



Climate Change

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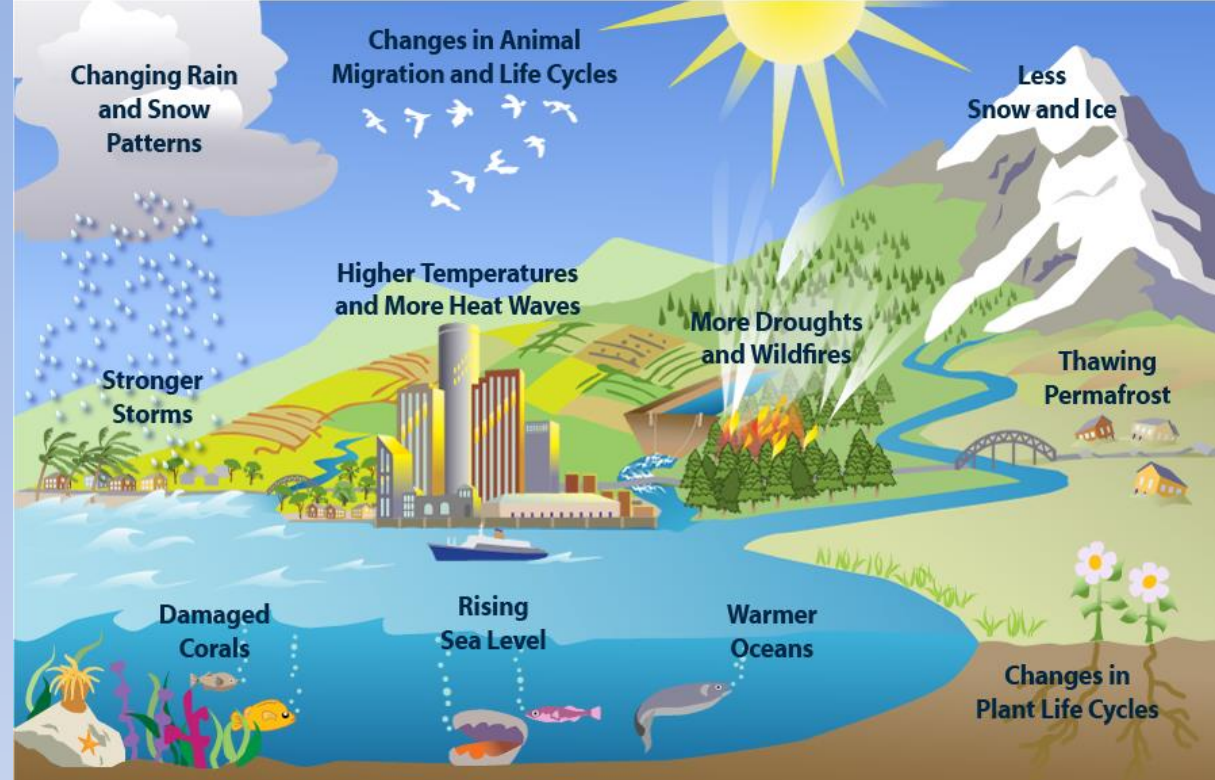
6th December 2017



Observed

Climate Changes in Ireland

- Average temperature increased by 0.8°C since 1900
- 5% increase in rainfall in last 30 years compared to previous 30
- Increased number of North Atlantic storms
- Sea levels rising by 3.5cms per decade
- Sea surface temperature increase 0.6°C per decade
- 6 of the 10 warmest years have occurred since 1990



Impacts

- Growing season increasing, more rapid growth of timber
- Changes in distribution of fish species, alien species, pests
- Increased risks of coastal flooding & erosion
- Water shortages
- Changes in energy demands
- Etc.....

**The climate is
changing.**

Climate Change is no longer just a theory to be dealt with by future generations – its impacts are with us today.

There are two broad areas of change that we all need to embrace to tackle the impacts of our changing Climate.

**Climate Change Mitigation,
Climate Change Adaptation.**



Climate Change Mitigation

Mitigation means *any human intervention aimed at reducing harmful influences on the earth's climate system, including action aimed at reducing emissions and creating or enhancing sinks*¹.

- Mitigation of emissions of the greenhouse gases (GHGs) that are driving climate change and improving ways of removing GHGs from the atmosphere.

It's about changing how we live, move, consume and manufacture so as to reduce and/or eliminate the production of harmful greenhouse gases. It includes how we best use our land, how we use and produce energy, what we waste and how we use natural resources.

¹ Source – Climate Action and Low Carbon Development Bill 2015

Climate Change Adaptation



Adaptation to the impacts (both positive and negative) of climate change

Dealing with **actual or expected impacts** of climate change involving **practical actions** to manage risks, protect communities and strengthen the resilience of the economy. (e.g. from sea level rise or flooding). This also includes **exploiting opportunities**, such as a longer growing season or drier summers.



GHG Emissions in Ireland 2012

Sector	%
Agriculture	31.9
Energy	21.9
Transport	18.6
Industry and Commercial	15.3
Residential	10.6
Waste	1.7

National Mitigation Plan July 2017

Decarbonising the:
Built Environment, Transport, Electricity Generation,
Agriculture and Forestry

An initial step to achieve the level of **decarbonisation** required.
Not a complete roadmap to achieve the 2050 objective,
It is intended that the Plan becomes a living document, accessible
on the website of the Department of Communications, Climate
Action and Environment (DCCAE), which is continually updated as
ongoing analysis, dialogue and technological innovation generate
more cost-effective sectoral mitigation options.

<https://www.dccae.gov.ie/documents/03261-DCCAE-National-Mitigation-Plan-Infographic-Web-Proof-08.pdf>

Climate Change Mitigation

- Ireland's first National Mitigation Plan (NMP) July 2017
- Sets out, on a whole-of-Government basis, what Ireland is doing and is planning to do to further our transition to a low carbon, climate resilient and environmentally sustainable economy by 2050.
- Developing medium to long-term options for the future to reduce our greenhouse gas emissions

**Draft National
Adaptation
Framework -Planning
for a Climate Resilient
Ireland SEPTEMBER
2017**



Local understanding is crucial to getting adaptation right.

Local communities and businesses need to build resilience to the impacts of climate

Local authorities will develop adaptation strategies through:

- Working in regions
- Working through existing planning frameworks such as County Development Plans
- WITH Local communities.

- National strategy for adaptation measures in different sectors and by local authorities.
- This is aimed at reducing the vulnerability of the State to the negative effects of climate change and to avail of any positive effects that may occur.

Climate Change Adaptation

- Local authorities respond faster and more effectively to local climate events than other more centralised government organisations.
- Effective local and regional adaptation often requires unique solutions.
- For example, local knowledge of how to implement temporary flood defence measures in one area may be lacking in another, which has no living memory of flooding.
- *There is no uniform adaptation response that can account for the myriad of potential local variation and vulnerabilities.*

Climate Change Adaptation



The job to do...

- Analyse the impacts of climate change that will affect our community – negatively and positively
 - Weather-temperature, growing season, rainfall events
 - Flooding-storms, surface water, sea level changes
 - Challenges to biodiversity, natural systems.
 - Etc.....

Climate Change Adaptation

- Develop strategies that will allow us to adapt to the changes
 - Housing
 - Roads
 - Agriculture
 - Biodiversity
 - Forestry
 - Coastal Protection
 - Etc.....



Climate Change Adaptation

Bray Dargle Flood Defence Scheme – Case Study

Begun in 2012 , stalled and restarted in 2014.

Gave the opportunity to work with local people as well as the experts in developing the scheme.

The local people were worried about the future!

The defence mechanisms will now protect the area from extreme 1 in 100 year floods and 1 in 200 year tidal events.

There is now a defence mechanism for extreme events, a refurbished community park and enhanced landscape for wildlife and fish.

Adaptation Planning

Climate Change Adaptation Planning

The preparation of a Wicklow County Adaptation Strategy will be carried out by an interdisciplinary team, in liaison with relevant stakeholders.



www.climateireland.ie

-Draft National Framework 2017



What we need ...

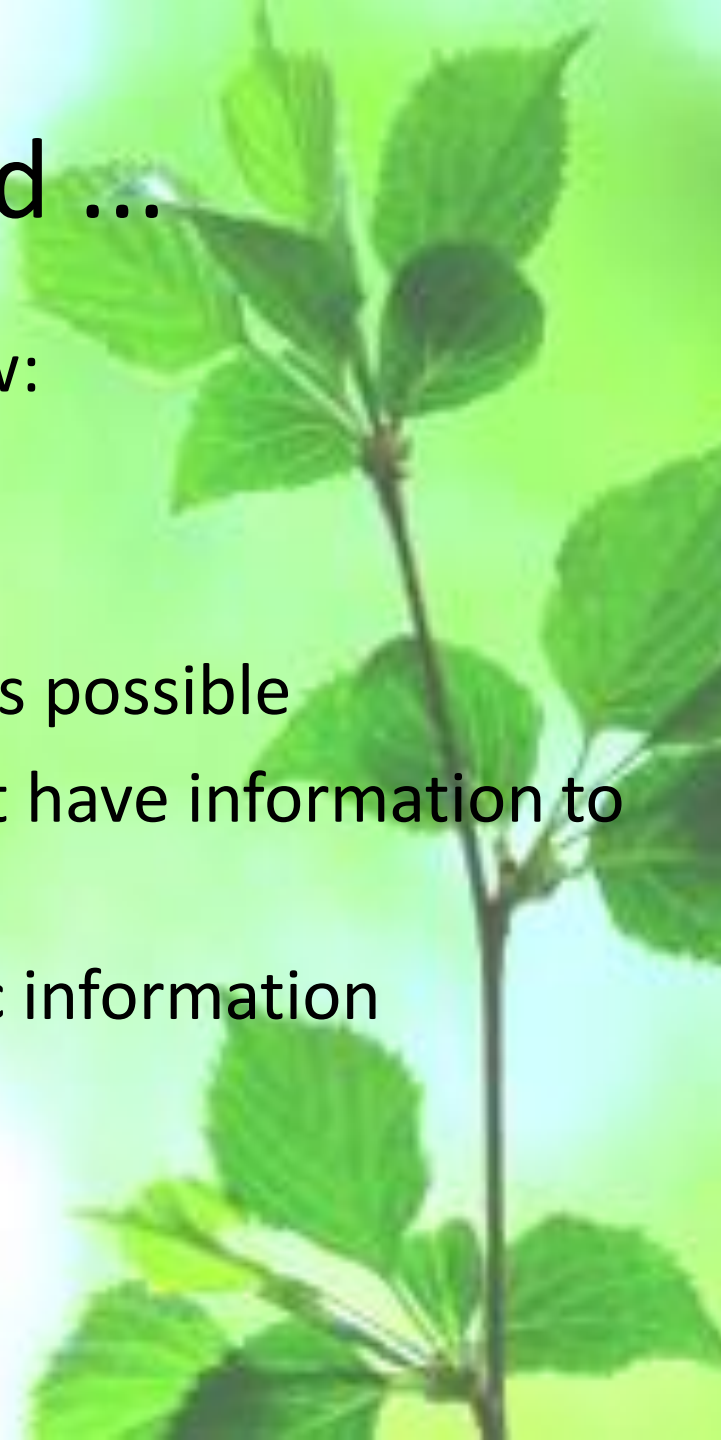
Two way communication through a network of citizens to facilitate awareness in communities, to allow feedback as we plan and into the future feed new information back to Wicklow County Council.

- *Promote the integration of a range of knowledge and values in adaptation;*
- *Build a constituency of support behind the adaptation process via embedding it in local interests and concerns;*
- *Ensure adaptation processes at the local scale are aligned with similar processes underway in neighbouring authorities and relevant sectors.*

What we need ...

A communication network will allow:

- Feedback as we develop plans
- Feed new information to us
- Facilitate understanding of what is possible
- Help to identify communities that have information to feed into the plan
- Which communities need specific information



Useful Websites

- www.climateireland.ie
- www.dccae.gov.ie
- epa.ie
- www.citizensassembly.ie/en/How-the-State-can-make-Ireland-a-leader-in-tackling-climate-change/
- www.askaboutireland.ie/enfo/irelands-environment/Change/impacts-of-climate-change/
- www.wicklow.ie/wicklow-county-development-plan-2016-2022/
- www.bray.ie/town-river/

Climate Change Performance Index

Results 2018

- ‘Ireland the worst performing European country in the CCPI, ranking 49 out of 58. According to national experts, Ireland is one of the few EU countries to miss its 2020 emission reduction targets under the EU effort-sharing decision, which is one reason why the country rates very low in climate policy. Its performance in the field of GHG emissions is also very low as the country is nowhere close to being on track concerning its well-below-2°C compatible pathway with both its current level as well as its 2030 target. We observe a very positive trend in the development of renewable energy, but as the current share of renewable energy in energy supply—as well as the 2030 target—are insufficient, Ireland rates only medium in the renewables category.’ Rated in very poor category overall

Ranked	in	Ranked	in
49	2018	20	2011
21	2017	22	2010
12	2016	21	2009
10	2015	44	2008
12	2014	33	2007
9	2013	39	2006
17	2012		

Targets

- **Ireland has committed to an 80 per cent reduction in greenhouse-gas emissions, by 2050.**
- In effect, eliminate carbon dioxide derived from human activity.
- It requires confronting a complex mix of choices on how we live, produce food, use energy, avail of transport, and construct and heat buildings. The time frame is little longer than that of a mortgage on a house.
- If we have any hope of achieving that target we must **cut our emissions by 5 per cent a year**, compared with 1990 levels, from 2018 to 2050.
- Yet Ireland is not going to meet easier targets for the period up to 2020, making us one of just two European Union states that will not deliver on shorter-term commitments.
- We are in fact increasing emissions, notably in transport.