



# Climate Change Resilience for Businesses in Northern Ireland

Guidance on climate resilience and  
how to report on climate-related  
financial disclosures (TCFD)  
for SME businesses.

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## Guide: Climate Change Resilience for Businesses in Northern Ireland

### Introduction

Climate change is the result of rising greenhouse gas (GHG) emissions, such as carbon dioxide and methane, which act like an increasingly thick blanket around the earth, storing more of the sun's energy and causing global temperatures to increase. The impact of climate change and extreme events is already being felt around the world, as well as here in Northern Ireland.

Even if we stop all GHG emissions today, we have now locked in some degree of climate change, and the weather extremes associated with it. If emissions are not dramatically reduced over the next decade, severe widespread impacts are expected, affecting many of the global systems we take for granted. *The World Economic Forum [Global Risks Report 2023](#) ranks - Climate Action Failure as the number one long-term threat to the world and the risk with potentially the most severe impacts over the next decade.*

For businesses, building resilience and adjusting to new opportunities must be a focus when taking climate action. A climate-resilient business is ultimately more insurable, more profitable, and more attractive to investment. For most, building climate resilience will not mean reinventing the wheel. It starts by integrating climate considerations within existing risk management and planning procedures.

### Task Force on Climate-related Financial Disclosures (TCFD)

#### What is TCFD?

The Task Force on Climate-related Financial Disclosures (TCFD) was created in 2015. It gives climate-related risk a central role in business strategy and enables investors and all interested parties to better assess climate-related risks and opportunities. To achieve this objective, the TCFD has developed a reporting framework with disclosure recommendations so companies can understand and report their climate-related risks to investors, lenders and insurance underwriters. The TCFD framework considers both 'physical' risk and 'transition' risk (such as legal liability, insurance), and is increasingly recognised as the gold standard for companies to use to identify, assess and report on climate-related impacts.

#### Who has to report under TCFD?

TCFD has gained support across the world, as of April 2022 large companies and financial institutions in the UK are required to report climate-related financial information on a mandatory basis<sup>1</sup>. The UK Government has estimated that around 1,300 organisations are covered by the mandate in the first instance. Climate-related financial disclosure reporting is mandatory for:

- All companies currently required to produce a non-financial information statement annually e.g. listed companies, banks and insurers with more than 500 employees
- UK-based AIM companies with 500 or more employees
- LLPs with 500 or more employees and a turnover of more than £500m, and
- Non-listed companies with 500 employees or with a turnover of more than £500m.

It is expected that these categories will be expanded to include more businesses in coming years.

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<sup>1</sup> Climate-related financial disclosures for companies and limited liability partnerships (LLPs)  
<https://www.gov.uk/government/publications/climate-related-financial-disclosures-for-companies-and-limited-liability-partnerships-llps>

### Why is TCFD important for SMEs?

Although TCFD reporting is only mandatory for large businesses (outlined above), small and medium sized businesses (SMEs) may be asked to report or tender on these issues as part of the larger supply chain. SMEs can show their value in the supply chain by demonstrating they have also considered climate-related risks and opportunities. TCFD is an opportunity for SMEs to show investors and lenders that they are measuring and monitoring their climate risk in a structured and consistent way.

### About this Guide

This guide is intended to be a simple first step to help SMEs in Northern Ireland learn more about the impact of climate change on businesses and how to report climate-related risks. This guide aims to help your business to understand climate-related reporting and simplify the TCFD process so it is more accessible to a range of business sizes and sectors.

This guidance document sits alongside an online step-by-step guide on Invest NI's NI Business Info site, which you can find [here](#).

Climate NI has developed this guide in collaboration with sector experts from the Climate NI Steering Group: Invest NI, Business in the Community (BITC) and Marsh. Climate Northern Ireland is a project funded by the Department of Agriculture, Environment and Rural Affairs. We would like to thank everyone involved in the development of this guide for their ongoing support.



### How to use this guide?

Within this document we have included a range of resources to help you understand how to begin assessing and reporting on climate-related risks in your organisation. The first section outlines the Climate Change Challenge for Northern Ireland and the impacts of climate change on SMEs. The second section takes a closer look at the four themes of TCFD reporting recommendations and provides practical guidance for how to report under each of these themes. Each theme has a 'Take Action' section, this is a practical step with questions for you to consider what it means for your business.

We understand there is a lot of information out there on climate change and TCFD, so we have distilled the main points in this document. To support SMEs with reporting we have developed a simple Risk Register Template in Microsoft Excel. This can be used as a stand-alone risk register or you can integrate it with your existing risk management process. We have also provided links to a range of additional resources at the end and throughout, where you can read more in-depth information on key actions and on each of the TCFD themes.

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## Section 1 – The Climate Change Challenge for Northern Ireland

### What impact will climate change have on Northern Ireland?

The consequences of climate change in Northern Ireland will include flooding, extreme storm surges, heat waves, wildfires and drought. Extreme events are already impacting on our communities, economy and natural environment.

The latest Met Office projections show Northern Ireland has a greater chance of warmer, wetter winters and hotter, drier summers with more weather extremes as a result of climate change.

### Recent climate trends in Northern Ireland

Observed changes that show how the climate is already changing

#### **Temperature:**

Northern Ireland is already experiencing rising average temperatures, with measured warming of around 1°C above pre-industrial levels. This trend is in line with global average temperature trends. All of the ten warmest years on record for the UK have occurred since 2002.

#### **Rainfall:**

In terms of mean annual rainfall, Northern Ireland has observed an increase of 6.4% from mid-1970s to mid-2010s, from an average of 1099mm per year to 1169mm per year.

#### **Extreme Weather:**

Weather extremes are being experienced more often. The evidence of extreme maximum summer temperatures is becoming clearer; this is reflected in how many of the UK's record extreme monthly temperatures have been set in the last decade along with a tendency for more heatwaves.

#### **Sea Level Rise:**

As temperatures across the globe increase sea levels are also rising. A UK-wide sea level index suggests that sea level has risen by 1.2mm and 1.6mm per year since 1901 (16cm to date).

### How could Northern Ireland's climate change in the future?

The changes in climate that we are already experiencing are projected to continue and intensify. The amount of change that occurs will depend on how successful we are in reducing greenhouse gas emissions globally.

#### **Temperature:**

Annual temperatures in Northern Ireland are projected to rise between approximately 1.2°C by the 2050s and between 1.2 and 2.1°C by the 2080s from a 1981-2000 baseline average. Although temperatures are projected to increase in both summer and winter, warming is expected to be greatest in summer.

#### **Rainfall:**

In winter, rainfall is expected to increase and is projected to lead to an increase in flooding of infrastructure, businesses and homes. Summer rainfall is projected to decrease, although extreme downpours will be heavier even with this overall drying trend. Periods of water scarcity are likely to become more prevalent, leading to possible implications in agriculture and industry, for example.

#### **Sea Level Rise:**

Using scenarios available for Belfast, sea levels are expected to rise by between 14cm and 19cm by the 2050s and by between 27cm and 58cm by the 2080s, compared to a 1981-2000 baseline. Sea level rise will lead to an increase in likelihood of associated risks, such as flooding of coastal communities and coastal erosion impacting people, habitats and species. There are regional variations in projected sea level rise primarily due to vertical land movement caused by rebound from the last ice age.

## Impacts of Climate Change on Small Businesses in NI

As the climate changes, all sectors of the economy in NI will be faced with preparing for a range of new threats and opportunities. In NI, 99.9% of the private sector is comprised of small and medium-sized enterprises (SMEs). SMEs can be particularly vulnerable due to their limited time and resource capacity to assess and prepare for climate risks. Table 1 outlines the main risk and opportunities to businesses from climate breakdown.

*Table 1: Climate Change Risk and Opportunities for Businesses*

Impacts of climate breakdown - Risks		Potential causes
Damage to property and infrastructure from flooding	Both the businesses' assets but also public infrastructure enabling businesses to operate normally (roads, ports and airports). The expected annual damages of flooding to non-residential properties in NI is £42million. Ultimately this could prove a barrier to investment in your area.	Sea levels rising, flood damage, extreme weather events, eroding coastlines.
Supply chain disruption	Inability to source materials on time, reliably and at a manageable price.	Flooding, excessive heat, extreme weather events like storms.
Lack of security of resource supply	Water scarcity impacts business production processes where water is needed for cooling, heating, washing products, and as direct input to products. Disruption both to international and local food supply chains, increased prices of raw materials.	Droughts, floods, reduced biodiversity.
Heat exhaustion	Reduced productivity of employees, health threats to employees especially those working outdoors.	Heatwaves and generally hotter summers.
Impacts to the bottom line	Shocks like damage to stock, equipment or loss of business continuity directly affect profit margins.	Flooding, subsidence, excessive temperatures and storms.
Impacts of climate breakdown - Opportunities		Potential causes
Production opportunities	Possibility for certain sectors to grow e.g. the agriculture sector to grow new crops and/or to rely less heavily on greenhouses as winter heating costs may be reduced.	Increasing temperatures
Market opportunities	Opportunities for the hospitality industry, at the fringe of high season and for the outdoor and leisure industries.	Increasing temperatures

### Case Study - Storm Ophelia, 2017

*Our changing weather patterns can have significant effects on local businesses.*

- *Storm Ophelia affected the UK and Ireland on 16<sup>th</sup> and 17<sup>th</sup> October 2017.*
- *PERILS disclosed its market loss numbers for Storm Ophelia, estimating the insured property market loss was €60 million. The majority of the damage caused by the storm occurred in the Republic of Ireland, with the country incurring a market loss of €49million.*
- *Damage to the electricity network from trees, branches and other debris caused disruption to processes, staff, supply chains and logistics. Roads closed and sea, rail and bus services were cancelled or severely delayed. Schools, universities and businesses were forced to close.*
- *The aftermath of the storm had a knock-on effect for businesses in NI.*

## Section 2 – How do I report on climate risk in my business?

### How do businesses report on climate-related risk?

In 2017 the Financial Stability Board Taskforce on Climate-related Financial Disclosures (TCFD) released a set of recommendations for consistent reporting across four key themes: governance, strategy, risk management and metrics and targets, as outlined in Table 2.

Table 2: TCFD Themes and Main Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organisation’s governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation’s businesses, strategy, and financial planning where such information is material.	Disclose how the organisation identifies, assesses and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

**This guide will support you through each of the four key areas of TCFD recommendations. You will be provided with the information you need to know, and then look out for the ‘Take Action’ sections which sum up the steps you can take to include climate-related risks in your reporting.**

**Themes 1 (Governance), 3 (Risk Management) and 4 (Metrics and Targets) are about your business structures and processes. Theme 2 (Strategy) is the most detailed section of this guidance, as this is where you assess and report on the risks themselves.**

### Theme 1 – Governance

Governance disclosures should enable an understanding how risks and opportunities relating to climate change are identified, considered, and managed within the governance structure of your business.

Governance	
What TCFD recommends on governance:	Disclose the business’s governance around climate-related risks and opportunities.
	<ul style="list-style-type: none"> <li>a) Describe the board’s oversight of climate-related risks and opportunities</li> <li>b) Describe management's role in assessing and managing climate-related risks and opportunities.</li> </ul>

This checklist will support you through the governance area of TCFD's recommendations, which is about your structures and processes. It provides the information you need to know, suggested actions you can take to include climate-related risks in your reporting, and further resources and guidance to help you.



**Take Action – Guidance for Governance:**

Consider how risks and opportunities are currently managed in your business by asking questions such as:

- Has your business assigned climate-related responsibilities at management-level positions?
- What processes are in place to inform management about climate-related issues and at what frequency?
- How do the management team monitor climate-related issues?
- Are climate-related issues considered when reviewing and guiding strategy, major plans of action, risk management policies, annual budgets, investments and business plans?
- How does the board/management team monitor and oversee progress against goals and targets for addressing climate-related issues?

**Theme 2 – Strategy**

Strategy disclosures should help you understand the risks and opportunities posed by climate change, to understand the potential effect of them on your business, and to understand the mitigating actions, where appropriate, that your business has already put in place and that it is planning to take.

Strategy	
What TCFD recommends:	Disclose the actual and potential impacts of climate-related risks and opportunities on you businesses, strategy, and financial planning where such information is material.
	<ul style="list-style-type: none"> <li>a) Describe the climate-related risks and opportunities the business has identified over the short, medium, and long term.</li> <li>b) Describe the impact of climate-related risks and opportunities on your business, strategy, and financial planning.</li> <li>c) Describe the resilience of your business strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</li> </ul>



**Take Action - Guidance for Strategy:**

Climate change will bring a wide range of both positive and negative impacts to businesses. Like any other issue facing your business, it is important to understand how extreme weather and climate change impacts could affect you. Planning ahead where possible, rather than always responding reactively, will help you to:

- save your business money in the long term;
- give your business the best chance to continue to operate and meet customer orders, in spite of the weather; and

- identify possible business opportunities e.g. new products or services, reduced costs etc.

### Climate-related Risks

The Task Force on Climate-related Financial Disclosures (TCFD) divides climate-related risks into two main categories: risks related to the transition to a low-carbon economy (transition risks) and risks related to the physical impacts of climate change (physical risks).

*Table 3: Transition and Physical Risks for Climate-related Financial Disclosures*

Transition Risks	
Current and emergent regulation	Policy developments that attempt to constrain actions that contribute to the adverse effects of climate change or policy developments that seek to promote adaptation to climate change.
Technology	Risks associated with technological improvements or innovations that support the transition to a low-carbon economic system.
Legal	Climate-related litigation claims.
Market	Shifts in supply and demand for certain commodities, products and services.
Reputation	Risks tied to changing customer or community perceptions of a business's contribution to or detraction from the transition to a low-carbon economy.
Workforce	Is a business going to be able to find the right skills for their post-transition form e.g. electric vehicle mechanics
Financial Market	Is the business prepared for their finances to be tied to green policies and/or to bear a higher interest rate if they do not meet green criteria.
Physical Risks	
Acute	Risks that are event-driven, including increased severity of extreme weather such as flooding, heatwaves, storms etc.
Chronic	Longer-term shifts in climate patterns, e.g. sea-level rise.

This checklist will support you through the strategy area of TCFD's recommendations, which is about assessing and reporting on actual and expected climate-related risks to your business. Key impacts that climate change could have on four business functions, applicable to any type of business or sector, are highlighted with questions that will help you to start thinking about taking action to improve the resilience of your business.

This section is divided into four business functions to be applicable to any type of business or sector. The sections: **Supply Chain, Finance/Insurance, Products and Services, and Operations** highlight the key impacts that climate change could have on your business with questions that will help you to start thinking about taking action to improve your resilience.

### Supply Chain

Business logistics, including supply chains, utilities and transport arrangements, can be disrupted by extreme weather events. Those that rely heavily on utilities, the transport network or who have inflexible supply networks will be particularly vulnerable. Businesses in NI must consider the additional supply chain logistics of crossing the Irish Sea for supplies and deliveries to mainland UK. This section looks at some possible impacts, threats and opportunities that climate change could have on logistics for your business.

Table 4: Risks and Opportunities from Climate Change to Supply Chains

Risks	
Flooding (high rainfall, coastal and river)	Flooding and landslips will disrupt transport for deliveries.
Extreme weather events (storms and intense cold)	Extreme weather events can cause disruption of supply chains due to: <ul style="list-style-type: none"> <li>• transport disruption</li> <li>• impact on suppliers, for example flooding of premises</li> <li>• changes in raw material price or availability</li> </ul>
	Extreme weather events can cause disruption to utilities supply and distribution.
	Utilities such as energy distribution and drainage infrastructure are generally vulnerable to extreme weather events.
Opportunities	
Competitive advantage for businesses with flexibility built into delivery systems and supply chains or those undertaking business continuity planning.	
Supplying local markets creates an opportunity for a marketing approach based on regional distinctiveness or reduced product miles.	
Developing a diverse network of suppliers (especially local) can make it easier for you to get supplies in bad weather, increasing your resilience.	



Take Action - Is your business ready?

Consider how best to manage supply chain risks in your business by asking questions such as:

- What would happen to your business if suppliers cannot get to you because of weather-related disruptions?
- Have you considered what would happen if you cannot get your products/services to your customers or if your customers cannot get to you?
- Have you considered alternative suppliers and/or increasing storage capacity to increase your ability to operate without deliveries?
- Do you have any processes or products that are temperature- or climate-sensitive?
- Have you considered the circumstances under which you might decide to scale back or suspend operations during weather-related disruptions?
- Have you identified critical activities and the employees and inputs required to maintain them?

## Finance & Insurance

Climate change will impact on the business finances through cost of damage, supply chain disruption and lost sales. A climate-resilient business is ultimately more insurable, more profitable, and more investable. This section looks at some possible impacts, threats and opportunities that climate change could have on Finance/insurance for your business.

*Table 5: Risks and Opportunities from Climate Change to Finance and Insurance*

Risks	
Flooding and extreme weather events	Damage from flooding and other severe weather event impacts could result in unplanned costs for businesses.
	An increase of extreme weather events will see more insurance related issues.
	Global climatic events could impact on international investments or products sourced from overseas.
	Cost implications for retrofitting existing buildings or relocating to cope with climate impacts.
	Failure to climate-proof the company, product range, premises etc. will increase potential for legal action, increase insurance premiums and reduce confidence amongst investors.
	Taking no action to prevent the risks and impacts from climate change could cost the business more in the long-term.
	Disruptions to supply chains can have significant negative financial impacts.
Opportunities	
Potential risks reduced and liabilities diminished through pro-active risk assessment and implementation.	
Clients and customers attracted to businesses that can show they are resilient to climate change.	
New insurance products and services that spread the risk of climate change.	
Increasing resilience now can pay-off many times over in the future.	
More weather-related claims improve the efficiency per claim.	



### Take Action - Is your business ready?

Consider how best to manage finance and insurance risks in your business by asking questions such as:

- When did you last check that you have the insurance you need?
- Are you covered for floods and storm events?
- What are your insurance limits? – excess and coverage terms and conditions, watch for small print and under insurance
- Does your policy cover the full value of your business and keep documents safe from weather impacts (and store copies off site)?
- Do you have business continuity cover if your business is interrupted?
- Do you have a business continuity plan?
- Have you considered the financial management implications of a severe weather event?

## Products and Services

A changing climate will change demand for products and services and impacts on customer access will result in changing markets. This section looks at some possible impacts, threats and opportunities that climate change could have on markets from business opportunities to reduced sales.

*Table 6: Risks and Opportunities from Climate Change to Products and Services*

<b>Risks</b>	
Flooding (high rainfall, coastal and river)	Increased heavy rainfall and flood risk will increase demand for products, services and expertise to support sustainable water resource management.
	Negative impact on reputation if insurance cannot be provided in areas of increasing risk, e.g. high flood risk, high subsidence risk.
High Temperatures and Drought	Existing buildings not well-adapted to new climate, especially in hot summer conditions, leading to reduced value of existing buildings if they are not future climate-proofed.
	Quality issues relating to climate, e.g. overheating of grain, and supermarkets demanding washed produce – which is very water intensive.
	Reduced occurrence of frost and snowfall may have business implications for those that rely on the winter season.
Extreme weather events (storms and intense cold)	Maintaining a supply to markets could become more challenging particularly where businesses are heavily dependent on climate sensitive supply chains.
<b>Opportunities</b>	
New innovative products, or modifications to existing products, in response to a changing market.	
Warmer conditions could see an increased demand for more parks and gardens and further extend the growing season with potential benefits for agriculture and forestry.	
Advantages for early movers in response to changing markets and lifestyles.	
Increased business opportunity in some sectors as a result of extended tourist season, warmer summers and longer growing seasons.	
New innovative products, or modifications to existing products, in response to a changing market.	



Take Action - Is your business ready?

Consider how best to manage risks to products and services in your business by asking questions such as:

- Is your business product or service weather or climate sensitive?
- Have you put in place measures to increase your businesses resilience?
- Does your business have global markets or suppliers that could be affected by climate change in other countries?
- Have you considered establishing alternative suppliers for critical goods and services?
- What would the impact on your customers be if you were unable to provide your product or service?
- Would it change your customers' requirements?
- What extent do others depend on your business in the event of a severe weather event?

- Have you considered the possibility of changes to your product, your service, or your interaction with customers, during a prolonged severe weather event and plan for any changes you consider appropriate?

## Operations

Some industrial processes and business activities are temperature or climate sensitive. Therefore, productivity in some sectors will be affected. This could mean that new equipment or ways of doing things are required in order to maintain productivity and continuity. This section looks at some possible impacts, threats and opportunities that climate change could have on processes.

*Table 7: Risks and Opportunities from Climate Change to Business Operations*

Risks	
Flooding (high rainfall, coastal and river)	Flood or torrential rain conditions may cause difficulties accessing premises, land or sites.
<u>High Temperatures and Drought</u>	Hotter summers may impact IT equipment such as servers, on-site construction processes and food preparation and storage.
	Existing crops may no longer be viable in new climatic conditions.
	A warmer climate may cause pests and diseases to spread and new threats to become established limiting the potential for increased productivity in the agriculture and forestry sector.
	Water quantity and quality may be reduced in the summer months impacting on manufacturing processes relying on water.
Extreme weather events (storms and intense cold)	Extreme events can cause damage or disruption to some production processes.
Opportunities	
A warming climate may improve growing conditions of certain crops in Northern Ireland and increase the productivity for agriculture and forestry.	
Warmer conditions and longer growing seasons will mean new species and varieties of plants can be grown.	
An increase in frequency and intensity of heavy rainfall events will present opportunities to develop expertise and technology in water management and drainage.	
As the climate continues to change, there will be an increased need for skills and expertise in the design of well-adapted buildings and managing construction processes in response to climate change.	
There will be opportunities to develop new farming and forestry practices that support increased resilience.	



Take Action - Is your business ready?

Consider how best to manage operational risks in your business by asking questions such as:

- If your computers were unavailable, what processes would be affected (e.g. orders, payroll, contacts etc.) and would your business still function?
- Do you have documentation of all key processes / procedures?
- Do you scan important physical documents and store the originals off-site?
- Have you considered back-up utilities – energy and water?
- What arrangements are in place to assure supplies in the event of a severe weather event?

- Have you thought about where you store your products, stock and raw materials?
- Does your business depend on water? If there was a drought would you be able to reduce your water usage while continue running your business?
- Have you identified which equipment is potentially vulnerable to flooding, and which equipment your business could not operate without?
- Have you considered the possibility of changes to your product, your service, or your interaction with customers, during a prolonged severe weather event and planned for any changes you consider appropriate?
- Do you have a contact list of current and alternative suppliers?



### Take Action – Complete the Climate Risk Register Template

To help you to start reporting on the climate change risks and opportunities to your business we have developed a simple Climate Risk Register Template. Completing the risk register will help you identify and prioritise the risks to your business and will help you meet the reporting elements for the Strategy and Risk Management sections of TCFD reporting recommendations. Access the Risk Register Template [here](#).

### Scenario Planning

One of the key recommended disclosures from TCFD focuses on the resilience of an organisation’s strategy, taking into consideration different climate-related scenarios, including a 2 degrees Celsius or lower scenario. A 2 degree world is the target from the UN Paris Agreement which means global average temperatures are kept within no more than 2 degrees from pre-industrial levels, in real terms we are currently on course to exceed that rising to as much as 3 or 4 degrees by the end of the century. Each degree of global warming has a significant impact on the weather we see in the global climate system and acts as a risk multiplier for our society, environment and economy.

*Table 4: Average annual temperature change (°C) and Average Mean Rainfall (% change) for Northern Ireland in a 2 and 4 degree world. Data from [UK Climate Risk Indicators](#).*

Indicator	Scenario	
	2°C in 2100	4°C in 2100
Average Annual Temperature	+ 1.27 °C	+ 2.5 °C
Average Mean Rainfall	1.25 % change	2.93 % change



### Take Action – Scenario Planning

1. What impacts are you already seeing in your business?
2. What areas of your business are being affected?

Think about what impacts you are already seeing in your business and what may be affected by future impacts of climate change, by asking questions such as:

- How might your governance procedures have to change between a 2 and 4 degree world?
- How might your risk management processes have to change between a 2 and 4 degree world?

- How might your Supply Chain, Finance/Insurance, Products and Services, and Operations be impacted and what action can you take to reduce these risks?
- How might these changes affect your transition risks outlined in Table 3 above?
- What metrics and data are you already gathering which could help inform these decisions? (E.g. weather related losses, supply disruption). Are there any priority data gaps?

Further Scenario Planning Resources:

Carbon Brief have summarised the [IPCC’s sixth assessment report on how climate change impacts the world](#) including information on different warming scenarios. This is a good place to start when understanding how changes in global temperatures will impact us in an international market.

The [UK Climate Risk Indicators project website](#) allows users to see how extreme temperatures, droughts, river floods and wildfire will affect risks in their local area and at the national scale. The estimates are available for different time periods up to the end of the century and for different assumptions about how greenhouse gas emissions change e.g. 2 degrees Celsius by 2100 scenario is available and aligns with the TCFD recommendations above. The results are presented using accessible maps and graphs.

Scenario planning for TCFD is a developing field and we expect more tools to become available, this guide will be updated with further information when it becomes available.

### Theme 3 – Risk Management

Risk management disclosures should enable an understanding the maturity of the approach to climate-related risks in your business, the level of resource that has been assigned to understanding this systemic risk and whether process changes are likely to occur in the future.

Risk Management	
What TCFD recommends:	Disclose how your business identifies, assess, and manages climate-related risks
	<ul style="list-style-type: none"> <li>a) Describe your business processes for identifying and assessing climate-related risks</li> <li>b) Describe your business’s processes for managing climate-related risks.</li> <li>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into your business’s overall risk management.</li> </ul>



**Take Action - Guidance for Risk Management:**

Businesses should describe their risk management processes for identifying and assessing climate-related risks. An important aspect of this description is how businesses determine the relative significance of climate-related risks in relations to other risks.

Describe your processes for managing climate-related risks, including how you make decisions to mitigate, transfer, accept or control those risks. In addition, businesses should describe their processes for prioritising climate-related risks, including how materiality determinations are made within your business.

Businesses should consider providing the following details of their risk management process:

1. How frequently you carry out climate risk assessments
2. Time horizons covered (short, medium and long-term)
3. Risk types considered

To help you to start reporting on the climate change risks and opportunities to your business we have developed a simple Climate Risk Register Template. Completing the risk register will help you identify and prioritise your risks and will help you meet the reporting elements for the Strategy and Risk Management sections of TCFD. [Access the Climate Risk Register Template here.](#)

#### How do you manage these risks?

By now you should have some initial thoughts on which are the key transition and physical risks to your business. You may even have thought about the time horizon for the changes. Businesses should disclose how the risk is being (or is planned to be) managed. You could add this to the [Climate Risk Register Template](#) in a new column or include it in an already established risk management tool or business continuity plan you use in your business.

### Theme 4 – Metrics and Target

Metrics and targets disclosures should enable an understanding of any targets your business has set to help assess its progress in managing climate-related risks and opportunities, how it intends to meet those targets and how it monitors and assesses progress over set timeframes.

Metrics and Targets	
What TCFD recommends:	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
	<ol style="list-style-type: none"> <li>a) Disclose the metrics used by your business to assess climate-related risks and opportunities in line with its strategy and risk management process.</li> <li>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</li> <li>c) Describe the targets used by your business to manage climate-related risks and opportunities and performance against targets.</li> </ol>



#### Take Action - Guidance on Metrics and Targets:

##### Metrics

Organisations should state the key metrics used to measure the risks and opportunities outlined earlier in the Climate Risk Register Template. Consider providing key metrics related to greenhouse gas emissions, energy, water and waste management. The Task Force has provided illustrative metrics for four key non-financial groups, outlined below. These may help organisations consider the type of metrics best suited for their operations.

Energy – [illustrative examples](#)

Transportation – [illustrative examples](#)

Materials and Buildings – [illustrative examples](#)

Agriculture, Food and Forest Products – [illustrative examples](#)

### *Greenhouse Gas Emissions*

This guide deals only with the impacts of climate change and not cutting carbon and other greenhouse gas emissions, as it was felt that there was more guidance already available on Net Zero targets. However, they are two sides of the same coin. Businesses should provide their Scope 1 and Scope 2 GHG emissions, and if appropriate, Scope 3 GHG emissions and the related risk in transitioning to a low-carbon economy.

Invest NI's NI Business Info and Climate NI have developed a guide on '[How to Become a Net Zero Business](#)', this free guide outlines the steps required to understand what a net zero business is, how to set targets to work towards and how to monitor and report on progress.

Business in the Community NI have a range of resources to help businesses understand and report their GHG emissions. Businesses can access a reporting platform to report their scope 1 and 2 emissions by signing up to [Business in the Community's NI Climate Action Pledge](#). BITC's [Ten Steps in Ten Weeks](#) also provides useful information for businesses on taking climate action.

### *Targets*

Businesses should describe their key climate-related targets such as those related to GHG emissions, water usage etc. Other targets may include revenue goals for products and services designed for a lower-carbon, resilient economy. Remember to include information on time frames for the target, the baseline year targets are measured against, and key performance indicators used to assess progress against targets.

## Conclusion

This guide has taken you through the main steps for reporting climate-related financial disclosures as recommended by TCFD. As this guide is aimed at SMEs in Northern Ireland who are not yet required to report against TCFD this is a simplification of the recommendations and therefore we recommend you utilise the additional resources below for further information. We believe that the earlier businesses start considering how to become more resilient to the impacts of climate change then the business will be more resilient overall. This guide will continue to develop as policy and regulations in climate disclosure standards evolve.

### Contact Climate Northern Ireland

Climate NI is interested in hearing from businesses taking action on climate change, whatever stage of the journey you are on. To discuss this further, please contact Amy Bell by emailing [amy@climatenorthernireland.org.uk](mailto:amy@climatenorthernireland.org.uk) or visit our website: [climatenorthernireland.org.uk](http://climatenorthernireland.org.uk)

## Additional Resources

HM Treasury TCFD-aligned disclosure application guidance:

<https://www.gov.uk/government/publications/tcf-aligned-disclosure-application-guidance/task-force-on-climate-related-financial-disclosure-tcf-aligned-disclosure-application-guidance>

TCFD Hub: <https://www.tcfhub.org/>

Recommendations of the Task Force on Climate-related Financial Disclosures:

<https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf>

Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures:

<https://assets.bbhub.io/company/sites/60/2020/10/FINAL-TCFD-Annex-Amended-121517.pdf>

Climate Change Risk Assessment - Business Sector Briefing. This briefing summarises how business has been assessed in the latest UK Climate Change Risk Assessment (CCRA) Technical Report, and what types of action to adapt to climate change risks and opportunities would be beneficial in the next five years.

<https://www.ukclimaterisk.org/wp-content/uploads/2021/06/CCRA3-Briefing-Business.pdf>

Flood Maps (NI) ([www.infrastructure-ni.gov.uk/topics/rivers-and-flooding/flood-maps-ni](http://www.infrastructure-ni.gov.uk/topics/rivers-and-flooding/flood-maps-ni)) to find out about the chance of flooding to your business from rivers, sea or surface water. However, do not assume that because Flood Maps (NI) does not identify your area to be at risk that you are not. Your business could still be at risk from flash flooding, surface water or groundwater flooding.

The Environment Agency publications 'Would your business stay afloat? A guide to preparing your business to flooding' contains a simple template to use to create a flood plan for your business:

[www.gov.uk/government/publications/preparing-yourbusiness-for-flooding](http://www.gov.uk/government/publications/preparing-yourbusiness-for-flooding)

NI Business Info have various guides available, including How to Become a Net Zero Business:

<https://www.nibusinessinfo.co.uk/content/how-become-net-zero-business>, Adapting Your Business to

Climate Change: [www.nibusinessinfo.co.uk/content/adapt-your-business-climate-change](http://www.nibusinessinfo.co.uk/content/adapt-your-business-climate-change) and Flood Protection for Business Property: [www.nibusinessinfo.co.uk/content/flood-risk-assessment](http://www.nibusinessinfo.co.uk/content/flood-risk-assessment)

The British Red Cross have developed a briefing on heatwaves in the UK, read Feeling the Heat here:

<https://www.redcross.org.uk/about-us/what-we-do/we-speak-up-for-change/feeling-the-heat-a-british-red-cross-briefing-on-heatwaves-in-the-uk>

Business in the Community NI: Climate Action Pledge: <https://www.bitcni.org.uk/programmes/climate-action-pledge/> and Ten Steps in Ten Weeks: [https://www.bitcni.org.uk/wp-content/uploads/2021/10/10-Steps-in-10-weeks\\_FINAL.pdf](https://www.bitcni.org.uk/wp-content/uploads/2021/10/10-Steps-in-10-weeks_FINAL.pdf).

Icons: [Flaticon.com](http://Flaticon.com)