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SPEAKER

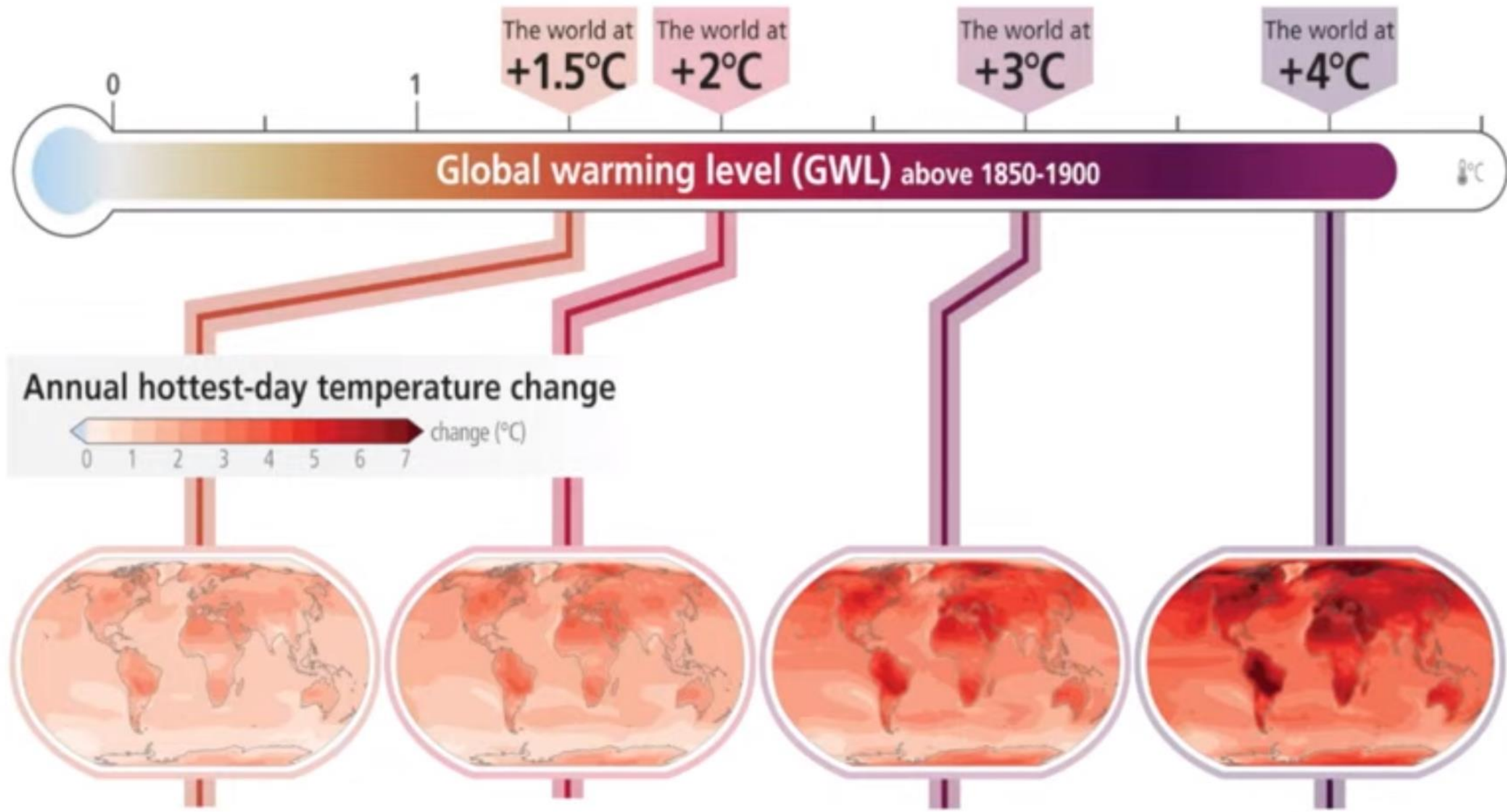
HANS-OTTO PÖRTNER

MARINE ECOPHYSIOLOGIST

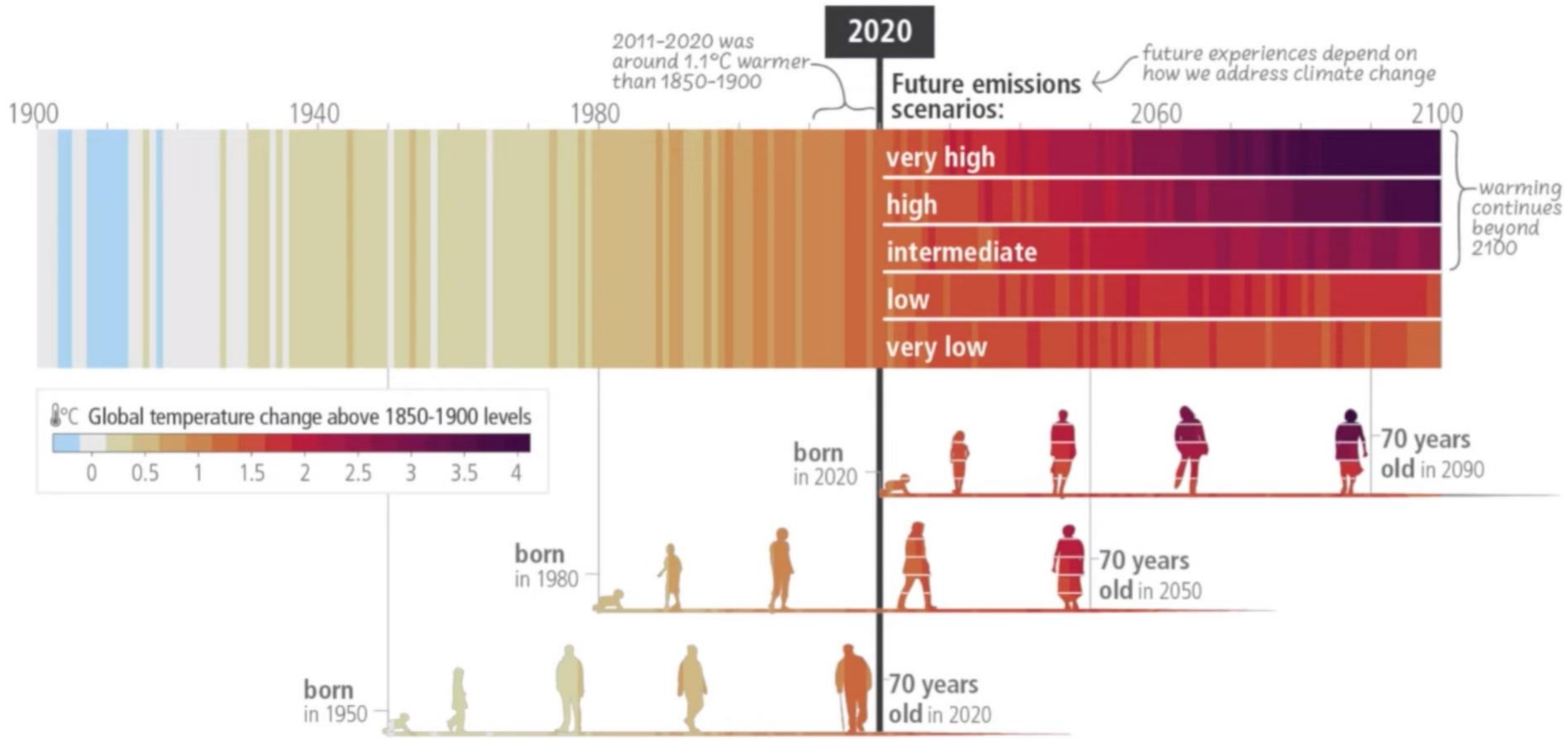
ALFRED-WEGENER-INSTITUTE & CO-CHAIR WG II, IPCC



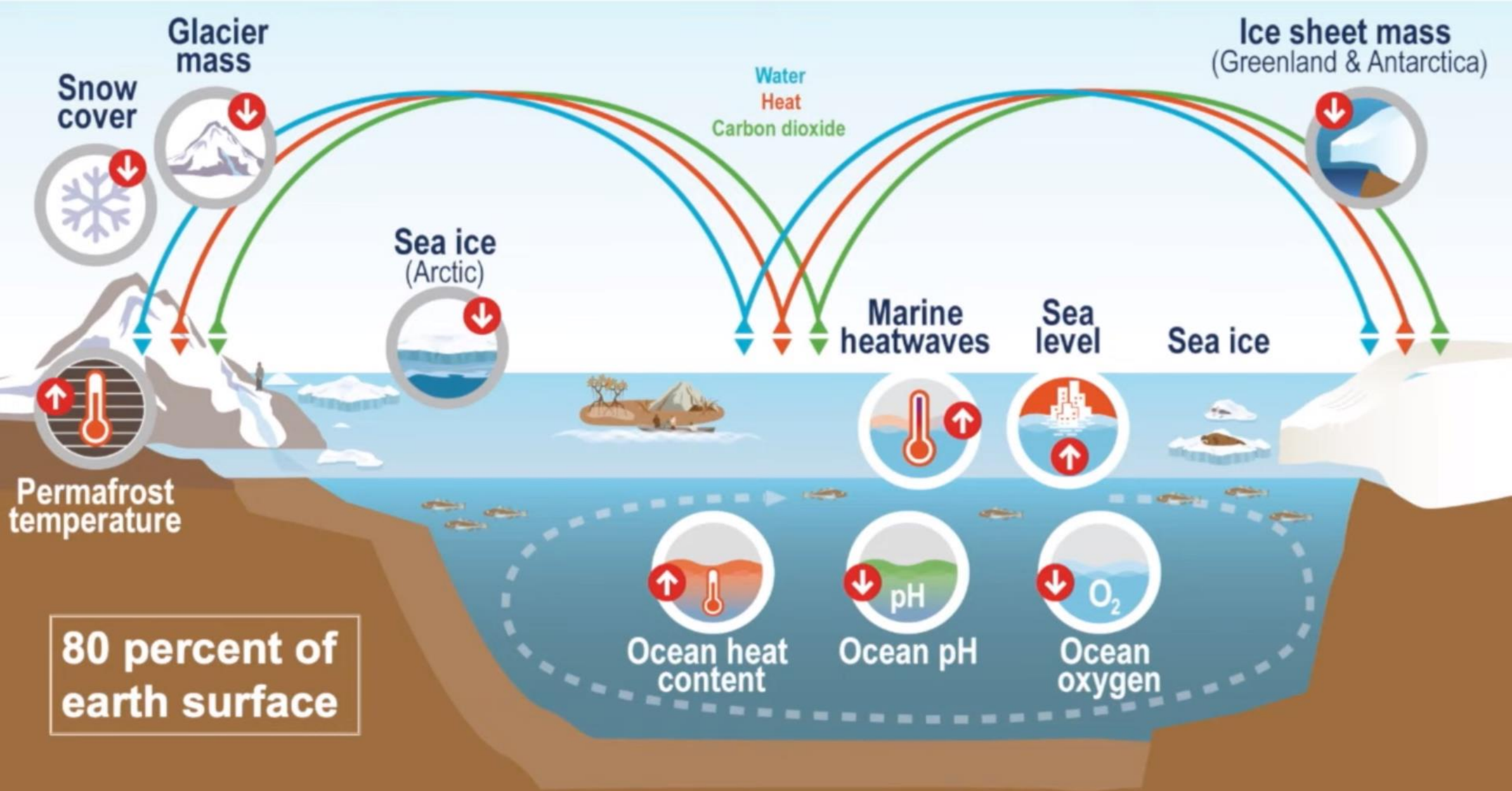
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The ocean takes up >90% of the heat and about 30% of the CO₂



Current choices: What we do now, defines the future of humankind and planet.



The ocean as a dumpsite

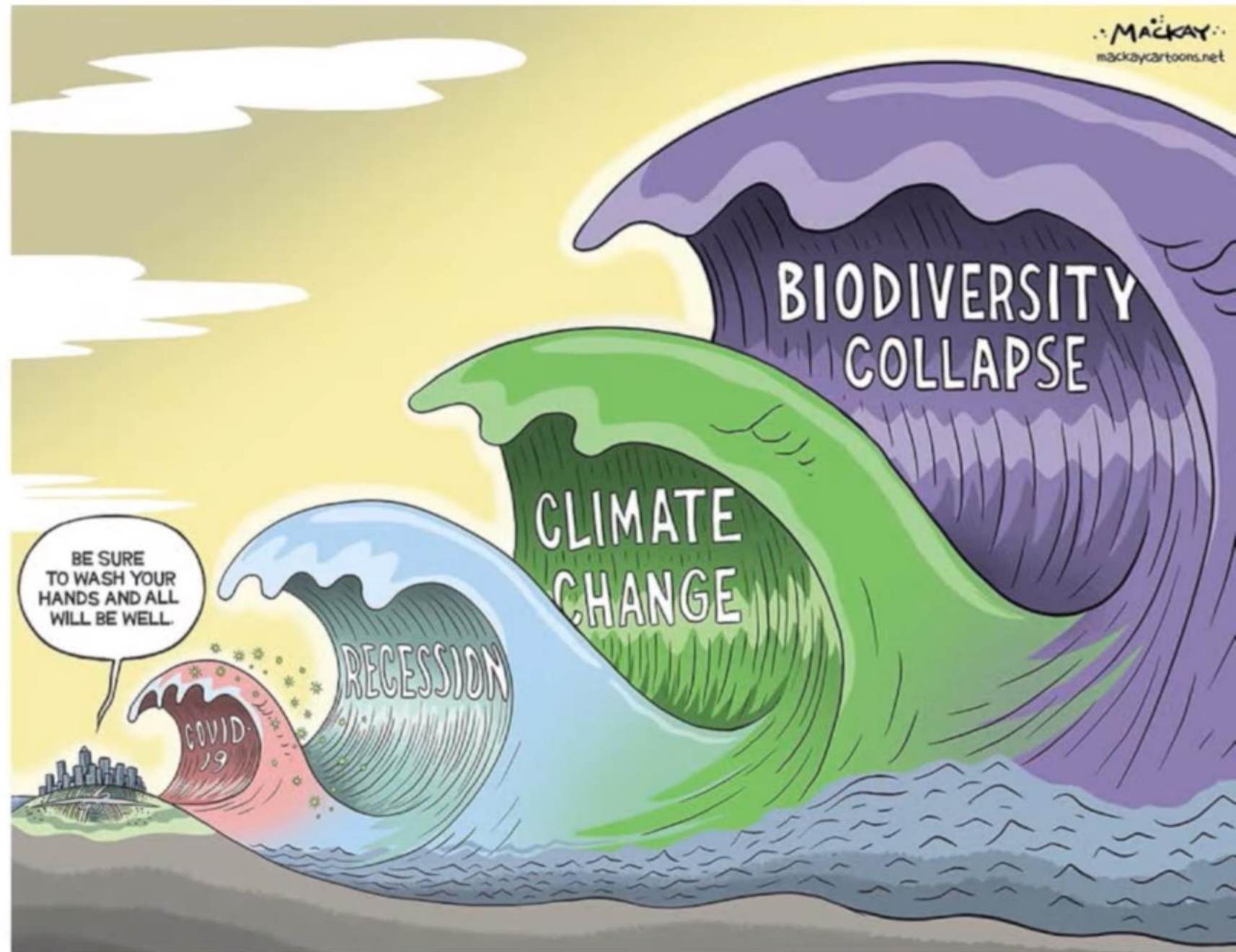
Protecting the Ocean ...



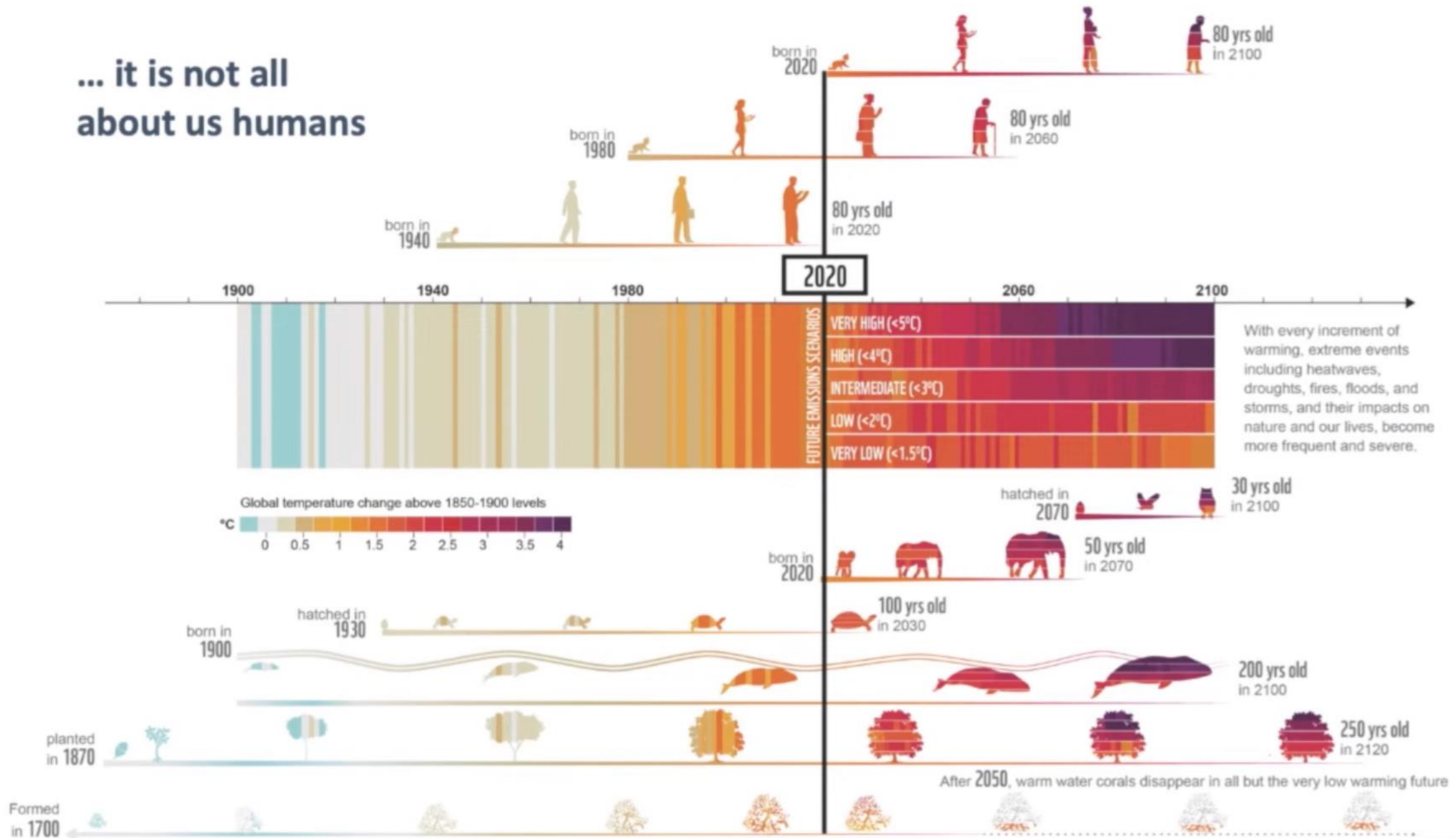
www.postcardpolitics.org

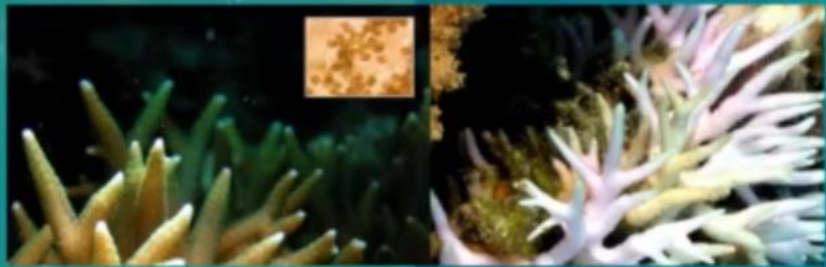
The ocean is part of the global crises:

- climate change
- biodiversity loss
- uneven distribution of resources
- pollution



... it is not all about us humans



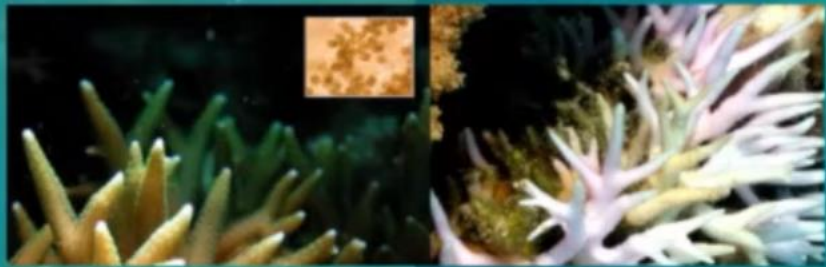


Vulnerable Ecosystems identified in IPCC AR5, SR1.5, SROCC, AR6

Warm water Coral Reefs



SR1.5

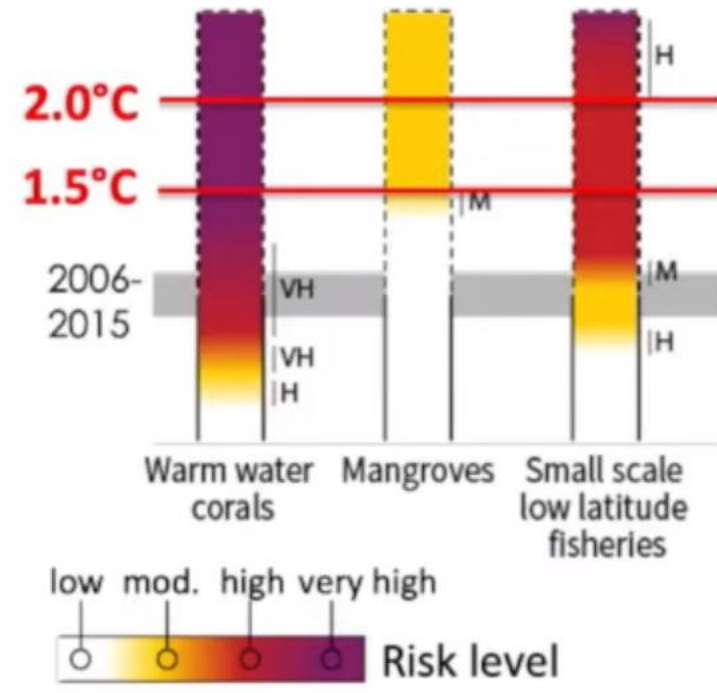


Vulnerable Ecosystems identified in IPCC AR5, SR1.5, SROCC, AR6

Warm water Coral Reefs

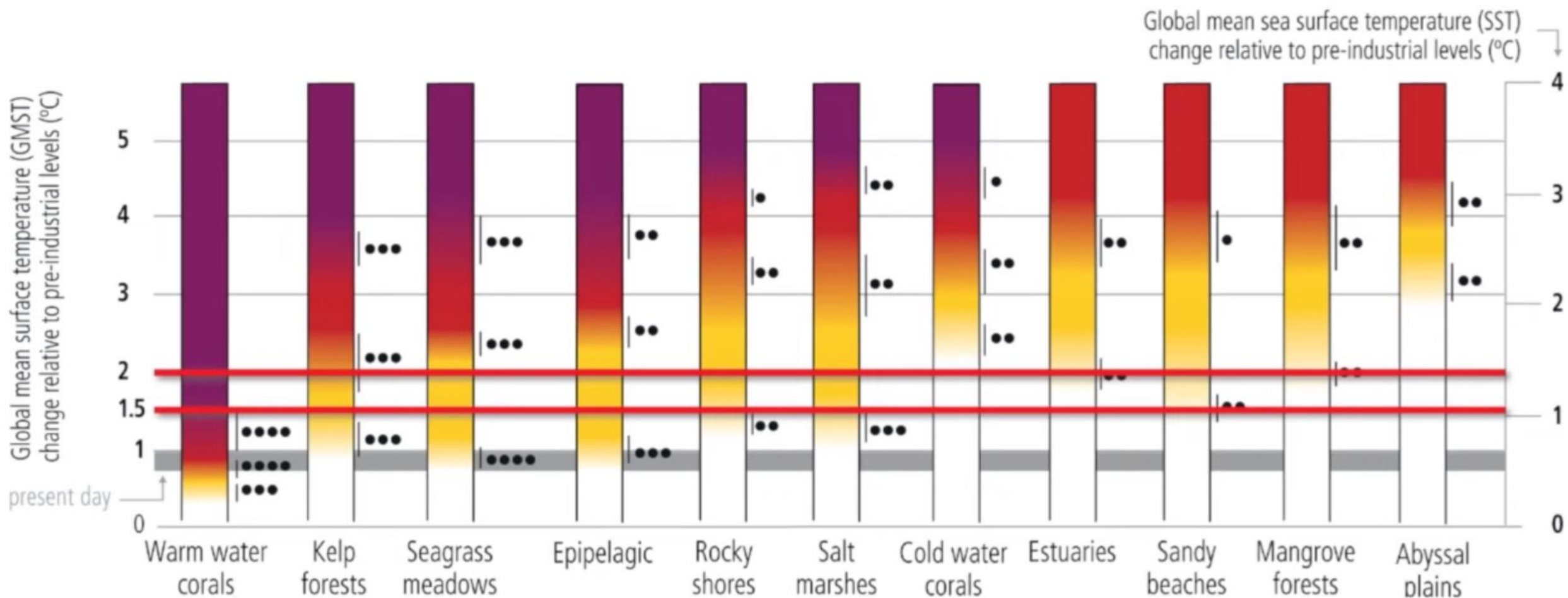
Even in a 1.5°C warmer world... high risk of losing 70 to 90% of Coral Reefs and associated services for humankind; ... even more at 2°C

Assessing risk of global warming



SR1.5

Our choices: Ecosystems would benefit from ambitious mitigation

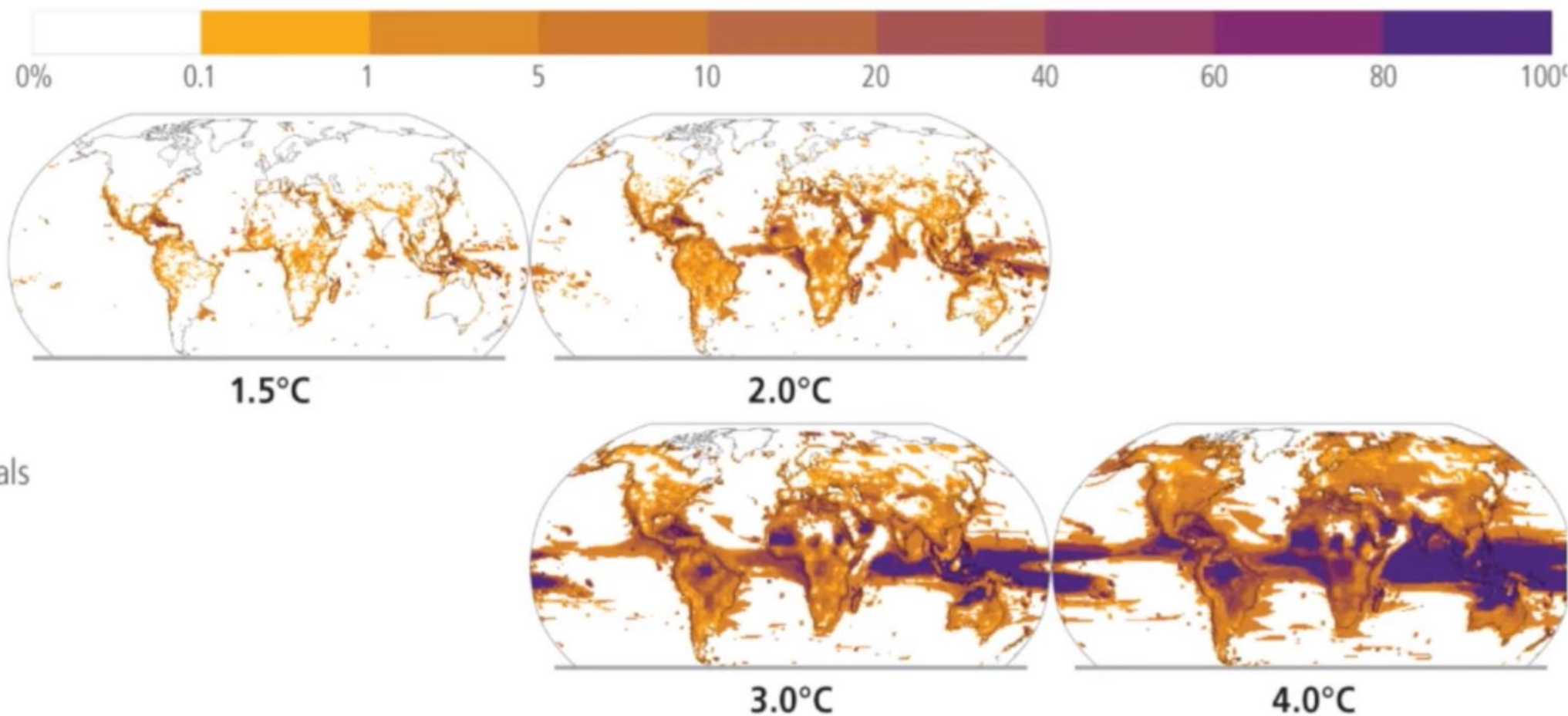


Land and ocean losses of animal (including human) tropical habitat, resulting from evolutionary adaptation limits

Risk of species losses

Percentage of animal species and seagrasses exposed to potentially dangerous temperature conditions

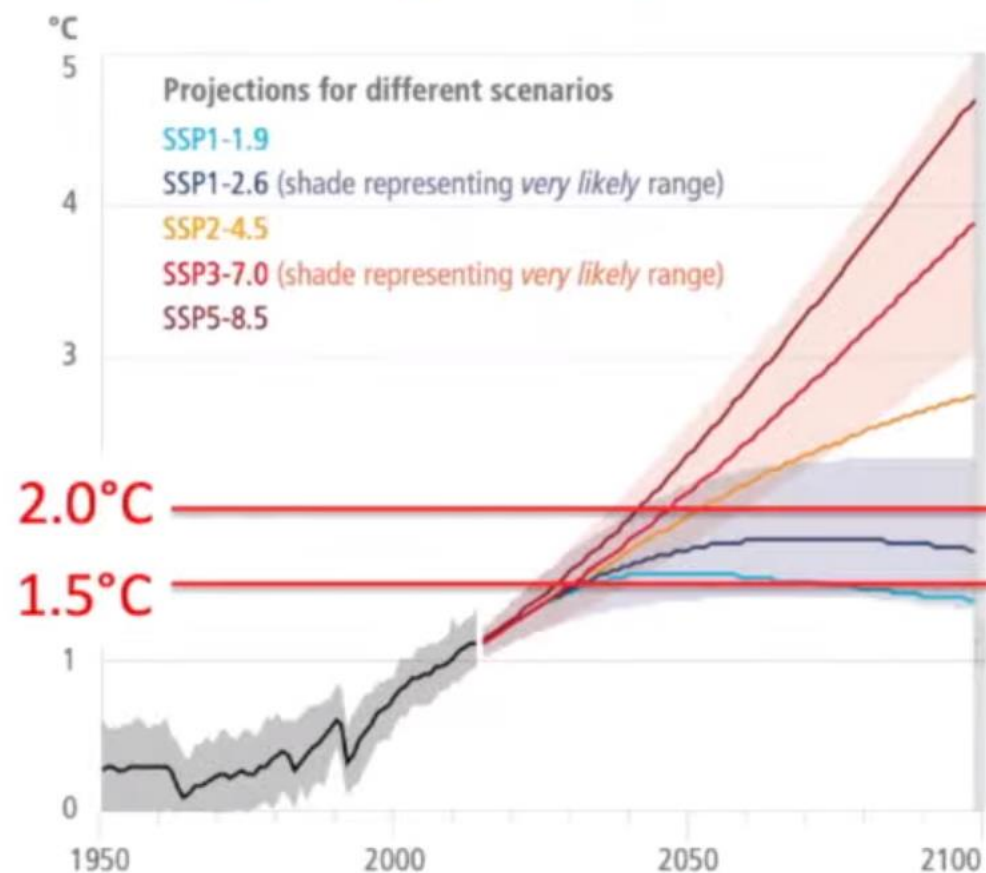
Includes more than 30,652 species, mostly animals



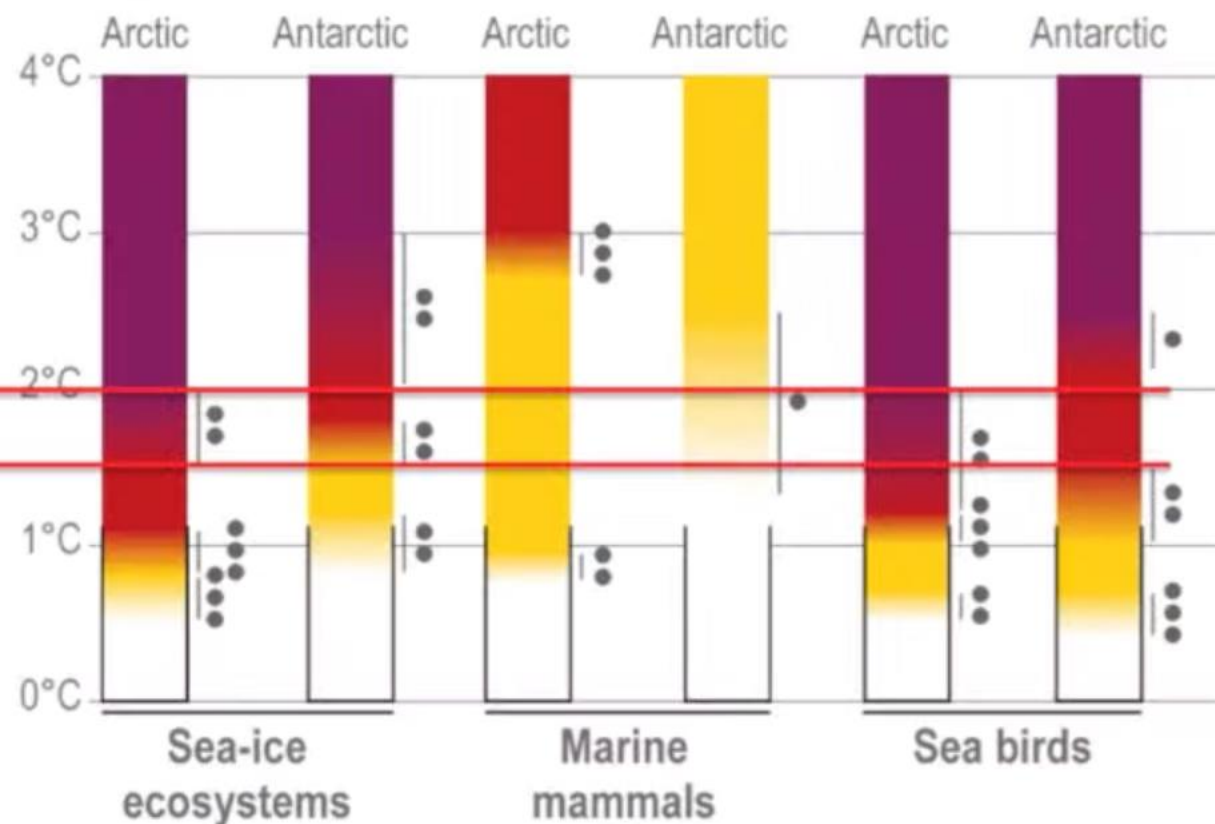
Animal (human) life to retreat from the tropics ...

Comparing Arctic and Antarctic Ocean

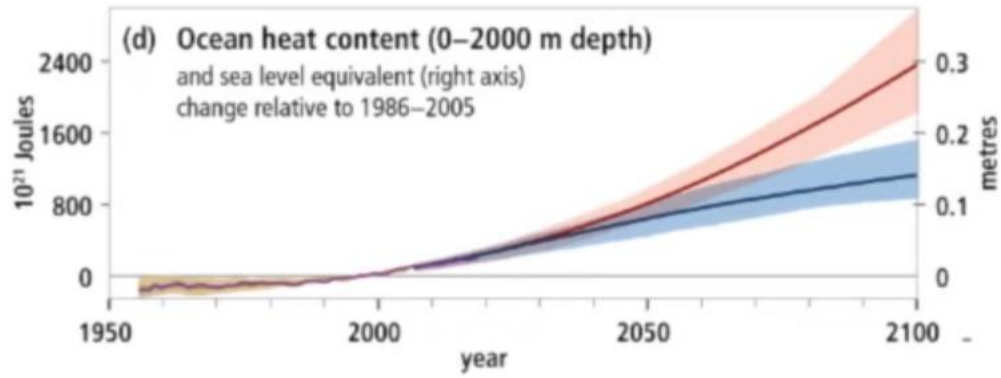
(a) Global surface temperature change
Increase relative to the period 1850–1900



Critical risk levels to sea ice ecosystems and sea birds have been or are about to be surpassed in both systems



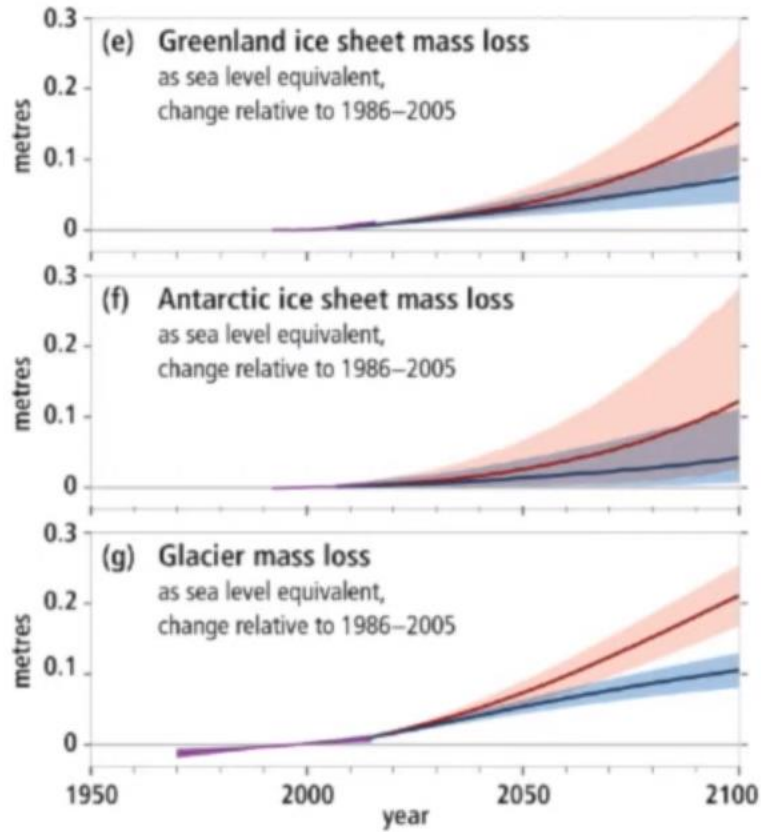
Ocean warming and expansion contribute to sea level rise



Historical changes (observed and modelled) and projections under RCP2.6 and RCP8.5 for key indicators

Historical (observed) Historical (modelled) Projected (RCP2.6) Projected (RCP8.5)

Melting of glaciers and ice sheets contributes to sea level rise



Historical changes (observed and modelled) and projections under RCP2.6 and RCP8.5 for key indicators

Historical (observed) Historical (modelled) Projected (RCP2.6) Projected (RCP8.5)

Thank you!


More Information:

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