

# Climate Risk Exercise

## Objective

To raise awareness of how a methodical risk based approach can be used to inform decisions about how to reduce the potential risks posed by climate change on organisations.

## Outcome

- For participants to have produced a list of climate risks relevant to their work area/organisation.
- To have assessed / scored these risks using a risk matrix.
- To have understood the concept of thresholds and how over time predicted changes in the climate will result in changes to some risk scores.

## What you will need

Flip chart paper – 1 piece per group

Flip chart pens – 1 per group

Post-it notes or some kind of repositionable note – about 20 per group

A copy of the risk matrix included below – 1 per group.

Activity	Time minutes
Split into groups. About 5 people in each group.	2
Introduction Briefly introduce the idea of weather having impacts upon the activities of individuals, organisations and the more severe the weather the bigger the impact. These impacts present risks (go over what types of risks there are) which depending on type and size may require measures to be put in place to reduce the risk.  Explain what you want each group to be. They could be a service area or they could pretend to be a whole council/organisation/sector, this will depend on the nature of the event.	3
Ask a member of the group to transcribe the risk matrix onto the flip chart paper making the matrix as large as possible. Then get them to turn over the flip chart so it is blank side up. The matrix is not required until later in the exercise.	2
Using the post-it notes get each group to identify as many risks as possible associated with different types of severe weather impacts based on their experience of past events. Write down 1 risk per post-it note. Also look for risks and opportunities associated with longer term climatic changes	5 - 7

<p>i.e. wetter warmer winters, drier hotter summers, earlier springs. For reference it is useful to write in the corner of each note what type of weather (storm, rain (flood or drought) heat wave, snow, fog ) resulted in the impact/risk stated.</p> <p>Remind them that they are only thinking about the weather related impacts that they have recent (5 years) experience of.</p>	
<p>Based on gut instinct, order the risks in terms of severity. This is best done in a linear sequence with least severe (e.g. risk of minor disruption) at one end to most severe (e.g. risk of death) at the other. Once again for reference, number each risk in the sequence by numbering the post-it notes starting from 1 for the least severe risk.</p>	3 - 5
<p>Explain the concept of the matrix.</p> <p>Now using the large matrix on the flip chart paper, score each risk according to likelihood and magnitude and place the post-it note in the appropriate box on the large matrix.</p> <p>Do the high scoring risks based on gut instinct also score highly when assessed using the matrix?</p> <p>Ask about the spread of risks across the matrix. What proportion of risks are over the threshold? Ask for a show of hands to indicate how many groups have more than <math>\frac{1}{4}</math> or <math>\frac{1}{2}</math> of risks over the threshold. What types of risks are over the threshold? Each group could make a brief statement.</p>	5 - 7
<p>Now get the groups to imagine they are not scoring risks in the present but that they are considering the impact of predicted weather 30 years in the future. A simple way to demonstrate the effect of increases in the frequency and severity of floods, droughts, storms and heat waves is to move each risk associated with these weather events up 1 row and across to the right 1 column on the matrix i.e. these events will be more severe and more frequent.</p> <p><i>Note This is a crude way to demonstrate future climate impact, and it does not work well with impacts associated with gradual climatic changes. It is merely an easy way show what happens when you look at the long term.</i></p> <p>Ask again about the spread of risks across the matrix. What proportion of risks are over the threshold now? Ask for a show of hands again.</p>	4

<p>Some additional questions if there is time at the end.</p> <ol style="list-style-type: none"> <li>1. Which group had the highest individual risk score? What was it for?</li> <li>2. Which type of weather event featured most prominently as causing the greatest impact?</li> <li>3. Is it possible to group these risks in such a way that similar risks could point to possible solutions?</li> </ol>	
<p>Some further thoughts</p> <p>If the right people are involved, this exercise could be made longer and used a way to produce and score a comprehensive list of risks which could cover a whole service area or organisation.</p>	
<p>Total time</p>	<p>24 - 30 mins</p>

Risk scoring matrix

<b>Likelihood</b>	Almost certain 4	4	8	12	16
	Quite possible 3	3	6	9	12
	Unlikely 2	2	4	6	8
	Hardly ever 1	1	2	3	4
		Negligible 1	Marginal 2	Critical 3	Catastrophic 4
<b>Impact</b>					

Examples of weather events, impacts and associated risks

Weather event examples	Impact	Risk
Cold weather with heavy snow.	Snow and ice on untreated main roads	Disruption to bus services
		Damage to road surfaces due to prolonged exposure to ice
		Road may need to be closed with resultant disruption to all road users
		More road traffic accidents and demands upon emergency services
		Local residents attempt to clear the road without regard for proper safety putting themselves at personal risk.
Heat wave	High indoor office temperatures	Adverse health affects for building occupants. Staff may need to be relocated to cooler areas.
		Increased use of air conditioning which increases emissions
		Possible failure of IT servers and consequent disruption to services
		Increased risk of theft as windows are left open.