



# Climate Change Adaptation Reporting Guidance for Public Bodies

## Annex B: CCRA3 Northern Ireland Summary - List of Climate Change Risks and Opportunities



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**Talmhaíochta, Comhshaoil  
agus Gnóthaí Tuaithe**

Department of  
**Fairmin, Environment  
an' Kintra Matthers**

# CCRA3 Northern Ireland Summary – List of Climate Risks and Opportunities

## Introduction

This Annex provides a ‘quick reference’ index tables of the 61 risks and opportunities for Northern Ireland contained in the UK Climate Change Committees’<sup>1</sup> (‘CCC’) [‘Evidence for the third UK Climate Change Risk Assessment \(CCRA3\) Summary for Northern Ireland’](#) (‘CCRA3 Northern Ireland Summary’).

These risks and opportunities are summarised below in index tables for each of the following CCRA3 Northern Ireland Summary risk/opportunity categories:

- Natural Environment and Assets;
- Infrastructure;
- Health, Communities and the Built Environment;
- Business and Industry; and
- International Dimensions.

The index tables also contain the following headings and related information:

- ✓ **Risk or Opportunity:** Indicating whether the entry is a risk, an opportunity or both (i.e. a risk and an opportunity).
- ✓ **Risk number** (e.g. N1 etc.) **and Receptor** (i.e. what is impacted): Each risk number and receptor entry is hyperlinked to the relevant section of the online CCRA3 Northern Ireland Summary, where further information and detail is provided.
- ✓ **Nature of risk/opportunity:** A high-level summary description (further detail is provided within CCRA3 Northern Ireland Summary).
- ✓ **Urgency Score:** The CCC’s assessment and assignment of urgency scoring in relation to the risk or opportunity based on evidence at the time of publication of the CCRA3 Northern Ireland Summary. The urgency scores and their definitions are as follows:

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<sup>1</sup> An independent statutory body established under the UK Climate Change Act 2008, who are expert advisers on climate change matters, to governments throughout the UK including Northern Ireland.

- **‘More action needed’** - New, stronger or different Government action, whether policies, implementation activities or enabling environment for adaptation – over and above those already planned – are beneficial in the next five years to reduce climate risks or take advantage of opportunities. This will include different responses according to the nature of the risks and the type of adaptation:
  - Addressing current and near-term risks or opportunities with low and no-regret options (implementing activities or building capacity);
  - Integrating climate change in near-term decisions with a long lifetime or lock-in; and
  - Early adaptation for decisions with long lead-times or where early planning is needed as part of adaptive management.
- **‘Further investigation’** - On the basis of available information, it is not known if more action is needed or not. More evidence is urgently needed to fill significant gaps or reduce the uncertainty in the current level of understanding in order to assess the need for additional action.
- **‘Sustain current action’** - Current or planned levels of activity are appropriate, but continued implementation of these policies or plans is needed to ensure that the risk or opportunity continues to be managed in the future.
- **‘Watching brief’** - The evidence in these areas should be kept under review, with continuous monitoring of risk levels and adaptation activity (or the potential for opportunities and adaptation) so that further action can be taken if necessary (detailed explanation of the scoring methodology is provided within CCRA3 Northern Ireland Summary).

## Index Tables

List of the 61 risks and opportunities for Northern Ireland within the CCRA3 Northern Ireland summary.

Natural Environment and Assets			
Risk or Opportunity	Risk number and Receptor	Nature of risk/opportunity	Urgency Score
<b>RISKS</b>	<a href="#">N1. Terrestrial species and habitats</a>	Changing climatic conditions and extreme events, including temperature change, water scarcity, wildfire, flooding, wind, and altered hydrology (including water scarcity, flooding and saline intrusion)	More action needed
<b>RISKS</b>	<a href="#">N2. Terrestrial species and habitats</a>	Pests, pathogens and invasive species	More action needed
<b>OPPORTUNITIES</b>	<a href="#">N3. Terrestrial species and habitats</a>	New species colonisations	Further investigation
<b>RISKS</b>	<a href="#">N4. Soils</a>	Changing climatic conditions, including seasonal aridity and wetness	More action needed
<b>RISKS &amp; OPPORTUNITIES</b>	<a href="#">N5. Natural carbon stores, carbon sequestration and GHG emissions</a>	Changing climatic conditions, including temperature change and water scarcity	More action needed
<b>RISKS &amp; OPPORTUNITIES</b>	<a href="#">N6. Agricultural and forestry productivity</a>	Extreme events and changing climatic conditions (including temperature change, water scarcity, wildfire, flooding, coastal erosion, wind and saline intrusion).	More action needed

<b>Natural Environment and Assets</b>			
<b>RISKS</b>	<a href="#">N7. Agriculture</a>	Pests, pathogens and invasive species	More action needed
<b>RISKS</b>	<a href="#">N8. Forestry</a>	Pests, pathogens and invasive species	More action needed
<b>OPPORTUNITIES</b>	<a href="#">N9. Agricultural and forestry productivity</a>	New/alternative species becoming suitable	Further investigation
<b>RISKS</b>	<a href="#">N10. Aquifers and agricultural land</a>	Sea level rise, saltwater intrusion	Watching Brief
<b>RISKS</b>	<a href="#">N11. Freshwater species and habitats</a>	Changing climatic conditions and extreme events, including higher water temperatures, flooding, water scarcity and phenological shifts	More action needed
<b>RISKS</b>	<a href="#">N12. Freshwater species and habitats</a>	Pests, pathogens and invasive species	More action needed
<b>OPPORTUNITIES</b>	<a href="#">N13. Freshwater species and habitats</a>	New species colonisations	Sustain current action
<b>RISKS</b>	<a href="#">N14. Marine species, habitats and fisheries</a>	Changing climatic conditions, including ocean acidification and higher water temperatures	More action needed
<b>OPPORTUNITIES</b>	<a href="#">N15. Marine species, habitats and fisheries</a>	Changing climatic conditions	Further investigation
<b>RISKS</b>	<a href="#">N16. Marine species and habitats</a>	Pests, pathogens and invasive species	More action needed
<b>RISKS &amp; OPPORTUNITIES</b>	<a href="#">N17. Coastal species and habitats</a>	Coastal flooding, erosion and climate factors	More action needed

Natural Environment and Assets			
<b>RISKS &amp; OPPORTUNITIES</b>	<a href="#">N18. Landscape character</a>	Climate change	Further investigation
Infrastructure			
Risk or Opportunity	Risk number and Receptor	Nature of risk/opportunity	Urgency Score
<b>RISKS</b>	<a href="#">I1. Infrastructure networks (water, energy, transport, ICT)</a>	Cascading failures	More action needed
<b>RISKS</b>	<a href="#">I2. Infrastructure services</a>	River, surface water and groundwater flooding	More action needed
<b>RISKS</b>	<a href="#">I3. Infrastructure services</a>	Coastal flooding and erosion	Further Investigation
<b>RISKS</b>	<a href="#">I4. Bridges and pipelines</a>	Flooding and erosion	Further investigation
<b>RISKS</b>	<a href="#">I5. Transport networks</a>	Slope and embankment failure	More action needed
<b>RISKS</b>	<a href="#">I6. Hydroelectric generation</a>	Low or high river flows	Watching brief
<b>RISKS</b>	<a href="#">I7. Subterranean and surface infrastructure</a>	Subsidence	Further investigation
<b>RISKS</b>	<a href="#">I8. Public water supplies</a>	Reduced water availability	Sustain current action
<b>RISKS</b>	<a href="#">I9. Energy generation</a>	Reduced water availability	Watching brief
<b>RISKS</b>	<a href="#">I10. Energy</a>	High and low temperatures, high winds, lightning	Further investigation

<b>Infrastructure</b>			
<b>RISKS</b>	<a href="#">I11. Offshore infrastructure</a>	Storms and high waves	Sustain current action
<b>RISKS</b>	<a href="#">I12. Transport</a>	High and low temperatures, high winds, lightning	More action needed
<b>RISKS</b>	<a href="#">I13. Digital</a>	High and low temperatures, high winds, lightning	Further investigation
<b>Health, Communities and the Built Environment</b>			
Risk or Opportunity	Receptor	Nature of risk/opportunity	Urgency Score
<b>RISKS</b>	<a href="#">H1. Health and wellbeing</a>	High temperatures	More action needed
<b>OPPORTUNITIES</b>	<a href="#">H2. Health and wellbeing</a>	High temperatures	Further investigation
<b>RISKS</b>	<a href="#">H3. People, communities and buildings</a>	Flooding	More action needed
<b>RISKS</b>	<a href="#">H4. Viability of coastal communities</a>	Sea level rise	Further investigation
<b>RISKS</b>	<a href="#">H5. Building fabric</a>	Moisture, wind and driving rain	Further investigation
<b>RISKS &amp; OPPORTUNITIES</b>	<a href="#">H6. Household energy demand</a>	Summer and winter temperature changes	More action needed
<b>RISKS</b>	<a href="#">H7. Health and wellbeing</a>	Changes in indoor and outdoor air quality	Further investigation
<b>RISKS</b>	<a href="#">H8. Health</a>	Vector-borne disease	Further investigation

Health, Communities and the Built Environment			
RISKS	<a href="#">H9. Food safety and food security</a>	Higher temperatures (food safety) and extreme weather (food security)	Further investigation
RISKS	<a href="#">H10. Health</a>	Water quality and household water supply	Further investigation
RISKS	<a href="#">H11. Cultural heritage</a>	Changes in temperature, precipitation, groundwater, land, ocean and coastal change	More action needed
RISKS	<a href="#">H12. Health and social care delivery</a>	Extreme weather	More action needed
RISKS	<a href="#">H13. Education and prison services</a>	Extreme weather	More action needed
Business and Industry			
Risk or Opportunity	Risk number and Receptor	Nature of risk/opportunity	Urgency Score
RISKS	<a href="#">B1. Flooding of business sites</a>	Increase in flood risk	More action needed
RISKS	<a href="#">B2. Coastal business locations and infrastructure</a>	Coastal flooding, extreme weather, erosion and sea level rise	More action needed
RISKS	<a href="#">B3. Business production processes</a>	Water scarcity	Further investigation
RISKS	<a href="#">B4. Business access to finance, investment and insurance</a>	Extreme weather	Sustain current action
RISKS	<a href="#">B5. Reduced employee productivity in businesses</a>	Infrastructure disruption and higher temperatures in working environments	Further investigation

<b>Business and Industry</b>			
<b>RISKS</b>	<a href="#">B6. Disruption to business supply chains and distribution networks</a>	Extreme weather	More action needed
<b>OPPORTUNITIES</b>	<a href="#">B7. Changes in demand for goods and services</a>	Long term climate change	Further investigation
<b>International Dimensions</b>			
Risk or Opportunity	Risk number and Receptor	Nature of risk/opportunity	Urgency Score
<b>RISKS</b>	<a href="#">ID1. Food availability, safety, and quality</a>	Decreasing yields from rising temperatures, water scarcity and ocean changes globally	More action needed
<b>OPPORTUNITIES</b>	<a href="#">ID2. UK food availability and exports</a>	Increases in productivity and areas suitable for agriculture overseas	Watching brief
<b>RISKS &amp; OPPORTUNITIES</b>	<a href="#">ID3. Migration to the UK and effects on the UK's interests overseas</a>	Climate-related international human mobility	Watching brief
<b>RISKS</b>	<a href="#">ID4. The UK's international interests and responsibilities</a>	International violent conflict resulting from climate change overseas	More action needed
<b>RISKS</b>	<a href="#">ID5. Changes to international governance affecting the UK</a>	Reduced international collective governance due to climate change and responses to it	More action needed
<b>OPPORTUNITIES</b>	<a href="#">ID6. Increased trade for the UK</a>	Arctic ice melt opening up new trading routes	Watching brief

International Dimensions			
RISKS	<a href="#">ID7. International trade routes</a>	Climate hazards affecting supply chains	More action needed
RISKS	<a href="#">ID8. Economic loss to the UK</a>	Climate driven resource governance pressures and financial exposure	Sustain current action
RISKS	<a href="#">ID9. UK public health</a>	Increase in vector borne diseases due to climate change	More action needed
RISKS	<a href="#">ID10. Risk multiplication to the UK</a>	Interactions and cascades of named risks across systems and geographies	More action needed

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