

## Why did we undertake this study?

The impacts of climate change in the coastal zone (e.g., erosion and inundation) threaten critical infrastructure, with implications for the health and wellbeing of many coastal communities in Australia and New Zealand. The ability to adapt critical infrastructure is imperative to responding to these impacts. While critical infrastructure providers have the capacity to adapt, there is a concerning lack of adaptive action. This study sought to understand the barriers to mobilising adaptive capacity to take adaptive action.

## How was it done?

A selected sample of critical infrastructure providers from Australia and New Zealand were interviewed. All interviewees were in a leadership role, whether that be a senior engineer or a department lead. Participants were asked about their existing processes to respond to the impacts of climate change and their views on perceived barriers and enablers to climate change adaptation.

## What did we find?

Although there is an ability and motivation to adapt to climate change, institutionalised risk-aversion, regulations, and a dependence on political priorities are barriers. Participants themselves demonstrated a will to be visionary, entrepreneurial and innovative but:

- Limited resourcing means climate change adaptation projects are side-lined in favour of essential works.
- The heavily regulated and process-orientated institutions they operate within limits their ability to exercise their capacities.

The institutions that house critical infrastructure systems are hierarchical, conservative and consistent, and inherently resistant to change. Funding models that prioritise emissions mitigation and maintaining the status quo over proactive replacement of failing assets also constrain adaptive action.

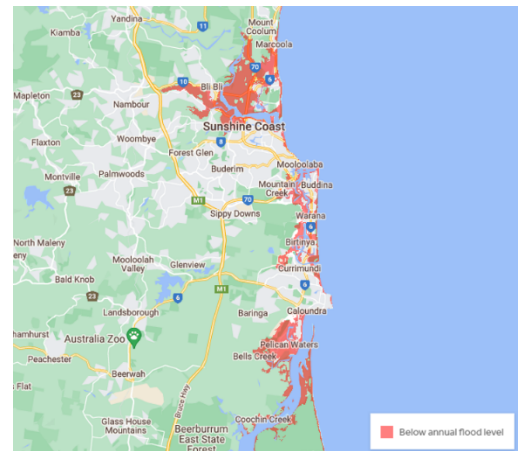


Figure 1: Map showing extent of sea level rise on the Sunshine Coast (Climate Central, 2023)

## What are the implications?

Critical infrastructure providers with coastal assets are at the forefront of climate change impacts. Limited climate change adaptation is the result of past and contemporary decisions and values that have constructed rigid systems and a reliance on the status quo. Embedding more adaptive attributes, such as autonomy to change and innovate, within the critical infrastructure sector will give providers more autonomy over their organisational cultures and functions. This may be the catalyst to take providers to the leading edge of climate change adaptation.

## Want more information?

*The full paper is not currently available online. Keep an eye on the project website for updates.*

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## Coastal Governance: Embracing Vulnerability and Change

