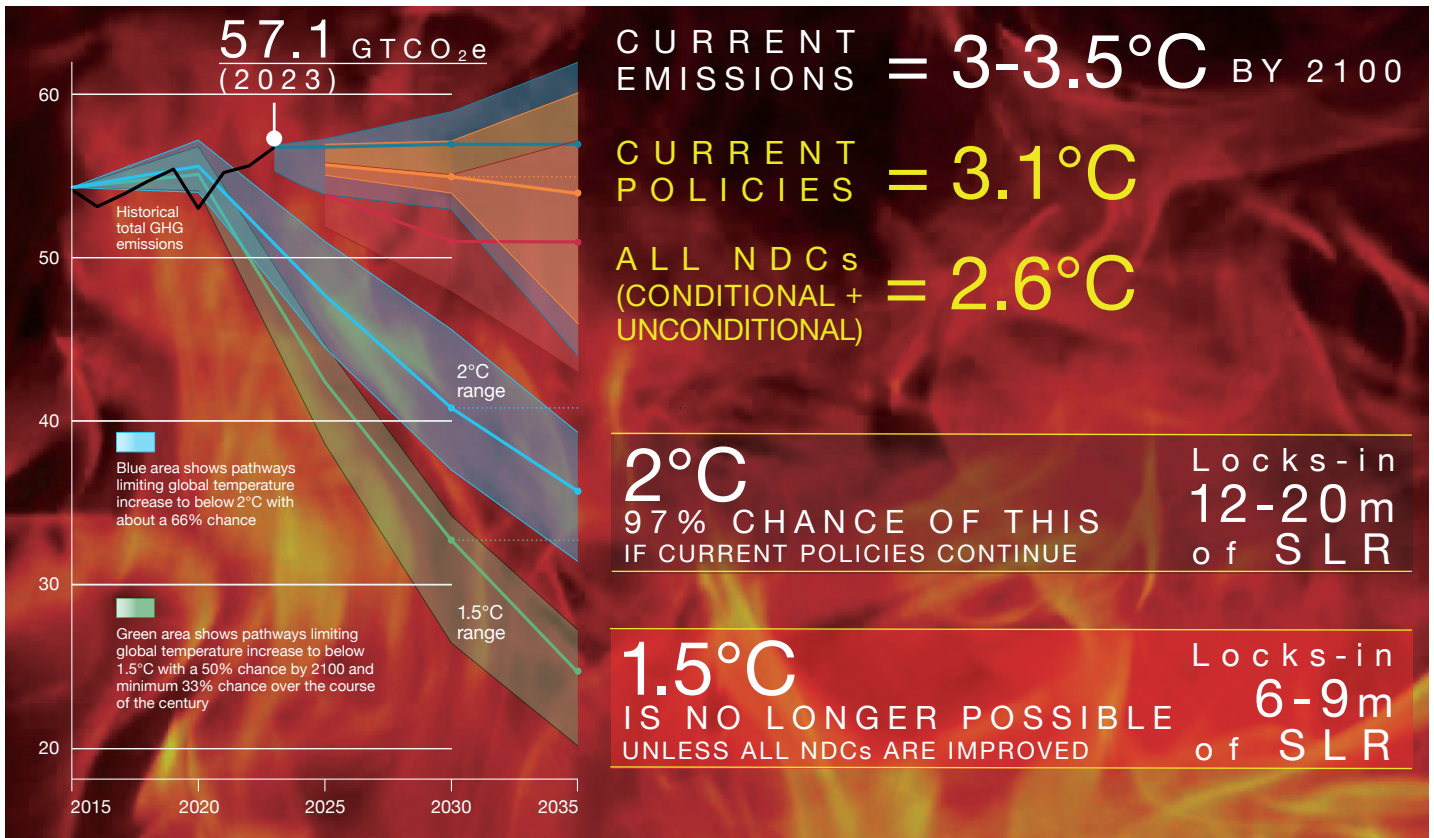


Current Path = Climate Hell

JOIN US



Our current emissions path sends us speeding along the “highway to climate hell”



CUTS = NOT ENOUGH

43% emission cuts must be delivered by 2030

We must stay below 1.5°C with little or no overshoot if we are to stay in a “safer zone” for ice & SLR. To do this with over 50% likelihood by 2100, the IPCC AR6 says we need a 43% cut in GHG emissions by 2030 relative to 2019 levels. This sizeable cut of ~24GtCO₂e is comparable to the combined 2022 GHG emissions of China, the US & EU!

Such cuts are impossible without fast tracking fossil fuel transition as fossil fuel carbon emissions of 39GtCO₂ account for 68% of global 2023 GHG emissions.

We're far from a 43% cut – projected cuts by 2030 in line with the latest NDCs from 2019 levels are only a mere 2.6%.

Deep Cuts



STILL GOING UP

430.6ppm = new daily high of CO₂ on 7 March 2025

Emissions are still going up, not down, soaring to a new high of 57.1GtCO₂e in 2023. Shockingly, year-on-year increase of 1.3% is 1.6x the average growth rate during the pre-COVID decade (2010–2019) of 0.8% p.a.!

Yet, climate action still lags abysmally. The UN's “Emissions Gap Report 2024”, states that current policies track a 3.1°C path, while delivering on all unconditional & conditional NDCs by 2030 will only lower this to 2.6°C.

Today, CO₂ levels are still rising. **CO₂ levels hit 428ppm in 2024, but daily rates have now hit 430ppm+ in 2025.** Feedback loops from deep permafrost thaw & raging wildfires could push this even higher.

Permafrost



1.5°C OVERSHOOT

NDCs are currently not enough to prevent overshoot

Although technically feasible, 1.5°C is no longer possible unless all unconditional & conditional NDCs are improved. But, many governments are delaying, not accelerating, meaningful mitigation to 2040/2050/beyond.

The trade-offs are deadly serious: continuing with fossil fuels can lower energy costs today, but a slower transition will lock-in widespread future losses & damages. Adaptation action & costs will balloon to match escalating threats, but we will hit adaptation limits when adapting becomes no longer technically feasible.

Once tipping points are triggered, ice loss & rising seas are irreversible. There's no “undo”, we must improve current NDCs!

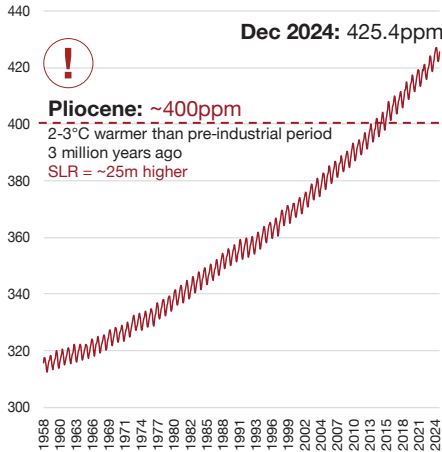
Tipping Points

Actual CO₂ emissions are still rising...

To stay below 1.5°C, the IPCC AR6 projects CO₂ levels in 2100 to be 440ppm. But with daily CO₂ levels in the atmosphere exceeding 430ppm in 2025, we are getting closer to these levels some 75 years in advance! If CO₂ continues to rise at the current rate of 2.5-3.3ppm per year, levels will hit 600-670ppm resulting in 3-3.5°C of warming by 2100. However, emissions are likely rising faster due to feedback loops from deep permafrost thaw & unprecedented wildfires today. A shocking ~8.8GtCO₂e were released in the March 2023 to February 2024 fire season – this is greater than the annual GHG emissions of the USA of ~6GtCO₂e! Also, carbon sinks such as the Arctic-boreal permafrost region have now become a net source of GHG emissions.

Actual emissions are still rising...

CO₂ concentration levels (ppm): 1958-2024



1m of SLR by 2070 if current emissions continue

The last time we saw CO₂ levels of 400ppm was 3 million years ago during the Pliocene. Temperatures then were 2-3°C warmer and seas some 25m higher! Even 1.5°C presents a dangerous world as 6-9m of SLR will be locked-in. So, it's not a matter of if but when we'll see these levels: emission cuts will slow down SLR but continuing will speed it up.

Terrifyingly, SLR is speeding up, not slowing down. With current observed [Greenland](#) and [Antarctica](#) ice melt plus [rapid ocean warming](#), scientists now say **1m of SLR by 2070 is possible, if current emissions continue**; a 2024 Singapore study points to 1.9m by 2100.

SLR Levels

Transformative adaptation

- **Adaptation planning:** the base case is 3°C so plan resilience for 3-4°C; at least adapt for 2°C.
- **Reality check:** chronic impacts today like SLR are already tracking IPCC AR6's worst-case scenario so adapt accordingly; Action: re-assess risk exposure to correct scenario. Don't ignore IPCC's "cannot be ruled out" 2m of SLR by 2100 & 5m by 2150. Prepare for no-regret, flexible & transformative adaptation.

We need rapid decarbonisation!

- **Deliver on current NDCs:** laggards must meet all their NDCs especially rich nations.
- **Improve pledges:** especially fossil fuels.
- **Timing matters:** cuts to be made earlier by 2030 to avoid 1m of SLR by 2070.
- **Action:** be net zero by 2030-2040.

Don't forget! Rapid decarbonisation is the best form of adaptation! Plus, climate strategies (adaptation & transition) must be cohesive to tackle widening risk gaps.

Stop the Melt

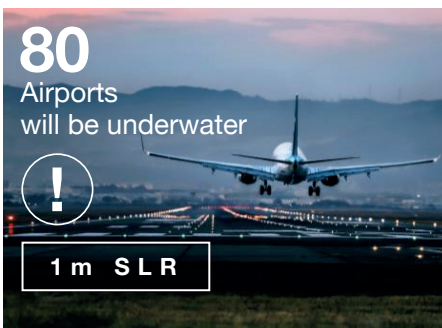
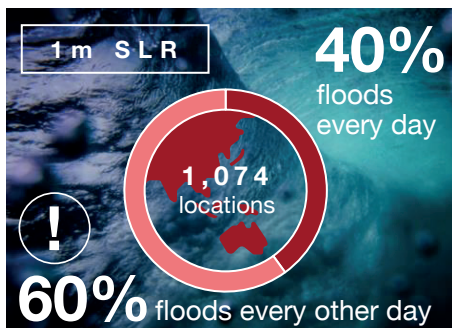
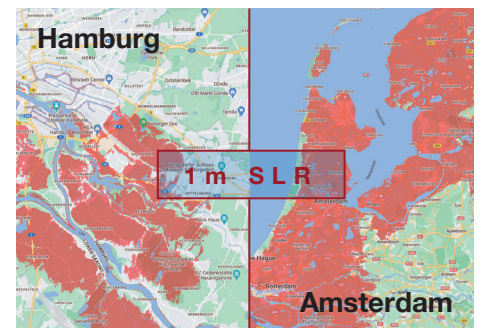
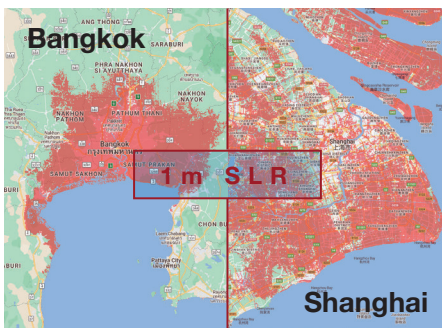
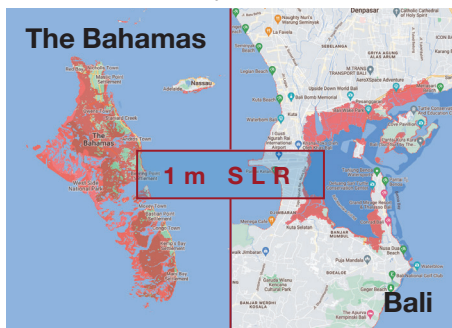
Rivers Run Dry

What will be impacted at 1m of SLR? Existential threats to island nations, cities, airports & even oil...



António Guterres
The UN Secretary-General
UN Security Council Debate on
"Sea-level Rise: Implications for
International Peace and Security",
February 2023

"Mega-cities on every continent will face serious impacts including Lagos, Maputo, Bangkok, Dhaka, Jakarta, Mumbai, Shanghai, Copenhagen, London, Los Angeles, New York, Buenos Aires and Santiago. The danger is especially acute for nearly 900 million people who live in coastal zones at low elevations — that's one out of ten people on earth. Some coastlines have already seen triple the average rate of sea-level rise."



Source: CWR; ICCI State of the Cryosphere Report 2024; Arctic News; UNEP Emissions Gap Report 2024; Ramage et al. (2024), Global Biogeochemical Cycles (38); NOAA; Rovere et al. (2014), Earth and Planetary Science Letters (387); Naish et al. (2009), Nature (458); Grandey et al. (2024), Earth's Future (12); IPCC AR6 WG1 (2021); UN Secretary-General remarks to the Security Council Debate on Sea-Level Rise (2023); Climate Central, Surging Seas; Hague et al. (2023), Earth's Future (11); Resource Watch; CWR (2024) Crude Awakening! Fast rising seas threaten global oil trade & energy security – Spotlight: Japan & South Korea.

HK Underwater