



## Step One

### Getting Started

# What is the business case for adapting to climate change?

Even if we stop all emissions tomorrow, we have locked-in change to the climate system. Climate adaptation is not just an environmental issue, it is about financial risk and an ethical responsibility we all share to prepare our society for a changing world. The World Economic Forum 2019 Global Risks Report, stated that 'spending on disaster recovery is almost nine times higher than on prevention' <sup>1</sup>.

## International

- On current targets, we could see a rise of up to 4°C in average global temperature by the end of century <sup>2</sup>. For context, the last ice age was around 4°C colder <sup>3</sup>.
- The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change. It suggests that urgent and unprecedented changes are needed to reach the 1.5°C target set out in the UN Paris Agreement 2015 and action needs to be taken immediately to prepare for the impacts of rising global temperatures.
- At 1.5°C the proportion of the global population exposed to water stress could be 50% lower than at 2°C. Food scarcity would be less of a problem and hundreds of millions fewer people, particularly in poor countries, would be at risk of climate-related poverty <sup>4</sup>.
- A report by the World Health Organisation has stated that climate change is expected to cause over 250 000 additional deaths per year between 2030 and 2050, either directly or indirectly <sup>5</sup>.
- Christian Aid report highlighted how climate breakdown played a key role in at least 15 events in 2019 that cost more than \$1bn (£760m) in damage, with more than half of those costing more than \$10bn each <sup>6</sup>.

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- The World Economic Forum Global Risks Report 2020 <sup>7</sup> stated that the top risks in terms of likelihood in the next 10 years were from climate change:
  - Extreme weather events with major damage to property, infrastructure and loss of human life.
  - Failure of climate-change mitigation and adaptation by governments and businesses.

## Northern Ireland

- August 2017 floods in Derry City and Strabane District Council are estimated to have cost the regional government over £12 million <sup>8</sup>. The council itself estimates impacts at:
  - Circa £350,000 on capital repair costs to Council assets and facilities
  - Circa £36,000 on emergency response costs
  - Plus significant staff time spent on response and follow up support with the communities
- A key part of building the business case for adaptation is beginning to gather costs, both direct and indirect, for particular events in a given region.
- The UK Climate Change Risk Assessment (CCRA) 2021 summary for Northern Ireland, states that expected direct annual damages for non-residential properties in Northern Ireland at present is £42m, comprising of 6% of total UK damages. The expected annual damages are to increase by 22% by 2050 and 33% by 2080 under a +2°C by 2100 scenario and to increase by 39% by 2050 and 69% by 2080 under a +4°C by 2100 scenario <sup>9</sup>.

## Republic of Ireland

(Excerpts taken from Irish government's National Adaptation Framework)

- "Over the period 2000-2012, flooding in Ireland cost €749.75 million (in 2015 prices) in insurance claims. However, insured losses from floods generally represent a fraction of total (public and private) asset losses – in Europe, this has been estimated at about 30%<sup>10</sup>. If we assume a similar level of insurance penetration in Ireland, this suggests total asset losses (direct damages) from flooding in Ireland in recent years in the order of €192 million per year" <sup>11</sup>.
- "Developing Resilience to Climate Change in the Irish Transport Sector", highlights the significant financial costs caused by extreme rainfall and severely cold weather in 2009, estimated to have cost in excess of €225 million for repairs to national, regional and local roads <sup>12</sup>.
- After Storm Desmond in 2015, flooding disruptions to the road network had a significant impact on commuting costs in Co. Galway in Ireland. The extra time spent commuting is estimated to have cost €3.8 million (over a period of 17 working days), with a disproportionate impact affecting those with higher commuting costs and people on lower incomes. In areas particularly badly affected, this estimated extra cost amounted to 39% of earnings during the period of disruption <sup>12</sup>.

## References

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