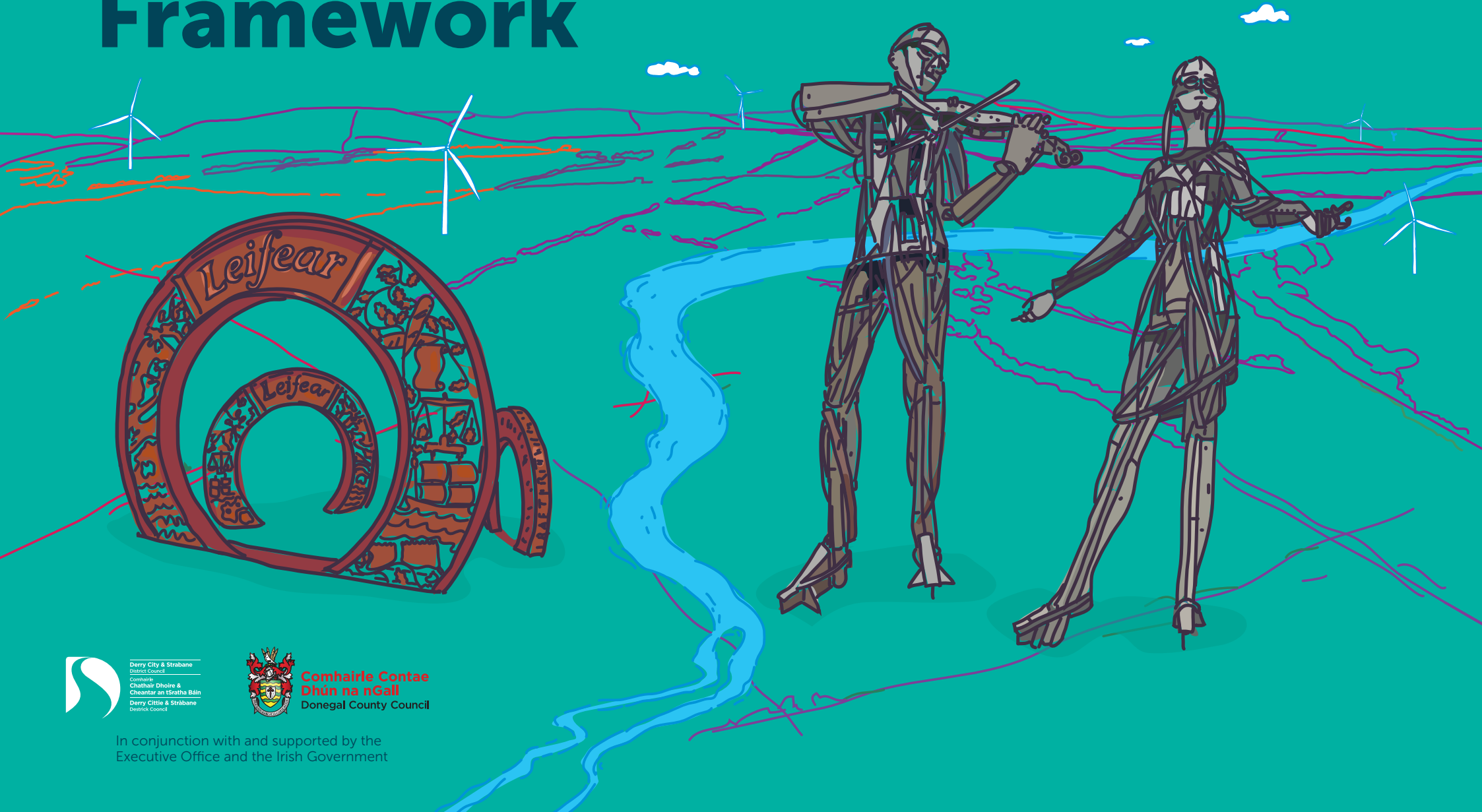


# North West Climate Action Framework



Derry City & Strabane  
District Council  
Comhairle  
Chathair Dhúire &  
Cheantar an tStrátha Bál  
Derry Clitíe & Strabane  
Districc Council



Comhairle Contae  
Dhúin na nGall  
Donegal County Council

In conjunction with and supported by the  
Executive Office and the Irish Government





# Contents

Acknowledgements	4	Strategic & Governance	50
Message from NWSGP Chair / Mayors	5	Knowledge & Information	54
Executive Summary	6	Engagement & Capacity	56
Introduction	12	Adaptation	60
Regional Profile	15	Mitigation	65
The Climate Challenge & Opportunity	20	Funding & Finance	73
Climate Action (Drivers & Benefits)	30	Next Steps	76
Nature Based Solutions	36	Appendices	79
Green Recovery & Just Transition	38	Glossary	101
Targets & Strategic Context	39	References	105
Climate Ready North West	47		
North West Climate Ambition	48		
Vision	49		
Mission	49		
Guiding Principles / Values	49		
Themes	50		
Cross Cutting	50		

# Acknowledgements



The development of the North West Climate Action Framework was made possible through support and funding provided by the North West Regional Development Group, in conjunction with and supported by The Executive Office and The Irish Government.

The North West Regional Development Group would like to express gratitude to the following for their time, insights and support:

- > North West Ministry of Youth
- > Donegal Youth Council
- > Donegal County Council Public Participation Network
- > Derry City & Strabane Community Groups
- > Climate Northern Ireland
- > Climate Ireland
- > North West Green Transformation Group
- > Derry City & Strabane District Council and Donegal County Council staff





# Message from NWSGP Chair / Mayors

Climate change is one of the most serious threats facing us here in the North West. The global and local impacts of the climate crisis has and will continue to affect us all.

We have seen the impacts of severe weather events, flooding, heatwaves and storms on our local infrastructure, businesses, homes, agriculture and communities. We are also seeing the effects of gradual changes in our climate on our local landscapes, wildlife and biodiversity. We need to act now to protect our places, environment, economy and people.

Here in the North West we need to think global and act local – playing our part to reduce greenhouse gas emissions in order to meet the targets necessary to halt further catastrophic climate change. We also need to ensure that our transition to a net zero resilient region includes everyone, that all our citizens can participate in the plans and actions and crucially that no one is left behind as we deliver a Just Transition.

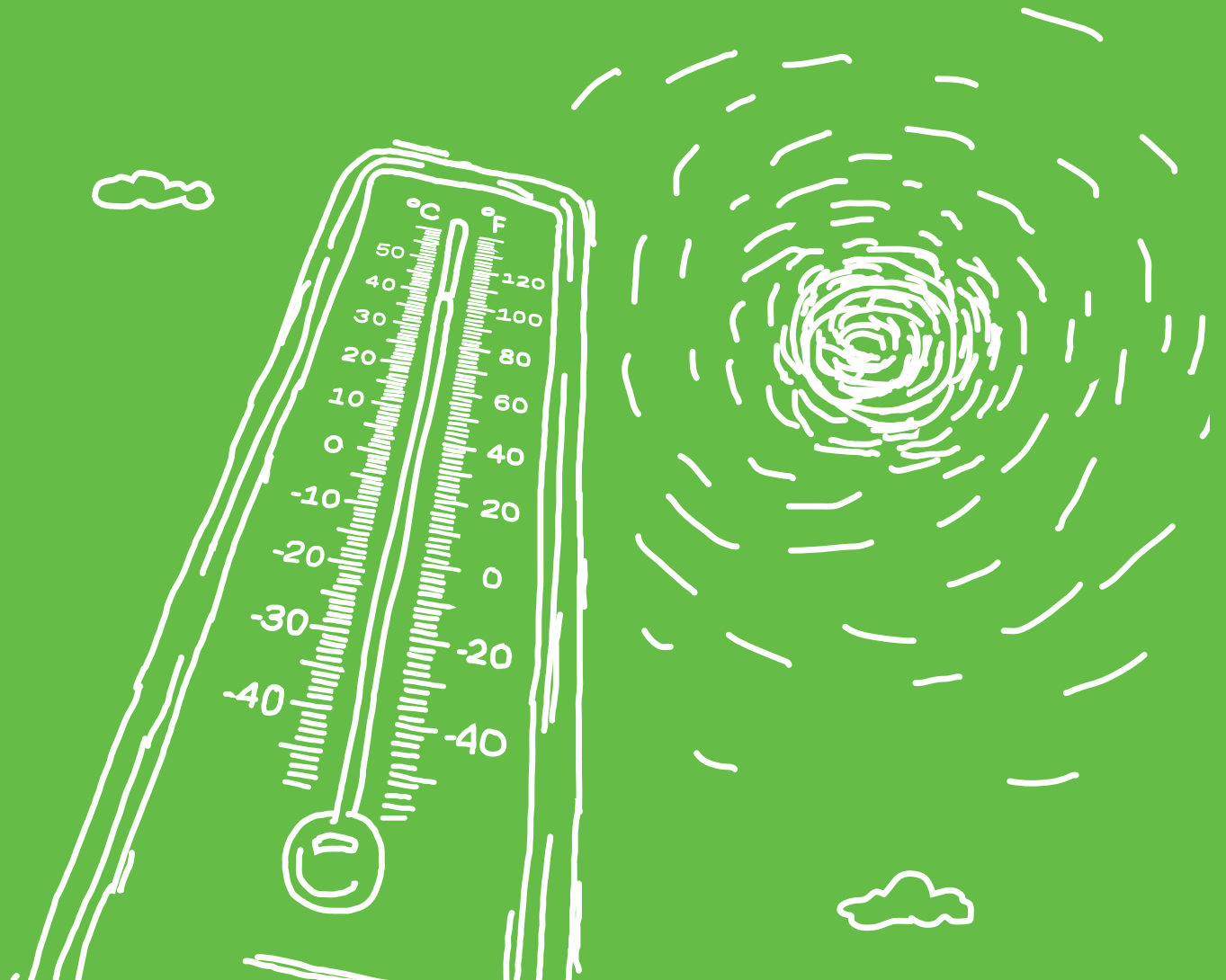
We will harness existing collaboration and continue to work together towards our shared ambition for the region. The North West Climate Action Framework paves the way for climate action across the region enabling greater partnerships, structures and plans to be developed.

The time to act is now and here in the North West we are delighted to be able to lead the way with our shared ambition for climate action.

## **Councillor Ciaran Brogan**

Chair of North West Regional Development Group

# Executive Summary





**Global warming is likely to reach 1.5°C as early as 2030 (high confidence). Climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5°C and increase further with 2°C (IPCC, 2018).**

**North West region averages indicate an increase in winter temperatures and rainfall, increased summer temperatures and reduced summer rainfall, alongside increased frequency and intensity of storms.**

Detailed climate impact analysis highlights that flooding, storms and heatwaves have most impact across the region causing damage to infrastructure, property, natural & built environment, disruption to services and daily life, and reduced productivity, to name but a few.

The success or failure to address the challenges of climate change and biodiversity loss falls to both international and national action by governments, public authorities, business and civil society. Through partnership, sharing of good practice, and collaboration – we have the potential to increase and deepen progress as the land, waters, air and nature that this island supports are shared, and cannot be protected fully without cooperation and coordination (NESDO 2021). The North West Climate Action Framework (NWCAF) will ensure consistency of approach by combining efforts, knowledge and resources, placing the region in a better position to lead and protect our assets, and unique quality of life and economy.

Situational analysis of North West cross border climate action identified a number of strengths, weaknesses, opportunities and threats (SWOT) associated with the development and delivery of climate action. The key findings indicate opportunities for improved governance and policy development, a need for a coordinated approach to climate data and research and the need for increased engagement and awareness enabling local capacity for climate action.

Effective planning and collaboration allows the North West to position itself as a pioneer region for climate action encouraging government departments, business and industry to pilot new initiatives and projects here. Working on a cross border, cross-sectoral basis the NWCAF will ensure harmonisation of data, research, policy and practice in order to ensure efficient and effective climate action across the region to deliver a resilient and low carbon society.

The NWCAF offers the strategic direction for the way forward outlining the vision, mission statement and guiding principles for climate action upon which the priority themes and associated aims and objectives can be delivered.

# North West Climate Action Framework

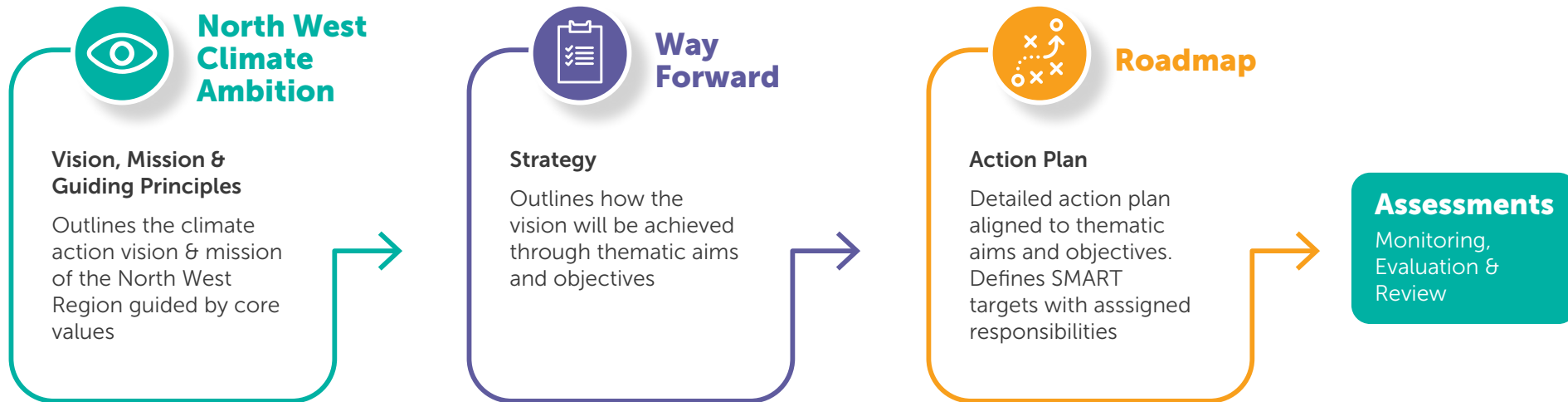


Figure 1 outlines the North West Climate Action framework and approach.

# North West Climate Ambition



## North West Climate Ambition

### Vision, Mission & Guiding Principles

Outlines the climate action vision & mission of the North West Region guided by core values



## Vision

To create a Net Zero emissions, climate ready North West region where climate action benefits are maximized for local communities, environment and economy.



## Mission

The North West Region will:

Deliver climate action on a cross sectoral multi agency basis to achieve greater adaptation and resilience to the effects of climate change while leading by example to reduce emissions and mitigate against further global warming.



## Values

NWCAF will deliver climate action based on core principles of;

- Commitment & collaboration
- Transparency & accountability
- Just Transition
- Inclusiveness, citizen & youth participation
- Integration of mitigation and adaptation to maximize opportunities and efficiencies



## Way Forward

### Strategy

Outlines how the vision will be achieved through thematic aims and objectives



## Themes

### Cross Cutting

- > Strategic & Governance
- > Knowledge & Information
- > Engagement & Capacity

Adaptation  
Mitigation

## Cross Cutting



### Strategic & Governance

Develop partnership structures facilitating collaboration and policies to deliver North West Climate Action.



### Knowledge & Information

Ensure robust data and evidence to inform climate actions and deliver transparent monitoring and reporting.



### Engagement & Capacity

Increase climate change awareness and capacity for action across the North West to ensure a Just Transition.

## Climate Action



### Adaptation

Deliver co-ordinated adaptation action across the North West to ensure resilience to climate impacts.



### Mitigation

Deliver coordinated mitigation actions across the North West to achieve net zero greenhouse gas emissions (Targets to be agreed).





# Introduction



The North West Climate Action Framework (NWCAF) document sets the strategic direction for transboundary cross sectoral climate action. Our intention is to change the paradigm from fragmented climate action to one of integrated and collaborative planning. The North West Climate Action Framework aims to ensure that everyone is working towards the same goal, thereby making climate action more efficient and effective.



Climate change does not respect borders or stop to consider different regulations, policies and procedures, therefore it is crucial that the region embarks on a coordinated approach to tackling the challenge.

Delivering objectives of the strategic framework is a key tool to mainstreaming climate action into sectoral and civil society programmes. Effective planning and collaboration allows the North West to position itself as a pioneer region for climate action encouraging government departments, business and industry to pilot new initiatives and projects here.

The NWCAF provides an analysis of the current climate impacts and actions and offers the strategic direction for the way forward. It outlines the vision, mission statement and guiding principles for climate action upon which the priority themes and associated aims and objectives can be delivered.

The NWCAF does not provide specific targets and actions as these will be developed through a participative co-design process with all stakeholders, however indicative actions have been explored to highlight potential opportunities. The subsequent detailed climate action plan will provide a collaborative roadmap to achieve the vision of a Net Zero climate ready North West.

The 2018 Intergovernmental Panel on Climate Change (IPCC) Special Report on the Impact of Global Warming makes it clear that the impacts of climate change are being experienced now, through unprecedented global trends and more localised

severe weather events as has already been experienced across the North West region with instances of flooding, storms and heatwaves. The impacts of climate change will continue and the onus is on public and civic society to lead by example through measures to adapt and mitigate against further global warming.

**Limiting global warming to 1.5°C would require “rapid and far-reaching” transitions in land, energy, industry, buildings, transport, and cities and requires a cut in greenhouse gas emissions of 45% by 2030 compared to 2010, and zero by 2050.**

*(IPCC, 2018)*

The Journal of Spatial Planning in Ireland (Murphy, 2016) highlights that adapting to climate change is most challenging in close proximity to boundaries. The report states that on the island of Ireland border regions are amongst the most vulnerable to the hydro-climatic hazards such as flooding mainly due to a lack of joined up thinking and action around shared environmental issues and climate adaptation. Although there are EU Directives to support these transboundary issues, the Water Framework Directive & the Floods Directive, via implementation of the River Basin Management Plans, more collaboration is needed.

Collaboration is our biggest strength in tackling the climate emergency. It can deliver cost savings and resilient services, enhanced economic development and ensure the attractiveness of the region for investment, and communities, as well as the development of the green economy and jobs.

**We will galvanise our strategic collaborations with governments, academia, the private sector, statutory agencies and our communities to create and implement a city region that drives forward leading innovations for regional development, economic growth and an improved quality of life equally for all while sustaining natural resources and the environment.**

*North West Green Transformation Statement Vision*

The North West region is innovative and forward thinking in its approach to transboundary collaboration through existing structures such as the North West Strategic Growth Partnership and North West Regional Development Group driving cross-border cooperation, with strong linkages to the respective programmes for government, North and South. Successful North West collaboration is also demonstrated by initiatives such as the All-Ireland Pollinator Plan, waste management, invasive species, and river basin management approaches. Local authorities cannot deliver climate action in isolation, particularly as many issues and areas of vulnerability are

beyond the remit of councils, therefore the NWCAF will work on a multi-agency and cross-sectoral basis to led and coordinate climate action across the region.

We intend to seize the opportunity for the North West to be early adopters of the new green industrial revolution, generating and growing new technologies, creating and developing skills and jobs in the sustainability sector.

We recognise the risks posed by climate change and the challenges that lie ahead in contributing to global mitigation efforts through emission reductions in the North West, however current collaborative approaches and commitment to act positions the region to lead the way in cross border climate action.



# Regional Profile



The characteristics of the North West is subject to both climate challenges and opportunities due to it's extensive coastline, river systems, disperse settlement patterns, high level of natural heritage and conservation areas, as well as unique groundwater systems which present diverse exposure and vulnerability factors.

Ireland's geographical situation explains our changeable weather. The dominant influence on our climate is the Atlantic Ocean which produces mild/wet weather and a moderate climate. Winters tend to be cool and windy, summers mild and less windy. Met Eireann 1981-2010 averages (2012), show that, mean annual temperatures generally range between 9°C and 10°C. Averaged over all Ireland, the average annual rainfall is approximately 1230 mm.



## Donegal County Council

<b>Area</b>	4,861 km <sup>2</sup> , Gaeltacht: 935 km <sup>2</sup> .	<b>Environmental Designations</b>	26% of the county is designated for protection of flora and fauna
<b>Shoreline</b>	1,132km		46 Special Areas of Conservation
	12 Blue Flag Beaches, 2 Blue Flag Marina, 4 Green Coast Award Beaches		26 Special Protection Areas
<b>Population</b>	159,192 of which 73% live in rural areas & 27 % urban area		14 Natural Heritage Areas
	33.6% under 24 yrs		10 Nature Reserves
	15.7% over 65 yrs		6 Wildfowl Sanctuaries
<b>Agriculture</b>	9,240 farms	<b>Heritage</b>	4 Ramsar wetland sites
<b>Ports</b>	2 major fishing ports at Greencastle & Killybegs. Approximately 1 20+ piers and harbours		3,400 known archaeological monuments
<b>Bus / train</b>	Bus Éireann, Private bus companies, Local Link services, No rail network		17 National Monuments in state care
<b>Airport</b>	Donegal Airport		474 Protected Structures
<b>Hospital</b>	Letterkenny University Hospital	<b>Electricity Generation</b>	2,000 structures recommended for statutory protection by Inventory of Architectural Heritage.
<b>Higher Education</b>	Atlantic Technological University		15% of electricity generated from renewable sources via 28 wind farms
<b>Greenways &amp; Cycling Infrastructure</b>	326km of Integrated cycle lanes 36km of segregated cycle lanes		3 Hydro stations
<b>EV Charging</b>	18 ESB public charging points	<b>Heat Generation</b>	Oil

## Derry City & Strabane County Council

<b>Area</b>	1,245 km <sup>2</sup>	<b>Environmental Designations</b>	5 Special Areas of Conservation
<b>Shoreline</b>	7km, 16km tidal River Foyle		1 Special Protection Area
<b>Population</b>	150,680 of which 29% rural, 71% live in urban areas 33.5% aged under 24 yrs 14.9% aged over 65 yrs		25 Areas of Special Scientific Interest (ASSI): sites of high conservation area
<b>Agriculture</b>	1,767 farms		3 National Nature Reserves (NNR)
<b>Ports</b>	Foyle Port and Harbour		1 Area of Outstanding Natural Beauty (AONB)
<b>Bus / Train</b>	Ulster Bus, Multi-modal transport hub, Rail service Derry-Belfast Private operators and Education Authority		2 Ramsar wetland sites
<b>Airport</b>	Derry City Airport	<b>Heritage</b>	4 Local Nature Reserve (LNR); Locally important for biodiversity
<b>Hospital</b>	Altnagelvin (Only cross-border Cancer Centre) Waterside Hospital (Specialist)		675 listed buildings
<b>Higher Education</b>	Ulster University, Magee Campus North West Regional College in Derry and Strabane		857 Monuments Record
<b>Greenways &amp; Cycling Infrastructure</b>	100km		18 Monuments in State Care
<b>EV Charging</b>	17 public charging points		10 Scheduled Monuments in State Care.
		<b>Electricity Generation</b>	Derry Walls - the largest monument in State Care in Northern Ireland
			Renewables 24% of total energy generated -17.8% Wind, 6.2% renewables.
		<b>Heat Generation</b>	Coolkeeragh Combined / Open Cycle Gas Turbine Power Plant
			Oil & Gas



## Donegal

### Population

Donegal is estimated to have a population of 183,500 by 2031



### Deprivation

Donegal is ranked the **2nd** most deprived local authority in Ireland



### Employment Rates

**46.9%**  
Employed  
(15+)



### Education

Less than **5%** people have no formal education  
**62%** people have a leaving cert qualification



### Economic Activity

**18.6%** Unable to work due to permanent sickness or disability



### Businesses

**10,341** total active enterprises with **44,223** jobs



### Domestic Housing

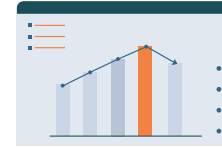
**57,964** private households  
**72.4%** homeowners  
**12.7%** rented  
**9.6%** population in social housing



## Derry City & Strabane

### Population

DCSDC estimated to have 150,496 in 2022 before dropping back to 145,852 by 2041



### Deprivation

DCSDC 20 most deprived SOA (Super Output Areas) across NI, with 5 being in the top 10.



### Employment Rates

**61.6%**  
Employed  
(16-64)



### Education

**17%** have no qualifications  
**15.3% 16-64** year olds - no formal qualifications



### Economic Activity

**33%** Unable to work due to permanent sickness or disability



### Businesses

**5,260** registered businesses providing **58,200** jobs



### Domestic Housing

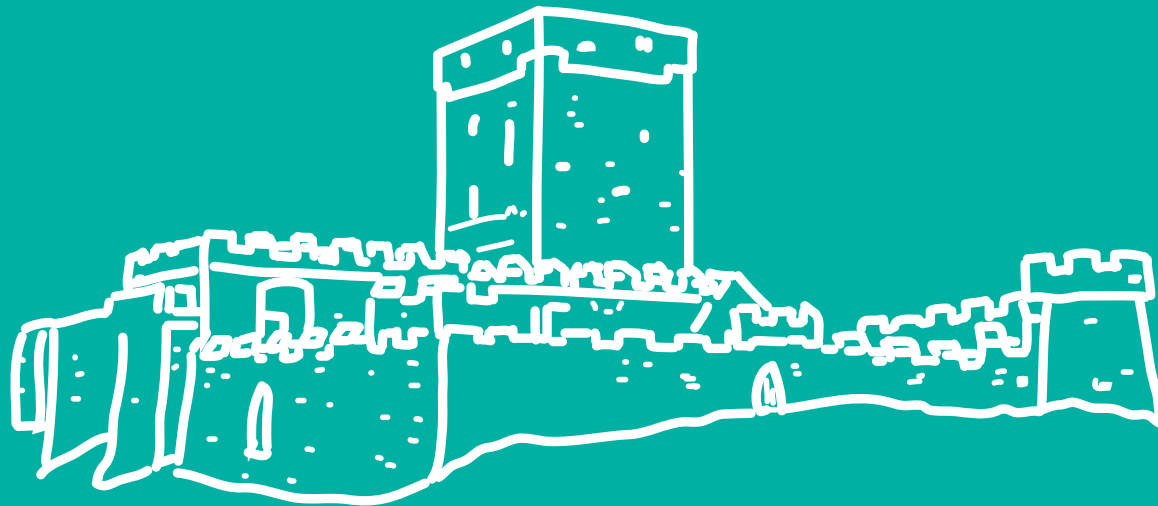
**62,462** private households  
**45.7%** homeowners  
**24.3%** rented  
**18.8%** population in social housing (above the NI average of 16.5%)



\* DL statistics obtained Northwest Regional Assembly, 2018

\* DCSDC statistics obtained from Derry City and Strabane District Council Local development plan (ILDLP) 2032 evidence base- evb 5- housing may 2017

# The Climate Challenge & Opportunity

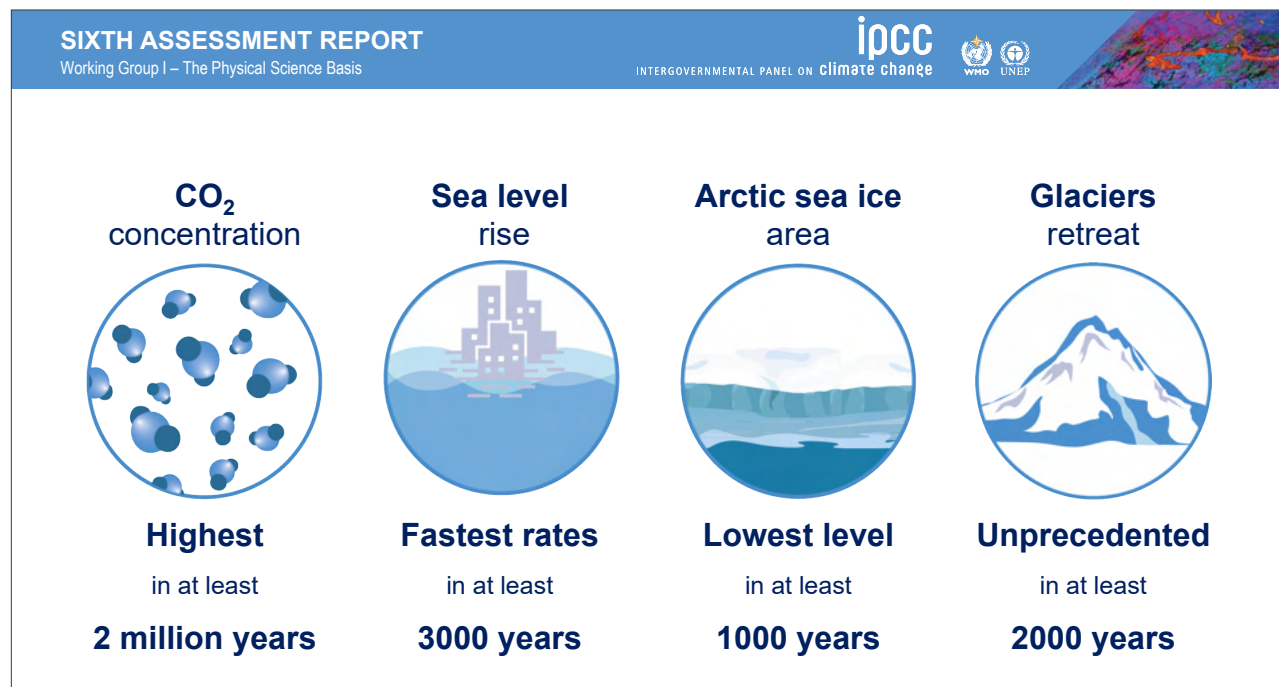




It is indisputable that human activities are causing climate change, making extreme climate events, including heat waves, heavy rainfall, and droughts, more frequent and severe. (IPCC ARC Report 2021).

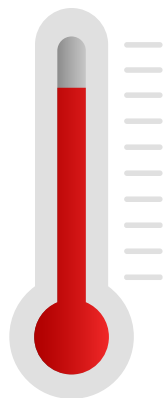
Following an unprecedented drop of 5.4 per cent in 2020, global carbon dioxide emissions are bouncing back to pre-pandemic levels, and concentrations of GHGs in the atmosphere continue to rise. The emissions gap which is the difference between where greenhouse emissions are predicted to be in 2030 and where they should be to avert the

worst impacts of climate change, remains large. New national climate pledges combined with other mitigation measures put the world on track for a global temperature rise of 2.7°C by the end of the century. That is well above the goals of the Paris climate agreement (To limit global warming to below 2°C - preferably 1.5°C above pre-industrial levels) and would lead to catastrophic changes in the Earth's climate i.e. the new pledges for 2030 reduce projected emissions by only 7.5 per cent, whereas 30 per cent is needed for 2°C and 55 per cent is needed for 1.5°C Paris Agreement (UNEP 2021).



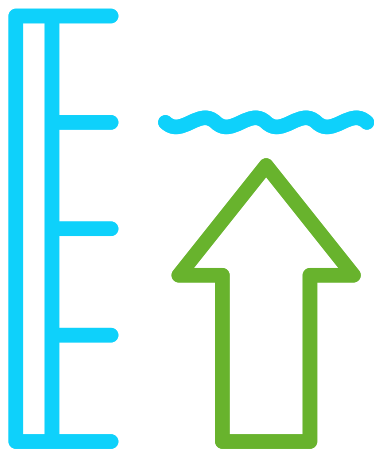
(IPCC, 2021)

## State of the UK Climate 2020



### Temperature & Precipitation

- > The 21st century has so far been warmer than the past 3 centuries
- > Temperature, rainfall and sunshine for 2020 were all in the top-ten highest on record
- > 2011-2020 was 1.1°C above the 1961-1990 average / The period 1991-2020 was 0.9°C above 1961-1990 average
- > The number and severity of snow events has generally declined since the 1960s
- > Six of the top 10 wettest years have occurred since 1990

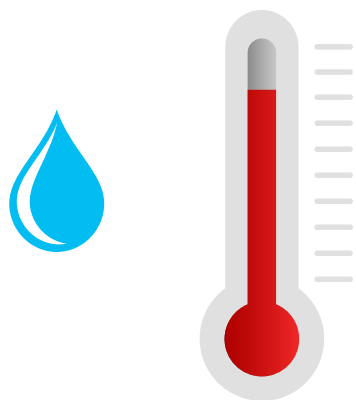


### Sea-level rise

- > UK sea-level has risen by 16.5cm since the start of the 20th century
- > The rate of sea level rise has increased and is now at 3mm per year
- > 9 of the 10 warmest years for UK near-coast sea surface temperature have occurred since 2002

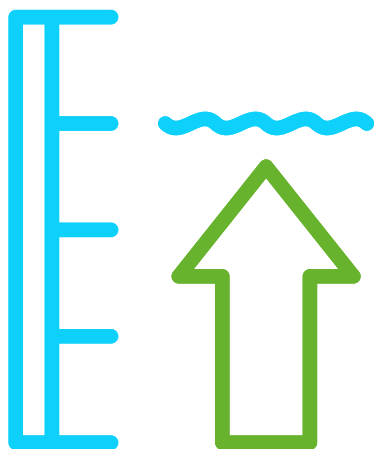
(UK Met Office 2021)

## Observations-EPA Status of Ireland Climate 2020



### Temperature & Precipitation

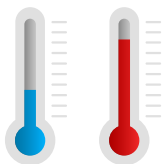
- > Increased by approx 0.9°C over the last 120 years, rise in temperatures observed in all seasons
- > 15 of the top 20 warmest years on record have occurred since 1990
- > The length of warm spells has increased over last 60 years
- > Annual average rainfall has increased 6% since 1989-2018 compared to 1961-1990 30 year period
- > 2006-2015 wettest decade on record



### Sea-level rise

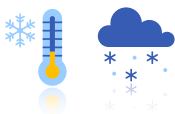
- > Sea level around Ireland has risen by approximately 2-3mm/year since the early 1990s
- > The ocean is becoming more acidic -0.05pH change 1991-2013

## UK Projections 2041-2060



### Temperature

- > By the end of the 21st century, all areas of the UK are projected to be warmer, more so in summer than in winter.
- > By 2050, in the high emission scenario temperatures could reach 1.2°C hotter and by 2080 2.1°C hotter



### Frost/Snow

- > By the end of the 21st century, lying snow decreases by almost 100%



### Precipitation

- > By 2070, under high emission scenarios up to 47% less rainfall in summer with a 35% increase in rainfall in winter
- > Increases in the intensity of heavy summer rainfall events



### Sea-level rise

- > Sea level around the UK will continue to rise to 2100 under all emission pathways, (inclusive of land movements)
- > Northern Ireland is locked in to at least 11cm sea-level rise by 2100

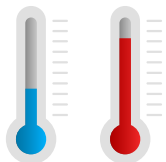


### Phenology

- > Continue changes to growing seasons with increased growing days and longer leaf season

(UK Met Office 2018)

## ROI Projections 2041-2060



### Temperature

- > Increase by 1–1.6°C compared with the reference period (1981–2000)
- > Summer daytime and winter night-time temperatures projected to increase by 1–2.4°C
- > Number of frost and ice days will decrease by approximately 50%
- > Frequent summer heatwaves



### Precipitation

- > Increased variability with substantial increases in the occurrence of both dry periods and heavy precipitation events
- > Snowfall is projected to decrease substantially across the country



### Sea-level rise

- > The rate of global sea level rise for 2006–2015 of 3.6mm per year, 2.5 times the rate for 1901–1990. Sea level rise is due a number of factors including climate change and will continue to rise at this rate or greater.

(Kendon, 2021)

## Climate Impact Profile

Climate change is a major challenge that poses serious risks to our communities, businesses, environment, and way of life. Local severe weather events illustrate the continued impacts that the North West is likely to experience with climate change. These impacts will continue due to emissions already locked into the system and will intensify over the coming decades.

Detailed climate impact analysis undertaken as part of the adaptation planning process in Donegal County Council and Derry City and Strabane District Council highlights that flooding, storms and heatwaves have most impact in the region.

The effects of severe weather events include:

- > Damage to infrastructure, property, natural & built environment
- > Disruption to services & daily life
- > Impacts health & wellbeing
- > Increased water demand
- > Reduced productivity
- > Agriculture & business disruption

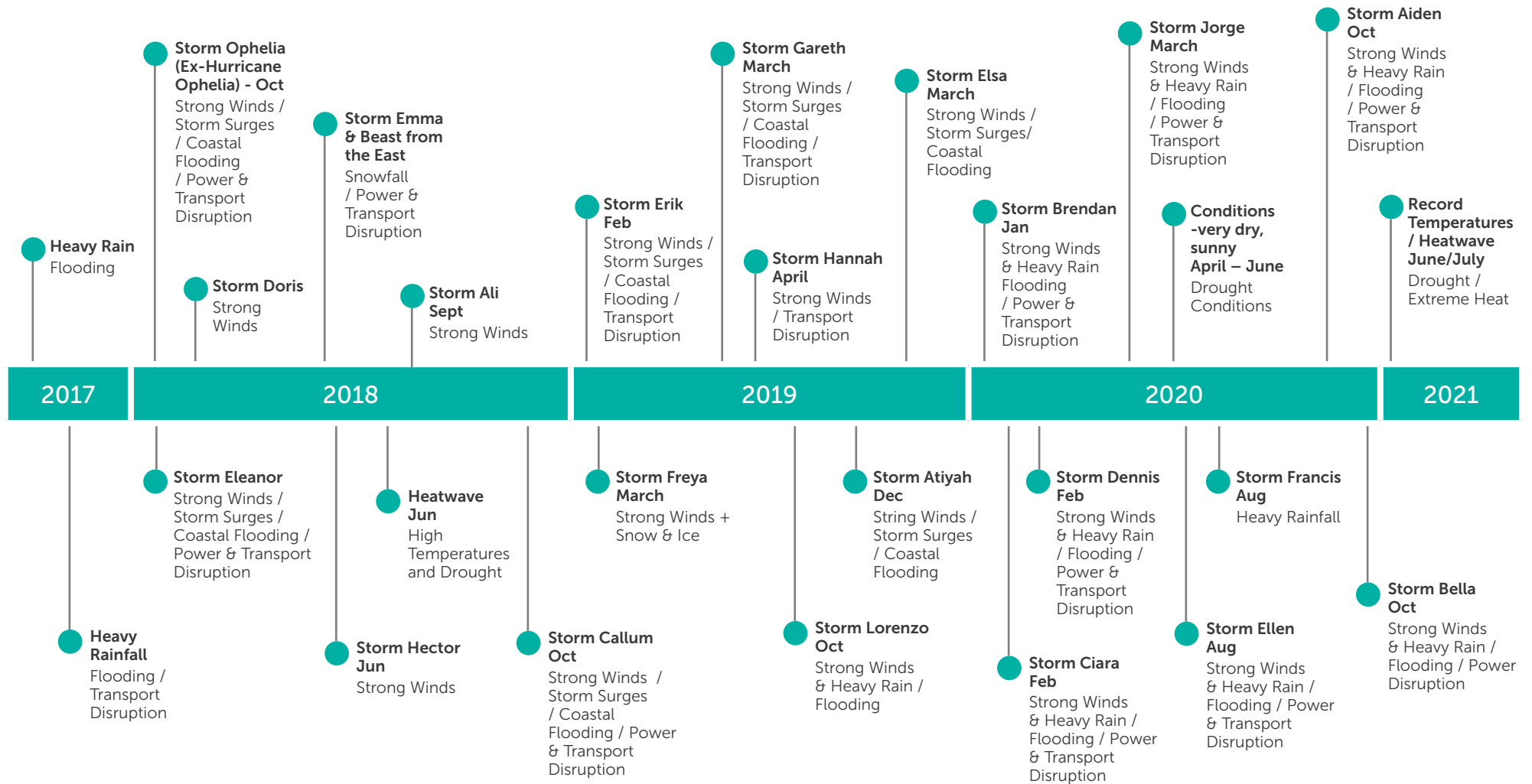
Analysis also indicates that other impacts on our environment, economic and social activities are emerging as a result of incremental changes in the climate. These include changes in

the timing of seasonal life-cycle events for animals and plants, agricultural shifts affecting food production processes, and longer-term impacts of precipitation, temperature change and extreme events on infrastructure, clean water and human well-being.



Residential Flooding August 2017

# Major severe weather events since 2017



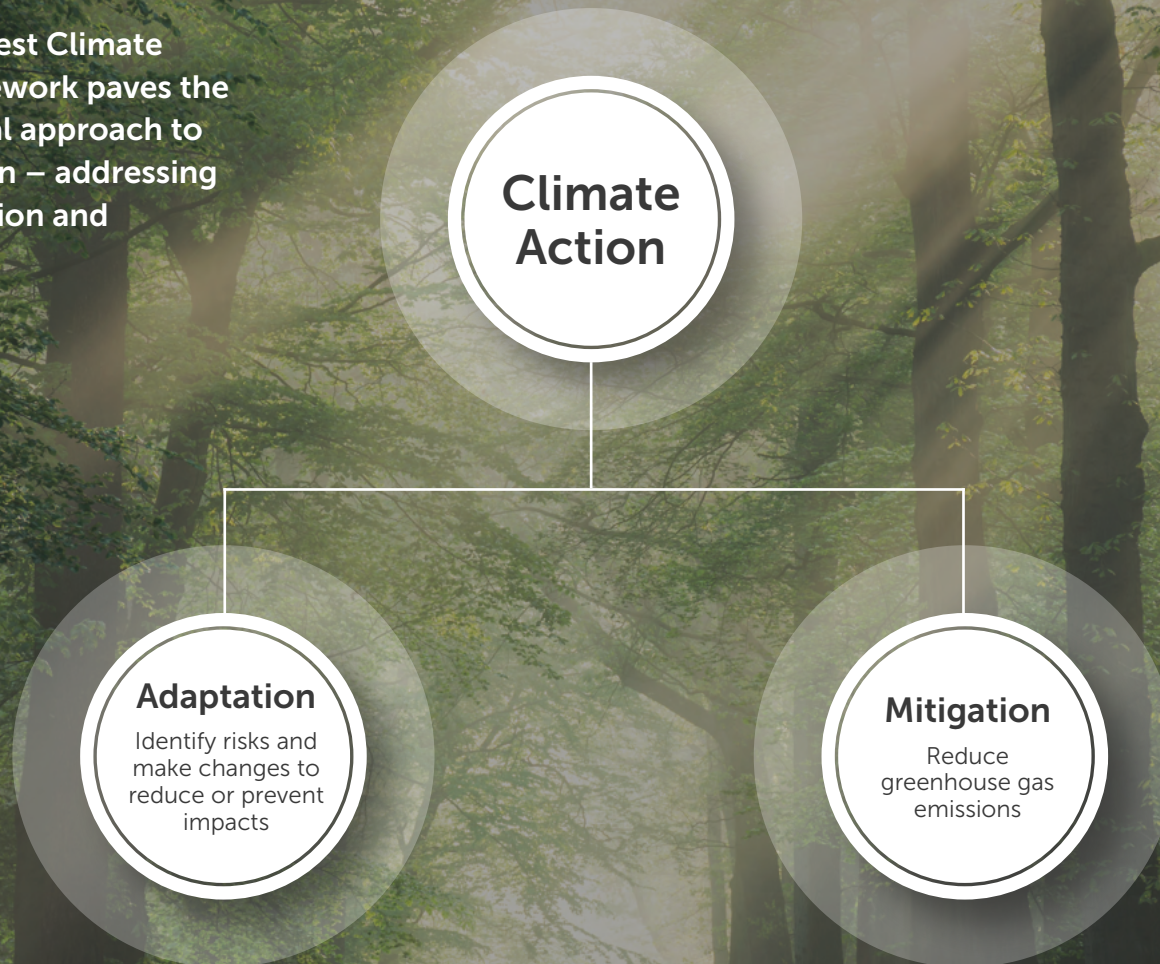








The North West Climate Action Framework paves the way for a dual approach to climate action – addressing both adaptation and mitigation.



## Climate Action Drivers & Benefits

There are a number of climate action drivers and benefits for our local citizens, economy and environment.





## Climate Change Beliefs and Attitudes of the Irish People

**88%**  
say climate  
change is  
affecting  
weather in  
Ireland.

**96%**  
of Irish people  
think **climate  
change is  
happening.**

**85%**  
are **worried  
about climate  
change.**

**94%**  
trust scientists  
as a source of  
information about  
climate change.

**72%**  
of people in  
Ireland say they  
**discuss climate  
change with family  
and friends.**

## Citizens

More people are calling for climate action, from the Youth Climate Strikes, Extinction Rebellion activities and local rallies, pressure is on government and public sector to act. In a recent poll of the British public a third of those responded that the environment and climate change is the second-biggest issue for the country after the pandemic. (Ipsos 2021).

Local voices are key to the climate action. In order to hear what matters to local people a number of workshops were held with North West youth and community groups, these conversations are set to continue as work progresses.



## Youth Feedback

DCSDC is pursuing accreditation as a Unicef Child Friendly Community putting children's rights in practice. This framework and child rights approach ensures that children and young people have a meaningful say and truly benefit from climate action and the decisions taken that shape their lives.

Due to COVID-19 restrictions the Youth discussion took place online. Discussions were held with Donegal Youth Council and the Derry City & Strabane Ministry of Youth. Full responses from DL Youth and DCSDC Youth can be found in the North West Citizen Engagement Report 2021.

Young people provided examples of short, medium and long term actions that they would like to see put in place in the North West; (Further examples are included in the North West Citizen Climate Engagement Report 2021).

**Short term** – More recycling, try to eliminate littering within communities

**Medium term** – Include climate change in school curriculums

**Long term** – Improve renewable energy sources e.g. wind turbines

Cultural shifts are needed to facilitate adaptation

All entities should engage in more communication & awareness to create an ongoing dialogue around Climate Change

Youth voices should be heard and better represented at Government level

Governments need to provide more incentives and grants to the people to ensure a Just Transition

### Eco-anxiety

We are fearful for the future and any children we may have, that the earth will be in a worse state than it is currently  
**"Fear that there will not be a future"**

Individuals need to make changes such as, reduce meat consumption, use local produce, get involved in community litter pickups

Youth Councils in each county should be represented in National Youth Councils to hear climate change concerns

## Community Groups

Community engagement within Donegal was undertaken through the Public Participation Network (PPN), due to Covid-19 restrictions this was facilitated on-line. In DCSDC the North West Climate Action team attended community meetings and issued an on-line survey. Full responses from the engagement exercises can be found in the North West Citizen Climate Engagement Report 2021.

Climate impacts of concern: Extreme weather events, floods, storms, droughts, heat waves, forest fires/biodiversity loss, extinction of species, crop failures, unsustainable produce, flooding, wet summers, rising Sea-level.

Climate impacts on soil & vegetation is a concern for our food production ..... it keeps us alive!

"What will the world be like for the next generation and how they will survive..."

Government and Councils needs to lead by example through better renewable energy usage and Planning decisions.

Governments are more likely to pursue short term economic goals rather than long term environmental goals

Below is a sample of measures community groups would like to see put in place in the North West; (see North West Citizen Climate Engagement Report 2021 for full list).

### Short term:

- Initiate a North West Citizens Climate Assembly
- Ban disposable plastic cutlery in businesses alongside correct collection and disposal

### Medium term:

- Assessment of potential community energy projects
- Free public transport and powered by renewables
- Supply schools, hospitals and care homes with sustainable organic food

### Long Term:

- Larger energy projects e.g. National wind farm, more energy crops grown by farmers
- Expansion of North West rail system

## National Citizen Engagement

The Republic of Ireland held a Citizens Assembly and discussed 'How the State can make Ireland a Leader in Tackling Climate Change'. This item was discussed over two weekends and a final report and recommendations were laid before the Houses of the Oireachtas on Wednesday 18th April 2018. The assembly made 13 recommendations which focused on the energy, transport and agriculture sectors, international best practice and existing national policies and activities (*Laura Devaney, 2020*).

The UK Climate Assembly (UKCA) is a citizens' assembly that brought together 108 people to learn about the climate crisis, deliberate and make recommendations for how the UK can reach its Net Zero target by 2050. The UKCA delivered its report on September 10th 2020, The Path to Net Zero. In total, the report contains over 50 recommendations (*Climate Assembly 2020*).



## Economic

Many economic drivers exist for climate action including consumer demand, risk reduction and opportunities for innovation, jobs and investment.

The demand for sustainable products is high with 70% of the UK public wanting their money to go towards making a positive difference to people or planet with the market responding; 49% of the £9.4 trillion in UK assets were integrating environmental, social and governance into their investment processes in 2020, up from 37% in 2019. (*UKGOV, 2021b*)

In the UK alone there are over 410,000 jobs in low carbon businesses and their supply chains with an estimated turnover of £42.6 billion in 2019. (*UKGOV 2021c*)

The shift to a resilient, net-zero-carbon economy will boost prosperity, generating an additional 37 million additional jobs worldwide by 2030. (*Economy, 2018*)

Climate action offers multiple benefits to our local communities, environment and economy. Opportunities to develop projects should be embraced at every opportunity to unlock the multiple benefits here in the North West as outlined below:

## Multiple Benefits of Climate Action

### Social

Energy security	Community resilience to severe weather Safeguarding Vulnerable Residents	Increased community capacity Enhanced health & wellbeing	Increased level of activity & health benefits through active travel	Food security	Community wealth building	More efficient homes /increased access to affordable warmth / reduced fuel poverty Increased equity & social cohesion
-----------------	---	---	---	---------------	---------------------------	--

### Environmental

Improved water quality	Habitat creation & enhancement Reversing habitat loss and protecting biodiversity	Species protection	Reduced waste and emissions	Increased Green Spaces & improved Green Infrastructure	Safeguard heritage & culture	Improved air quality More efficient use of resources Improved soil quality and environmental services
------------------------	--	--------------------	-----------------------------	--	------------------------------	---

### Economic

Green jobs	Resource efficiency and reduced operating costs	Business resilience to severe weather	Decreased insurance costs	Cost savings	Reduced risk	
Inward investment	Skills development		Resilient infrastructure & assets	Enhanced reputation	Economic stability	

## Nature Based Solutions

Nature based solutions (NBS) are seen as critical responses to the challenges of climate change. It is recognised that NBS have the potential to reduce GHG emissions at less cost than engineered solutions while also delivering multiple benefits to society (DEFRA, 2020) and according to the UK Climate Change Committee (2018) fundamental land use change is required to realise significant emission reductions to meet climate goals. NBS through Green Infrastructure (GI) can have several mitigative and adaptative benefits in the climate change journey (See appendix 2 Climate Action Ecosystem Services table). GI is an interconnected network of multi-functional green and blue spaces, which provide multiple environmental, economic, and social benefits throughout the urban and rural landscapes (DCSDC 2019). DCSDC have developed a Green Infrastructure Plan (2019), the plans vision for the district is, 'By 2032 environmental, economic and social benefits of GI will be valued and maximised by all.'

For example Derry's St. Columb's Park has 15 hectares of trees sequestering more than 5,000 tonnes of CO<sub>2</sub> per year (Economics, Council and Trust, 2019).

Since 2012 DCC and Irish Water have been managing 14 hectares of willow crop at a site in Bridgend. Studies indicate that over a 7 year period willow has the potential to sequester up to 792 tonnes of CO<sub>2</sub>e with additional water filtration, reduced water flows and biodiversity benefits.

NBS includes the protection, management and restoration of natural and semi-natural ecosystems, green and blue infrastructure in urban areas, and ecosystem-based principles agriculture (Seddon et al., 2020).

Climate change is increasing the changes in species composition and local extinctions for all habitat types. Climate change shifts seasonal timing, migration patterns, growth, productivity, species ranges and habitat location, which affects biodiversity, agriculture, forestry, and fisheries.

(DCSDC, 2019)

The North West has extensive land cover offering potential options for Nature-based solutions with over 605,452 hectares of natural assets across the North West (See appendix 1 North West Landcover Map)

- > 45.6% Agriculture & Grassland
- > 31.6% Peatland
- > 10.1% Forest & Woodland
- > 0.8% Coast

Work is ongoing to further develop the North West nature based solutions mapping project. Initial results indicate the opportunity for sustainable urban drainage systems.



Furthermore, working collaboratively and involving local communities, NBS projects can contribute to wider behavioural change and lifestyle choices which could reduce GHG emissions further helping the transition from a resource intensive growth model towards a more resource-efficient, inclusive and sustainable growth model (Favre et al., 2017). See appendix 2 Nature Based Solutions Table.

In addition, the current food system contributes to greenhouse gas emissions by approximately 21–37%. Food system changes and dietary shifts could contribute one-fifth of the mitigation needed to meet the Paris Agreement target to hold global warming below 2C (Mbow et al., 2019). Using regenerative and sustainable technologies to grow food locally will contribute to the reduction of greenhouse gas emissions, increased food security, enhance skills and the economy as well as improve health and wellbeing.



## Post Covid 19 Green Recovery & Just Transition

Public sector leadership can play a key role in the forming of new social norms and expectations based on the principles of sustainability, environmental protection, health and wellbeing and a Just Transition. Throughout the pandemic the public and private sector has shown it can respond with swift decisive action changing our ways of working and reframing our priorities to ensure the safety of our citizens, we must adopt this approach to deliver a green and just post Covid-19 recovery across the North West. The steps that the partners will take to recover the North West from the Covid-19 pandemic and its economic damage can also accelerate the transition to low-carbon activities and improve our climate resilience. The opportunity exists to reinforce the climate-positive behaviours that have emerged during the lockdown, including increased remote working, connecting with nature, cycling and walking.

The Covid-19 crisis has also highlighted inequalities in our society and the need to support our most vulnerable, climate change has and will continue to also disproportionately affect those most in need.

The North West Climate Action Framework provides the opportunity to effectively plan for the transformative change necessary.

The extent to which leaders consider the net-zero emissions targets when planning their economic responses to Covid-19 is likely to influence the pathway of CO<sub>2</sub> emissions for decades to come (*Le Quéré et al., 2020*).

To achieve a Just Transition in the North West we must ensure that we deliver inclusive green growth, responsible decarbonisation and equitable resilience.

Principles for a resilient and just recovery from Covid-19:

- Use climate investments to support the economic recovery and jobs
- Lead a shift towards positive long-term behaviours
- Tackle the wider 'resilience deficit' on climate change.
- Embed fairness as a core principle
- Ensure the recovery does not 'lock-in' greenhouse gas emissions or increase climate risk
- Strengthen incentives to reduce emissions when considering fiscal changes

(*CCC, 2021*)

At the heart of our Green Recovery should be the recognition that the natural environment, the ecosystems it supports and the resources and services it provides, are the foundation of our social and economic well-being.

*RSPB NI A Green Recovery for Northern Ireland. 2021*

# Targets & Strategic Context



## Global Target

The most significant global climate target to date, is the Paris Agreement. The goal is to prevent global average temperature rising above 2°C of pre-industrial levels. The Governments set emission targets to keep temperature below 1.5°C known as nationally determined contributions. The agreement also aims to reach Net-Zero emissions by 2050. **Recent negotiations at COP26 emphasised the urgent need to stay within the targets of the Paris Agreement, however current global pledges, if met, will only limit global warming to about 2.4C.**

Above 1.5°C we risk reaching climatic tipping points like the melting of arctic permafrost – releasing millennia of stored greenhouse gases – meaning we could lose control of our climate for good.

*(HM Government Net Zero Strategy Build Back Better Oct 21)*

## National Targets UK

The UK is a signatory to the Paris Agreement and the Climate Change Act 2008 (2050 Target Amendment) Order 2019, commits UK to 100% reduction of emissions by 2050.

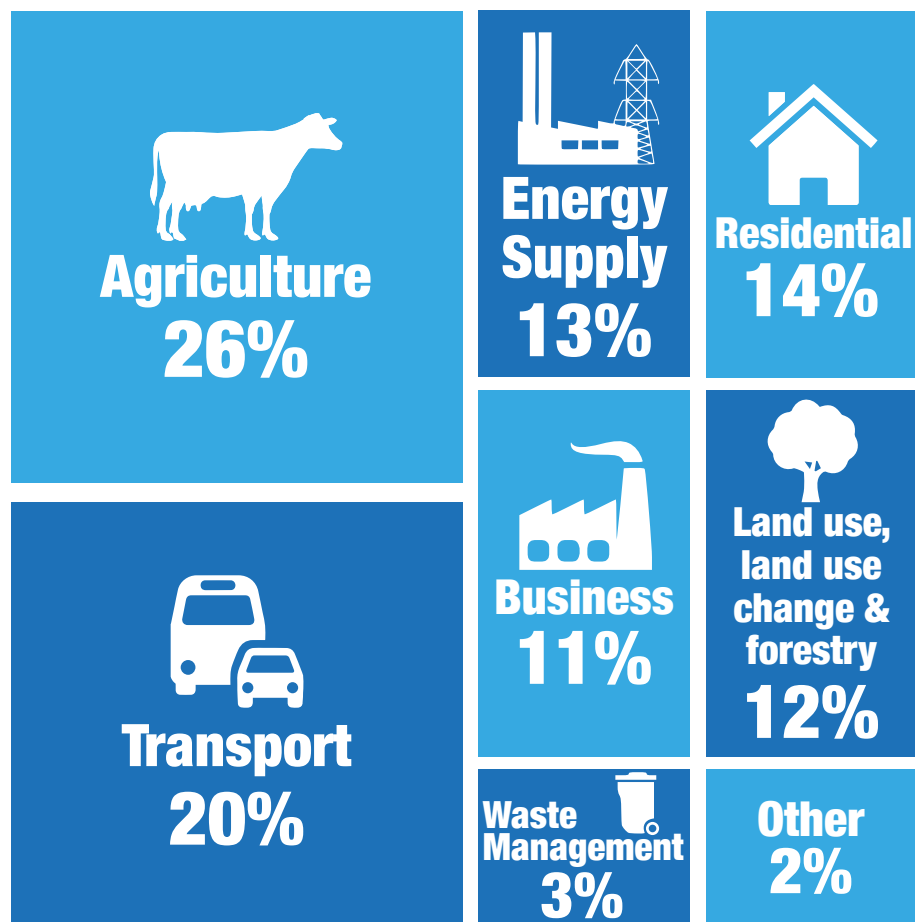
It is implicit, in the Climate Change Act 2008 that Northern Ireland contributes its fair share of required greenhouse gas emission and the UK Government's 5-yearly carbon budgets.

The Act also requires a rolling programme of 5 year assessments of risk and opportunities for the UK (CCRA 2017 & NI Evidence Report & Summary) and a National Adaptation Programme (Devolved administrations produce their own – Northern Ireland Climate Change Adaptation Programme 2019-24).

The Northern Ireland Executive Programme for Government (2011-2015), has set a target of continuing to work towards reducing its greenhouse gas emissions by at least 35% (compared with 1990 levels) by 2025, however Northern Ireland currently lacks a climate change bill and set target.



Figure 2 Northern Ireland Green House Gas Emissions 2019



Figures have been rounded so may not add to 100%

The NI Executive Cross Departmental Working Group on Climate Change Adaptation Sub-Group aim to create;

**‘A resilient Northern Ireland which will take timely and well-informed decisions to address the socio-economic and environmental impacts of climate change’**

At the time of writing a Climate Change Bill is being considered by the NI Assembly. (Final document to be updated with up to date NI Climate Change Bill progress).

The Northern Ireland Executive is also currently developing a multi-decade Green Growth Strategy. This longer-term Strategy will be delivered through a series of Climate Action Plans, which will set out the actions to meet sector-specific greenhouse gas emission targets.

## National Targets ROI

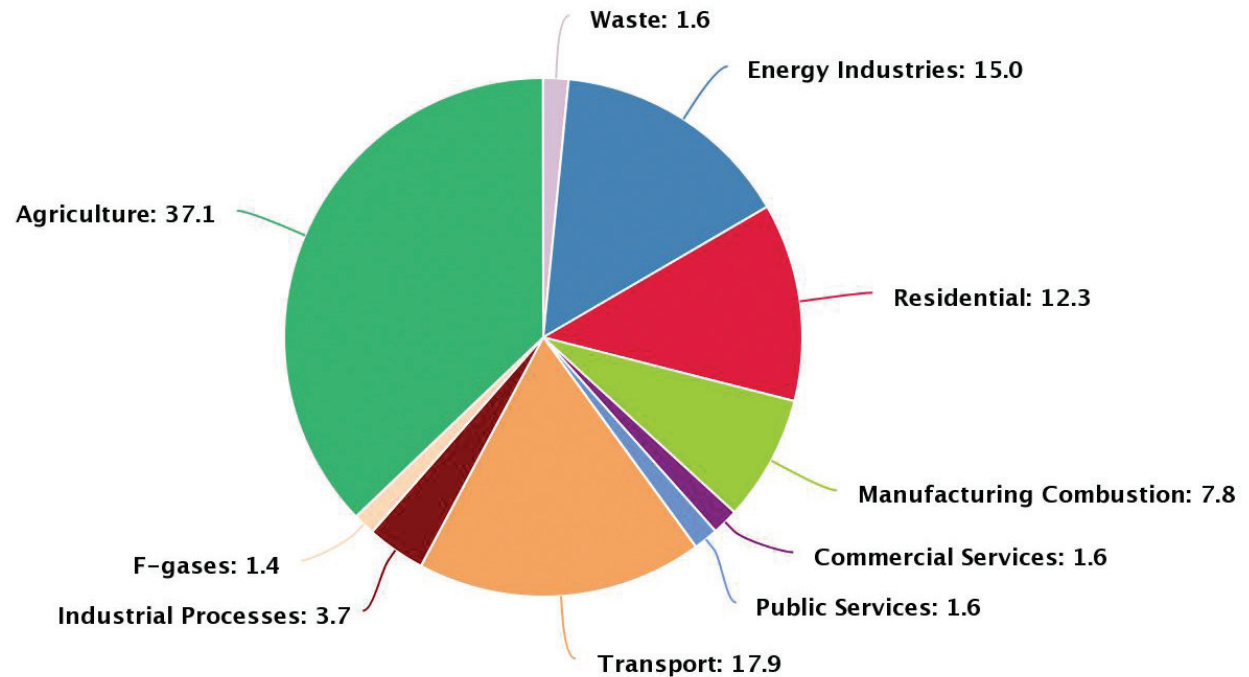
The Republic of Ireland has recently updated their carbon act, the Climate Action and Low Carbon Development (Amendment) Act 2021. The key provision obliges the State to “Pursue the transition to a climate resilient and climate neutral economy by the end of 2050”. **“Climate neutral economy” means “a sustainable economy, where greenhouse gas emissions are balanced or exceeded by the removal of greenhouse gases”**

*(Climate Action and Low Carbon Development (Amendment) Act 2021, 2021).*

## The National Climate Action Plan 2021

(November) provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting us on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.

Figure 3 Ireland Green House Gas Emissions 2020



Total emissions - 57.70 million tonnes carbon dioxide equivalent (Mt CO<sub>2</sub>eq) (EPA, 2021)



## Regional Targets

Derry City & Strabane District Council declared a climate emergency in July 2019 followed by the Climate Emergency Pledge. DCSDC launched its Climate Adaptation Plan in 2020.

An All Party Working Group and officer Climate Action Working Group drive forward action and the Council undertakes Climate Screening of all policy and committee decisions to consider both adaptation and mitigation.

DCSDC are currently working on the production of a Net Zero GHG Roadmap for the City and District, (To be completed 2022).

DCSDC are also signatories to the Race to Zero and Glasgow Food & Climate Declaration. The Glasgow Declaration pledges the Council to accelerate the development of integrated food policies as a key tool in the fight against climate change and commits Council to reducing greenhouse gas (GHG) emissions from urban and regional food systems in accordance with the Paris Agreement and the UN Sustainable Development Goals. DCSDC also report to international platforms such as the Global Covenant of Mayors, and EU climate change platforms on an annual basis.

### Council undertakes to:


Ensure that all strategic and policy decisions and budgets will immediately fall in line with the shift to Net Zero greenhouse gas emissions by 2045 while also ensuring that the Derry City and Strabane District Council area as far as practically possible is prepared for and resilient to the effects of climate change.

DCSDC Climate Pledge 2020

Donegal County Council launched its Climate Adaptation Strategy in 2019 and established a Climate Adaptation Working Group. It will produce an action plan in line with the national carbon budgets in 2022/2023.

In consultation with the local government sector, a new Local Authority Climate Action Charter was developed and published in October 2019.

Both Derry City and Strabane District Council and Donegal County Council are signatories to the Global Covenant of Mayors for Climate and Energy committing the region to emission reductions by 40% by 2030 alongside production of a Sustainable Energy and Climate Action Plan.



The North West Regional Energy Strategy recommends a target of Net Zero carbon emissions in the region's energy sector by 2045.

### **Donegal County Council Climate Action Charter**

- Be advocates for Climate Action in our own policies and practices, and in our many various dealings with citizens and to underpin this role through the corporate planning process.
- Put in place a process for carbon proofing major decisions, programmes and projects on a systematic basis, including investments in transport and energy infrastructure.
- Deliver on a new target for the public sector of 50% energy efficiency and a 30% reduction in carbon emissions by 2030.
- Ensure all suppliers provide information on their carbon footprint and steps they plan to reduce its impact.
- Build local citizen engagement, particularly with young people.
- Partner & collaborate on climate action initiatives with local community groups, local enterprise and local schools and higher-level institutions.
- Support our employees to undertake changes in their lifestyles both at work and at home, to reduce carbon impact and encourage work-based employee-led groups to identify and implement ideas for improvement.
- Monitor, evaluate and report annually on the implementation of activities under the Charter.

In addition to climate targets, North West climate action is influenced by and contributes to a number of international, national and local policies and plans.

## North West Policy Summary (Appendix 3 provides a comprehensive overview of the global and local policy context)

International/Global	Europe	Ireland	UK/NI	Cross Border (DCC + DCSDC)
----------------------	--------	---------	-------	----------------------------

Year	Policy
1988	The Montreal Protocol
1994	UN Framework Convention on Climate Change
2005 @ COP 3	Kyoto Protocol (2nd Commitment period remains effective until 2020)
2007-2012	Ireland National Climate Change Strategy 2007 - 2012
2008	EU Covenant of Mayors
2008 Nov	UK Climate Change Act
2009 @ COP 15 Dec	Copenhagen Accord
2010 @COP 16	Cancun Agreement
2011	Durban Platform for Enhanced Action
2012 Jan	1st UK Climate Change Risk Assessment (CCRA1)
2012	National Climate Change Adaptation Framework in 2012 (NCCAF) - Department of the Environment, Community and Local Government developed
2013 July	UK National Adaptation Programme (5 year prog.)
2013	EU Climate Strategy
2013	EU Energy Strategy
2014	NI Climate Change Adaptation Programme (5 years)

Year	Policy
2015 @COP 21 Dec	The Paris Agreement
2015 Sept	UN Sustainable Development Goals
2015 Dec	Climate Action and Low Carbon Development Act 2015
2015	Cross Border Emergency Management Group
	North West Greenways Project
2016	Global Covenant of Mayors for Climate & Energy
2016 Amendment	The Montreal Protocol 1988/2016 Kigali Amendment
2017	ROI National Mitigation Plan
2017	2nd UK Climate Change Risk Assessment (CCRA2)
2017	DCSDC Circular Economy Zero Waste Strategy
	DCSDC Strategic Growth Plan
	DCSDC CLIMATE Programme
2018	National Adaptation Framework
2018	Climate Action Regional Office (CARO) established
2018	2nd UK National Adaptation Plan
2019	EU Green Deal
2019 June	Climate Change Act 2008

Year	Policy
2019	<p><b>National Climate Action Plan</b> (Government of Ireland, 2019)</p> <p><b>Climate Planning Framework (part of Project 2040)</b> 2019 Climate Action Plan recalls the statutory obligations related to adaptation in the Climate Act and creates a new mandate for government departments to develop decarbonisation strategies that will complement these adaptation plans. These measures build upon the National Adaptation Framework (NAF), with seven government departments leading in the preparation of 12 Sectoral Adaptation Plans (Sept) (26 Local Plans, Sept):</p>
2019	North West Regional Energy Strategy
	North West Climate Action Plan -Funding & Project initiation
2019	DCSDC Green Infrastructure Plan
	DCSDC Carbon Management Plan
	DCSDC All Party Climate Emergency Working Group
	DCSDC Climate Change Adaptation Plan
2019	DCC Climate Adaptation Strategy 2019 - 2024
2019	2nd NI Climate Change Adaptation Programme
2021	The Climate Action and Low Carbon Development (Amendment) Act 2021
2021	3rd UK Climate Change Risk Assessment (CCRA3)

Year	Policy
2021	National Development Plan 2021-2030
2021	NI Department Communities Pabal & Commonities Climate Action Plan 2021-2022





## Climate Ready North West

The situational analysis of North West cross border climate action identified a number of strengths, weaknesses, opportunities and threats (SWOT) associated with the development and delivery of climate action.

The information below reflects the results of a Situational Analysis of the coordination and delivery of cross border climate action – not of climate action itself.

The SWOT analysis (Appendix 3) will inform the key areas of focus for the North West Climate Action Framework. Also, the political, economic, social/cultural, technological, environmental and legal (PESTEL) macro considerations have been reviewed by a PESTEL analysis (Appendix 4).

The key findings indicate opportunities for improved governance and policy development, a need for a coordinated approach to climate data and research and the need for increased engagement and awareness to increase local capacity for climate action.

In many respects the North West is leading the way in climate action with projects being delivered by public sector, business and industry and our local communities. A selection of these case studies are presented alongside the Framework thematic priorities.



# North West Climate Ambition







## North West Climate Ambition

### Vision, Mission & Guiding Principles

Outlines the climate  
action vision & mission  
of the North West  
Region guided by core  
values



## Mission

The North West Region will:

**Deliver climate action on a cross sectoral multi agency basis to achieve greater adaptation and resilience to the effects of climate change while leading by example to reduce emissions and mitigate against further global warming.**



## Vision

The North West will be a climate ready Net Zero emissions region where community, environmental and economic climate action benefits are maximized.



## Guiding Principles & Values

NWCAF will deliver climate action based on core principles of;

- Commitment & collaboration
- Transparency & accountability
- Just Transition
- Inclusiveness, citizen & youth participation
- Integration of mitigation and adaptation to maximize opportunities and efficiencies



## Way Forward

### Strategy

Outlines how the vision will be achieved through thematic aims and objectives



## Themes

### Cross Cutting

- Strategic & Governance
- Knowledge & Information
- Engagement & Capacity

### Adaptation

### Mitigation

## Cross Cutting



### Strategic & Governance

Develop partnership structures facilitating collaboration and policies to deliver North West Climate Action.

Effective delivery of climate action requires strong collaboration supported by governance structures, co-ordination, policy, and delivery frameworks. Establishing the appropriate governance structures to enable participation of all the stakeholders in decision making based on responsibilities and collective vision and objectives is crucial to the successful delivery of the NWCAF.

The North West will advocate for emerging national policies, plans and regulations to align with the vision for climate action and seek updates to support the region where necessary.

Effective regional climate governance should;

- *Authorise climate action*, to mandate institutions with responsibilities to deliver action and hold these institutions to account;
- *Resource action*, to provide the necessary information, trained staff, finance and partnerships that will deliver action
- *Deliver action*, to convene and incentivise those responsible for implementation.

Put in place a coherent framework to support local climate action, backed by appropriate centrally-driven funds, resources and skills.

Climate action requires joined-up interplay between national and local action. Local action without national support will be challenging, national policy without local buy-in will fail.

*(Howarth, 2021)*

In addition, climate smart spatial planning is crucial with local development plans enabling the councils to set and implement policy and objectives that align to the vision of a climate resilient Net Zero region.

Political figures have a large direct impact on the priorities...their leadership, enthusiasm and commitment to champion the process sends a powerful message to others ensuring climate action has momentum.

*(C40Cities, 2020c)*

## **Aims**

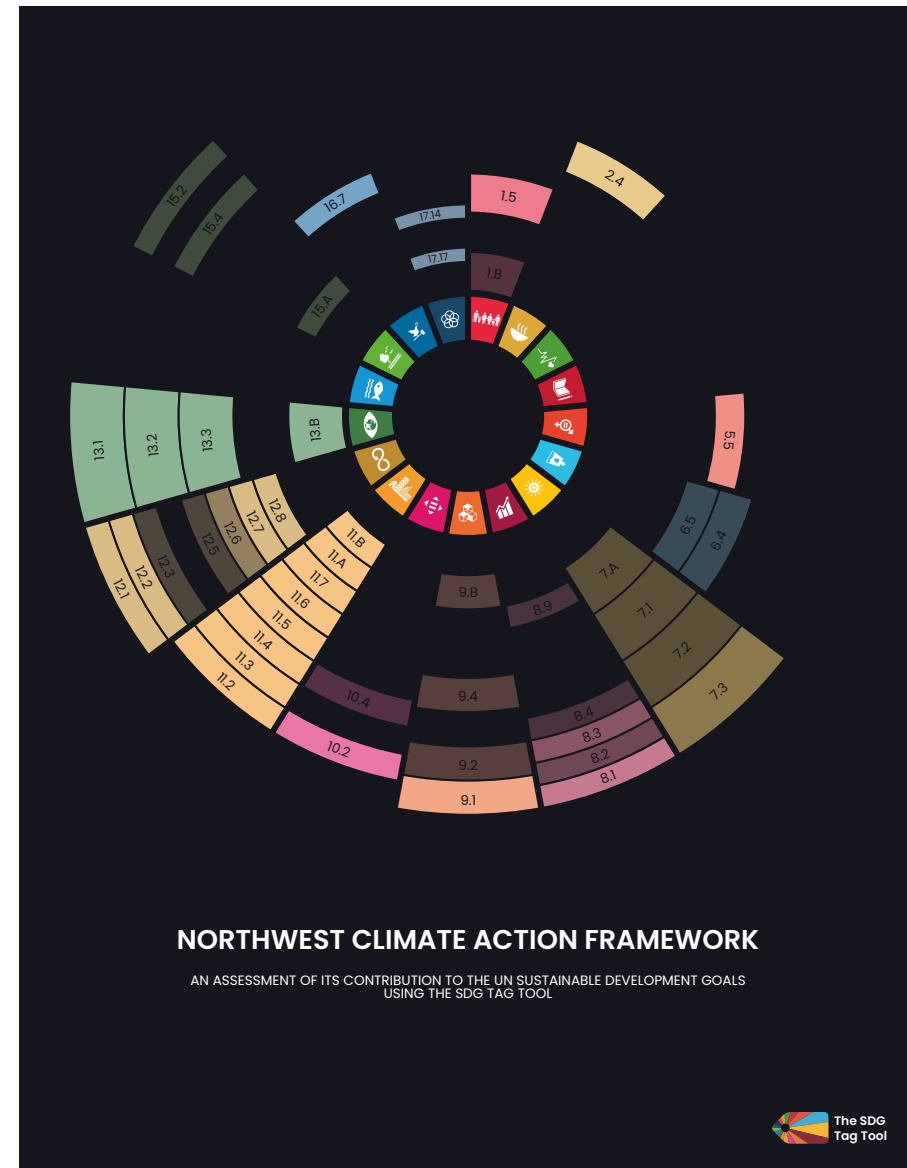
NWCAF will;

- Engage stakeholders to achieve cross border and cross sectoral collaboration on climate action
- Provide a strategic framework for collaborative and coherent climate action across the North West
- Influence and develop supporting policies for climate action
- Lead by example; *'Thinking global acting local'*

## **Objectives**

- Create partnership & governance structures enabling collaboration to achieve a Net Zero climate ready region
- Ensure necessary resources to enable co-ordination and fund programmes (For example potential Regional Climate & Energy Agency)
- Develop the North West Climate Action Plan
- Develop strategies for coordinated emission reductions and carbon offsetting aligned to the Regional Energy Strategy and emerging waste, land use and agri-food sector targets

- Develop strategies for coordinated climate adaptation and resilience
- Achieve ISO 14080 Climate Change Mitigation & Adaptation Accreditation and related activities
- Integrate and align policies and plans with climate action vision including procurement and spatial planning
- Climate proof all decisions and align to Sustainable Development Goals
- Guide and influence local, regional, sectoral and national climate change related policies, programs and decision making through collaboration and joint advocacy
- Commit to Covenant of Mayors initiative



## Case Studies

### Belfast Climate Commission

Established in 2019 and Co- Chaired by Queens University and Belfast City Council – The Belfast Climate Commission works alongside existing structures and programmes in the City with members collaborating across 3 core working groups: business and finance, Just Transition, Community climate action and Youth. The Commission provides leadership, monitoring and reporting, targets and independent advice.



### Southeast Florida Region

The Southeast Florida Regional Climate Change Compact (The Compact) is a multi-agency partnership across the region, working collaboratively to reduce regional greenhouse gas emissions, implement adaptation strategies, and build climate resilience.



### Climate Change Risk & Opportunities Assessment Report – Derry City and Strabane District Council

Derry City & Strabane District Council commissioned a Climate Change Risk and Opportunities Assessment (CCROA) of regeneration masterplans for Derry City Centre



Central Riverfront and Strabane Town Centre Regeneration.

The CCROA considered two aspects: the climate impacts that Derry and Strabane face now and are likely to face in the future and the potential for carbon mitigation through design to reduce whole life carbon emissions.

### Suggested Actions

- Allocate resources to enable continued coordination of regional climate collaboration, NWCAP development and implementation
- Establish North West Climate Action multiple stakeholder forums / working groups / technical working groups
- Agree regional climate targets
- Influence national policies and plans to deliver climate action initiatives in the North West
- Develop regional adaptation and mitigation policy guidance
- Include climate change as key performance indicator in public sector plans and job roles
- Agree and implement North West Climate Screening process for relevant projects, plans and funding allocations
- Agree green procurement practices
- Assess projects & plans ensuring alignment with Sustainable Development Goals





## Knowledge & Information

Ensure robust data and evidence to inform climate actions and deliver transparent monitoring and reporting.

**Robust methods and data provides a greater level of confidence and transparency in the process**  
*(C40Cities, 2020b)*

Regional Green House Gas emission data is currently unavailable. MaREI centre and Climate Ireland are currently working towards production of a local authority emissions toolkit, however this will not cover DCSDC emissions.

In Northern Ireland, Climate NI are currently liaising with the University of Leeds on the emissions data gap through the OPENCLIM project and discussions have begun with DAERA to deliver a consistent methodology across NI local authorities.

Collaborative research is crucial for both industries across the island of Ireland including renewable energy, IT, agriculture, raw materials, tourism, health, and marine resources - as well as ecosystems.

It will be important to develop and track region specific targets and indicators. Ongoing tracking and reporting of target performance provides reassurance of impact and greater support for climate programmes.



## Aims

NWCAF will;

- Achieve consistent and credible climate evidence, measurement and monitoring systems

**Co-creation of research with decision makers, citizens, communities and business can deliver economic activity and jobs, increase public literacy on climate and biodiversity as well as societal engagement on climate change and biodiversity and also improve quality of life for citizens.**

*(AICBRN, 2020)*



## Objectives

- Create robust evidence base and data in relation to climate change and nature based solutions across the North West
- Understand the risks posed to the region from the impacts of climate change
- Coordinate regional climate data and projections to enable consistent approach and response

- Create a baseline of greenhouse gas emissions for the North West & agree targets
- Ensure ongoing monitoring, evaluation and research to inform decision making in climate action

## Case Studies

### OpenCLIM

The OpenCLIM project is designed to support assessment of climate risks and adaptation by developing and applying an integrated assessment model.

The project will address inconsistencies in climate risk analysis through integrated assessment for climate impacts and adaptation.

### All Ireland Climate and Biodiversity Research Network

The All-Island Climate and Biodiversity Research Network (AICBRN) brings together researchers across the island of Ireland. The network addresses key challenges in climate science, climate mitigation, adaptation, biodiversity change and just societal transition.



### Suggested Actions

- Undertake detailed vulnerability adaptation capability and resilience profile of the region
- Establish scientific advisory panel
- Establish regional greenhouse gas emissions inventory
- Agree transboundary climate data approach and targets
- Agree climate data collection and reporting methodologies
- Knowledge and data gaps identified and partnerships and projects with academia developed to address the same
- Develop Climate Change Information Platform
- Commission North West Climate Change Economic Costs and Opportunities Report
- Focus on the value of Nature Based Solutions / Green Infrastructure for climate action across the North West Region and maximise the multi benefits offered by green infrastructure through project identification and development



## Engagement & Capacity

Increase climate change awareness and capacity for action across the North West to ensure a Just Transition.

Effective climate action requires a whole of society approach and it is crucial that we involve all stakeholders across the North West. Place-based communication will deliver meaningful dialogue rooted in the local context. Well planned and implemented communications can effectively enhance awareness of, and support for the climate agenda (*C40Cities, 2020c*).

**No one will protect what they don't care about;  
and no one will care about what they have never  
experienced**

**Sir David Attenborough**

We as a people are connected to places; we have unique bonds with and value local landscapes and places, using this approach we will engage stakeholders in the need for climate action encouraging the behavioural change necessary to achieve the vision.

Involvement of the public at an early stage ensures that climate action plans are relevant and not just another public sector document. By actively engaging and communicating the ambition and impacts with a clear brand, messaging and communication tools maintains public buy in. When engaging the public in mid and long-term climate goals, involving children and young people is effective at disseminating messages to a large portion of the population. Place based climate action is well underway across the North West with initiatives such Sustainable Energy Communities and Decarbonisation Zones.

**Seeking civil society's input and guidance through structures, benefiting from their knowledge and experience, and getting their approval helps to provide an understanding of different perspectives and ensures effective and equitable implementation**  
*(Cities, 2020c)*



## **Aims**

NWCAF will

- Create wider understanding of and commitment to climate action
- Increase capacity to undertake climate action
- Ensure Just Transition

## **Objectives**

- Deliver inclusive communications strategy and engagement activities to ensure awareness of climate change effects and solutions
- Deliver coordinated multi-disciplinary engagement and education program to raise awareness and encourage climate action
- Deliver inclusive participatory approach to climate action and design of local solutions
- Develop 'green proposition' for the region as an attractive place to live, work, invest and visit

- Engage with civil society and ensure active dialogue and participation in development and implementation of plans through a North West Climate Citizens Assembly and collaborative networks including North West Climate Youth Council
- Ensure Just Transition of industry and business by supporting innovation, diversification and skills development, and establish a Just Transition advisory group
- Support agri-food industry and rural communities in a Just Transition
- Provide a framework for new funding mechanisms and the leverage of funds including those available from national pools of capital, the EU and the Republic of Ireland Climate Action Fund

### North West Climate Action Stakeholders





## Case Study & Indicative Actions

### CARO Training Programme

Managed by the Climate Action Regional Offices in Ireland the **Local Authority Climate Action Training Programme**, serves to strengthen and empower Local Authority climate action leadership and build capacity within the sector to further reinforce the delivery of effective climate action.

### Imagining2050

Imagining2050 is a transdisciplinary research consortium with researchers from University College Cork and Queens University Belfast. Imagining 2050 will engage with civic society to explore and co-develop future visions of, and pathways to a low carbon and climate-resilient future.

### Business & Capacity Building – Local Enterprise Office, Green for Micro

The Green for Micro programme helps prepare small businesses for the low carbon, more resource efficient economy of the future. Businesses can access free



advice, support and consultancy focussing on cost savings, improved resource efficiency and reduced environmental footprint and greenhouse gas emissions.

### Suggested Actions

- Develop North West Climate brand and communications strategy
- Establish North West Just Transition Working Group
- Deliver Imagining2050 Community Workshops
- Provide public advice on dealing with severe weather events and impacts
- Encourage business and industry to collaborate on resource efficiencies, sustainability and circular economy principles
- Develop North West Green Business Prospectus outlining business development and investment opportunities addressing climate action while delivering social, environmental and economic benefits to the region.
- Deliver bi-annual North West Climate Summit
- Deliver training programmes for local authority and sectoral teams



## Adaptation

Deliver co-ordinated adaptation action across the North West to ensure resilience to climate impacts.

Figure 4 below outlines the key climate change risks facing the North West region. It highlights the need to effectively plan, coordinate and prepare for existing and emerging risks to; our people, infrastructure, environment and place.

### North West Region Risks



#### Increased Temperature/Low Rainfall

- Extreme heat, exacerbating air quality, including urban heat island effect (public health)
- Greater water demand, increase in drought
- Changes in growing season
- Increase in rate of decay/increase in pests & disease
- Warmer more acidic oceans, rivers & lakes (disruption to ecosystems)
- Impacts on heritage assets & museum collections
- Impact on local agriculture



#### Increase in storm events

- Increase in sea level rise and storm surges causing coastal flooding and erosion
- Increase in frequency & intensity (financial loss)
- Disruption to service delivery, roads services, water & emergency services & events
- Disruption to transport, energy, water & communications infrastructure
- Damage to heritage and archaeology



#### Climate Change

- Indirect affects of mitigation - maladaptation
- Failure of Council to take effective action
- Reputation risk from inaction
- Population change



#### Increased Precipitation/Flood Risk/Sea level Rise

- Increase in sea level rise and storm surges causing coastal flooding and erosion
- IPF will cause run-off leading to deterioration in water quality
- Greater flood risk may affect council assets & operations (financial loss)
- Flood events disrupting transport, energy, water & communications
- Increase in flood events may affect biodiversity
- IP and humidity impacting heritage assets & museum collections
- Damage to heritage and archaeology
- Disruption to services and events
- Impacts on agriculture



## Adaptation



### NWCAF will

- Ensure greater adaptive capacity and resilience of the North West Region to climate impacts

### Objectives

- Coordinate, Monitor & Review the existing DCSDC & DCC Adaptation Plan / Strategy
- Develop thematic climate ready plans to identified climate hazards for key sectors
- Promote nature based solutions as preferred adaptation options
- Support increased community resilience



## Case Studies

### Natural Systems & Biodiversity – Inishowen Rivers Trust (IRT) Glennagannon River Restoration Sept 2020

After the 2017 flood in Inishowen there was significant damage to many areas on the Glennagannon river. Through restoration of banks, riparian planting, fencing to prevent livestock access and installation of baffles on bridge aprons to improve fish passage. The project has resulted in reduced erosion, water filtration and improved habitat for fish and invertebrates. Inishowen Rivers Trust are also delivering a natural flood management project in Clonmany including installation of 50 log leaky dams reducing flood risk downstream in residential areas.



### Woodland Trust – Riparian Planting & Wet Woods - Woodland Trust, Loughs Agency, NI Water

The focus of the riparian restoration project is the River Faughan, Burntollet and Glenrandal rivers and the Glenedra River and associated catchments. Riparian vegetation improves habitats, reduces bank erosion and reduces flows during flooding. The riparian planting project has since developed into a wider initiative, including the Faughan Valley Wet Woods Project. Working with local landowners water is diverted from existing drains into wet wood systems.

The project aims to improve water and reduce flood risk, quality by buffering sediment and nutrients originating from agricultural units within the project area. This is achieved by diverting of drains into a section of field via a series of leaky dams and then into newly created ponds.

#### Wet woods



## Sand Dune Restoration

Sand dunes provide natural coastal protection. The preservation and strengthening of these natural coastal defences plays an important role in increasing our coastal resilience to the impacts of climate change.

Many traditional concrete sea defences are old and failing and can be expensive or challenging to maintain. Natural ecosystems can provide better, more resilient protection, DCC are installing straw bales as a biodegradable defence against storm surges, marram grass planting, removal of invasive species, installing signage and restricting recreational impact on fragile dunes. These interventions are being conducted at; Ballyheirnan Beach, Carrickfinn Beach, Dooey Beach, Maghery Beach, Marble Hill Beach and Rossnowlagh Beach, amongst others.



## Emergency Planning

Donegal County Council, the Donegal Garda Division and Health Service Executive (West) District are the Principal Response Agencies (PRA) charged with managing the response to major emergency situations such as severe weather events, fires, flooding, landslides, environmental damage etc. Cross-border aid can be requested via mutual-aid from neighbouring cross border counties. This compliments DCSDC Emergency Plan and the work of NI Regional Community Resilience Group. Local community resilience plans are also in place throughout the DCSDC area. DCSDC also held a series of events to highlight the risk of severe weather such as flooding, storms, heatwaves, ice and snow with a range of practical advice on how to prepare.





## Suggested Actions

- Build upon current regional emergency response and develop regional wildfire management plans
- Identify priority sites at risk from flooding and implement appropriate mitigation measures - Identify suitable locations for natural flood risk management
- Application of Climate Change Risk & Opportunities Assessment to all infrastructure and capital development schemes
- Prioritise research and action to address risk to North West heritage and culture
- Encourage food resilience, support development of resilience in local food systems, e.g. through development of green infrastructure projects such as allotments, food corridors and Acorn Farm
- Advance water management in sectoral plans for the North West
- Identify suitable locations for flood risk management e.g. riparian planting schemes, wetland creation, peatland restoration, SUDS, flood attenuation areas
- Identify locations for coastal erosion action
- Identify high pressure visitor locations and develop plans to mitigate against damage e.g. promote alternative locations, visitor experience design and management (Sustainable Tourism and Visitor Management)
- Review conservation and habitat management plans to assess and plan for climate risks and mitigation
- Identify potential new land / habitat designation areas
- Develop projects to address habitat fragmentation to enable species adaptation and transition
- Review council and / or partner site and green space maintenance plans to encourage green infrastructure
- Promote the development of park-lets (Small areas of urban green space)
- Increase development of Community Resilience Plans
- Expand monitoring and early warning systems

## Mitigation

**Deliver coordinated mitigation actions across the North West to achieve net zero greenhouse gas emissions (Targets to be agreed).**

As part of the North-West Regional Energy Strategy (NWRES) a North West (Cross border) carbon baseline study established emissions derived from energy use from across the following sectors:

- Water Distribution & Waste
- Landfill Waste
- Transport
- Agriculture
- Municipal Resources
- Commercial Buildings
- Social Housing and Domestic Buildings.

The NWRES Carbon Energy Baseline total for North West is 3,407 ktCO<sub>2</sub>eq (kilo tonnes of CO<sub>2</sub> equivalent),

Total DCC = 1,998 ktCO<sub>2</sub>eq

Total DCSDC = 1,409 ktCO<sub>2</sub>eq

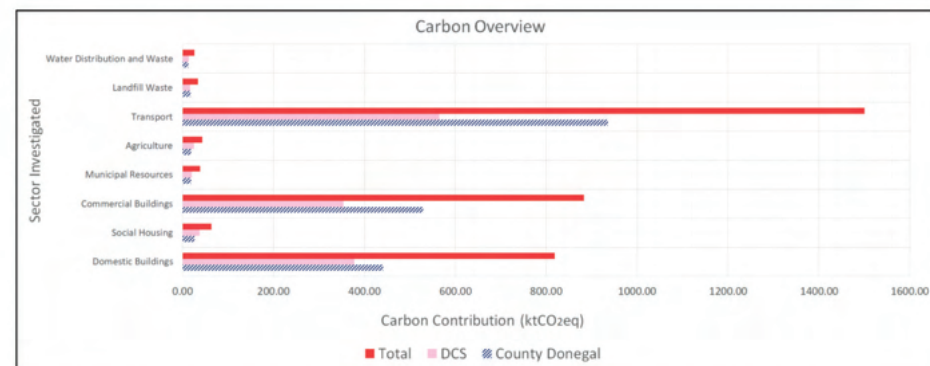


Figure 5. Regional Energy Strategy Carbon Baseline for each sector (2020)

The North West Regional Energy Strategy sets out local measures to achieve Net Zero emission by 2045 across energy through decarbonisation, energy efficiency and renewable energy integration.

The Regional Energy Strategy includes a roadmap of local measures aligned to central government and local carbon targets focused on five key themes:

- Smart Energy Management
- Energy Efficiency
- Low Carbon Heating
- Renewable Generation & Energy Storage
- Local Carbon Transport

We recognise the need to work alongside the agri-food sector to reduce emissions, this will include participation and involvement in the preparation of targets and plans. Land use changes are required alongside increased nature based solutions to reduce emissions and sequester carbon at an increased rate. Directing funding and policy to build a circular economy will deliver on emissions reduction targets and unlock the financial value of materials used in key sectors across the North West. Derry City & Strabane District Council are currently implementing a Zero Waste Circular Economy Strategy with cross border collaboration driving change across the region.

**Reduction of methane emissions from the fossil fuel, waste and agriculture sectors can contribute significantly to closing the emissions gap and reduce warming in the short term. UNEP 2021**





We acknowledge the challenge in transforming local transport and travel, including the regions rurality, dispersed settlement patterns and underinvestment in sustainable transport. Transformational emission reduction requires changes in public policies to disincentivise urban car use and subsidisation of public transport. Expansion of safe sustainable travel networks have the potential to greatly reduce emissions in the region. Current greenway routes in the region indicate that an extension of the network would deliver the modal shift necessary to reduce transport emissions.

In Derry, the Waterside greenway attracts c. 140,000 trips per annum while the Clooney and Kilfennan greenways (combined) generate 100,000 trips per annum and the Inch Levels also attract 100,000 trips per year.

The North West Greenways Network project estimates 550,000 walking and cycling trips per annum by year 5, post completion.

**46% of those surveyed in the North West would use a greenway, footpath or cycleway to travel to work regardless of distance with a further 94% saying they would take more trips by walking or cycling if the infrastructure was available**  
*NW Greenway Active Travel Survey (2021).*





## Aims

### NWCAF will

- Reduce greenhouse emissions and achieve Net Zero in the North West Region



## Objectives

- Deliver a framework for coordinated emission reductions across the North West Region.
- Work in partnership to agree a greenhouse gas emissions target for the North West region with interim targets and sectoral carbon budgets
- Deliver initiatives as detailed in the Regional Energy Strategy
- Deliver nature based solutions to achieve carbon sequestration
- Deliver sustainable food initiatives to reduce emissions
- Install both On-street and Off-street Electric Vehicle Charging points for local residents and visitors to the region

- Develop and implement a plan to decarbonize the Council's vehicle fleet
- Work in partnership with local stakeholders to decarbonize the regions electricity network
- Work in partnership with local stakeholders to reduce and eliminate the use of fossil fuels for domestic and commercial heating
- Work in partnership with government to decarbonize the public lighting network
- Ensure delivery of circular economy initiatives



## North West Greenway Network (NWGN) Project

NWGN aims to deliver a cross-border greenway network of up to 46.5km by December 2023. The project aims to achieve a significant rise in modal shift which will offset carbon emissions:

- > a 2% rise in modal shift
- > additional 130 commuters will be travelling to their place of work or education by walking or cycling methods.
- > potential to reduce carbon emissions by 100 tonnes of CO2 equivalent per year.

To date, 7.5km has been delivered, a further 2.2km is under construction and planning permission is in place to deliver an additional 14.2km by December 2022;



## Floating Solar Energy

Floating Solar Energy in a portion of the Foyle could potentially provide a renewable energy source that complements other technologies such as Power-to-X and Thermal Solar.

The CASE study has identified the Derry/Foyle area as an ideal location to demonstrate new floating solar technology at different deployment sizes from 10's of kW up to 100+ MW. A starter size of 180m<sup>2</sup> and 30kW installed capacity could potentially be installed adjacent to Foyle Port at Lisahally. A value Proposition Canvas has been developed outlining the advantages from this new technology including financial gain for the region, local supply chain jobs, employment for local communities and companies in a number of fields. The overall ambition of the partners is for the North West lead in the development and deployment of the next generation of systems that will contribute to fully integrate sustainable energy technologies addressing local, national and global needs.

**Acorn Farm Project – Sustainable Food Systems – Community Foundation NI, Derry City & Strabane District Council, Conservation Volunteers NI. (Funded by National Lottery UK)**

The project is developing a sustainable food system through supporting families to grow their own food, establishment of a food council (Acorn Food Network), learning and skills development programmes and construction of an iconic food hub in St Columb's Park.



### **Energy & Buildings - Irish Street Community Centre- Solar PV Battery Storage Project**


Irish Street Community Centre Project in Derry is an energy demonstration project which utilizes renewable and battery storage technology and was funded through the SECURE Interreg Northern Periphery & Arctic Programme (NPA).

12kw of solar panels and 15kw of Sonnen battery storage were installed with live information from the system displayed on an energy dashboard providing information on renewable PV generation data, building consumption data, battery storage capacity, input from the grid and energy exported to the grid.

Based on carbon savings of 3,075 kg per annum the anticipated overall carbon savings will be in the region of 37,250 to 45,000 kg CO<sub>2</sub>e.

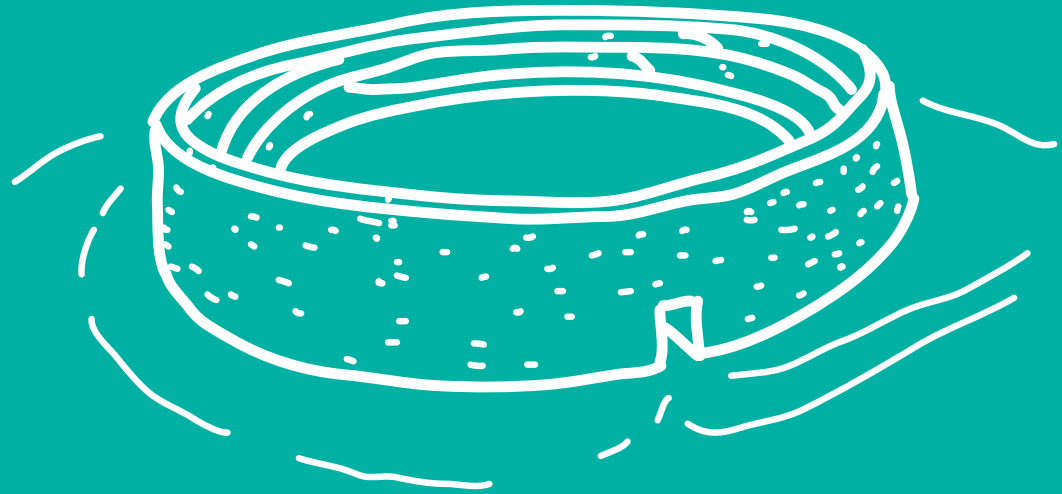
### **Suggested Actions**

- Support delivery of the Regional Energy Strategy road map to Net Zero
- Undertake consultation exercise with North West agri-food sector and rural communities
- Identify suitable locations for further development of sustainable travel infrastructure & networks and create 'seamless' regional travel, develop cross border cycling scheme e.g. bicycle hire
- Extend urban active travel networks
- Identify projects to reduce GHG emissions e.g. Implementation of council carbon management plans, cost effective technologies
- DCC housing stock emission control e.g. passive heating systems
- DCSDC & DCC Fleet and Estates Management
- Council systems and operations, employee policies & initiatives in place, e.g. car pool system, working location policy, green procurement policies, reduction of council travel

- 
- Green rating system for roads to reduce emissions from construction, maintenance, and agency operations through practices such as using recycled materials, purchasing materials found or manufactured sustainably in the region, and requiring construction contractors to implement emission reduction practices
  - Installation of necessary cross border electric vehicle charging points/ network
  - Reduced energy intensity of public lighting
  - Develop and encourage green infrastructure initiatives
  - Promote climate smart agricultural practices and carbon sequestration systems in land use
  - Development of carbon neutral design guide for masterplans and regeneration schemes and commissioning Whole Life Carbon Assessments
  - Support for the development of low carbon industries
  - Deliver zero waste circular economy initiatives
  - Increase the number of publically accessible EV charging points
  - Increase number of residential on-street charge points
  - Decarbonise the local authority fleets
  - Retrofit public, commercial & housing to achieve an EPC/ BER rating of B/B2
  - Trial and implement innovative ways of generating and delivering local energy through SMART Grid and Storage

# Funding & Finance

To secure and develop the funding necessary to deliver climate action in the North West, a North West Climate Finance Prospectus will be developed. This will outline the potential opportunities for external funding and finance mechanisms to incentivise business and industry. It will also consider public sector funding instruments such as bonds, blended finance, budget prioritisation and 'green' funds, public private partnerships etc. The prospectus will include specific funding strategies to deliver and support climate action.







Below is a description of some of the key funding streams that are currently available.

## For Communities

**(ROI) Community Environment Action Fund** – Local Agenda 21 (LA21) aims to deliver at a local level on the UN sustainability commitment. It assists small-scale local environmental projects which are delivered through partnership between local authorities and local community groups, schools and environmental NGOs.

**(ROI) Pobal** – Government Supporting Communities manages funding and provides support for communities and local agencies under circa 25 programmes in the areas of social inclusion and equality, inclusive employment and enterprise, and early learning and care.

**(ROI) LEADER** aims to strengthen the rural economy and to improve the quality of life in rural areas. It's focus is to deliver on the key principles of innovation, sustainability, social inclusion and economic viability and links with other organisations

**(ROI) Creative Ireland**, Creative Climate Action, the Fund will support creative and cultural projects up to the end of 2022 which will connect people with the profound changes that are happening in our environment, society and economy arising from climate change, and can transform that connection into behaviour change or climate action.

**(UK) COP26: New community climate action fund – Together for Our Planet** – open thanks to National Lottery players (via Community Fund) funded programme to support communities across the UK take action on climate change.

**(NI) Better Community Business Network Grant Initiative** A small number of grants are available each year to small not-for-profit groups which can demonstrate a positive impact on the communities they serve across the UK.

**(NI) Brighter Communities** Power NI has donated £40,000 to community groups since April 2018. The fund exists to make groups shine a little brighter – whether that is with equipment, a revamp of their space, or resources for their service users.

## For Businesses

**(ROI) Climate Enterprise Action Fund:**The fund is administered by Enterprise Ireland, will help businesses take action to drive down their emissions and embed sustainability in how they work. They have 3 avenues

- Climate Action Voucher – a €1,800 grant to engage consultants to develop plans in areas such as resource efficiency and renewable energy.
- GreenStart – up to €5,000 to measure carbon footprint and identify actions to reduce emissions and operate more sustainably.
- GreenPlus – grant funding of up to 50% to develop a multi-annual climate change plan aligned to international standards and frameworks





## Large Scaled Projects

**(NI & ROI) The National Development Plan - Project Ireland 2040** there will be up to €3.5 billion available for cross-border projects and co-operation over the next 10 years under the terms of the National Development Plan. The money will come from different funding streams and be used to develop infrastructure projects, climate action and skills and educational enhancement.

**(NI & ROI) Shared Island Fund** available will be doubled to €1 billion and its lifetime extended out to 2030.

**(NI & ROI) PEACE PLUS** is a new North South programme for the 2021-27 period which will combine the previous PEACE and INTERREG EU funding strands into one cohesive cross-border programme. This new programme will support peace and prosperity across an eligible area of Northern Ireland and the border counties of Ireland

**(ROI) The Climate Action Fund (CAF)** was established to provide assistance and financial support to projects which will help Ireland achieve its climate and energy targets. The CAF will provide at least €500 million in government funding up to 2027 towards this aim.

Wednesday 10 November, 2021 the launch of the Community Climate Action Programme (€60m from 2022 to 2025). There are 2 strands to the programme: Community Projects (Strand 1) and Capacity Building (Strand 2). The programme will be delivered over two 18 month phases with €30m available in Phase 1. The Creative Ireland Fund was allocated €1m in 2021.

### **Strand 1 Community Projects (€24m)**

Further information on this Strand is to follow with a proposed opening for application in early 2022.

**The European Green Deal Investment Plan** creates a framework to facilitate this and stimulate sustainable investments of at least €1 trillion over the next decade.

**The Just Transition Mechanism (JTM)** will also provide targeted support to regions and sectors that are most affected by the transition towards the green economy.

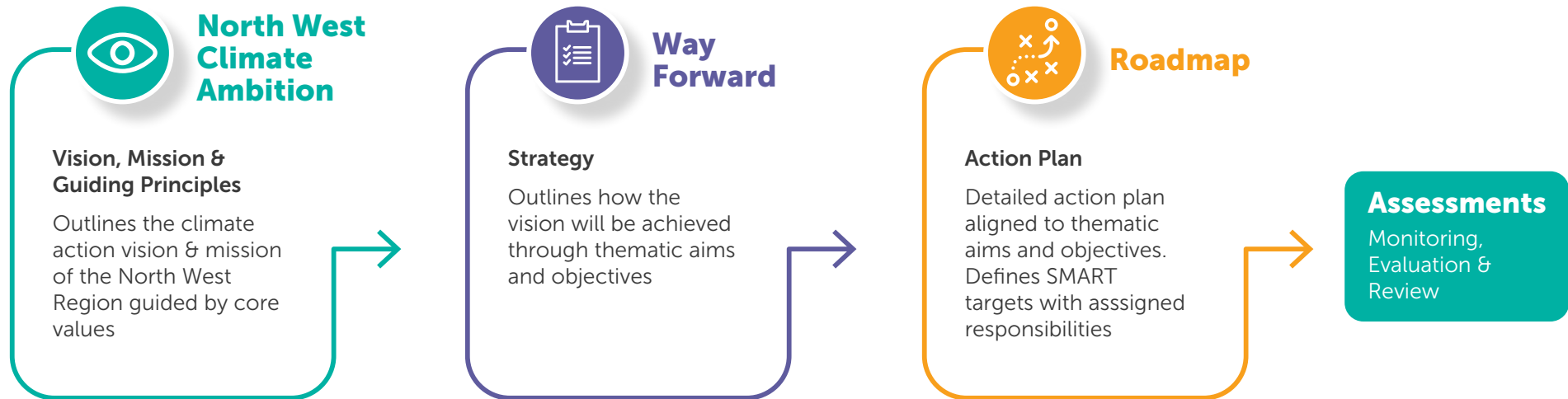
**(UK) A £2million Environmental Challenge Fund** is available to not-for-profit organisations and councils to deliver natural heritage projects that support Covid-19 Recovery and Green Growth across Northern Ireland.



## Next Steps

- Building on the framework provided by the vision, aims and objectives a separate climate action plan will be developed.
- Establish the necessary resources and capacity to undertake stakeholder engagement, establish governance arrangements and deliver the climate action plan.
- The Climate Action Plan will provide a roadmap setting out programmes and projects that will support the North West Climate ambition.
- The final Framework and associated action plans will be subject to necessary assessments and public consultation as required.
- A critical next step for successful climate action is to increase stakeholder engagement. Extensive engagement with a broad range of stakeholders will be required to ensure consultation and commitment to climate action delivery.
- Commitment to climate action will be demonstrated through continuous transparent monitoring, reporting and assessment of impacts.
- A monitoring and evaluation framework and matrix will provide the methodology necessary for the effective measurement of successes and learnings from North West climate action.
- The framework and associated outputs will lead to the development of quarterly progress reviews and annual reports. The Climate Action Framework and Action Plan will be subject to annual review as further data, research and information becomes available.
- Reporting will continue on the Global Covenant of Mayors Platform.
- Continue to collaborate and engage with key partners in other councils and agencies e.g. NI Local Government Climate Action Network, Climate Action Regional Offices .

# North West Climate Action Framework







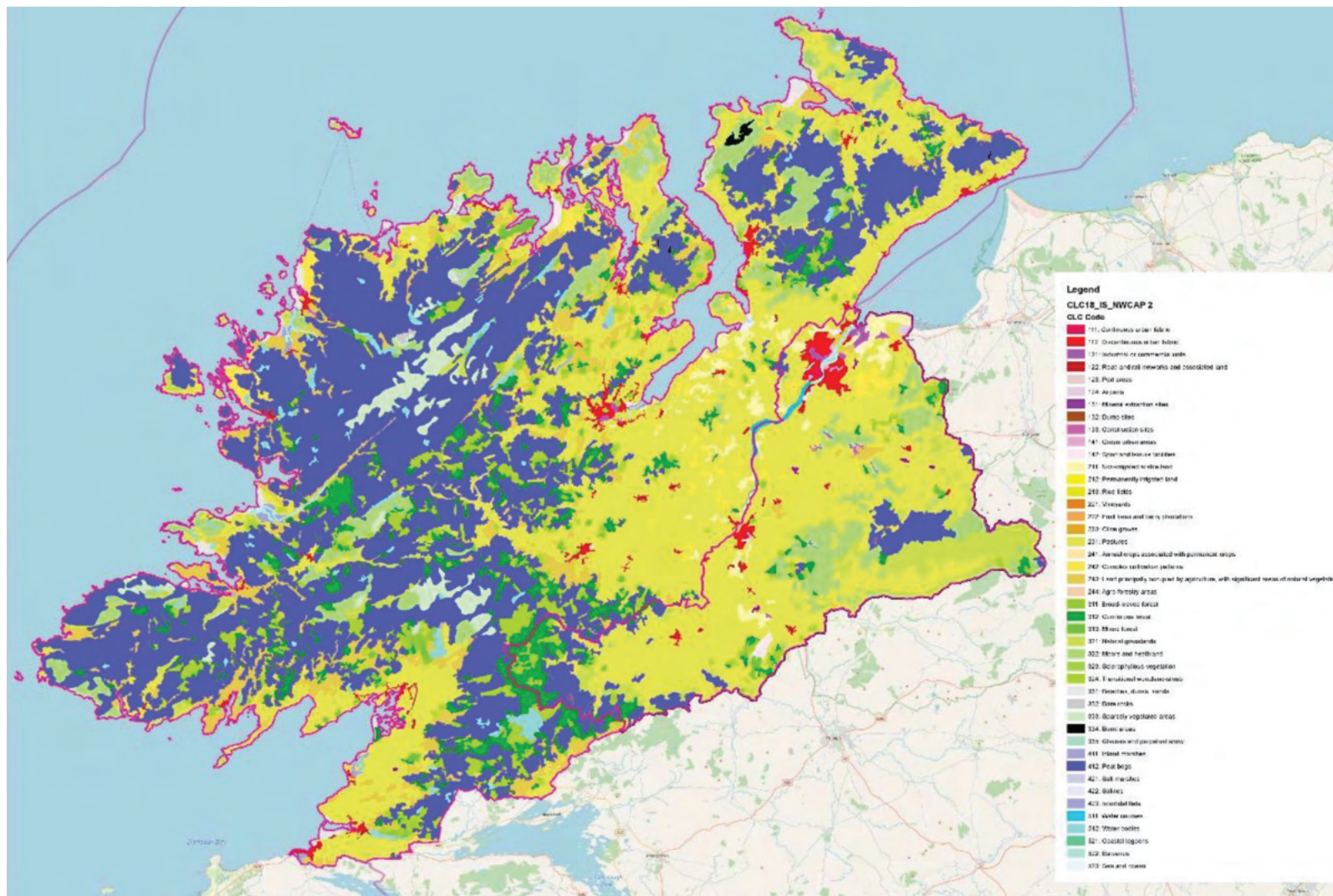
# Appendices





# Appendix 1

North West Landcover



Source:  
Corine, DCSDC  
Environment  
Team 2020

# Appendix 2

Nature based solutions through Green Infrastructure improves ecosystem services

Nature Based Solution	Mitigation Services	Adaptation Services
<ul style="list-style-type: none"> <li>Peatland Restoration</li> <li>Soil, Habitat &amp; Landscape Restoration</li> </ul>	<ul style="list-style-type: none"> <li>Carbon Storage &amp; Sequestration</li> </ul>	<ul style="list-style-type: none"> <li>Managing water supply and reducing pollution</li> <li>Flood alleviation</li> <li>Improved air &amp; water quality</li> <li>Improved habitat and biodiversity protection</li> </ul>
<ul style="list-style-type: none"> <li>Blue Carbon / Coastal &amp; Marine Restoration</li> </ul>	<ul style="list-style-type: none"> <li>Carbon Storage &amp; Sequestration</li> </ul>	<ul style="list-style-type: none"> <li>Improved habitat and biodiversity protection</li> <li>Improved water quality</li> <li>Coastal flood protection / erosion resilience</li> </ul>
<ul style="list-style-type: none"> <li>Reforestation &amp; Agroforestry</li> </ul>	<ul style="list-style-type: none"> <li>Carbon Storage &amp; Sequestration</li> </ul>	<ul style="list-style-type: none"> <li>Managing water supply and reducing pollution</li> <li>Flood alleviation</li> <li>Improved air quality</li> <li>Improved habitat and biodiversity protection</li> </ul>
<ul style="list-style-type: none"> <li>Urban Tree Planting</li> </ul>	<ul style="list-style-type: none"> <li>Carbon Storage &amp; Sequestration</li> <li>Energy Reduction</li> </ul>	<ul style="list-style-type: none"> <li>Cooling</li> <li>Wind protection</li> <li>Flood alleviation</li> <li>Improved habitat and biodiversity protection</li> </ul>

### Nature Based Solution

Parks & Open Spaces

River 'naturalisation'

'Greening' of buildings

Local Sustainable Food Production

### Mitigation Services

Carbon Storage & Sequestration  
Energy Reduction  
Sustainable Travel

Carbon Storage & Sequestration  
Energy Reduction

Carbon Storage & Sequestration  
Energy Reduction

Carbon Storage & Sequestration  
Reduced emissions

### Adaptation Services

Cooling  
Wind protection  
Flood alleviation  
Improved air quality  
Improved habitat and biodiversity protection

Flood alleviation  
Improved air & water quality  
Reduced soil erosion  
Improved habitat and biodiversity protection

Cooling  
Wind protection  
Flood alleviation  
Improved air quality  
Improved habitat and biodiversity protection

Flood alleviation  
Improved air quality  
Reduced soil erosion  
Improved habitat and biodiversity protection

# Appendix 3 Strategic Context

	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
International	Paris Agreement 2015	United Nations (United Nations Framework on Climate Change) 195 Global Signatories	<ul style="list-style-type: none"> <li>&gt; Requires ambitious mitigation action to reduce GHG emissions to hold the global temperature rise 'well below 2°C above pre-industrial levels', and to pursue efforts to limit the rise to 1.5°C.</li> <li>&gt; Adaptation goal; 'enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change'.</li> </ul>
	European Union Climate Change Adaptation Strategy 2013	European Union	<ul style="list-style-type: none"> <li>&gt; Promoting action by EU Member States: the EU Commission encourages all Member States to adopt comprehensive adaptation strategies and provides funding to help build up adaptation capacities and take action.</li> <li>&gt; Climate-proofing by further promoting climate change adaptation in key vulnerable sectors.</li> <li>&gt; Further developing the European climate adaptation platform (Climate-ADAPT)</li> </ul>
	United Nations 2030 Sustainable Development Goals (SDG 13)	United Nations	<ul style="list-style-type: none"> <li>&gt; Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries;</li> <li>&gt; Integrate climate change measures into national policies, strategies and planning;</li> <li>&gt; Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning;</li> <li>&gt; Mobilise and distribute 50% of the UN Framework Convention on Climate Change Green Climate Fund to adaptation projects in developing countries; and</li> <li>&gt; Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small-island developing States, including focusing on women, youth and local and marginalised communities.</li> </ul>

	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
UK	Climate Change Act 2008 (2050 Target Amendment) Order 2019	UK Parliament	<ul style="list-style-type: none"> <li>&gt; Set UK GHG target (Net zero by 2050)</li> <li>.....</li> <li>&gt; Sets legally binding carbon budgets (cap over 5 yr) First 3 carbon budgets met, not on track for the 2050 target.</li> <li>.....</li> <li>&gt; Established Committee on Climate Change</li> <li>.....</li> <li>&gt; Requires 5 year assessment of risk and opportunities for the UK CCRA 2017 (NI Evidence Report &amp; Summary)</li> </ul>
	UK Climate Change Risk Assessment 2017 Evidence Report (CCRA 1) – Northern Ireland ..... CCRA 2 -2017 ..... CCRA 3 - 2021	Climate Change Act 2008 (2050 Target Amendment) Order 2019	<ul style="list-style-type: none"> <li>&gt; Requires 5 year assessment of risk and opportunities for the UK CCRA 2017 (NI Evidence Report &amp; Summary)</li> <li>• Natural Environment</li> <li>• Infrastructure</li> <li>• People &amp; Built Environment</li> <li>• Business &amp; Industry</li> <li>• International</li> </ul>
Northern Ireland	New Decade New Approach Deal Jan 2020	NI Executive	<p>The Executive will:</p> <ul style="list-style-type: none"> <li>.....</li> <li>&gt; produce strategy to address the immediate and longer term impacts of climate change</li> <li>.....</li> <li>&gt; introduce legislation and targets for reducing carbon emissions in line with the Paris Climate Change Accord.</li> <li>.....</li> <li>&gt; The parties recognise the need for a coordinated and strategic approach to the challenge of climate change within the Programme for Government.</li> </ul>





	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Northern Ireland	New Decade New Approach Deal Jan 2020	NI Executive	<p>&gt; To this end the executive:</p> <ul style="list-style-type: none"> <li>• review strategies to reduce carbon emissions in light of the Paris Climate Change Accord and the climate crisis.</li> <li>• A new Energy Strategy will set ambitious targets and actions for a fair and Just Transition tonet zero.</li> <li>• should bring forward a Climate Change Act to give environmental targets a strong legal underpinning.</li> <li>• will establish, Independent Environmental Protection Agency to oversee this work and ensure targets are met.</li> <li>• The Economic Strategy will support clean and inclusive growth and create jobs as part of a Green New Deal.</li> <li>• The Executive will create a plan to eliminate plastic pollution.</li> <li>• RHI will be closed down and replaced by a scheme that effectively cuts carbon emissions</li> </ul>
	Draft Programme for Government Framework 2016-2021	Northern Ireland Executive	<p>&gt; Northern Ireland Outcomes Delivery Plan 2018/19</p> <p>.....</p> <p>‘Outcome 2’ - ‘We live and work sustainably - protecting the environment’</p> <p>.....</p> <p>This Outcome 2, aim of ensuring ambition for progress takes into account SDG 13</p>
	Northern Ireland Climate Change Adaptation Programme 2019-24	Department for Agriculture, Environment & Rural Affairs	<p>Aim</p> <p>.....</p> <p>&gt; A resilient Northern Ireland which will take timely and well-informed decisions to address the socio-economic and environmental impacts of climate change’.</p> <p>.....</p> <p>Key objectives</p> <p>.....</p> <p>&gt; Fulfillment of statutory duties including production of an adaptation programme</p> <p>.....</p> <p>&gt; Working in partnership to strengthen and develop policies, strategies and actions which will cope with the risks and exploit the opportunities identified by the NI Evidence Report;</p>

	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Northern Ireland	Northern Ireland Climate Change Adaptation Programme 2019-24	Department for Agriculture, Environment & Rural Affairs	<ul style="list-style-type: none"> <li>&gt; Raise awareness of climate change, promoting climate change dialogue, networking and action;</li> <li>&gt; Promote and support the enhancement of scientific evidence and sector specific data collection</li> <li>&gt; Ensure the sharing of climate change adaptation best practice</li> <li>&gt; Support Climate NI to provide a cross-sectoral network</li> </ul>
	Northern Ireland Regional Development Strategy 2035	Department for Regional Development 2010	<ul style="list-style-type: none"> <li>&gt; Protect and enhance the environment for its own sake</li> <li>&gt; Take actions to reduce our carbon footprint and facilitate adaptation to climate change</li> </ul>
	Strategic Planning Policy Statement for NI. Planning for Sustainable Development	Department for the Environment 2015	<ul style="list-style-type: none"> <li>&gt; Take actions to reduce our carbon footprint and facilitate adaptation to climate change</li> </ul>
	Valuing Nature A Biodiversity Strategy for Northern Ireland to 2020	Department for the Environment 2015	<ul style="list-style-type: none"> <li>&gt; A central challenge in furthering sustainable development is mitigating and adapting to climate change, whilst improving air quality.</li> <li>&gt; Reduce the impact of climate change in order to meet the challenge of halting biodiversity loss</li> <li>&gt; Value of key ecosystem services and benefits they can provide to regulating and adapting to climate change</li> </ul>



	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Northern Ireland	Making Life Better – A Whole System Strategic Framework for Public Health 2013-2020	UK Parliament	<p>&gt; Vision</p> <p>.....</p> <p>All people are enabled and supported in achieving their full health and wellbeing potential. The aims are to achieve better health and wellbeing for everyone and reduce inequalities in health.</p>
	Sustainable Water, A Long Term Strategy for Northern Ireland 2015-2040	Department for Regional Development 2015	<p>&gt; FRMD Policy 1A: To ensure land-use planning decisions are informed to help minimise flood risk</p> <p>.....</p> <p>&gt; FRMD Policy 1B: Make space for surface water management in development plans</p> <p>.....</p> <p>&gt; FRMD Policy 1C: Sustainable Drainage Systems</p> <p>.....</p> <p>&gt; FRMD Policy 1D: Design for drainage exceedance to be incorporated into all new drainage infrastructure.</p>
	Managing Storm Water. A Strategy for Promoting the use of Sustainable Drainage Systems (SUDS) within NI	Northern Ireland Environment Agency 2011	<p>&gt; Promotes the use of SUDS as a response to climate change and increased flood risk</p>
	North West River Basin Management Plan	Department for Agriculture, Environment & Rural Affairs (DAERA) 2015	<p>&gt; Designated Significant Flood Risk Areas</p> <p>.....</p> <p>&gt; Invasive Species control</p> <p>.....</p> <p>&gt; Use of SUDS in PPS 15 planning applications</p> <p>.....</p> <p>&gt; Protection of freshwater, coastal &amp; marine environments – capacity building planning departments and teams.</p>

	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Northern Ireland	North West River Basin Management Plan	Department for Agriculture, Environment & Rural Affairs (DAERA) 2015	<ul style="list-style-type: none"> <li>&gt; Designated Significant Flood Risk Areas</li> <li>&gt; Invasive Species control</li> <li>&gt; Use of SUDS in PPS 15 planning applications</li> <li>&gt; Protection of freshwater, coastal &amp; marine environments – capacity building planning departments and teams.</li> </ul>
	Draft Marine Plan for Northern Ireland	DAERA	> Public authorities, where appropriate, must consider the potential impact of proposals on greenhouse gas emissions and the proposals ability to adapt to a changing climate.
	NI Rural Development Programme 2014-2020	DAERA	> Contributes to the protection of soil from erosion and the maintenance of soil organic matter and soil structure
	Invasive Alien Species Strategy for Northern Ireland	DAERA 2013	> Addresses invasive alien species that will reduce the resilience of natural habitats, to climate change.
	Multi-Agency Severe Weather Emergency Response Plan	Department for Infrastructure	> Provides for coordinated inter agency response to potential and actual severe weather events.
	The Waste (Circular Economy) (Amendment) Regulations (Northern Ireland) 2020	DAERA	<ul style="list-style-type: none"> <li>&gt; Move towards a more circular economy, keeping resources in use as long as possible, extracting maximum value from them, minimizing waste and promoting resource efficiency.</li> <li>&gt; The CEP introduces a revised legislative framework, identifying steps for the reduction of waste and establishing an ambitious and credible long-term path for waste management and recycling.</li> </ul>

	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Northern Ireland	NI Department Communities Climate Action Plan 2021-2022	Department Communities	> The plan is structured around the four main areas in which the Department's activities and policies most closely interact with climate change. Housing, Departmental Estate, Built Heritage and Urban Regeneration.
	Draft -Northern Ireland Peatland Strategy 2021 - 2040	Dept for Agriculture, Environment & Rural Affairs 2013	> This strategy outlines details the current factors affecting our semi-natural peatlands and sets out the objectives and actions which we consider necessary to ensure that our semi-natural peatlands are conserved and restored to functioning ecosystems.
Derry City & Strabane District Council (DCSDC)	DCSDC's Inclusive Strategic Growth Plan 2017 -2032	DCSDC	<p>&gt; Vision</p> <p>.....</p> <p>"A Thriving, prosperous and sustainable City and District with equality of opportunity for all"</p> <p>Relevant outcomes and actions for consideration include:</p> <ul style="list-style-type: none"> <li>• We prosper through a strong, sustainable and competitive economy.</li> <li>• We live sustainably – protecting and enhancing the environment</li> <li>• We connect people &amp; opportunities through our infrastructure.</li> </ul> <p>Within the DCSDC the Strategic Growth Plan importance is given to climate change and supporting environment</p>
	Delivering Inclusive Growth, City Deal for the Derry ~ Londonderry City Region 2018	DCSDC	<p>&gt; Unlock the economic potential of the region by:</p> <ul style="list-style-type: none"> <li>• Connecting towns and cities.</li> <li>• Investing and growing economic innovation assets whilst tackling major barriers to productivity and growth.</li> <li>• Maximising resources through strong partnership</li> </ul> <p>.....</p> <p>&gt; Priorities: Innovation &amp; Digital, Enabling iNfrastructure &amp; Regeneration, Private Sector</p>



	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Derry City & Strabane District Council (DCSDC)	Local Development Plan 2032 Draft Plan Strategy	DCSDC	<p>&gt; Vision To make DCSDC a thriving, prosperous and sustainable area–Planning for balanced &amp; appropriate high-quality development, whilst protecting environment, and also promoting wellbeing with equality of opportunity for all.</p> <p>.....</p> <p>&gt; The LDP will guide land use development, will outline policies &amp; guidance for development of city &amp; district.</p> <p>.....</p> <p>&gt; The LDP general development principles and policies states that development should demonstrate how they "mitigate against the effects of climate change, adapt to its impacts, and to ensure resilience."</p>
	Green Infrastructure Plan 2019-2032	DCSDC	<p>&gt; Vision "By 2032 the environmental, economic and social benefits of Green Infrastructure are valued and maximised by all" Climate Change Strategic Aim: GI will be maximised to mitigate against and adapt to the effects of climate change</p>
	Air Quality Action Plan & 2015 Updating Screening and Progress Reports	DCSDC	> Establishes targets for air quality improvement
	North West Greenway Plan (2015)	DCSDC	> Provides a plan for the development of a network of Greenways throughout the North West of Ireland
	DCSDC Tourism 2018-2025: A New Level of Ambition	DCSDC	<p>&gt; Core Themes: History &amp; Heritage, Creativity, Culture, Activity &amp; Adventure</p> <p>.....</p> <p>&gt; Provides Strategic Framework to deliver:Product &amp; experience, Visitor Servicing, Investment in destination marketing</p>

	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Derry City & Strabane District Council (DCSDC)	DCSDC Local Food and Drink Strategy and Action Plan 2018-2021	DCSDC	> Aim Establish the City & District as a food destination
Republic of Ireland	Ireland National Climate Change Strategy 2007 - 2012	Department of the Environment, Heritage and Local Government	> Aims To ensure that adaptation actions are taken across key sectors and also at local level to reduce Ireland's vulnerability to climate change ..... > Each relevant Government department were required to prepare and implement adaptation plans for its key sector > These key sectors are: water, marine, agriculture, forestry, biodiversity, energy, transport, communications, insurance, heritage and health ..... > Annex IV within the NCCAF outlined an overview of the CC challenges and vulnerabilities for each key sector
	The National Peatland Strategy 2015	Dept of Housing, Local Government & Heritage	> This Strategy will guide the Government's approach to peatlands management and conservation in the future, taking into account current and potential uses of this key resource ..... > The National Peatlands Strategy is currently undergoing a Mid Term review

	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Republic of Ireland	The Climate Action and Low Carbon Development (Amendment) Act 2021	Dept of the Environment, Climate and Communications	<ul style="list-style-type: none"> <li>&gt; Support Ireland's transition to Net Zero and achieve a climate neutral economy by no later than 2050</li> <li>&gt; Embeds the process of carbon budgeting into law</li> <li>&gt; Actions for each sector will be detailed in the Climate Action Plan</li> <li>&gt; A National Long Term Climate Action Strategy will be prepared every five years</li> <li>&gt; Climate Change Advisory Council, tasked with proposing carbon budgets to the Minister</li> <li>&gt; Requirement for each local authority to prepare a Climate Action Plan, which will include both mitigation and adaptation measures and be updated every five years</li> </ul>
	National Mitigation Plan 2017	Dept of the Environment, Climate and Communications	<ul style="list-style-type: none"> <li>&gt; Stemmed from The Act this plan outlined the initial steps in transitioning Ireland to a low carbon, climate resilient and environmentally sustainable economy by 2050</li> <li>&gt; Devised four central roles for key Ministers, electricity generation, the built environment, transport and agriculture</li> <li>&gt; The plan included over 100 actions for ministers and public bodies</li> </ul>
	National Adaptation Framework	Dept of the Environment, Climate and Communications	<ul style="list-style-type: none"> <li>&gt; Builds on the work already carried out under the National Climate Change Adaptation Framework (NCCAF)</li> </ul> <p>Aims</p> <ul style="list-style-type: none"> <li>&gt; provide a framework to ensure local authorities, regions, and key sectors can assess the key risks and vulnerabilities of climate change, implement actions to build resilience to climate change, and ensure climate adaptation considerations are mainstreamed into all local, regional, and national policy.</li> </ul>

	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Republic of Ireland	National Climate Action Plan (Government of Ireland, 2019)  12 Sectoral Adaptation Plans	Department of the Environment, Climate and Communications	<ul style="list-style-type: none"> <li>&gt; Sets out measures by which Ireland can reduce its emissions from sectors outside the EU's Emissions Trading System by 30% (relative to 2005 levels) by 2030</li> <li>&gt; To start the Plan contained 183 actions to help achieve this</li> <li>.....</li> <li>&gt; Under the National Adaptation Framework and the Climate Action Plan and in line with the Act, seven government departments with responsibility for priority sectors were required to prepare 12 Sectoral Adaptation Plans</li> <li>&gt; These key sectors are: water, marine, agriculture, forestry, biodiversity, energy, transport, communications, insurance, heritage and health</li> </ul>
	Project Ireland 2040	The Dept of Housing Planning and Local Government	<ul style="list-style-type: none"> <li>&gt; Vision</li> <li>"Ireland's long term economic, environmental and social progress for all parts of our country"</li> <li>Section 8 - Transition to a Low Carbon and Climate Resilient Society.</li> <li>&gt; The capital investment priorities will represent a step-change in Ireland's delivery climate-action objectives, providing a significant reduction in carbon emissions over the period to 2030.</li> </ul>

	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Republic of Ireland	National Development Plan 2021-2030	Department of Public Expenditure and Reform	<p>&gt; This plan will prepare us for population growth of approximately 1 million between 2016 and 2040, and help us to deal with the ongoing challenges of COVID-19 and Brexit.</p> <p>.....</p> <p><b>Funding Cross Border</b></p> <p>&gt; Increased level of ambition for collaborative cross-border investment under the Shared Island initiative. The €500m Shared Island Fund will be doubled out to 2030, and total all-island investment, including through the Shared Island Fund, the Project Ireland 2040 funds, the government’s annual funding for North/South cooperation, and the PEACE PLUS programme delivered with the EU, UK and Northern Ireland Executive, is more than €3.5 billion.”</p> <p>&gt; The Government has committed to increasing carbon tax to €100-per-tonne by 2030</p> <p>&gt; €5 billion will be invested in energy efficiency including National Retrofit Plan, improve Ireland’s housing stock</p> <p>&gt; €1.5 billion is to go towards schemes to assist farmers in the decarbonisation of the agriculture sector</p> <p>&gt; €3 billion will go towards tackling fuel poverty and to provide a “Just Transition” away from fossil fuels.</p> <p>&gt; The planned €35 billion investment in transport is to be weighted 2:1 in favour of public transport, cycling and walking over spending on new roads</p>



	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Republic of Ireland	Climate Action Plan 2021	Department of the Environment, Climate and Communications	<p>&gt; The Climate Action Plan 2021 provides a detailed plan to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting us on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.</p> <p>&gt; It will put Ireland on a more sustainable path; cut emissions; create a cleaner, greener economy and society; and protect us from the devastating consequences of climate change. It is a huge opportunity to create new jobs and grow businesses in areas like offshore wind; cutting-edge agriculture; and retrofitting, making our homes warmer and safer</p> <p>&gt; The plan sets out 475 separate actions to halve Ireland's greenhouse emissions by 2030, including extensive offshore wind power, retrofitting 500,000 homes and putting a million electric vehicles on the roads.</p>
Donegal County Council	County Development Plan 2018 -2024	Donegal County Council	<p>Purpose</p> <p>&gt; Is to set out a land use planning policy framework to guide the way in which County Donegal will be developed into the future. The Plan will be a material consideration in making decisions on planning applications</p>
	Seven Strategic Towns Local Area Plan 2020 - 2024	Donegal County Council	<p>Purpose</p> <p>&gt; To set out an overall strategy for the proper planning and sustainable development of the seven towns and to provide a land use planning policy framework to guide the way in which each of the seven towns will be developed into the future. The Plan will be a material consideration in making decisions on planning applications</p>
	Local Economic and Community Plan (LECP)	Donegal County Council	<p>Purpose</p> <p>&gt; The purpose of the Plan is to identify and implement actions to strengthen and develop the economic and community dimensions of the County and to reflect and support the implementation of existing and proposed National and Regional spatial, community and economic strategies.</p>

	Strategy/ Policy / Legislation/ Document Title	Organization/ Department/ Agency	Relevant Statement(s)
Donegal County Council	Donegal County Council Tourism Strategy	Donegal County Council	> This Strategy and Action Plan provide the context for a range of innovative tourism initiatives, marketing and development plans and EU and Government funded projects, which seek to promote County Donegal as a world class tourism destination on the Wild Atlantic Way.
	County Donegal Heritage Plan	Donegal County Council	> Identifies a list of actions which will be taken to achieve its strategic aims and objectives. ..... > The Plan has identified heritage issues and needs in the county, aims to address them locally, within a regional and national framework ..... > Plan provides the basis for the identification, investigation, interpretation, promotion, preservation, conservation and enhancement of County Donegal's built, cultural and natural heritage, and sets out a strategy for the management of heritage resources and landscapes in a sustainable manner.
	Corporate Plan 2020 - 2024	Donegal County Council	> This plan presents a broad framework for action for DCC in terms of driving enterprise and growth, in supporting economic development & job creation and enabling the delivery of quality services and supports.

# Appendix 4

## SWOT

Strengths	Weaknesses
<ul style="list-style-type: none"><li>• Collaborative working and partnership structures in place</li><li>• Support and commitment to climate action</li><li>• Existing cross border environmental protection initiatives</li><li>• Existing cross border approach to spatial planning</li><li>• Innovative local business</li><li>• Local community momentum for climate action</li><li>• Existing support mechanisms e.g. CARO, LES</li><li>• Council Adaptation Plan / Strategy in place</li><li>• Derry City &amp; Strabane District Council Climate Pledge in place</li><li>• Donegal County Council Climate Action Charter</li><li>• Youth engagement and interest</li><li>• Existing natural resources offer potential to reduce the risk of flooding, address increased temperatures and carbon sequestration</li></ul>	<ul style="list-style-type: none"><li>• Separate jurisdictions, policy and legal frameworks</li><li>• Separate climate data &amp; methodologies for collection and reporting</li><li>• Lack of full greenhouse gas data</li><li>• Public perception and cultural traditions towards land management and 'green' issues</li><li>• Policy gaps, lack of cross border climate action policy</li><li>• Lack of NI Climate Act and statutory obligation on local authorities</li><li>• Two local airports</li><li>• Lack of sustainable travel infrastructure</li><li>• Lack of existing cross border funding and delivery mechanisms (Resource and financial capacity)</li><li>• Different commitment levels across all stakeholders</li><li>• Silo working</li><li>• Lack of wider knowledge and understanding of opportunity for cross border climate action</li><li>• Lack of wider understanding of potential for nature based solutions</li><li>• Lack of coordinated cross border land management and spatial planning policies</li><li>• Gaps in public engagement and support for climate action</li><li>• Planning processes</li><li>• Socio cultural landscape e.g. land ownership</li><li>• Partnership / management practices</li><li>• Land disposal / rezoned land</li><li>• Lack of knowledge / skillsets</li><li>• Reliance on individuals as climate champions</li></ul>



## Opportunities

- Collaborative and governance structures to be developed
- Align strategies to NI and Irish government policies
- Influence national and local strategies and policies to ensure effective North West climate action
- Opportunity to deliver government priorities in the North West – pilot cross border projects
- Opportunity for enhanced knowledge exchange
- Landscape opportunities for Nature Based Solutions / green infrastructure
- Raise awareness of climate change impacts and opportunities for action
- Opportunity to harmonise climate data (both emissions and risk)
- Opportunities for offshore wind energy generation
- Build on existing projects e.g. Regional Energy Strategy, North West Greenways Project
- Maximize opportunities from cross border initiatives e.g. Shared Island Unit, NESCC, All-Island Climate & Biodiversity Research Network
- Maximize opportunities offered by Post Covid-19 Green Recovery
- Imbed climate action in City Deal initiatives
- Maximize opportunities from momentum built by COP26
- Work with Youth Engagement initiatives to build greater cross border momentum
- Maximize opportunities to develop climate smart homes in the aftermath of MICA
- Collaborate with existing NGOs delivering climate action e.g. Woodland Trust
- Promote green credentials / proposition to business and investment
- Maximize sustainable tourism opportunities and green proposition
- Maximize opportunities for green skills, job creation, industry and investment
- Formalise structures linking climate change to roles and responsibilities

## Threats

- Absence of funding towards cross border climate action coordination structures and programs
- Lack of effective stakeholder engagement and co-design approach to cross border climate action
- Disengagement of public representatives
- Competing priorities (internal & external)
- Risk of losing institutional memory

# Appendix 5

## PESTEL

Political	Economic
<ul style="list-style-type: none"> <li>• Elected member support</li> <li>• Existing cross border collaborative structures e.g. NWSGP &amp; NWRDG are enablers of transboundary climate action</li> <li>• Separate government targets and policies</li> <li>• Impact of Brexit on cross border environmental and business policies and funding</li> </ul>	<ul style="list-style-type: none"> <li>• Area of social deprivation</li> <li>• Predominantly rural and dispersed communities</li> <li>• Financial barriers to public take up of climate solutions e.g. electric vehicles, renewables</li> <li>• Existing economic packages &amp; opportunities e.g. City Deal</li> <li>• Republic of Ireland Climate Action Fund</li> <li>• EU funding opportunities affected by Brexit</li> <li>• Competitive and innovative local business approach</li> <li>• Innovative approach to business and industry</li> </ul>
Social	Technological
<ul style="list-style-type: none"> <li>• Traditional land management approach e.g. agricultural practices, peat extraction</li> <li>• Land ownership issues – societal views of land ownership and protection</li> <li>• Public perception of climate action – ‘Green urban middle class’ agenda</li> <li>• Post Covid-19 appetite for change e.g. remote working, reconnection with nature</li> <li>• Community leadership e.g. Inishowen Rivers Trust</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of sustainable public transport infrastructure</li> <li>• SMART cities projects opportunities</li> <li>• Need for improved and extended safe active travel network</li> <li>• Local innovation e.g. hydrogen, floating solar, agricultural practices</li> <li>• Opportunity for offshore wind energy</li> <li>• Need for improved electric vehicle infrastructure</li> <li>• Electrical grid infrastructure – upgrade required</li> </ul>



## Environmental

- Landscape offers opportunities for nature based solutions
- Vulnerable to climate impacts e.g. coastal position on North Atlantic, tidal rivers, areas of high flood risk and storms
- Land management practices and separate agriculture policies and subsidies
- Separate climate data
- Extensive built heritage and archaeology (at risk as well as opportunity for climate smart projects)

## Legal

- Separate jurisdictions and climate targets / policies
- DCSDC target – 2045 Net Zero
- Cross border environmental protections and frameworks in place e.g. Water Framework Directive, Loughs Agency. All Ireland Pollinator Plan



# Glossary



## **Adaptation**

The process of adjustment to the actual and anticipated effects of climate change to moderate harm and exploit beneficial opportunities.

## **Adaptive Capacity**

The ability of a system, organisation or individual to adjust to climate change.

## **Agroecology**

Agroecology is sustainable farming that works with nature through the application of ecological concepts and principals.

## **Blue Infrastructure**

Urban water infrastructure, including ponds, lakes, streams rivers and storm water provision.

## **Carbon Sequestration**

Long term capture and storage of carbon in plants, soils, geologic formations and the ocean.

## **C40Cities**

A global network of mayors taking urgent action to confront the climate crisis and create a future where everyone can thrive. C40's mission is to halve the emissions of its member cities within a decade, while improving equity, building resilience, and creating the conditions for everyone, everywhere to thrive.

## **Climate**

Climate refers to the average weather experienced in a region over a long period, typically at least 30 years. This includes temperature, wind and rainfall patterns.

## **Climate Change**

A statistically significant variation in either the mean state of the climate or in its variability over time, whether due to natural variability or as a result of human activity.

## **Climate Change Mitigation**

Measures to reduce greenhouse gas emissions and enhance carbon storage to prevent further global warming.

## **Climate Projections**

Climate projections provide future climate data using models which simulate the response of the climate system to a range of scenarios based on the future emissions or concentration of greenhouse gases (GHGs) and aerosols.

## **Coastal Erosion**

Coastal retreat or loss of materials from the shoreline.

## **Drought**

A significant period of dry weather long enough to cause a serious hydrological imbalance.

## Emissions Scenarios

A range of scenarios representing the potential future greenhouse gas emissions based on human activities including mitigation. They are presented as Representative Concentration Pathways (RCP) ranging from no/low mitigation -RCP8.5 to transformational societal change and reduction in emissions - RCP2.6.

## External Forcing

External forcing refers to a forcing agent outside the climate system causing a change e.g. Volcanic eruptions, solar variations and anthropogenic (Human driven) changes in the composition of the atmosphere and land-use.

## Extreme Weather Event

A rare weather event at a particular place and time of year.

## Flooding

Flooding is the inundation of land that is normally dry from one of several causes:

**Fluvial** - river floods

**Pluvial** - surface water run-off due to large quantities of rain in a short time

**Coastal flooding** - flooding from high sea levels, this can be through a combination of high sea levels and storms.

**Groundwater** - rising levels of subterranean water

**Sewerage** - caused by blocked sewers.

## Global Covenant of Mayors (CoM)

GCoM's Regional/National Covenants convene, encourage, and strengthen stakeholders at the local, national, and regional levels to accelerate climate action.

## Global Warming

The gradual increase, observed or projected, in global surface temperature.

## Green Infrastructure

Interconnected network of multi-functional green and blue spaces, which provide multiple environmental, economic and social benefits, linked throughout the urban and rural landscape.

**Grey Infrastructure** is hard engineering assets, for example, transport, utilities and commercial infrastructure.

## Heatwave

A continuous spell of unusually hot weather, where day temperatures reach at least 30°C and night times are at least 15°C for at least 3 days.

## Impacts

The effects of climate change on natural and human systems. Potential impacts are all impacts that may occur given a projected climate, without considering adaptation. Residual impacts are the impacts that would occur after adaptation.

## Industrial Revolution

A period of rapid industrial growth, beginning in Britain during the second half of the 18th century and spreading to Europe and later to other countries including the United States. The industrial revolution marks the beginning of an increase in the use of fossil fuels.

## Invasive species

Invasive non-native species are those that have been transported outside their natural range and that damage the environment, economy, and health.

## Just Transition

Just Transition is a forward-looking, action-oriented framework that identifies opportunities for public and private investment in economic development that is both sustainable and inclusive. It ensures that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind.

## Maladaptation

Action or investment that increases vulnerability to the impacts of climate change rather than reducing them.

Nationally Determined Contribution Submissions (NDCs) by countries that have ratified the Paris Agreement which presents their national efforts to reach the Paris Agreement's long-term temperature goal of limiting warming to well below 2°C. New or updated NDCs were expected to be submitted in 2020 and should be submitted every five years thereafter. NDCs thus

represent a country's current ambition/target for reducing emissions nationally.

## Resilience

The ability of a person or organisation to absorb change or disturbance without significant loss of function while retaining the same basic structure and ways of functioning, alongside the capacity for adaptation, learning and transformation.

## Risk Assessment

The structured analysis of hazards and impacts to provide information for decision making.

## Sea level rise

Above average rise in sea level over a period of time.

## Storm surge

A temporary increase in the height of the sea due to extreme meteorological and tidal conditions.

## Vulnerability

The degree to which a system is susceptible to, and unable to cope with adverse conditions, including climate variability and weather extremes (the opposite of resilience).

## Weather

The day-to-day condition of the atmosphere, including temperature, rainfall and wind.





## References

AICBRN (2020) Leveraging Ireland's R&D for Successfully Tackling the Climate and Biodiversity Emergency: All-Island Climate and Biodiversity Research Network.

C40Cities (2020a) C40 Climate Action Planning Programme Vertical Integration Guide. Available at: [https://cdn.locomotive.works/sites/5ab410c8a2f42204838f797e/content\\_entry5ae2f900a2f4220ae645f016/6092b7daa15abb00a585f166/files/CAP\\_Verical\\_Integration\\_Guide\\_2020.06.02.pdf](https://cdn.locomotive.works/sites/5ab410c8a2f42204838f797e/content_entry5ae2f900a2f4220ae645f016/6092b7daa15abb00a585f166/files/CAP_Verical_Integration_Guide_2020.06.02.pdf).

C40Cities (2020b) Climate Action Planning Framework. Available at: <https://resourcecentre.c40.org/climate-action-planning-framework-home>.

C40Cities (2020c) Good Climate Governance in Practice.

Climate Change Committee (2018) Land use: Reducing emissions and preparing for climate change In: Committee on Climate Change (ed.). London.

CCC (2021) Six key principles for a resilient recovery. UK Committee on Climate Change.

Central Statistics Office (2020) This is Ireland. 2011 Census. Available at: <https://statbank.cso.ie/px/pxeirestat/Statire/SelectVarVal/saveselections.asp> (Accessed: 26.6.2020).


Climate Action and Low Carbon Development (Amendment) Bill 2021.

Climate Assembly (2020) Climate Assembly UK - The Path to Net Zero', London: House of Commons, available: <https://www.climateassembly.uk/report/read/final-report.pdf> [Accessed 09/10/2021].

Climate Assembly UK (2020) Climate Assembly UK's final report sets out a clear, internally consistent and timely path for reaching the UK's target of net zero emissions by 2050.. [Online] Available at: <https://www.climateassembly.uk/report/> [Accessed 01 10 2021].

Citizens' Assembly (2018), How the State can make Ireland a leader in tackling climate change. [Online] [Accessed 21.10.2021]

Available at: <https://2016-2018.citizensassembly.ie/en/How-the-State-can-make-Ireland-a-leader-in-tackling-climate-change/> [Accessed 10 09 2021].



Climate Change Committee, 2021. Independent Assessment of UK Climate Risk, CCRA3. [Online] Available at: <https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/> [Accessed 5 10 2021].

DAERA (2018) Northern Ireland greenhouse gas inventory 1990-2017 statistical bulletin Infographic, Northern Ireland: Department for Agriculture Environment & Rural Affairs

DCC (2016) The Donegal Local Economic & Community Plan 2016-2022 - Appendix 1 The Profile of the County (2016), Donegal: Donegal County Council.

DCSDC (2017) Derry City and Strabane District Council Local Development Plan (LDP) 2032 evidence base-evb 5- Housing, Derry: Derry City and Strabane District Council, available: <https://www.derrystrabane.com/getmedia/9a7dcc8d-5cd3-4d85-b5ae-d25a330f9a1f/EVB-5-Housing.pdf>

DCSDC (2019) Green Infrastructure Plan 2019-2032, Derry City: Derry City & Strabane District Council.

DEFRA (2020) Advice on using nature based interventions to reach net zero greenhouse gas emissions by 2050, London: Natural Capital Committee, available: <https://ore.exeter.ac.uk/repository/bitstream/handle/10871/120697/ncc-nature-based-interventions%206.4.20.pdf?sequence=1&isAllowed=y>

Devaney, L., Tournay, D., Brereton, P., and Coleman, M. (2020) Deepening Public Engagement on Climate Change: Lessons from the Citizens' Assembly, Dublin: Environmental Protection Agency.

Economics, V., Council, D. C. S. D. and Trust., C. U. (2019), Derry City and Strabane District Council's Owned Green & Blue Spaces Natural Capital Account, available: [www.derrystrabane.com/gi](http://www.derrystrabane.com/gi).

EPA (2021) 1 Ireland's Provisional Greenhouse Gas Emissions 1990-2020: Environmental Protection Agency.

EPA (2021)2 Climate Change and the Irish Mind: Environmental Protection Agency

EPA (2020) Deepening Public Engagement on Climate Change: Lessons from the Citizens' Assembly, Report No. 314, Dublin: Environmental Protection Agency.

Faivre, N., Fritz, M., Freitas, T., de Boissezon, B. and Vandewoestijne, S. (2017) 'Nature-Based Solutions in the EU: Innovating with nature to address social, economic and environmental challenges', Environmental Research, 159, pp. 509-518.



Howarth, C., Barry, J., and Dyson, J., Fankhauser, S., Gouldson, A., Lock, K., Owen, A., Robins, N. (2021) Trends in Local Climate Action in the UK. A report by the Place-Based Climate Action Network UK: PCAN.

IPCC 2018. Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. In: Masson-Delmotte, V., P. Zhai, H.-O. Pörtner,, D. Roberts, J.S., P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, and E. Lonnoy, T.M., M. Tignor, and T. Waterfield (eds.) (eds.). Geneva, Switzerland: World Meteorological Organization.


IPCC (2021) Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. In: Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)] (ed.). Cambridge University Press, In Press. Kendon, M., McCarthy, M. , Jevrejeva, S. , Matthews, A. , Sparks, T. , & Garforth, J (2021) State of the UK Climate 2020. Available at: <https://rmets.onlinelibrary.wiley.com/doi/10.1002/joc.7285>.

IPSOS 2021 IPSOS MORI Issues Index August 2021. Available at <https://www.ipsos.com/ipsos-mori/en-uk/public-concern-about-climate-change-and-pollution-doubles-near-record-level>

Kendon, M., McCarthy, M., Jevrejeva, S., Matthews, A., Sparks, T., & Garforth, J. (2021). State of the UK Climate 2020. *International Journal of Climatology*, 41 ( Suppl. 2), 1– 76.

Le Quéré, C., Jackson, R.B., Jones, M.W. et al. 2020, Temporary reduction in daily global CO<sub>2</sub> emissions during the COVID-19 forced confinement. . *Nature Climate Change*, 10, 647–653

Mbow, C., C. Rosenzweig, L.G. Barioni, T.G. Benton, M., Herrero, M. K., E. Liwenga, P. Pradhan, M.G. Rivera-Ferre, T. and Sapkota, F. N. T., Y. Xu, 2019. : Food Security. In: *Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*. In: .R. Shukla, J.S., E. Calvo Buendia, V. Masson-Delmotte,, H.-O. Pörtner, D.C.R., P. Zhai, R. Slade, S. Connors, R. van Diemen,, M. Ferrat, E.H., S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal and Pereira, P.V., E. Huntley, K. Kissick, M. Belkacemi, J. Malley, (eds.). In Press.



MetOffice, U. (2021) UK Climate Projections Headline Projections 2021. Available at: [https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp18\\_headline\\_findings\\_v3.pdf](https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp18_headline_findings_v3.pdf).

Met Eireann 2012. A Summary of Climate Averages for Ireland 1981-2010. Available: <https://www.met.ie/climate-ireland/SummaryClimAvgs.pdf>

NESDO (2021) Collaboration on Climate and Biodiversity: Shared Island as a Catalyst for Renewed Ambition & Action. National Economic & Social Development Office COUNCIL REPORT No.156

North West regional Assembly (2018) Regional & Spatial Economic Strategy - Part 1 Socio-Economic Baseline Report 2018, Dublin: North West Regional Assembly.

Open Data NI (2019) Farm Census, available: <https://www.opendatani.gov.uk/dataset/farm-census-administrative-geographies>

Robins, N., Gouldson, A., Irwin, G., and Sudmant, A., 2019. Investing in a Just Transition in the UK: How Investors Can Integrate Social Impact and Place-Based Financing into Climate Strategies, London School of Economics and Political Science, available: <https://www.lse.ac.uk/granthaminstitute/publication/investing-in-a-just-transition-in-the-uk/>

Seddon, N., Chausson, A., Berry, P., Girardin, C. A. J., Smith, A. and Turner, B. (2020) 'Understanding the value and limits of nature-based solutions to climate change and other global challenges', *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*, 375(1794), pp. 20190120.

The New Climate Economy (2018), *Unlocking the Inclusive Growth Story of the 21st Century: accelerating climate action in urgent times* In: *The 2018 Report of the Global Commission on the Economy and Climate*

UK GOV (2021a) UK enshrines new target in law to slash emissions by 78% by 2035. [Online]

Available at: <https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035>  
[Accessed 12 10 2021].

UKGOV (2021b) *Greening Finance: A Roadmap to Sustainable Investing*. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1026224/CCS0821102722-006\\_Green\\_Finance\\_Paper\\_2021\\_v5\\_Bookmarked\\_48PP.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1026224/CCS0821102722-006_Green_Finance_Paper_2021_v5_Bookmarked_48PP.pdf).

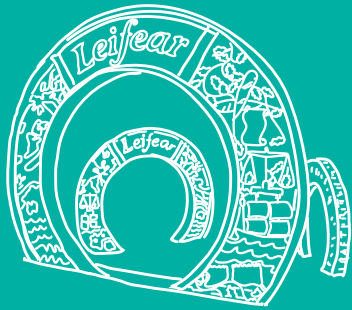


UKGOV (2021c) Energy and Industrial Strategy (2021) Green Jobs Taskforce. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1003570/gjtf-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003570/gjtf-report.pdf).

UNEP (2021) Emissions Gap Report 2021: The Heat Is On – A World of Climate Promises Not Yet Delivered. United Nations Environment Programme Nairobi



# North West Climate Action Framework



Derry City & Strabane  
District Council  
Comhairle  
Chathair Dhoire &  
Cheantar an tSrátha Báin  
Derry Citty & Strabane  
Districk Council



**Comhairle Contae  
Dhùn na nGall**  
Donegal County Council

In conjunction with and supported by the  
Executive Office and the Irish Government

## Derry City and Strabane District Council

98 Strand Road  
Derry  
BT48 7NN

47 Derry Rd  
Strabane  
Tyrone, BT82 8DY

Tel: (028) 71 253 253

E: [cathy.burns@derrystrabane.com](mailto:cathy.burns@derrystrabane.com)

Website: [www.derrystrabane.com/climate](http://www.derrystrabane.com/climate)

Find us on

Facebook [derrycityandstrabanedistrictcouncil](https://www.facebook.com/derrycityandstrabanedistrictcouncil)

Twitter [@dcsdcouncil](https://twitter.com/dcsdcouncil)

Instagram [@dcsdcouncil](https://www.instagram.com/dcsdcouncil)

## Donegal County Council

County House  
The Diamond  
Lifford  
Co. Donegal  
F93 Y622

Tel: (074) 91 53900

E: [climatereadydonegal@donegalcoco.ie](mailto:climatereadydonegal@donegalcoco.ie)

Website: [www.donegalcoco.ie/services/environment/climateaction](http://www.donegalcoco.ie/services/environment/climateaction)

Find us on

Facebook [Donegal County Council](https://www.facebook.com/DonegalCountyCouncil)

Twitter [@donegalcouncil](https://twitter.com/donegalcouncil)

Instagram [@donegalcountycouncil](https://www.instagram.com/donegalcountycouncil)