TAIPEI

Climate Threats
- High storm surge risks due to high frequency of strong typhoons; on average hit by 3-4 typhoons per year
- Typhoon Dujuan (2015), a category-4 equivalent typhoon made landfall in northern Taiwan and killed 3 people, injured more than 300 and put 0.5mn out of electricity
- Higher than average temperature increase – a 1°C increase in global average will lead to a 1.7°C increase in Taipei, according to AirCleanTaiwan
- Also, Taipei lies in a basin, which means flood waters will be more difficult to discharge

Government Actions
- Published the “Adaptation Strategy to Climate Change in Taiwan” in 2012 that focuses on building climate resilience for high-risk areas/infrastructure and to promote holistic flood management, yet no follow-up action can be found
- The Taipei government implemented the sponge city initiative to increase flood resilience of urban areas
- Taiwan was ranked bottom 3rd in the Climate Change Performance Index by German Watch in 2019

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

Locked-in SLR Impacts
- Pop 4%
- Land 2%
- Pop 16%
- Land 5%

CWR APACCT 20 Ranking
- Least Threats
- Most Threats

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

THE ECONOMY AT STAKE

Economy Overview
Home to some of the world’s largest hardware producers such as Asus and Acer, Taiwan was the 13th most digitally competitive economy in the IMD World Digital Competitiveness Ranking in 2019 and most tech companies, such as Microsoft, IBM, Google and Cisco have chosen Taipei to set up their Taiwan offices. The 7,896 registered ICT companies in Taipei city generated production revenue of US$20bn in 2019. It is also a famous destination for foreign investments – as of 2019, over 74% of FDI and 345 out of 521 foreign businesses that came to Taiwan settled in Taipei, in which electronic component manufacturing attracted the most investors. Taipei is also famous for its tourism with 59mn people visiting its prominent tourism spots in 2019. Overall, Taipei’s government identified the following as focused industries: ICT (hardware and software), biotechnology, general merchandising (wholesale and retail), and MICE industries.

CWR APACCT 20 Index – Benchmarking coastal threats for 20 APAC cities with finance sector input

This factsheet is part of the CWR Coastal Capital Threat Series. For methodologies see Avoiding Atlantic: 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
PEOPLE, LAND & ECONOMY AFFECTED BY LOCKED-IN SEA LEVEL RISE (SLR)

LOCKED-IN SLR IN GREATER TAIPEI 1.5°C – GLOBAL ELEVATION DATA (SRTM - 30M)

1.5°C Warming: 2.9m SLR

What’s at risk...

- 0.3mn Affected (4%)
- 47km² Affected (2%)
- Airport (TPE)
- Airport (TSA)
- Port
- Stock Exchange
- CBD

Note: There are 2 ports in the Greater Taipei Metropolitan (Taipei-New Taipei-Keelung). All 2 ports will be flooded. Taoyuan International Airport (TPE) is located outside of the Greater Taipei Metropolitan area. It will not be flooded at 1.5°C of warming.


Infographic © China Water Risk 2020, all rights reserved.

LOCKED-IN SLR IN GREATER TAIPEI 4°C – GLOBAL ELEVATION DATA (SRTM - 30M)

4°C Warming: 8.9m SLR

What’s at risk...

- 1.1mn Affected (16%)
- 130km² Affected (5%)
- Airport (TPE)
- Airport (TSA)
- Port
- Stock Exchange
- CBD

Note: There are 2 ports in the Greater Taipei Metropolitan (Taipei-New Taipei-Keelung). All 2 ports will be flooded. Taoyuan International Airport (TPE) is located outside of the Greater Taipei Metropolitan area. It will not be flooded at 4°C of warming.


Infographic © China Water Risk 2020, all rights reserved.

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.