

TCFD 'Strategy' Exercise

Prepared for the TCFD October workshops.

1. Resources required:

1. A brief overview of each of the three climate scenarios that we will be using for this exercise, based on three IPCC representative concentration pathway (RCP) trajectories: RCP 2.6, RCP 6.0 and RCP 8.5.*
2. Copies of New Zealand business strategies and annual reports from relevant industries published in the public arena.

2. Method:

Task 1: Exploring worlds

On an A2 sheet, redraw Figure 2 below with a larger centre circle. In each band of the circle, starting with the middle and working your way out, list the opportunities (left) and risks (right) that arise under each of the scenarios. Use the scenario overviews provided as Resource 1 to familiarise yourself with the characteristics of each scenario. [15 minutes]

Task 2: Disclosures

Choose an industry from the ones provided in Resource 2. Familiarise yourself with the industry using the examples provided and then prepare a material disclosure that addresses points (a), (b) and (c). [15 minutes]

Task 3:

Discuss and share observations with the rest of the group and then report back to the workshop. [30 minutes]

Figure 1: Climate Trajectories in the Cone of Plausibility

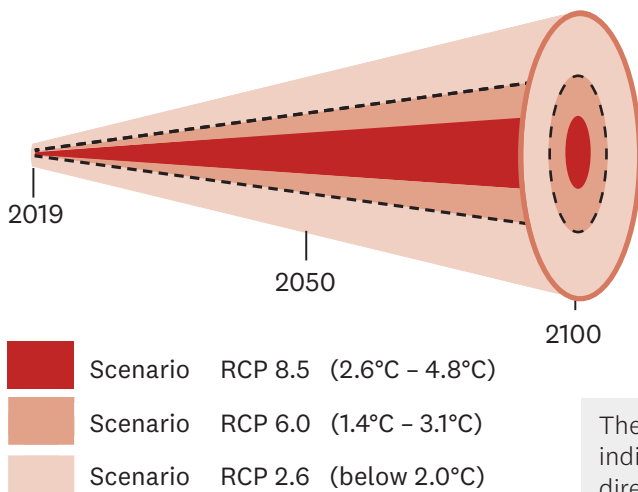
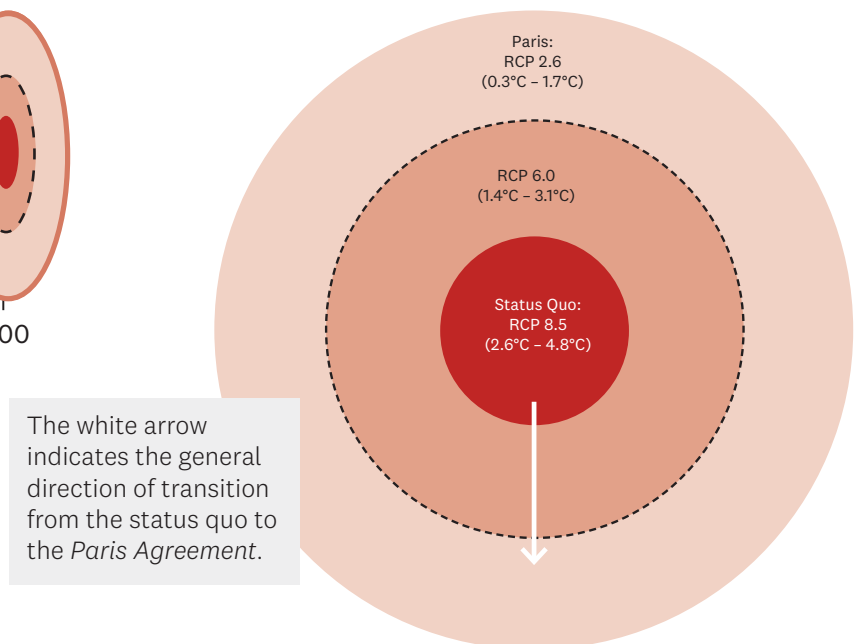
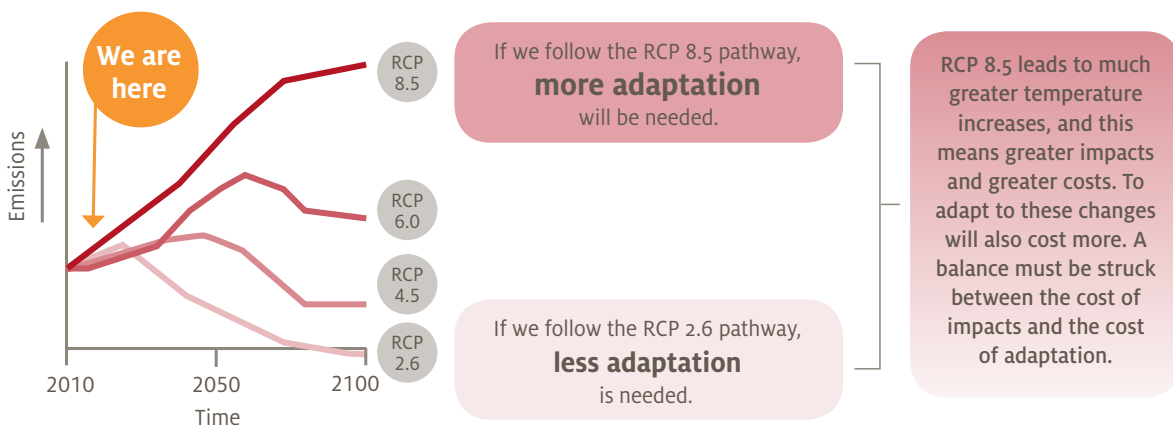


Figure 2: Cone of Plausibility as at 2100



Scientists use the RCPs to model climate change and build scenarios about the impacts. You can use these scenarios to plan for the future.



(CoastAdapt, n.d.)

* 'The name "representative concentration pathways" was chosen to emphasize the rationale behind their use. RCPs are referred to as pathways in order to emphasize that their primary purpose is to provide time-dependent projections of atmospheric greenhouse gas (GHG) concentrations [not emissions]'. (IPCC, 2007)

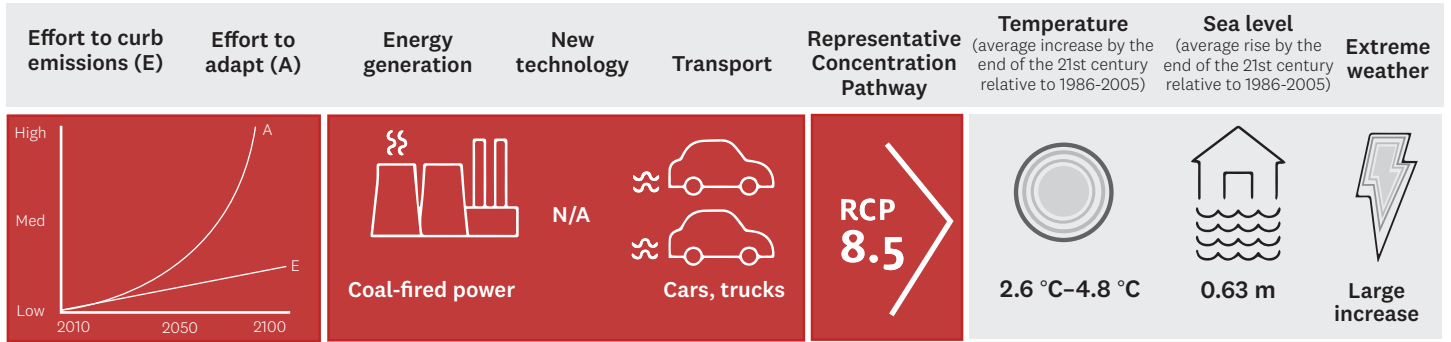
'The goal of working with scenarios is not to predict the future but to better understand uncertainties and alternative futures, in order to consider how robust different decisions or options may be under a wide range of possible futures.' (IPCC, 2019)

Task 2: Disclosures

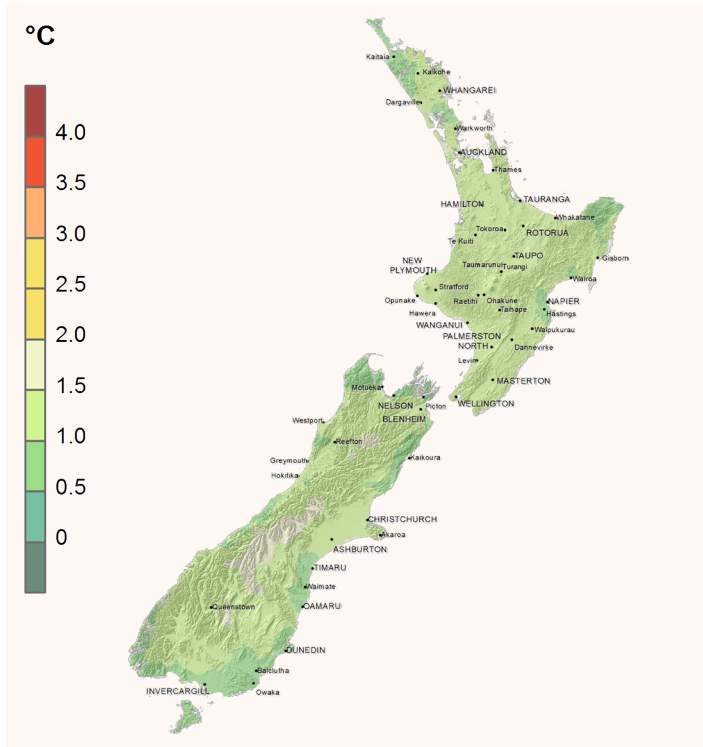
Complete a), b) and c) for your chosen organisation:

TCFD Core Element: Strategy	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'.
a) Describe the climate-related risks and opportunities the organisation has identified over the <ul style="list-style-type: none">• short,• medium, and• long term.	
b) Describe the impact of climate-related risks and opportunities on the organisation's <ul style="list-style-type: none">• businesses,• strategy, and• financial planning.	
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	

Resource 1: Brief Overview of Scenario RCP 8.5



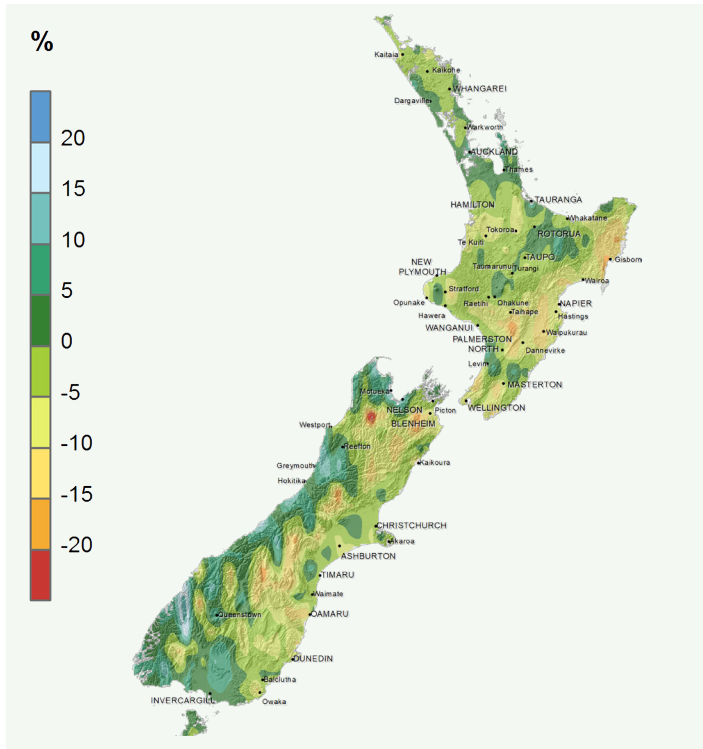
Temperature Change Between 1995 and 2055



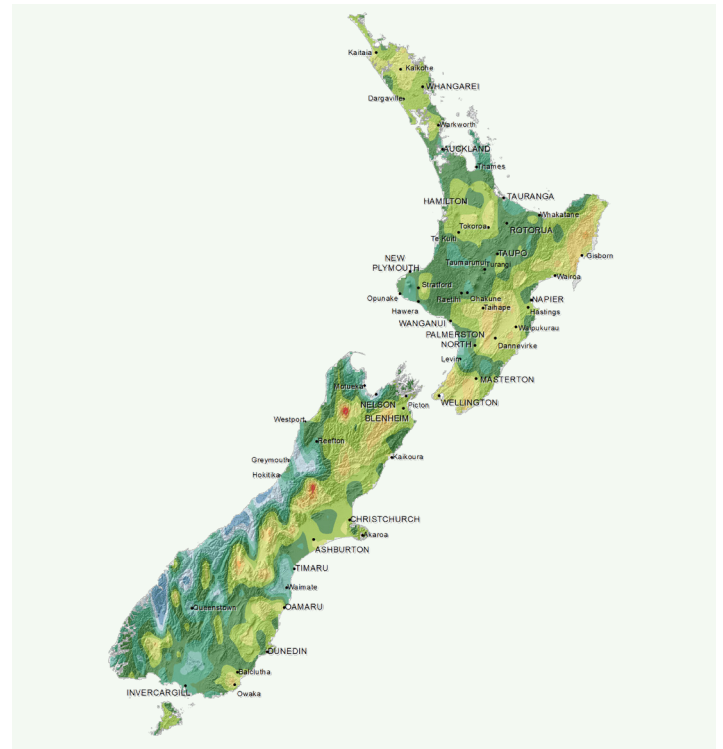
Temperature Change Between 1995 and 2090



Rainfall Change Between 1995 and 2055

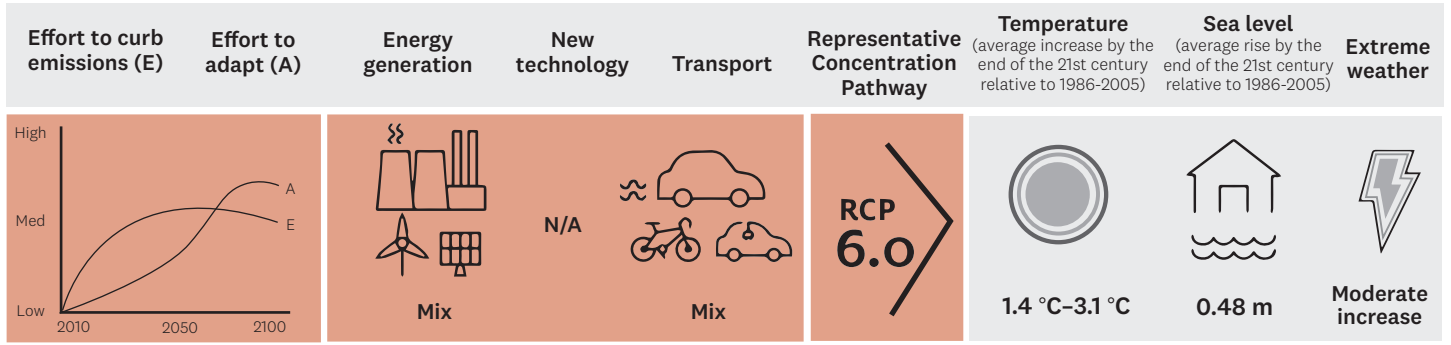


Rainfall Change Between 1995 and 2090

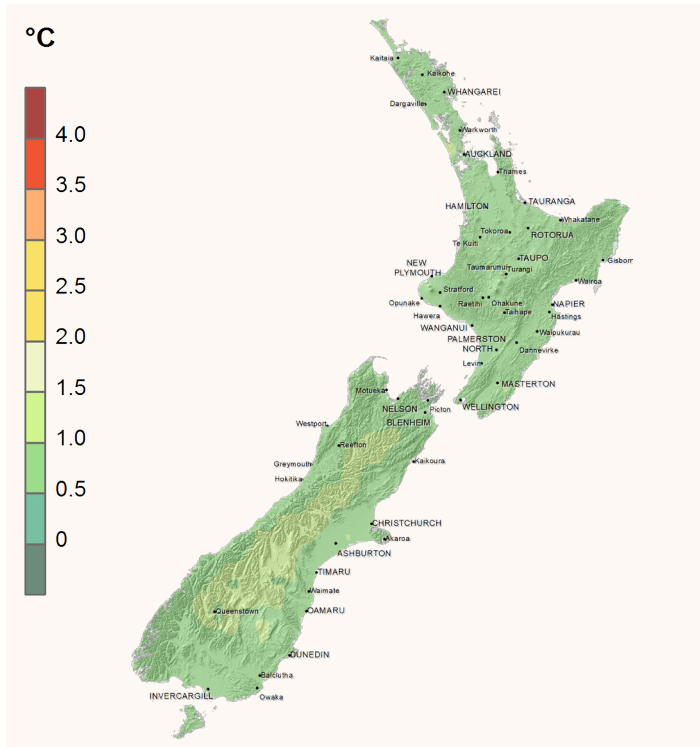


Note: The New Zealand maps (above) are from NIWA's *NZ Climate Change Maps* – which use data from the IPCC's *Fifth Assessment Report (AR5)* based on three representative concentration pathways (RCPs): RCP 2.6, RCP 6.0 and RCP 8.5. As explained on the additional information section of NIWA's *Our Future Climate New Zealand* website, RCPs "provide an indication of the rate and amount of global greenhouse gas emissions over the coming decades". These projections use the climate model BCC-CSM1.1 and indicate the potential impacts of climate change in New Zealand. Our infographic has been inspired by CoastAdapt's *Climate Change Infographic*.

Resource 1: Brief Overview of Scenario RCP 6.0



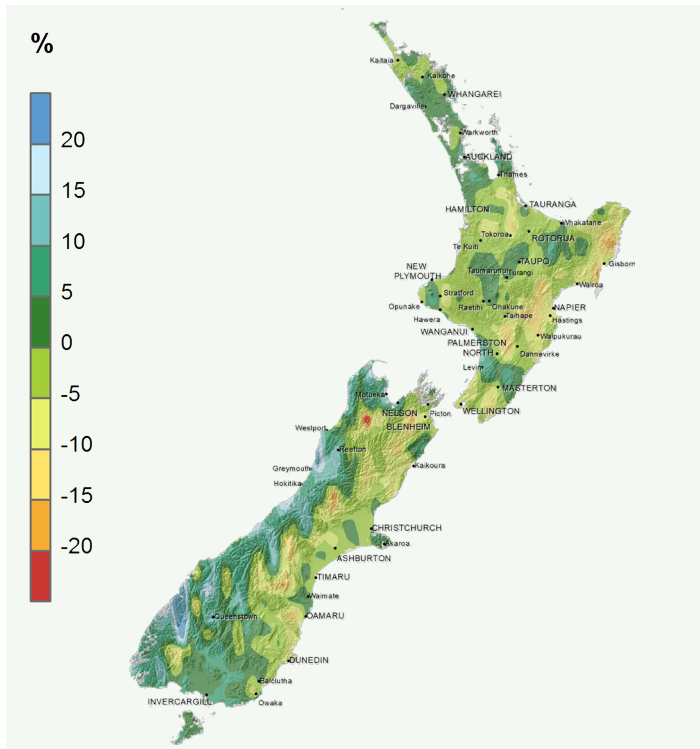
Temperature Change Between 1995 and 2055



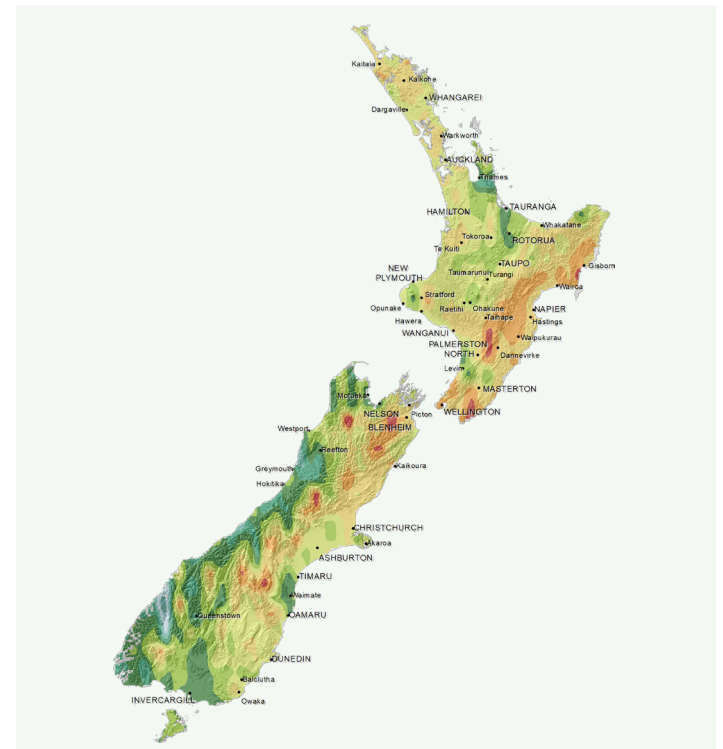
Temperature Change Between 1995 and 2090



Rainfall Change Between 1995 and 2055

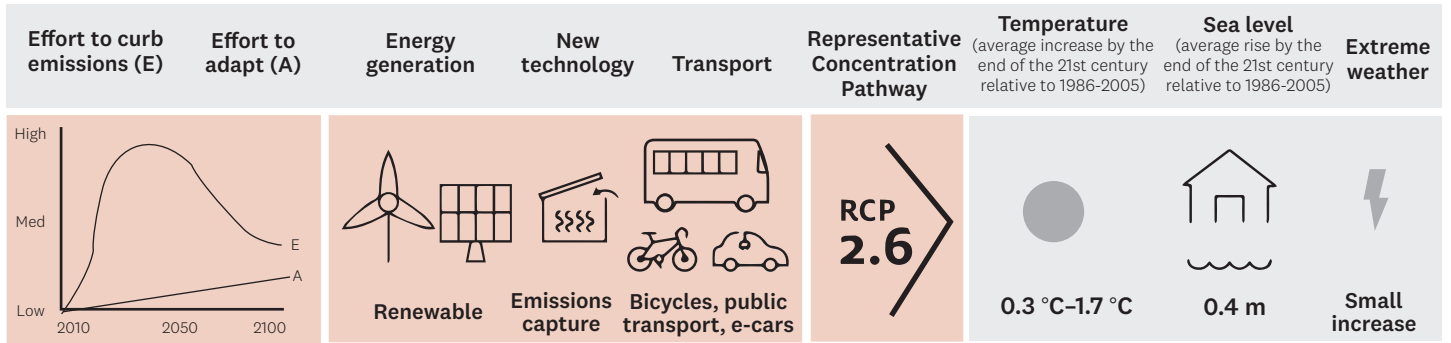


Rainfall Change Between 1995 and 2090

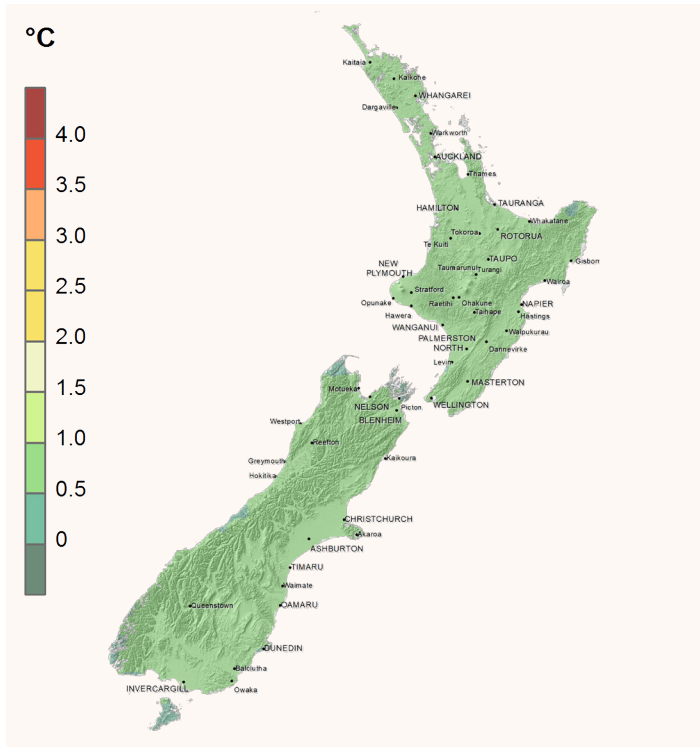


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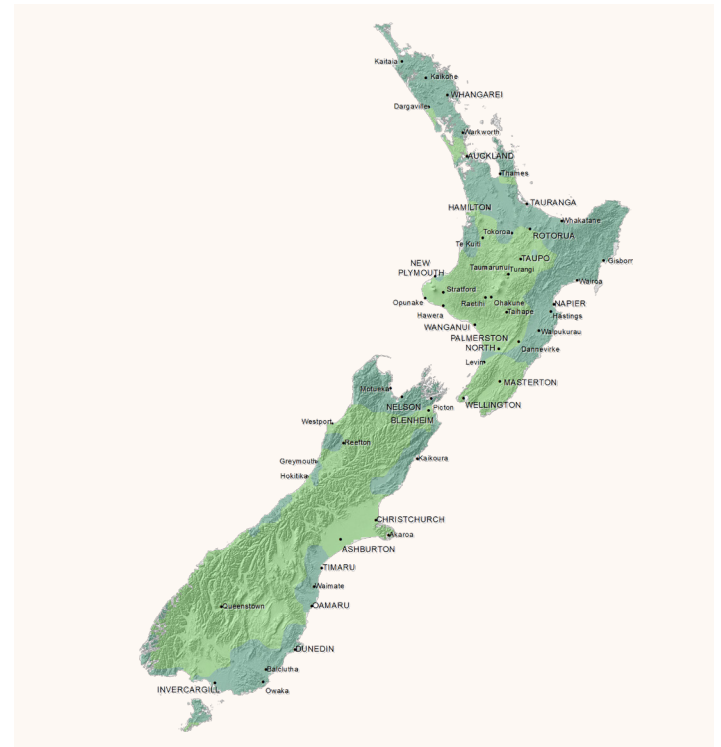
Resource 1: Brief Overview of Scenario RCP 2.6



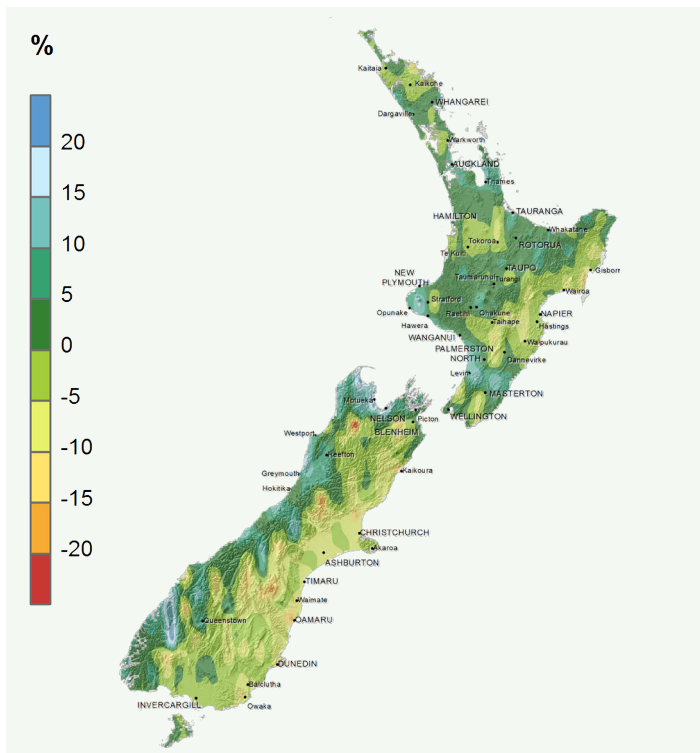
Temperature Change Between 1995 and 2055



Temperature Change Between 1995 and 2090



Rainfall Change Between 1995 and 2055



Rainfall Change Between 1995 and 2090



Note: The New Zealand maps (above) are from NIWA's *NZ Climate Change Maps* – which use data from the IPCC's *Fifth Assessment Report* (AR5) based on three representative concentration pathways (RCPs): RCP 2.6, RCP 6.0 and RCP 8.5. As explained on the additional information section of NIWA's *Our Future Climate New Zealand* website, RCPs 'provide an indication of the rate and amount of global greenhouse gas emissions over the coming decades'. These projections use the climate model BCC-CSM1.1 and indicate the potential impacts of climate change in New Zealand. Our infographic has been inspired by CoastAdapt's *Climate Change Infographic*.

Resource 2: Examples of Business Strategies and Annual Reports from Relevant Industries

Agriculture, Forestry and Fishing

- Beef + Lamb New Zealand. (May 2018). *Environment Strategy and Implementation Plan 2018-22*. <https://beeflambnz.com/sites/default/files/levies/files/Env-strategy-imp-plan.pdf>.

Construction

- Fletcher Building. (2019). *Annual Report 2019*. <https://fletcherbuilding.com/assets/4-investor-centre/annual-reports/2019-annual-report.pdf>.

Electricity, Gas, Water and Waste Services

- Watercare. (January 2019). *Watercare's Climate Change Strategy: Mitigation and adaptation*. https://wslpwstoreprd.blob.core.windows.net/kentico-media-libraries-prod/watercarepublicweb/media/watercare-media-library/sustainability/climate_change_strategy.pdf.

Financial and Insurance Services

- NZ Super Fund. (March 2019). *"How We Invest" White Paper: Climate Change Investment Strategy*. [https://nzsuperfund.nz/sites/default/files/documents-sys/Guardians of NZ Super - Climate Change White Paper March 2019.pdf](https://nzsuperfund.nz/sites/default/files/documents-sys/Guardians%20of%20NZ%20Super%20-%20Climate%20Change%20White%20Paper%20March%202019.pdf).
- Reserve Bank of New Zealand. (December 2018). *Reserve Bank Climate Change Strategy*. <https://www.rbnz.govt.nz/financial-stability/climate-change/strategy>.
- Westpac NZ (prepared by EY). (April 2018). *Climate Change Impact Report*. <https://www.westpac.co.nz/assets/Sustainability/Westpac-NZ-Climate-Change-Impact-Report.pdf>.

Mining

- New Zealand Oil & Gas. (2019). *Annual Report 2019*. <https://www.nzog.com/dmsdocument/430-nzog-2019-annual-report>.

Public Administration and Safety

- Ministry of Defence and NZDF. (November 2018). *The Climate Crisis: Defence readiness and responsibilities*. <https://www.defence.govt.nz/assets/Uploads/66cfc96a20/Climate-Change-and-Security-2018.pdf>.
- Committee on Climate Change (UK). (May 2019). *Net zero domestic emissions infographic*. <https://www.theccc.org.uk/wp-content/uploads/2019/05/CCC-Net-Zero-Infographic.pdf>.
- Venture Taranaki | Te Puna Umanga. (July 2019). *Taranaki 2050 Roadmap*. [http://about.taranaki.info/Taranaki2050/Taranaki-2050-Roadmap-\(1\).pdf](http://about.taranaki.info/Taranaki2050/Taranaki-2050-Roadmap-(1).pdf).
- Greater Wellington Regional Council. (October 2015). *Climate Change Strategy: A strategy to guide the Wellington Regional Council's climate change response*. http://www.gw.govt.nz/assets/council-reports/Report_PDFs/2015.470a2.pdf.
- Auckland Council. (July 2014). *Low Carbon Strategic Action Plan: The aim of the plan* [download all]. <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/docslowcarboncopy/low-carbon-strategic-action-plan-full.pdf>.

Transport, Postal and Warehousing

- Air New Zealand. (2019). *Annual Shareholder Review 2019*. <https://indd.adobe.com/view/fa56c6c2-d4cd-4101-b2e8-600cdd75535d>.