

ONE OCEAN, TWO FUTURES

+0.75 °C

already measured

ocean warming across 21 Pacific nations, since 1850–1900

2.8×

more warming

by 2100 under very high emissions than under low

+0.78 m

higher seas

by 2100 on the high pathway, up to 1.16 m

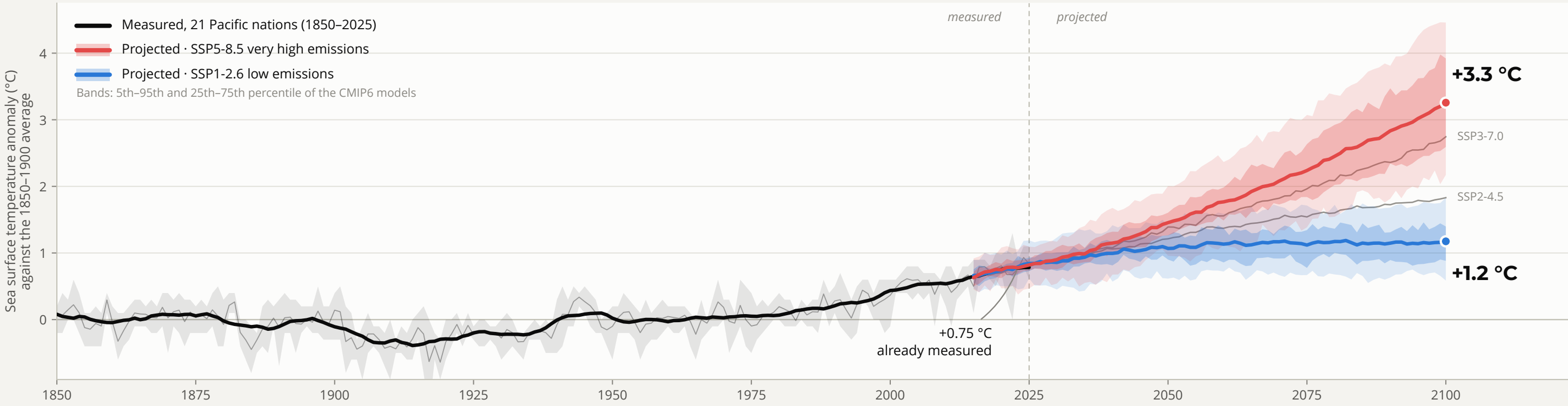
890k

people at the edge

living less than five metres above the sea today

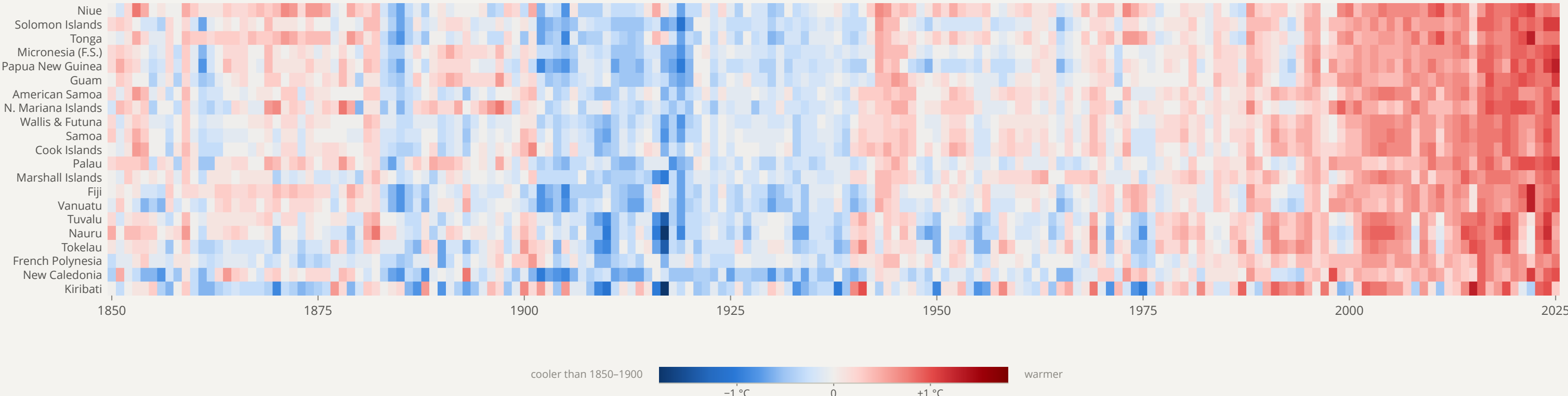
A The ocean has already changed. How much more is up to us.

Annual sea surface temperature, South Pacific — observations to 2025, then 26 climate models to 2100.



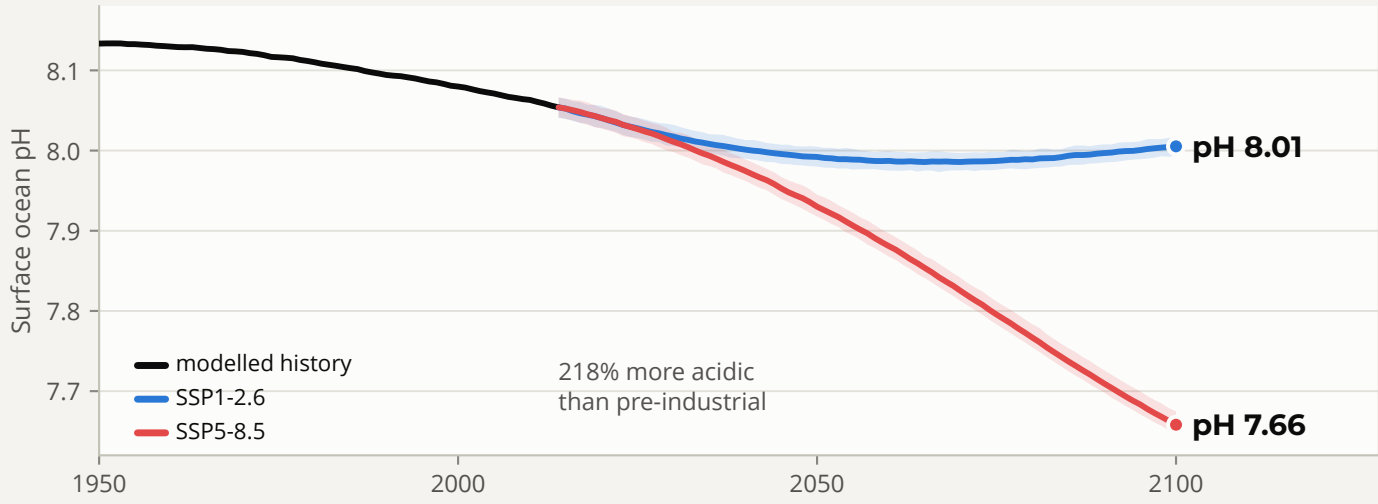
B No nation was spared.

Each row is a country, each stripe a year of measured sea surface temperature. Sorted by warming since 2000.



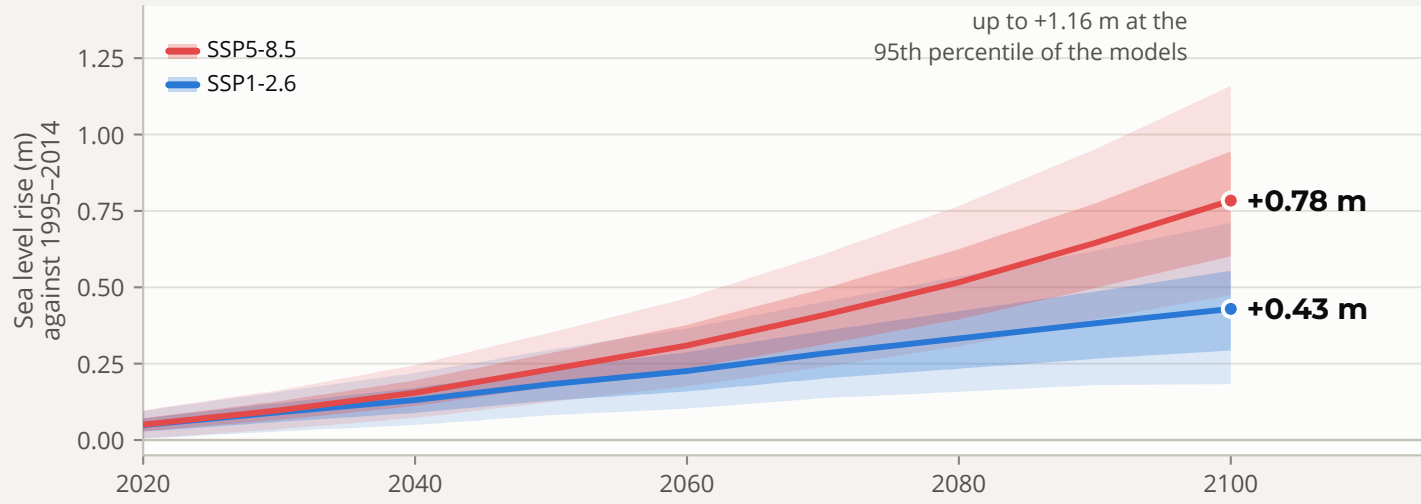
C The water turns corrosive.

Lower pH dissolves the coral and shellfish that reefs and fisheries are built on.



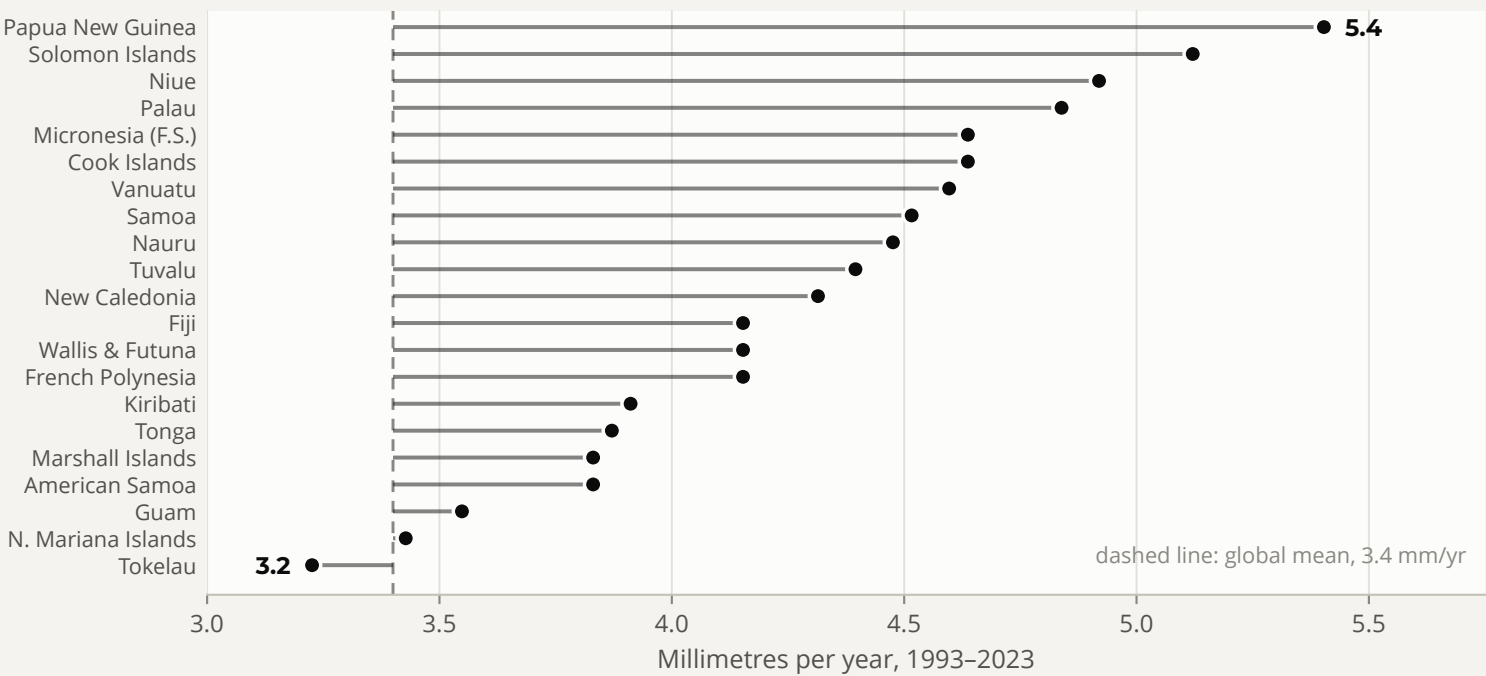
D The sea keeps coming either way.

For atolls a metre is not a statistic. Even the low pathway does not stop the rise this century.



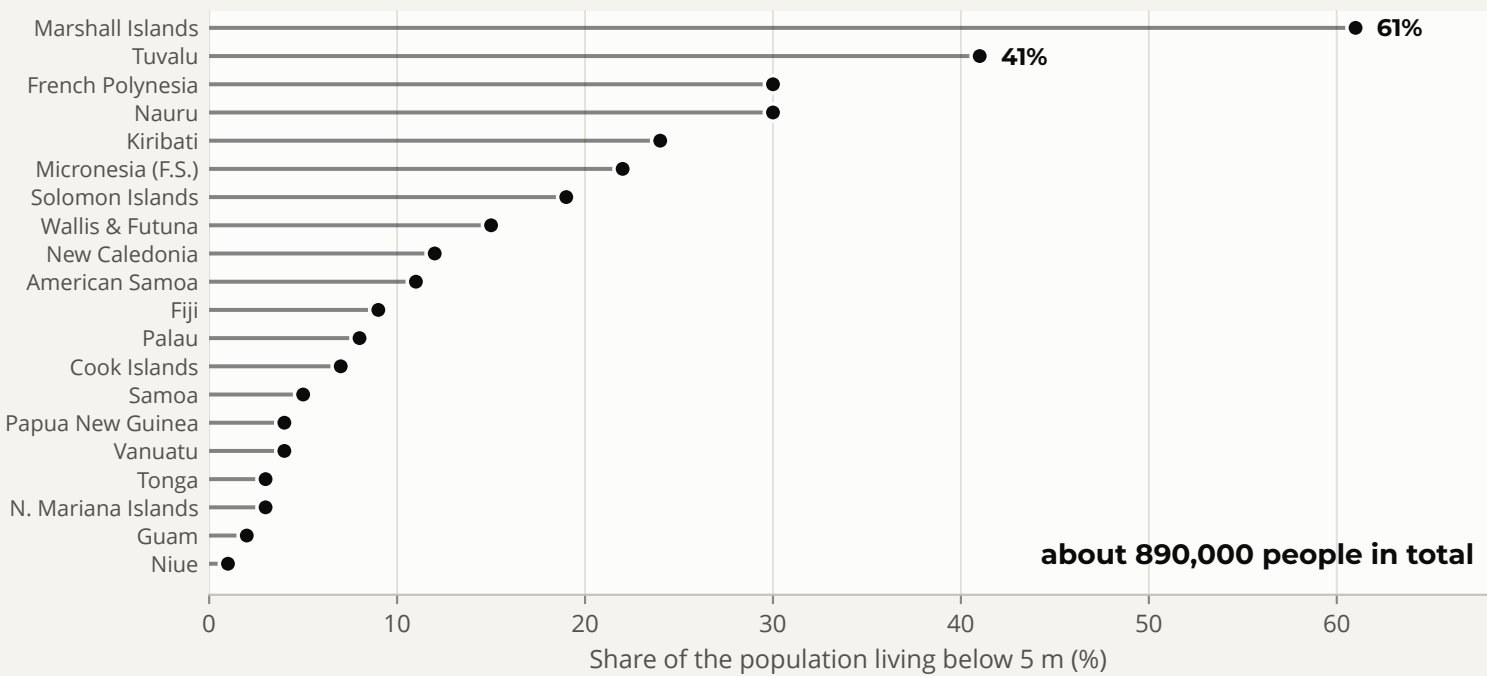
E The sea is rising faster here.

20 of 21 sit above the global mean rate. Satellite altimetry.



F This is who is standing in it.

Population below 5 m elevation, 2024. 20 of 21 report an estimate.



Visualisation: TOLEGAN AKYNZHANOV • Pacific Dataviz Challenge 2026 • static category

Sources. Pacific Data Hub .Stat, dataflow SPC:DF_CLIMATE_CHANGE — indicators “Mean sea surface temperature anomalies” and “Sea level anomalies” for 21 Pacific island countries and territories (official Challenge datasets, retrieved over the SDMX REST API). • Pacific Data Hub .Stat, dataflow SPC:DF_POP_LECZ — population living in low elevation coastal zones, latest available year (2024); no estimate is published for Tokelau. • IPCC WGI Interactive Atlas, CMIP6 multi-model ensemble, AR6 reference region S.Pacific-Ocean; anomalies against the 1850–1900 pre-industrial baseline. • Gutiérrez, J.M., R.G. Jones, G.T. Narisma et al. (2021): Atlas. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the IPCC. • Shaded bands show the 5th–95th and 25th–75th percentiles of the model ensemble; lines show the ensemble mean.