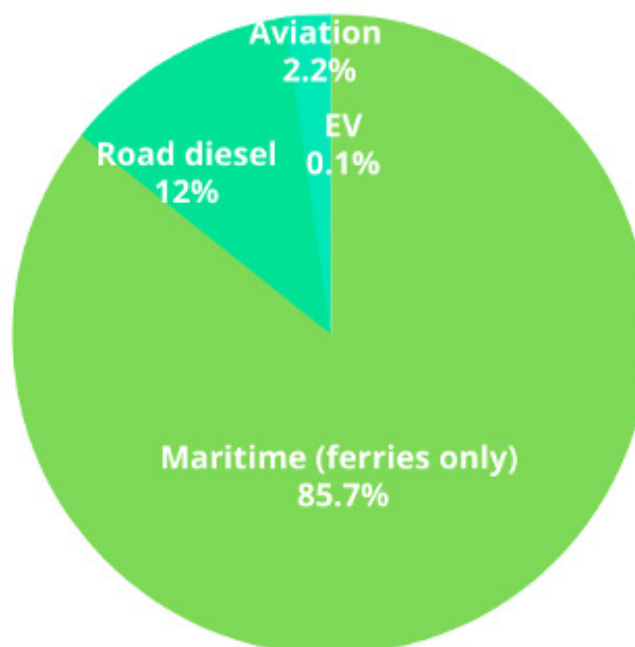


Figure 11 Decarbonising Zone BEI results share by category

Emissions Category	Aran Islands DZ Emissions ktCO ₂ e	County Galway Emissions ktCO ₂ e	National Emissions ktCO ₂ e
Residential	2.15 (13%)	450 (15%)	9,552 (15%)
Transport	5.45 (34%)	478 (15%)	12,196 (19%)
Commercial and Industry	1.44 (9%)	239 (8%)	13,622 (21%)
LULUCF	1.32 (8%)	478 (20%)	6,899 (10%)
Agriculture	5.56 (35%)	1,132 (43%)	22,134 (34%)
Waste	0.22 (1%)	27 (1%)	991 (1%)
Total	16.13 (100%)	2,631 (100%)	65,152 (100%)

Aran Islands DZ: Transport Subsectors

Transport Subcategories	tCO ₂ e
Maritime (ferries only)	4,668
Road diesel	654
Aviation	122
EV	5
TOTAL	221





The Transport sector of the Aran Islands accounted for 34% of the zone's emissions. It is the second largest emitting sector following agriculture. As a point of comparison, the Transport sector makes up 15% of total emissions at the county level and, 19% at the state level.

Within the sector, the highest emitting subsector is Maritime emissions (this includes ferries only). While there are EVs on the Aran Islands, there is only a very small number of such vehicles present and they account for less than 0.1% of emissions in the transport sector.

To reach the Aran Islands, residents and visitors must either take a ferry or a flight. Once on the islands, public transport consists of minibuses and bikes. Private vehicles are also owned by residents, with an estimated 449 private cars between the three islands.

Residential Emissions

The Residential sector is comprised of emissions from household activities including space and water heating, as well as from electricity consumption. There are 783 total housing units in the DZ including a small number of social housing units. Within the DZ space and water heating accounted for 75% of Residential sector emissions and electricity consumption for 25%. An important outstanding point for the Residential sector is the limited BER coverage. This data is useful for understanding which homes need retrofits and gaining a more thorough understanding of emissions in this sector. The digital twinning project currently taking

place on Inis Mór will aid progress on this point.

Agriculture and Land Use, Land Use Change, and Forestry (LULUCF)

The Agriculture sector's emissions on the Aran Islands primarily come from livestock. The livestock sector was split into cattle, producing 71% of sector emissions, and sheep, producing an additional 2%. Emissions from goats were measured as well and accounted for one additional tonne of CO₂e.

Traditionally, agriculture has played a big role in the culture and economy of the Aran Islands. Due to the nature of island farms, individual farms tend to be small and require high amounts of labour to function.

From the 2020 Agricultural Census data, there are 1,553 cows and 253 sheep. There are also goats on the islands. The area farmed on the island is 2,460 hectares, with an average holding size of 12.2 acres, in line with traditionally smaller farms found in the island communities.

Many farmers on the islands are involved in the Caomhnú Árann project, a partnership programme involving the islands' farmers, the Department of Culture, Heritage and the Gaeltacht (DCHG), the National Parks & Wildlife Service (NPWS), Teagasc and Fáilte Ireland, co-funded by the DAFM and the EU. The project aims to protect and restore priority habitat on the Aran Islands and provides support for sustainable farming practices. As local farming and land use

practices are already very sustainable there may be limited opportunities for decreasing emissions outside of the Caomhnú Árann project.

Waste

Athchursail Árann, a Co-Op on the Aran Islands, operates an award-winning waste collection and recycling programme. As part of the recycling project, dry recyclables are baled and sent to Galway; food and organics are composted; glass is crushed for use as aggregates for concrete, timber is shredded to go into compost, and bulky items, such as old windows, are stored for reuse on agricultural and garden sheds. About 20% of waste cannot be processed in facilities within the DZ and is sent to the mainland, where it is sent to a waste-to-energy plant. Most waste emissions come from the waste that is sent to a waste-to-energy plant off-island, at approximately 55% of the sectoral emissions. The remaining emissions come from waste that is processed on the islands in the recycling centre (31%) and emissions associated with wastewater and wastewater processing (14%).

Objective 6.1 Reduce carbon emissions and promote sustainable development on the Aran Islands by implementing a range of measures that will reduce greenhouse gas emissions, increase energy efficiency, and promote the use of renewable energy sources, with the aim of reducing the islands' carbon footprint. The DZ is intended to be the focus for a range of climate mitigation, adaptation, and biodiversity measures in each

local authority administrative area and will help identify projects that will contribute to the delivery of the national climate objective.

Prioritisation of Climate Actions

Galway County Council is already involved in a number of projects related to Climate Action on the Aran Islands including:

Athchursail Árann – Waste Collection and Recycling/Reuse

As part of the Stakeholder Engagement process a list of potential climate actions for development in the DZ was developed as part of the Community Workshop. These actions were shared in the Online Consultation with respondents requested to select their highest priority actions across energy, transport, community, economy, and the natural environment. The three key actions for each area, and the quantity of respondents who selected the actions, are outlined in the figure below.

- Eliminate fuel poverty with comfortable, well-insulated homes. All homes B2 (minimum) with decarbonised heat source - improve comfort, decreasing emissions and saving cost.
- Energy Self-sufficiency, generating community-owned energy.
- Decarbonising transport on and to the islands

Register of Opportunities and Actions

Galway County Council is already involved in several projects related to Climate Action on the Aran Islands including:

Athchursail Árann Co-Op – Waste Collection and Recycling/Reuse

CONNECTED Project – This Northwest Region Decarbonisation Zone project which aims are to develop a decarbonisation engagement, dialogue and participation tool.

LEAP - Local Energy Agencies in Peripheral Regions - LIFE Project whose aim is to create multiple local social enterprise “integrated home renovation services” in the North and West of Ireland.

Opportunities for decarbonisation were also identified in the Energy Masterplans prepared by the local communities including the joint 2018 Energy Master Plan (EMP) for Árann and Inis Meáin and the 2020 EMP for Inis Oírr.

These projects were reviewed, and the following Objectives and Actions were co-created with the local community.



OBJECTIVES



Objective D1

Reduce carbon emissions and promote sustainable development on the Aran Islands to identify best practice in climate action.

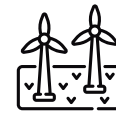
SDG Alignment



Co-Benefits



Economic Growth



Increased energy security



Decarbonisation Zone

Objective D 1 Reduce carbon emissions and promote sustainable development on the Aran Islands to identify best practice in climate action.

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action DZ 1. 1 Establish a stakeholder group within the Decarbonisation Zone, working with established community organisations already engaged in Climate Action, and ensure ongoing engagement and cooperation. Develop a Vision for the Islands	31/12/2024	CFOAT	Stakeholder group established. Number of minuted meetings per annum.	Both
Action DZ 1. 2 Seek funding to retrofit all social housing within the Decarbonisation Zone.	31/12/2029	GCC Housing Department	Number of houses retrofitted	Mitigation
"Action DZ 1. 3 Facilitate and support the development of group approaches for residential and commercial energy assessments, retrofit, renewable heating, and solar installation both within and outside the Decarbonisation Zone. Support Gníomhaireacht Fuinnimh an Iarthar (GFI) Energy Agency."	Ongoing	GCC Environment Section, CFOAT	Number of homes and buildings retrofitted.	Mitigation
Action DZ 1. 4 Support Irish Water to identify baseline emissions related to water delivery and treatment, update baseline emissions assessment and identify opportunities to reduce associated emissions. Assess risks related to drought conditions.	Ongoing	UISCE Eireann	Emissions calculated. Baseline assessment updated. % emissions reduction.	Both

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action DZ 1. 5 Improve understanding of emissions related to agriculture and LULUCF and update baseline emissions assessment .	31/12/2024	GCC Environment Section	Emissions calculated. Baseline assessment updated.	Mitigation
Action DZ 1. 6 Assess the feasibility of providing public drinking water fountains on the three islands.	31/12/2024	GCC Environment Section	Assessment completed. Drinking water fountains provided.	Mitigation
Action DZ 1. 7 Work with the local community to identify potential projects to support active travel including 'bike libraries', 'bike shelters', charging facilities, safety measures, and seek funding for implementation.	Ongoing	GCC Infrastructure and Operations Department, GCC Environment Section	Potential projects identified. Number and type of projects implemented.	Mitigation
Action DZ 1. 8 Explore opportunities for the development of electric car sharing schemes and the provision of (portable) electric chargers at Ros a' Mhíl Ferry Port and Connemara airport.	31/12/2025	GCC Environment Section	Feasibility assessment completed. Number and types of projects implemented.	Mitigation
Action DZ 1. 9 Support the identification and development of appropriate community energy facilities.	Ongoing	CFOAT	Feasible projects identified. Feasible projects implemented.	Mitigation
Action DZ 1.10 Support research projects and national / EU funding applications related to low emission alternatives for ferry and air travel.	Ongoing	GCC Environment Section	% reduction in emissions from ferry and air travel	Mitigation

Action	Due Date	Lead Partner	KPI	Adaptation / Mitigation
Action DZ 1.11 Support the identification and development of appropriate opportunities related to Microgrid Options with Battery Storage.	Ongoing	Multiple Partners	Number and type of project implemented	Mitigation
Action DZ 1.12 Identify appropriate policy objectives related to renewable energy generation within the Decarbonisation Zone for consideration in the next iteration of the County Development Plan	31/12/2024	GCC Environment Section, GCC Planning Department	Policy objectives identified. Policy objective included in the CDP	Mitigation
Action DZ 1.13 Investigate potential of increasing the public bus service	31/12/2024	Multiple Partners	Number of days of bus service	Mitigation
Action DZ 1.14 Investigate feasibility of composting/ Anaerobic Digestion on Inis Meáin and Inis Oírr	31/12/2025	GCC Environment Section	% decrease in waste to landfill	Mitigation
<p>*Actions GL3.2, GL4.1, GL2.5, EB2.2, EB3.1, CP1.2, CP1.6, CP1.5, CP1.7, CP1.1, CP1.3, CP1.10, CP1.12, CP1.11, CE1.1, CE1.2, CE 1.3, AD1.2, AD1.5, AD1.1 also relate to the Decarbonisation Zone</p>				



6 ● Implementation and Reporting



6. Implementation and Reporting

6.1. Planning for implementation

This Climate Action Plan will be implemented by Galway County Council. A new governance structure was put in place in 2022 including a Climate Action Steering Group, Climate Action Team and Energy Team. There are 28 members of the various teams. The role of this Climate Action Steering Group is to mainstream climate action into the activities of Galway County Council.

A Climate Action Unit was established in 2023. This team includes a Climate Action Coordinator, Climate Action Officer, Community Climate Action Officer and Energy Officer. The role of this team is to monitor the implementation of the actions of the Climate Action Plan and to coordinate the reporting and evaluation of the Plan, following its approval by the Elected Members. The Unit will also be the point of contact for the public to learn about climate action in the County.

Galway County Council will work collaboratively and in partnership with a range of key stakeholders to support the delivery of this Plan. These stakeholders include but are not limited to the following – the neighbouring local authorities, the Local Authority Services National Training Group, Regional Assembly, Local Government Management Agency, City and County Management Agency, Public Participation

Network, Age Friendly Ireland and Comhairle na nÓg. These partnerships can provide opportunities for collaboration on projects, shared learnings, technical support and leveraging of funding opportunities during the implementation of actions in the Draft Plan.

It is also clear that climate change is a transboundary challenge; it does not stop at political and geographical borders. As such, a regional approach has been agreed by the local authorities in the Atlantic Seaboard North CARO, whereby they can collaborate closely on the implementation of the Climate Action Plans.

Following approval of the Plan, an Implementation Plan/Summary will be developed for each action, which will set out in detail how the action will be delivered including noting the responsible department and timescales. Galway County Council will align the timing of internal implementation reporting intervals with that of sectoral progress reporting requirements.

6.2. Funding and Partnerships

To lead by example and drive the transition to a climate neutral society, by Galway County Council will need access to adequate funding for climate action projects towards achieving its 2030 and 2050 targets.

Local authorities can access various types of funding such as government grants, European funds, private sector investment and community co-financing. It is recognised that while new climate action targeted funding calls may become available in the



future, already established funding bodies will introduce or increase the level of funding streams to climate action focused categories. Galway County Council will continue to actively pursue new and existing funding opportunities from both European and National bodies that are aligned with its climate action objectives.

Partnerships are also a key ingredient towards realising low-carbon solutions for the sector. The private sector is already playing a role towards achieving the National Climate Objective and this type of collaboration can enhance the capabilities of the sector even further in achieving reductions in Ireland's greenhouse gases by 51% by 2030 and becoming climate neutral by no later than 2050. There are also benefits for the local government sector in partnering with the Third Level sector. The Third Level sector can provide research and development expertise to help local authorities and implement innovative solutions to reduce greenhouse gas emissions and adapt to climate change. These partnerships can also help local authorities access funding opportunities for climate action projects and initiatives. Galway County Council will encourage and facilitate collaboration with the private sector and Third Level sector where possible.

6.3. Monitoring and Reporting

Performance by Galway County Council on the delivery of energy efficiency and emission reductions relating to the Council's infrastructure and assets, as prescribed by

national climate obligations, will continue to be tracked through the established Monitoring and Reporting (M&R) system managed by the Sustainable Authority of Ireland (SEAI).

For actions outside of this, one of the reporting avenues that by Galway County engages with to communicate progress on the delivery of actions is through Sectoral Key Performance Indicators (KPIs). This informs the performance of the local government sector on climate action. Galway County Council will report annually on their performance on climate action by way of KPIs (as outlined in Section 6.2) to inform the performance of the local government sector on climate action, as part of the local government DECA 2030 Strategy.

A key consideration for the local government sector on this strengthened role on climate action is accountability, and in particular the ability to track, measure and report on progress in delivering effective climate action at both local authority and sectoral levels. In this regard, KPIs will continue to play a significant role.

The CAROs along with the Local Government Management Agency (LGMA) collect data on an annual basis relating to a range of themes including:

- Climate Action Resources;
- Climate Action Training for local authority staff and elected members;
- Actions delivered;
- Enterprise support in area of climate action;



- Energy efficiency;
- Emission reductions;
- Active travel measures; and
- Severe weather response.

KPIs will continue to be added as necessary by the sector and by Galway County Council will contribute relevant information as required, to assist in highlighting the progress of the local government sector on climate action.

To ensure that delivery is timely, the implementation of this Plan will be monitored via an in-house tracking system. The local authority will also facilitate reporting to elected members via the SPC.

Galway County Council will in accordance with part 3(w) of the Local Authority Climate Action Charter, report quarterly/annually to the Department of the Environment, Climate and Environment on progress on climate action at local level as part of the delivery of the national climate objective. Progress on all actions will be reported via a reporting tool developed by CARO.