Climate Threats
- Vulnerable to SLR risk as 13% of land (i.e. 137,000 buildings) is prone to coastal and inland flood risks according to the Auckland Council
- Low storm surge risks due to the low frequency of strong typhoons
- 4% of total land area is vulnerable to 1-in-100 year flooding
- Experienced its longest-ever dry spell recently with dams’ storage reduced to 67% capacity, significantly below the historical average of 82%

Government Actions
- Commissioned a coastal inundation risks study and published the findings in 2017
- Updated the expected SLR from 0.5m to 0.6m for the coming century
- Released the Coastal Management Framework for the Auckland Region in 2017 that includes initiatives such as ensuring new infrastructure is climate-proof and conducting climate compatibility assessments
- Created an online GeoMaps for property buyers to assess flood risks

CWR APACCT 20 INDEX – BENCHMARKING COASTAL THREATS FOR 20 APAC CITIES

Locked-in SLR Impacts
- Pop 0.2%
- Land 1%
- Pop 3%
- Land 6%

CWR APACCT 20 Ranking
Least Threats Most Threats
2/20

4°C CWR APACCT 20 Index
Full Index ex. Govt Action

THE ECONOMY AT STAKE

Economy Overview
Auckland is the economic powerhouse of New Zealand as it contributes 38% of the nation’s GDP. Its GDP increased by 6.6% Y-o-Y in 2018 and was led by financial and insurance services; professional, scientific, and technical services; and construction. The government also identified several sectors of focus such as commercial services, technology, and screen and creative. Its business-friendly environment was well recognised – ranked first in the world for ease of doing business according to the World Bank. Auckland is also famous for its tourism industry which contributed US$2bn to the GDP in 2018.

Import & Export
- Export US$36bn
- Import US$100bn

Airport Ranking
(Cargo volume in metric ton)

Port Ranking
(Cargo ranking in TEU)
PEOPLE, LAND & ECONOMY AFFECTED BY LOCKED-IN SEA LEVEL RISE (SLR)

LOCKED-IN SLR IN AUCKLAND REGION AT 1.5°C - GLOBAL ELEVATION DATA (SRTM - 30M)

1.5°C Warming: 2.9m SLR

What’s at risk...

- 2,385 Affected
- 61km² Affected

Airport (AKL)
Port
Stock Exchange
CBD

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LOCKED-IN SLR IN AUCKLAND REGION AT 4°C - GLOBAL ELEVATION DATA (SRTM - 30M)

4°C Warming: 8.9m SLR

What’s at risk...

- 39,462 Affected
- 294km² Affected

Airport (AKL)
Port
Stock Exchange
CBD

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Note: The NASA SRTM-30m elevation data maps were used to benchmark coastal threats across the 20 cities to build the CWR APACCT 20 Index. Since our analyses show that impacts worsen when higher granularity maps (5m) are used, for more in-depth analysis, please use such maps where available. The median level of the locked-in SLR range was used for both the 1.5°C and 4°C scenarios above so impacts could be worse at the higher end of the ranges. To see SLR low/median/high range impacts and differences in mapping granularity – please see our report “Avoiding Atlantis: The CWR APACCT 20 Index”. Such permanently submerged areas have implications for financial tail risks – for more on this see “Sovereigns at Risk: APAC Capital Threats”. Local tide adjustments were not made.

This factsheet is part of the CWR Coastal Capital Threat Series. For methodologies see Avoiding Atlantis: The CWR APACCT 20 Index – Benchmarking coastal threats for 20 APAC cities with finance sector input © China Water Risk. All rights reserved, 2020 | Contact: info@chinawaterrisk.org