# CHAPTER 2

# CLIMATE CHANGE & ACHIEVING A SUSTAINABLE FUTURE

# 2.0 Climate Change & Achieving a Sustainable Future

## 2.1 Introduction

This chapter sets out broad principles to provide for the sustainable development of County Kerry in a way which supports people and employment while transitioning to a low carbon society and which safeguards and enhances the environment. The policy context for sustainable development has previously been outlined in Chapter One (Introduction). Sustainable development principles including the UN Sustainability Goals have been integrated throughout the plan with a view to achieving a sustainable future for all.

## 2.2 Climate Change

Climate change includes major changes in temperature, precipitation or wind patterns that occur over several decades or longer. Climate change and the effects associated with it, present a significant challenge to everyone. It is acknowledged that global warming is contributing to climate change and that global warming is largely associated with human activity. The Council recognises that Climate Change is a global threat with local consequences. If unmanaged, climate change will have dramatic adverse effects on peoples' lives, the environment and the prospects for growth and development.

While uncertainties surround the magnitude and extent of climate change impacts, the Council is committed to addressing climate change in a proactive manner through the careful consideration of policy guidance and strategies. It is therefore necessary to address the long-term causes of climate change through reducing our greenhouse gas emissions (GHG) (mitigation), while adapting to its effects over the short, medium, and longer terms (adaptation).

Responding to climate change will pose challenges for Kerry and all of Ireland in the immediate future from now to 2030 and beyond to 2050. There are also opportunities, particularly in the areas of placemaking and offshore wind energy (the construction and servicing of same and potential spin off 'green' technologies and industrial development).

## 2.3 Planning Context

### 2.3.1 Planning and Development Act 2000 (as amended)

The Planning and Development Act 2000 (as amended) requires development plans to include various types of objectives, including those relating to climate mitigation and adaptation. Provisions for climate change are set out within Section 10 (2) (n). This includes requirements to:

- reduce energy demand in response to the likelihood of increases in energy, and other costs due to long-term decline in non-renewable resources.
- reduce anthropogenic (manmade) greenhouse gas emissions, and
- address the necessity of adaptation to climate change; in particular, having regard to location, layout, and design of new development. It is also a statutory requirement for local authorities to incorporate the promotion of sustainable settlement and transportation strategies in urban and rural areas.

### 2.3.2 National Policy - Context and Overview

The National Policy Context has been developed from International and European Climate Change Policies and Agreements, including the UN Framework Convention on Climate Change, the Kyoto Protocol 1997, The EU Adaptation Strategy 2013, Paris Agreement 2015, UN Sustainable Development Goals (SDGs) 2015, EU Climate and Energy Framework 2021-2030 and the European 'Green Deal' 2020.

At a national level, the National Policy Position on Climate Action and Low Carbon Development (2014) set out the national objective of achieving a transition to a low carbon economy. This was given legislative effect by the Climate Action and Low Carbon Act 2015. The Act provided for the development of a National Adaptation Framework (NAF) and the Climate Action Plan 2019. The NAF requires sectoral and local adaptation strategies

to be developed and the Council's Climate Adaptation Strategy is set in this context. The Climate Action Plan (2019) puts in place a decarbonisation pathway to 2030 consistent with the adoption of a net zero carbon emissions target at EU level by 2050. Current national policy is set out in the Climate Action and Low Carbon Development (Amendment) Act 2021.

### 2.3.3 Climate Action and Low Carbon Development (Amendment) Act 2021

The Act provides for a national climate objective, which commits to pursue and achieve no later than 2050, the transition to a climate resilient, biodiversity-rich, environmentally sustainable, and climate-neutral economy. Ireland is therefore now on a legally binding path to net-Zero emissions no later than 2050, and to a 51% reduction in emissions by the end of this decade.

The Act requires local authorities to prepare and update every five years individual Climate Action Plans which will include both mitigation and adaptation measures. The Act also requires that Local Authority Development Plans be aligned with their Climate Action Plan and that more generally that public bodies are required to take account of Climate Action plans in the performance of their functions.

### 2.3.4 National Adaptation Framework (NAF 2018)

The National Adaptation Framework (NAF 2018) specifies the national strategy for the application of adaptation measures in different sectors, and by local authorities in their administrative areas, in order to reduce the vulnerability of the State to the negative effects of climate change and to avail of any positive effects that may occur. A key action under the NAF requires each local authority in the country to prepare local climate adaptation strategies, which KCC completed in 2019. The NAF also aims to improve the enabling environment for adaptation through ongoing engagement with civil society, the private sector, and the research community.

### 2.3.5 Local Authority Adaptation Strategy Development Guidelines (2018)

The Department of Communications, Climate Action and Environment (DCCAE) developed the Local Authority Adaptation Strategy Development Guidelines 2018, in order to provide local authorities with support in developing their Climate Change Action Plans (CCAPs). In addition, the government has established 4 no. Climate Action Regional Offices (CAROs). In the case of County Kerry, the Atlantic Seaboard South office plays a central role in supporting and coordinating climate actions in the County.

### 2.3.6 Climate Action Plan (2019)

The national Climate Action Plan 2019 put in place a decarbonisation pathway to 2030 consistent with the adoption of a net zero carbon emissions target at EU level by 2050. The Climate Action Plan initiates a set of policy actions to achieve a net zero carbon energy systems objective for Irish society. It highlights the requirement for a transformational shift of our economies and societies towards climate resilient and sustainable development and a profound change in the systems and practices which support our lifestyle.

It sets out that in line with the UN Sustainable Development Goals, climate action must be seen as complementary to other important policy objectives, such as promoting sustainable economic development pathways, improving energy security, and addressing air pollution impacts on human health. Many of the changes that are required will have positive economic and societal co-benefits, including cleaner air, warmer homes, and a more sustainable economy for the long term. It is anticipated that a new Climate Action Plan 2021 is to be published in October 2021 following on from the Climate Action and Low Carbon Development (Amendment) Act 2021.

### 2.3.7 Project Ireland 2040

Two national plans exist under the umbrella of Project Ireland 2040 – The National Planning Framework and the National Development Plan. The National Planning Framework's national strategic outcomes of a Transition to a Low Carbon and Climate Resilient Society (NSO 8), Compact Growth (NSO 1), Sustainable

Mobility (NSO 4), and the Sustainable Management of Water, Waste and other Environmental Resources (NSO 9) ensure that climate action is enshrined in spatial planning in order to tackle Ireland's higher than average carbon-intensity per capita and enable a national transition to a competitive low carbon, climate resilient and environmentally sustainable economy by 2050

### 2.3.8 Programme for Government

The Programme for Government 2020 has a strong focus on climate action including a commitment to reduce greenhouse gas emissions by 7% a year on average over the next 10 years. The Government will commit to an allocation of 10% of the total transport capital budget for cycling projects and an allocation of 10% of the total capital budget for pedestrian infrastructure. The Government's commitment to cycling and pedestrian projects will be set at 20% of the 2020 capital budget (€360 million) per year for the lifetime of the Government. In relation to new transport infrastructure, the Government is committed to a 2:1 ratio of expenditure between new public transport infrastructure and new roads over its lifetime. This ratio will be maintained in each Budget by the Government.

## 2.4 Regional Context

### 2.4.1 The Southern Regional Spatial and Economic Strategy (RSES)

The Southern Regional Spatial and Economic Strategy places climate action at its heart, presenting climate change as the most serious threat to human life and the environment. It identifies three priority areas for action to address climate change and to bring about a transition to a low carbon economy and society:

- Decarbonisation,
- Resource efficiency,
- Climate resilience.

## 2.5 Local Context

### 2.5.1 Kerry County Council Climate Adaptation Strategy 2019-2024

Kerry County Council's Climate Adaptation Strategy (2019) sets out a framework of actions and measures that Kerry County Council propose to undertake to further embed adaptation into all of the local authority's areas of responsibility.

This strategy is based around 6 thematic goals around which this plan is aligned. The following themes have been taken into consideration in the formulation of policy with the resultant objectives and actions incorporated throughout the plan. The Thematic Goals set out in Kerry County Council's Climate Adaptation Strategy 2019-2024 are:

1. Local Adaptation Governance and Business Operations
2. Infrastructure and Built Environment
3. Landuse and Development
4. Drainage and Flood Management
5. Natural Resources and Cultural Infrastructure
6. Community Health and Wellbeing

This plan augments the "integration" of climate action into planning policy directly through policies and objectives that support climate action but also indirectly through spatial and physical planning. The latter needs to dictate a vision for the future development of the County that for example supports local transport initiatives; provision of green and blue infrastructure; appropriate zoning/development of lands in urban cores and addressing of flooding issues. Taken in combination these clear synergies between plan making and the implementation of preferred adaptation options will ultimately and cumulatively form part of the local, regional, and ultimately national response to climate change. It will be necessary to make choices about how the County balances growth with more sustainable approaches to development and land use and to examine how planning policy can help shape infrastructural decisions. Climate change policy ultimately supports population growth in a compact, connected, and sustainable way which is less transport intensive through better planning, remote and home-working and modal shift to public transport.

Of note is that this plan recognises the importance of biodiversity and nature conservation as a means to both mitigate and adapt to climate change. As international and national trends show a rapid decline in biodiversity, this plan seeks to protect and enhance biodiversity in the county. Nature-based solutions that provide multi-functions/co-benefits are driving many responses to the challenges of climate change.

## 2.6 Kerry County Development Plan 2022-2028 – Climate Action

The Kerry County Development Plan forms an important part of the County's Climate Action Response. As part of this, the plan takes forward the three priority areas for action outlined in the Southern Regional RSES: - Decarbonisation, Resource efficiency and Climate resilience. The County Development Plan is also mindful of the carbon emission reduction requirements set out in the Climate and Action and Low Carbon Development (Amendment) Act 2021.

### 2.6.1 Sustainable Land Use and Resource Efficiency

Kerry is a County rich in natural capital and resources, including land, soil, water, clean air, aggregates, onshore and offshore wind energy. Sustainable development requires the efficient and effective use of these resources. The Kerry County Development Plan as the strategic land use planning document for the County sets out the framework for the sustainable development of the County, in line with the UN Sustainability Goals and National and Regional Guidance.

In catering for population and economic growth and a move towards alternative energy sources and a low carbon society, there is likely to be a demand for land and locations for bioenergy supply, waste management, food production, forestry, and other land services alongside the need to build more houses, schools, and other facilities. Competition for land resources needs to be carefully managed by maximising the re-use of sites which are no longer required for their initial use (brownfield lands) and ensuring that the environment is protected and enhanced where necessary. The identification of greenfield lands for development will be underpinned by the principles of sustainability. Expansion of settlements will generally be from the centre out and supported by an appropriate level of infrastructure and services.

County Kerry is advancing its development as a circular and bioeconomy where the value of all products, materials and resources is maintained for as long as possible thereby significantly reducing or eliminating waste. Further developing the circular economy will require greater efficiency with raw materials, energy, water, space, and food by constantly reusing natural resources wherever possible.

This circular economy approach is also applicable to land use management. The development of infill lands and the reuse of brownfield sites will compact and increase the density of our existing settlements, facilitating the co-location of uses, increased opportunities for smarter travel (walking/cycling) and public transport. This approach maximises the use of urban serviced land and facilitates urban renewal.

The bioeconomy involves the production of renewable biological resources and their conversion into food, feed, bio-based products, and bioenergy. It includes agriculture, forestry, fisheries, food, pulp, and paper production, as well as parts of chemical, biotechnological and energy industries. Its sectors have a strong innovation potential to support Ireland's transition to a more integrated sustainable, low carbon economy.

### 2.6.2 Sustainable Land Management and Decarbonisation

It is an objective of the Southern Regional RSES to develop a Regional Decarbonisation Plan to provide a framework for action on decarbonisation across all sectors. Kerry County Council supports the preparation of such a plan and the decarbonisation of the region.

#### 2.6.2.1 Transition to a Carbon Neutral Economy and Society

The transition to a low carbon energy future will require a wide range of responses across the public and private sectors and in communities to change how we use energy at home, in our work and how we travel. Fundamental to this is a change to more sustainable settlement patterns. The focus on compact growth of our towns and villages, placemaking, sustainable transport, and focus on the location of development in sustainable locations will bring fundamental benefits to climate change mitigation.

The Council will facilitate the provision of a framework, and work with all stakeholders for action on de-carbonisation across all sectors including agriculture, transport, electricity, and the built environment. It is the policy of the Council to identify, promote and develop a Decarbonising Zone(s) in the county. The Council will work with the Dingle Creativity and Innovation Hub to pilot Dingle as a decarbonising zone for the county. It will be the policy of the Council to subsequently transfer the learnings of this pilot to other areas of the county. The council, in conjunction with stakeholders will facilitate low-carbon and renewable energy generation (electricity and heat) technologies. The plan is also supportive of improved energy efficiency projects and initiatives.

This plan aims to support the increased use of sustainable modes of transport; the integration of spatial planning with transport planning; enhanced county and regional accessibility; the transition to a low carbon energy efficient transport system; and the development of a safer, more efficient, effective, and connected transport system within County Kerry. Cutting GHG emissions in the carbon intense transport sector is a particular challenge for Ireland and indeed Kerry. This is due to our traditional dispersed settlement pattern and low population density. These factors are a particular feature of a rural county like Kerry and result in a high proportion of journeys being made by private car and/or due to a lack of public transport or active travel substitutes. It is an objective of this plan to prioritise the development of infill and brownfield sites to facilitate the compact growth of settlements, to prioritise active modes of transport and the integration of land use planning and transport provision.

The council will also support measures identified in the Department of Agriculture, Food, and the Marine's *Ag Climatise, 2020* to promote the reduction of GHGs in the agricultural sector, decarbonisation of energy sources; carbon sequestration, capture and storage and improved manure and soil management.

#### 2.6.2.2 Energy Policy and Planning

Kerry County Council recognises that the transition to a low carbon economy is an integral part of Ireland's climate change strategy and that renewable energies form a core component of reducing our reliance on fossil fuels. In particular, decarbonisation of the heating and transport sectors are challenges of significance to this plan.

The main sources of renewable energy are the sun (solar energy), wind, moving water (hydropower, wave, and tidal energy), heat below the surface of the earth, (geothermal energy) and biomass (wood, waste, energy crops, and biogas).

National renewable energy targets are acknowledged and to date, Kerry has made a significant contribution towards realising these targets, having regard to wind energy developments already constructed and permitted in the County. Detailed policy in relation to renewable energy including micro generation and community consultation is contained in Chapter 12 of this plan. In addition, the plan facilitates the development of offshore wind energy proposals and associated 'green' industry.

### 2.6.3 Sustainable Land Use and Climate Resilience

The National Adaptation Framework sets out an overall approach for developing climate resilience. Climate adaptation aims to reduce the vulnerability of our environment, society and economy to the risks posed by climate change. Within the context of this plan, the maintenance of critical infrastructure and the management of water resources and flood risk are given high priority. The Southern Regional RSES highlights the importance of including measures to support flood risk management as an action to build resilience to Climate Change.

The frequency, pattern and severity of flooding are expected to increase as a result of climate change, becoming more uncertain and more damaging. Climate change could potentially have a very significant effect on flooding in the longer term. Higher sea-levels and wetter winters, with more intense rainstorms, together with possible increases in storminess could significantly increase both the frequency and intensity of flooding. To address this issue, the Council will comply with the provisions of the "Planning System and Flood Risk Management" Guidelines by ensuring that, where relevant, flood risk is a key consideration in preparing development and local area plans and in the assessment of planning applications.

The plan also recognises that climate change is likely to place additional pressures on existing critical infrastructure such as bridges and existing defences which are vulnerable to extreme weather events. The issue of flood risk is dealt with in more detail in the Environment Chapter and in the Development Management Guidelines. A Strategic Flood Risk Assessment of this Plan has also been carried out and is included in Volume 5.

### 2.6.4 Summary of Mitigation and Adaptation Measures Incorporated into the Plan

Mitigation and adaptation are important strategies in responding to climate change and land use planning has a role in both. Mitigation deals with the causes of climate change and works to reduce man-made effects on the climate system by reducing greenhouse gas emissions, using renewable energy sources, increasing energy efficiency, and moving to a low carbon economy. Climate adaptation refers to actions taken to reduce the negative effects of climate change or to take advantage of emerging opportunities**.**

**Mitigatory measures in this plan include the following:**

- Integrating land use and transport planning
- Delivering compact growth
- Implementing the avoid shift improve approach to transport policy
- Delivering the 10-minute town concept
- Promoting energy efficiency
- Promoting repowering of windfarms, renewable energy technologies, spin off industry and enterprise,
- Enhancing and protecting biodiversity
- Facilitating smart/remote working
- Promoting climate change awareness and behavioural change
- Promoting mainstreaming of climate change in decision making

**Adaptation measures in this plan include the following:**

- Flood risk management
- Promotion of nature-based systems for water management services

- Enhancement and protection of green infrastructure and biodiversity
- Promotion of climate action through high quality design, including in placemaking and public realm (e.g., shade, shelter, and provision of EV charge points).

| **Climate Change and Achieving a Sustainable Future<br>It is an objective of the Council to:** | |
|---|---|
| **KCDP 2-1** | Support and implement the UN Sustainable Development Goals (SDGs), and the NPF Strategy and National Policy Objectives (NPOs) on sustainability and the RSES Strategic Statements, as appropriate. |
| **KCDP 2-2** | Facilitate and support national climate change objectives contained in the Climate Action Plan 2019 and the actions contained in the KCC Climate Change Adaptation Strategy 2019-2024 and successor strategies. |
| **KCDP 2-3** | Facilitate the development of a Regional Decarbonisation Plan to provide a framework for action on decarbonisation across all sectors and support the Dingle Decarbonisation Zone as a pilot initiative to identify and develop additional Decarbonising Zones within the County. |
| **KCDP 2-4** | Support measures to build resilience to climate change throughout the county to address impact reduction, adaptive capacity, awareness raising, providing for nature-based solutions and emergency planning. |
| **KCDP 2-5** | Support the development of sustainable communities that enhance the health and wellbeing of our people and places. |
| **KCDP 2-6** | Promote and support enterprises that create and employ the use of green technologies. |
| **KCDP 2-7** | Support social enterprises and the circular economy within local communities to benefit environmental protection, employment generation and community development. |
| **KCDP 2-8** | Support the circular and bio economy through greater efficiency in sustainable land management, greater use of renewable resources and the development of sustainable supply chains. |
| **KCDP 2-9** | Promote the development of a more sustainable agri-sector, having regard to the measures and environmental objectives of the forthcoming 'Common Agricultural Policy Strategy for Ireland, Ag Climatise 2020 – the National Climate & Air roadmap for the agriculture sector'. |
| **KCDP 2-10** | Support nature-based solutions to climate change challenges and also initiatives aimed at increasing soil carbon retention, sequestration, and storage. |
| **KCDP 2-11** | Improve the efficiency and sustainability of transport including improved and expanded public transport capacity and walking and cycling infrastructure, improved traffic management and bus priority. |
| **KCDP 2-12** | Support investment in the sustainable development of Electric Vehicle charging facilities in appropriate public locations and to integrate Electric Vehicle charging point infrastructure within residential, commercial, and mixed-use developments. |
| **KCDP 2-13** | Promote energy conservation, energy efficiency and the use of renewable energy sources in existing buildings, including retro fitting of energy efficiency measures in the existing building stock, energy efficiency in traditional buildings and initiatives to achieve Nearly Zero-Energy Buildings (NZEB) standards in line with the Energy Performance of Buildings Directive (EPBD). |