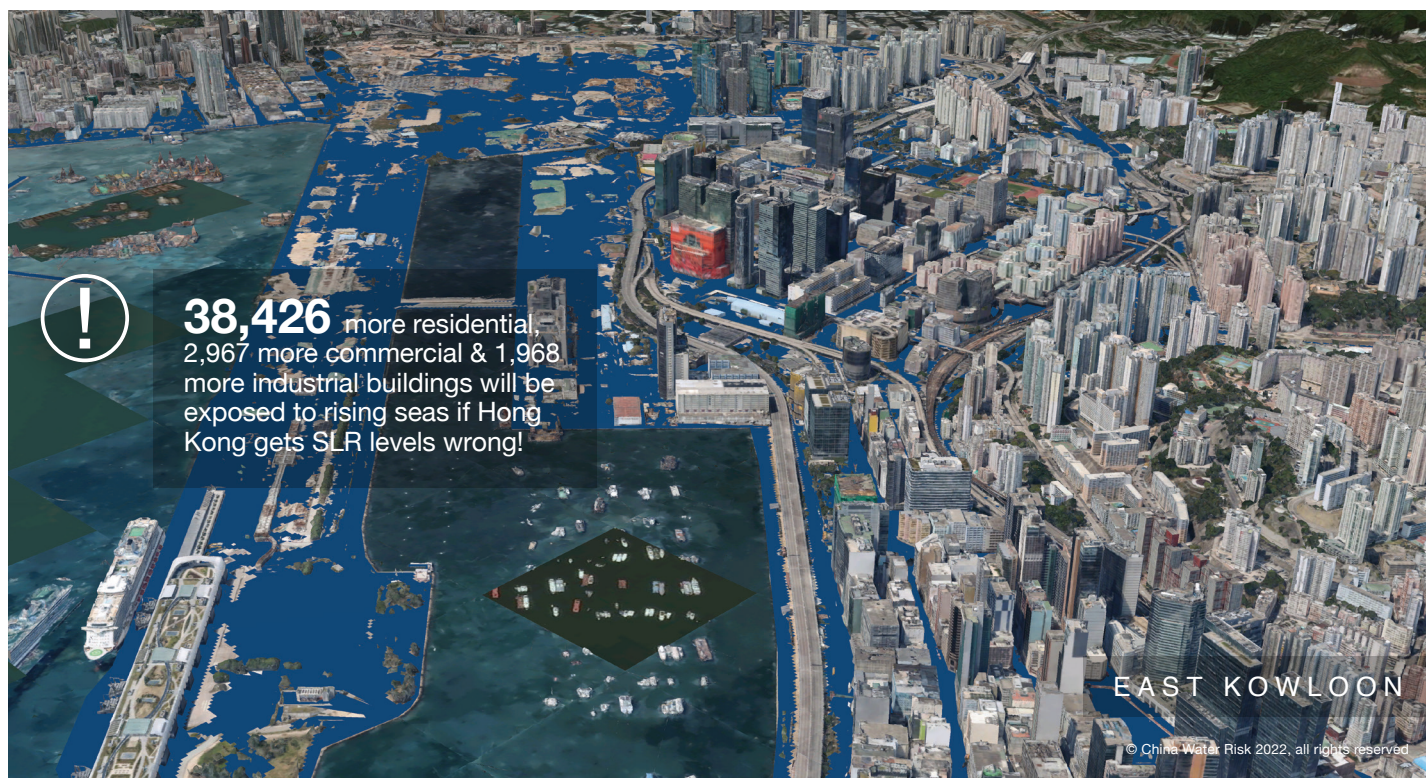


Defend HK Property from Submersion

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Current emissions signal possibility of 2m to 3m SLR by 2100 but HK is adapting to 0.5m



Source: CWR analyses based on IPCC AR6 & astronomical high tide in Hong Kong; Digital Terrain Model (5m) from the Lands Department of Hong Kong; 3D photo-realistic model based on the Planning Department of Hong Kong; ESRI; Civil Engineering & Development Department 2022; Drainage Services Department 2018.

There is too much at stake ... we cannot afford to get it wrong!

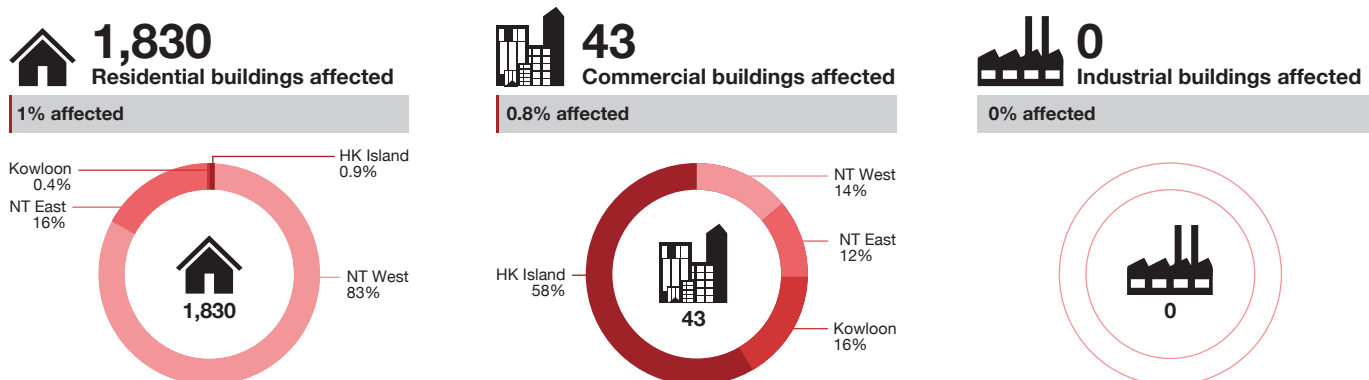
The IPCC AR6 warned that 2-5m of sea level rise (SLR) “cannot be ruled out” by 2100 and 2150 as the latest science from warming oceans to the polar regions do not bode well for SLR. Scientists worry that the current policies & actions trajectory of 2.7°C (2°C-3.6°C) will trigger “an abrupt jump” in ice loss after around 2060 making SLR of >1m by 2100 possible. This has led the IPCC to warn of 2-3m of SLR by 2100.

Latest observations are even more worrying: the ice shelf holding the Thwaites Glacier (the size of Florida) could collapse in 5 years time destabilising the West Antarctic Ice Sheet and triggering rapid SLR.

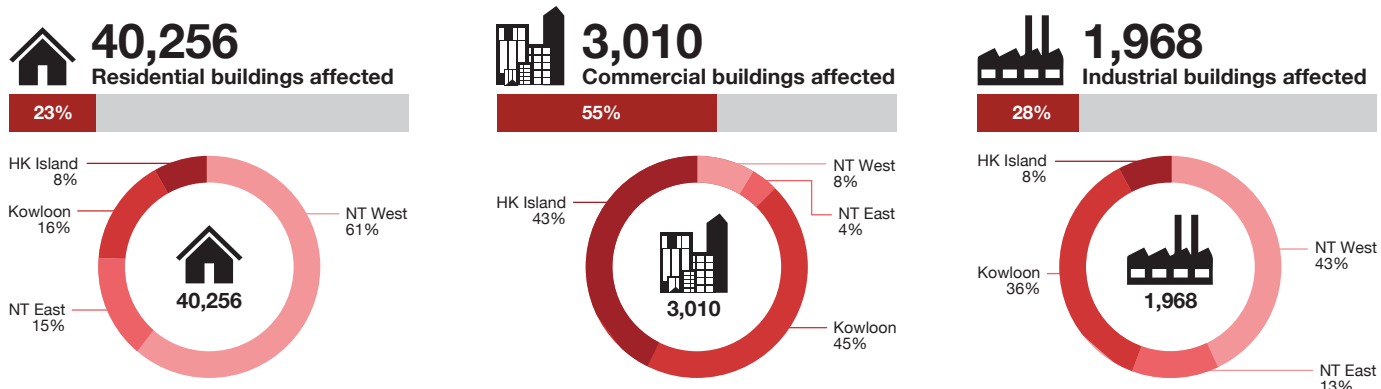
Timing matters – reaching net zero emissions by 2030 increases the likelihood of staying within 2°C by 2100. A later net zero date will trigger faster polar ice melt and bring forward multi-metre SLR. So 2-3m of SLR should be used for adaptation planning today; especially since there’s now a 50% chance that we will reach 1.5°C by 2026.

Already, our polar regions are warming at unprecedented rates: Arctic & Antarctic temperatures were 30°C & 40°C above normal in March 2022. With fast-moving threats, it’s better to be safe than sorry as there is clearly too much at stake – see below for impacts if HK gets it wrong!

What’s underwater in HK at 0.5m of SLR – HK adaptation defence level



What’s underwater in HK at 2-3m of SLR – New York & Singapore adaptation defence levels



Avoid maladaptation! Pick the right levels & the right timeline now!

Don’t get caught off-guard! Planning adaptation to lower levels by 2100 or using a shorter timeline like 2050 will likely result in maladaptation especially since rapid SLR will likely only occur after ~2060 on our current emissions path. So why bet the HKSAR’s future on the world reaching net zero? It’s safer to use a 2100 timeline like New York & Singapore to catalyse transformative rather than incremental adaptation, which is flexible and can react to rapid SLR if it accelerates after ~2060. We must defend the SAR with a holistic contingency plan – there is just too much at stake! Start a dedicated coastal defence task force today as these are existential threats for the HKSAR – see impacts on [HK Revenues](#), [Homes](#) & [Basic Needs](#) ...

HK Revenues

Homes

Basic Needs

Note: 172,091 residential buildings, 5,446 commercial buildings & 7,101 industrial buildings analysed sourced from the Lands Department of Hong Kong & the Planning Department of Hong Kong. Source: CWR analyses based on IPCC AR6; Climate Action Tracker 2021; DeConto et al 2021; Pettit et al 2021; WMO 2022; AP News 2022; SIWW 2022 Thematic & Business Forums; PUB 2018.

ASSESS

Understand the new risk landscape | Assess water & climate threats | Identify clustered risk hotspots & compound risks

STRATEGIZE

Align ESG & risk strategies | Plan sensible net zero & resilience strategies | Leverage risks to identify opportunities

ADAPT

Protect & prepare for locked-in climate impacts | Ideate flexible innovations | Be ready to survive & thrive

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