3.7 CLIMATE-RELATED PHYSICAL RISKS

Case Study 3: Drought – example of effect on business value chain

Important notice
This unit is part of a package of learning materials designed to support understanding of foundational concepts relating to climate-related financial disclosures. These learning materials do not constitute application or regulatory guidance for the preparation of climate-related financial disclosures and are not intended to represent legal or professional advice. We encourage you to seek your own professional advice to find out how the Corporations Act 2001 (Corporations Act) and other relevant laws may apply to you and your circumstances, as it is your responsibility to determine your obligations and comply with them.

The company featured in this case study is entirely fictional and presented for illustrative purposes only. It is not intended to represent any real business, past or present. Any resemblance to actual entities is purely coincidental. Different entities have different climate-related risks and opportunities, and so this scenario may not be relevant for your entity.

Key topics

- Climate-related physical risks for businesses – drought
- Risk transmission
- Impacts on the value chain of businesses

Relevance for climate-related disclosures

This unit's case study will help you to understand how climate-related physical risks, in this case a drought, can impact business value chains.

Overview

This unit explores a case study designed to illustrate key concepts related to risk transmission, highlighting the impacts on an entity's value chain from a climate-related physical risk (drought). It is a hypothetical example involving a fictional beverage manufacturing and distribution company, grounded in a real-world scenario based on the latest climate science and recent climate-related events in Australia.[1] It may give you practical insights into:

- identifying climate-related risks across the value chain
- assessing financial and operational impacts
- considering recovery and adaptation strategies.

Introduction

This case study may help you reflect on how similar climate-related physical risks could affect the value chain of your entity. The scenario is intended to prompt consideration of potential vulnerabilities and resilience strategies. This scenario does not describe real events or a real entity but is grounded in realistic conditions experienced by manufacturers.

Sector: Manufacturing and distribution – beverage manufacturing
Entity: Beverage manufacturing and distribution company

Location: New South Wales (NSW)
Physical climate risk type: Drought

What is the scenario?

CoolWave Beverages is a mid-sized beverage manufacturing and distribution company based in NSW. It relies on a network of agricultural suppliers for fruit, sugar and grain inputs.
Some of the growers that CoolWave depends on are facing prolonged drought conditions. In Queensland, the dry conditions are being exacerbated by extreme heat and yields of sugar cane are down this season. Mango and pineapple growers are also under stress and the shortage in output has driven up prices.
The cost of raw ingredients makes up a large share of CoolWave's costs. A small rise in the cost of these inputs can put a big dent in CoolWave's profit margin.
Climate projections show many of CoolWave's suppliers will likely face increasing challenges from climate change in future, especially from shifting rainfall patterns and extreme temperatures.

What are some potential business impacts?

Financial

- higher production costs
- lower output
- loss of revenue

Operational

- reduced product availability
- delayed product supplies

What is the response strategy?

While the suppliers are working hard to adapt to the impacts of climate change, the physical risks they face from climate change will continue to flow through to businesses like CoolWave.
CoolWave has been working to better understand the climate risks being faced by its suppliers, and to develop strategies to ensure it can cope with potential shortages and price spikes in future.

Sources and explanatory notes

[1] Regions within the south and east of Australia are likely to see an increase in the average duration of drought,
Bureau of Meteorology and CSIRO (2024) *State of the Climate 2024*, Government of Australia

Further information on the increasing frequency and severity of extreme weather events in Australia, and their impact on Australian entities, is provided in Unit 3 of this module. Risk transmission across value chains is covered in Unit 4.