

## Press Release

### NEW 5-REPORT SERIES: [The CWR Survival Guides to Avoiding Atlantis](#)

*A series of five reports on benchmarking coastal capital threats in Asia Pacific (APAC) by CWR (China Water Risk)*

**Hong Kong, 23<sup>rd</sup> November 2020** – CWR releases a series of “**survival guides**” to avoid Atlantis in its **Coastal Capital Threat Series**, which benchmarks risks for 20 coastal capitals and economic hubs in APAC from Tokyo to Sydney. According to CWR, urban real estate equivalent to 59 Singapores will be underwater without serious adaptation measures if we continue with business-as-usual. And that’s just for 20 coastal cities.

Seas are rising faster than we think so CWR has curated a “survival guide” series of five reports to help avoid this dire future. The five reports include an overview of the latest science on rising seas; a ground-breaking CWR APACCT 20 Index to benchmark risks; physical threats levels of 20 APAC cities; what governments are or are not doing to protect from existential threats; analyses of sovereign and clustered financial risks from GDP and trade to bank loans; as well as next steps and to-do lists for multiple stakeholders to waterproof APAC.

We are running out of time to avoid Atlantis. We will likely hit 1.5°C of warming by 2030. Reaching this 70 years earlier than the intended Paris Agreement target date of 2100 means we will feel the impact of rising seas sooner. As it is, we are already 1.1°C warmer than the pre-industrial period.

Instead of 1m, ice experts now say that sea level rise as high as 3m is plausible by 2100. Unfortunately, as many cities are sinking and face typhoons across APAC, coastal threats will be felt sooner. According to CWR, ASEAN cities like Bangkok and Jakarta could be permanently submerged by 1.94m and 2.37m respectively by 2050. Elsewhere in typhoon prone North Asia, both Hong Kong and Tokyo could see storm tides of 5.5m+ today if typhoons arrive at high tide.

Costs from storms are set to balloon – just seven typhoons between 2017 and 2019 cost APAC US\$60bn, yet CWR estimates that storm tides plus rising seas could reach 10m+ by 2100 in their worst-case scenarios for Hong Kong. According to CWR’s reports, a person standing in front of the AIA, Hong Kong Club, HSBC, Mandarin Oriental or Standard Chartered buildings in the city’s Central financial district will be hit by waves as high as 5.69m.

*“If we are not prepared, APAC’s coastal capitals will become the new Atlantis. Impacts are severe as they are clustered – around 3m of SLR will paralyse trade-reliant APAC economies and wipe out millions of homes and jobs”, warned Debra Tan, the Head of CWR. “Just 20 coastal cities in our CWR APACCT 20 Index drive around a quarter of global sea and air cargo volumes; yet at 1.5°C we’d lock-in the loss of 20 ports and 12 airports that serve these cities. This clearly puts the recently inked RCEP trade deal at risk” she adds.*

Managing coastal threats is integral to avoiding Atlantis. As part of its survival guide, CWR worked with the financial sector to develop the CWR APACCT 20 Index for 20 coastal capitals and economic hubs. Over 100 finance professionals from chairs/directors of bank boards to credit/equity research analysts plus financial industry associations, asset owners and financial regulators helped build this inaugural index which not only benchmarks physical coastal threats but also government adaptation action to protect cities as it can reduce risks.

The risk snapshot CWR provides is sobering. CWR’s index shows that rising seas will cause 28 million people to lose their homes, urban real estate equivalent to 22 Singapores will be underwater. And this is under the best-case scenario of 1.5°C, which we will lock-in in 10 years’ time. Inaction means our current climate path of 3°C-5°C will send us headlong into a dire future – swathes of APAC will be underwater – the 4°C CWR APACCT 20 Index shows that over 100mn people will lose their homes, urban real estate equivalent to 59 Singapores will be underwater plus all 23 ports and 23 out of 25 airports will be permanently submerged without serious adaptation measures. And that’s just for 20 coastal cities.

*“These sea level rise impacts were supposed to hit us a few hundred years in the future but now we may feel the locked-in impacts of 1.5°C as early as 2100, and for 4°C by 2200.” said Tan. Latest research released this year indicates that Greenland and Antarctica are losing ice 6x faster than they were in the 1990s plus our oceans have warmed at an alarming rate, equivalent to dropping 5 Hiroshima bombs per second into the ocean for the last 25 years. Both accelerate rising seas. Given this grim future, “APAC must move to implement no-regret adaptation for locked-in impacts at 1.5°C plus commit and fast-track carbon neutrality to avoid 4°C” urged Tan.*

Yet, CWR’s index rankings reveal unexpected behaviour – not all governments are taking action to protect their cities despite high exposure to coastal threats. At the bottom, at No.20, is Taipei in the 1.5°C CWR APACCT 20 Index; and Macao in the 4°C CWR APACCT 20 Index. Surprisingly, other cities with lacklustre adaptation despite high vulnerability are Hong Kong and Tokyo. At the top, Singapore leads the pack: No.1 in both 1.5°C and 4°C CWR APACCT 20 Index rankings – it’s spending over SGD100bn on adaptation including raising critical infrastructure by 5m. Shanghai, Shenzhen and Guangzhou, are all vulnerable but their adaptation efforts including reinforcing and building sea walls see their rankings materially improve. Jakarta’s extreme plans of moving its administrative capital plus building sea walls and polders see it to the Top 5.

CWR's analysis also reveals that not all cities from the same country are taking the same amount of action despite significant GDP at risk. If this continues, the region will be in for a hard landing. As Dharisha Miranda, lead author of the series stated *"The high concentration of financial risks is concerning. In APAC, people, assets and GDP are clustered in coastal capitals and key cities – the 20 APAC cities in our index generate US\$5.7trn of GDP per annum, this is greater than the combined GDP of Germany and Canada."*

Mirando further cautioned that *"These cities drive their national/territorial GDP – around 20% plus more for Tokyo, Seoul, Sydney, Auckland, Bangkok, Manila and Taipei to 100% for Hong Kong, Singapore and Macao. Such levels have implications for sovereign credit risk. Our analysis has led us to put Japan, Hong Kong, Macao and Taiwan on our watchlist. These governments should step up action to protect their cities, especially since they can afford to."*

Risks expand beyond GDP and trade. CWR's reports reveal bank loan books, markets and pension funds are also clustered and exposed to coastal threats. Central banks and financial regulators are taking action to address climate risks and credit rating agencies have also started to warn of coastal threat implications for sovereigns. But chronic risk assessments and inclusion of coastal threats in valuations have yet to manifest. This missing chunk of chronic risks results in an incomplete APAC risk snapshot that perpetuates a vicious cycle – capital continues to be deployed to vulnerable locations while ongoing investments in carbon intensive industries further exacerbates vulnerability.

Banks are acting with recent carbon neutrality pledges but CWR says they are not acting fast enough. *"The longer we ignore chronic tail risks, the worse it becomes. Sooner or later, we must bite the bullet and discount terminal values - the permanent overhang from rising seas effectively turns the valuations of all vulnerable assets from "freehold" into "leasehold". This is finance 101; not natural capital accounting. Don't just prioritise carbon transition risks – banks must start to assess and spread physical coastal threats plus ensure capital adequacy"* said ex-banker Tan.

Indeed, the statistics in CWR's reports are compelling as they are shocking; a much needed urgent wake up call to action. With so much at stake, CWR hopes that all stakeholders use their 3-step survival guide - Step 1: Get on top of existential threats; Step 2: Assess exposure; and Step 3: Take action to waterproof APAC with tailored to-do lists for different stakeholders. Sounds simple right? As Tan summarised *"It's time for finance and governments to make sensible plans to ensure that APAC is ready and can survive capital threats and systemic shocks ahead. Together we must waterproof APAC to avoid Atlantis. The alternative is unthinkable"*.

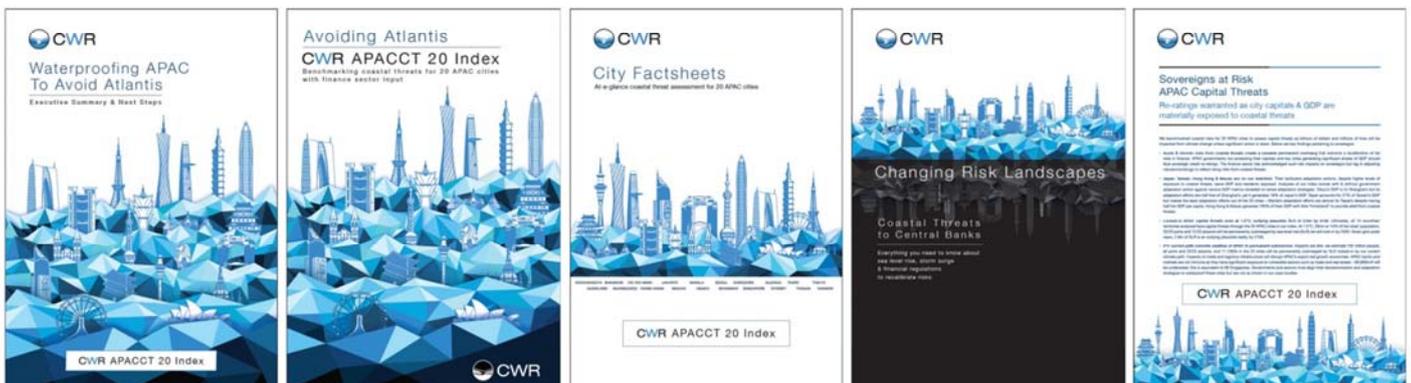
**For more information, please contact: Dharisha Miranda**  
Email: [dmi@chinawaterrisk.org](mailto:dmi@chinawaterrisk.org)

**CWR's Survival Guide Series Link:**  
<http://www.chinawaterrisk.org/notices/new-cwr-report-cwr-coastal-capital-threat-series>



# CWR APACCT 20 Index

## CWR Survival Guide to Avoiding Atlantis



## About CWR

CWR (China Water Risk) is a non-profit think tank that aims to create a world where water and climate risks are embedded in business & finance. Since its launch in 2011, it has worked from its Hong Kong base to engage with global business and investment communities in understanding and managing various types of water risks in China and across Asia. CWR's collaborative reports with financial institutions, IGOs, scientists as well as government related bodies have been considered ground-breaking and instrumental in understanding Asia's water challenges. They have help inform better decision-making today for a water secure tomorrow. Join the conversation at [www.chinawaterrisk.org](http://www.chinawaterrisk.org)

## CWR Core Funders:

### About ADMCF

The ADM Capital Foundation (ADMCF) has incubated and sponsored CWR from the start. ADMCF supports CWR through core grants and the provision of office space. ADMCF is an impact driven foundation focused on making change in Asia across five key areas: marine ecology, water security, air quality, wildlife trade and forestry conservation finance. [www.admcf.org](http://www.admcf.org)

### About RS Group

RS Group has been a core funder of CWR since 2013, allowing CWR the flexibility to drive funding to areas that can catalyse maximum impact. RS Group is a family office that focuses on sustainability. It believes that it in new, collaborative approaches to investment, business and philanthropy are needed if we are going to build a global community where social progress and economic development occur in harmony with nature. [www.rsgroup.asia](http://www.rsgroup.asia)

### About RBF

The Rockefeller Brothers Fund (RBF) has funded CWR since 2013. Originally funds were project focused but as CWR grew, RBF support evolved into core grants allowing CWR the flexibility to drive funding to areas that can catalyse maximum impact given the fast-moving environmental landscape in China. The Rockefeller Brothers Fund advances social change that contributes to a more just, sustainable, and peaceful world. [www.rbf.org](http://www.rbf.org)



# WATER MATTERS

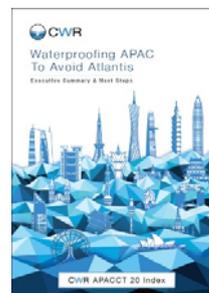
DECISIONS TODAY FOR WATER TOMORROW

## NEW 5-REPORT SERIES: **CWR Survival Guide to Avoiding Atlantis**

*A series of five reports on benchmarking coastal capital threats in Asia Pacific (APAC) by CWR (China Water Risk)*

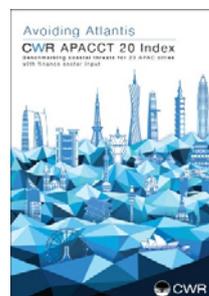
1. **Waterproofing APAC To Avoid Atlantis – Executive Summary & Next Steps.**

This report is CWR's survival guide to avoiding Atlantis. It is the executive summary of the entire series of reports and is full of infographics plus need-to-know facts about the new risk landscape. It also guides you through 3-steps to waterproof APAC including next steps and to-do lists for asset owners, asset managers and banks; central banks and regulators; and governments. So if you don't have time to read the rest of the series, we recommend you [read this one](#).



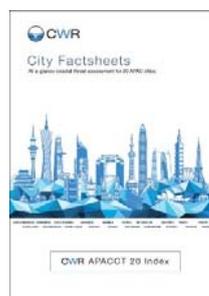
2. **Avoiding Atlantis: CWR APACCT 20 Index – Benchmarking coastal threats for 20 APAC cities with finance sector input.**

This report covers the development of the CWR APACCT 20 Index (CWR APAC Coastal Threat Index for 20 cities) including the benchmarking methodology and finance sector feedback which shaped the parameters of the index, its indicators plus weightings. The index reflects impacts on land area, population, key infrastructure – stacked locked-in sea level rise (SLR) risks for 1.5°C, 2°C, 3°C & 4°C are assessed for each indicator; subsidence + storm surge + government action also included. To gauge relative risk across APAC, see which cities are ahead and which cities are behind in surviving our rising seas and [access the index](#).



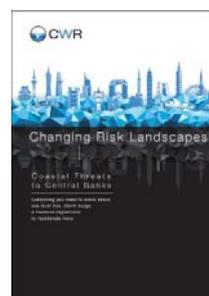
3. **CWR APACCT 20 Index City Factsheets – At-a-glance coastal threat assessment for 20 APAC cities.**

This is a collection of factsheets for each of the cities in the CWR APACCT 20 Index illustrating at-a-glance exposure for various climate scenarios. Cities included are Aichi/Nagoya, Auckland, Bangkok, Guangzhou, Ho Chi Minh, Hong Kong, Jakarta, Macao, Manila, Osaka, Seoul, Shanghai, Shenzhen, Singapore, Suzhou, Sydney, Taipei, Tianjin, Tokyo & Yangon. Use factsheets to help gauge absolute risks – see a [risk snapshot for each city now](#).



4. **Changing Risk Landscapes: Coastal Threats To Central Banks – Everything you need to know about sea level rise, storm surge & financial regulations to recalibrate risks.**

Central Banks around the world have formed a 68+ member strong coalition to prepare for systemic risks triggered by climate threats. Recent grim polar news means multi-metre SLR is more imminent than we think yet we have not factored in such chronic risks. This report thus provides an overview of the latest science-based research on SLR & storm surge and their tail risk implications for finance. A summary of the evolving financial landscape plus how-to-build scenarios guide to assess hotspots are provided. So stay ahead of the curve and get on top of this [new risk landscape](#).



5. **Sovereigns at Risk – APAC Capital Threats – Re-ratings warranted as city capitals & GDP are materially exposed to coastal threats.**

Acute & chronic risks from coastal threats create a sizeable permanent overhang that warrants a recalibration of risks across finance. APAC governments that are not protecting their cities and revenue only compound the physical threats ahead. In this report, we analyse clustered risks from GDP to trade and markets plus run through the implications for sovereign credit ratings of the 14 APAC countries/territories. See why we have put Japan, Taiwan, Hong Kong and Macao [on our watchlist](#).

