

Climate change: emergency or crisis?

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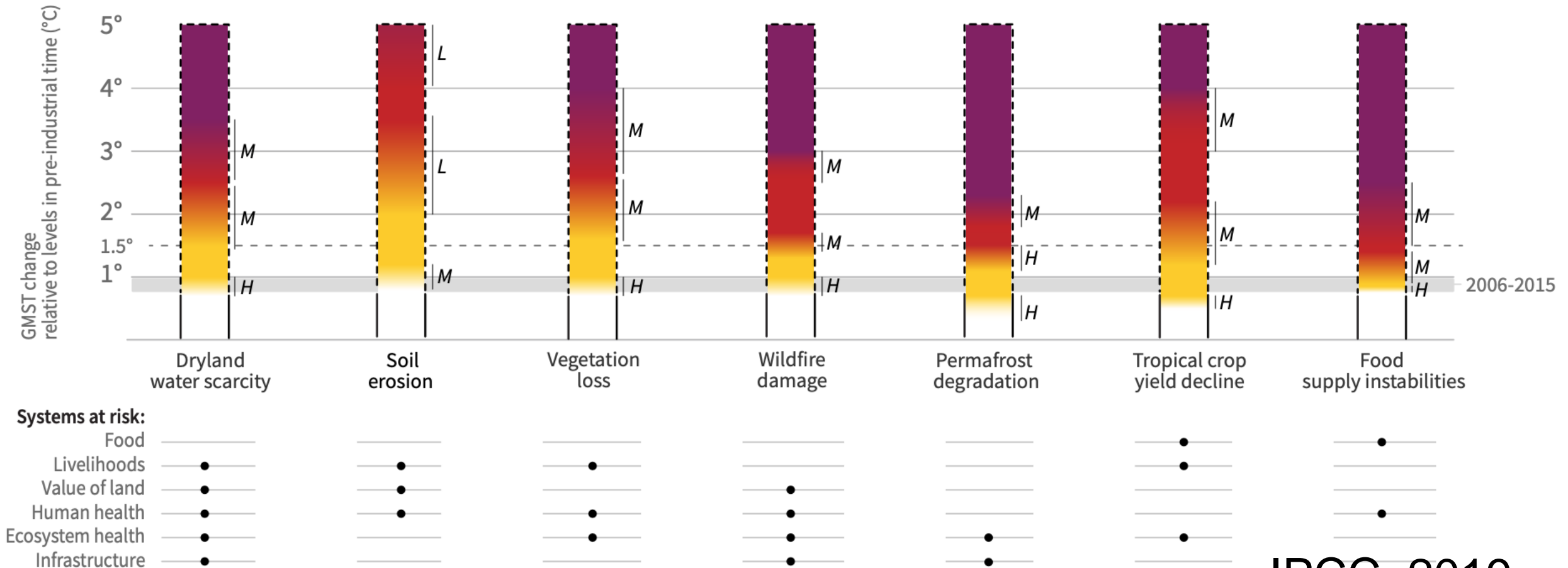
408 ppm

42 Gt

(37 + 5)

A. Risks to humans and ecosystems from changes in land-based processes as a result of climate change

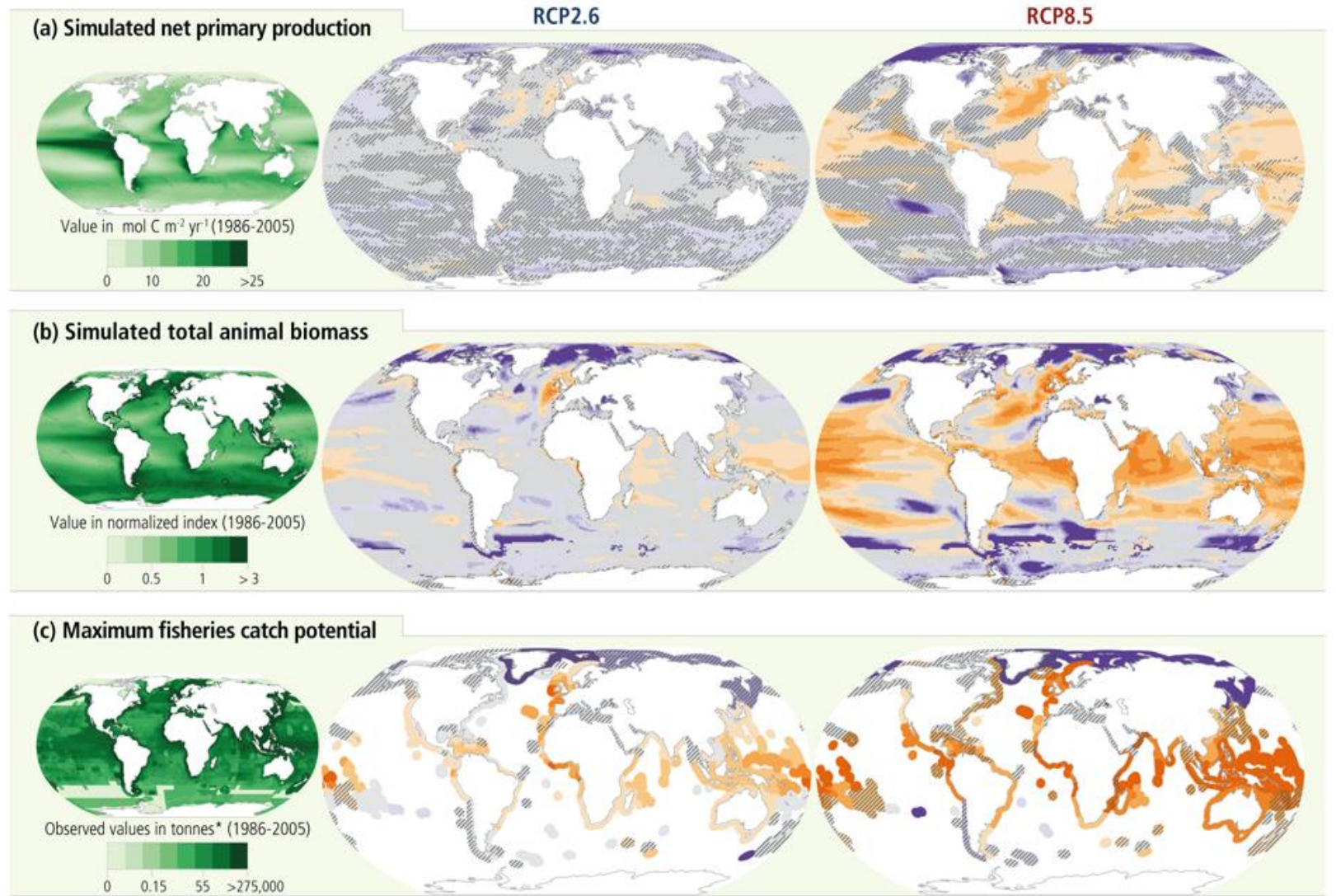
Increases in global mean surface temperature (GMST), relative to pre-industrial levels, affect processes involved in **desertification** (water scarcity), **land degradation** (soil erosion, vegetation loss, wildfire, permafrost thaw) and **food security** (crop yield and food supply instabilities). Changes in these processes drive risks to food systems, livelihoods, infrastructure, the value of land, and human and ecosystem health. Changes in one process (e.g. wildfire or water scarcity) may result in compound risks. Risks are location-specific and differ by region.



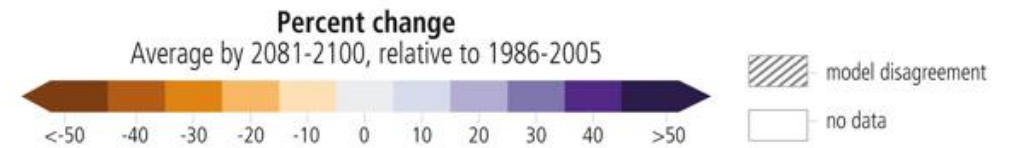
IPCC, 2019

Projected changes, impacts, and risks (IPCC, 2019)

Projected changes, impacts and risks for ocean ecosystems as a result of climate change



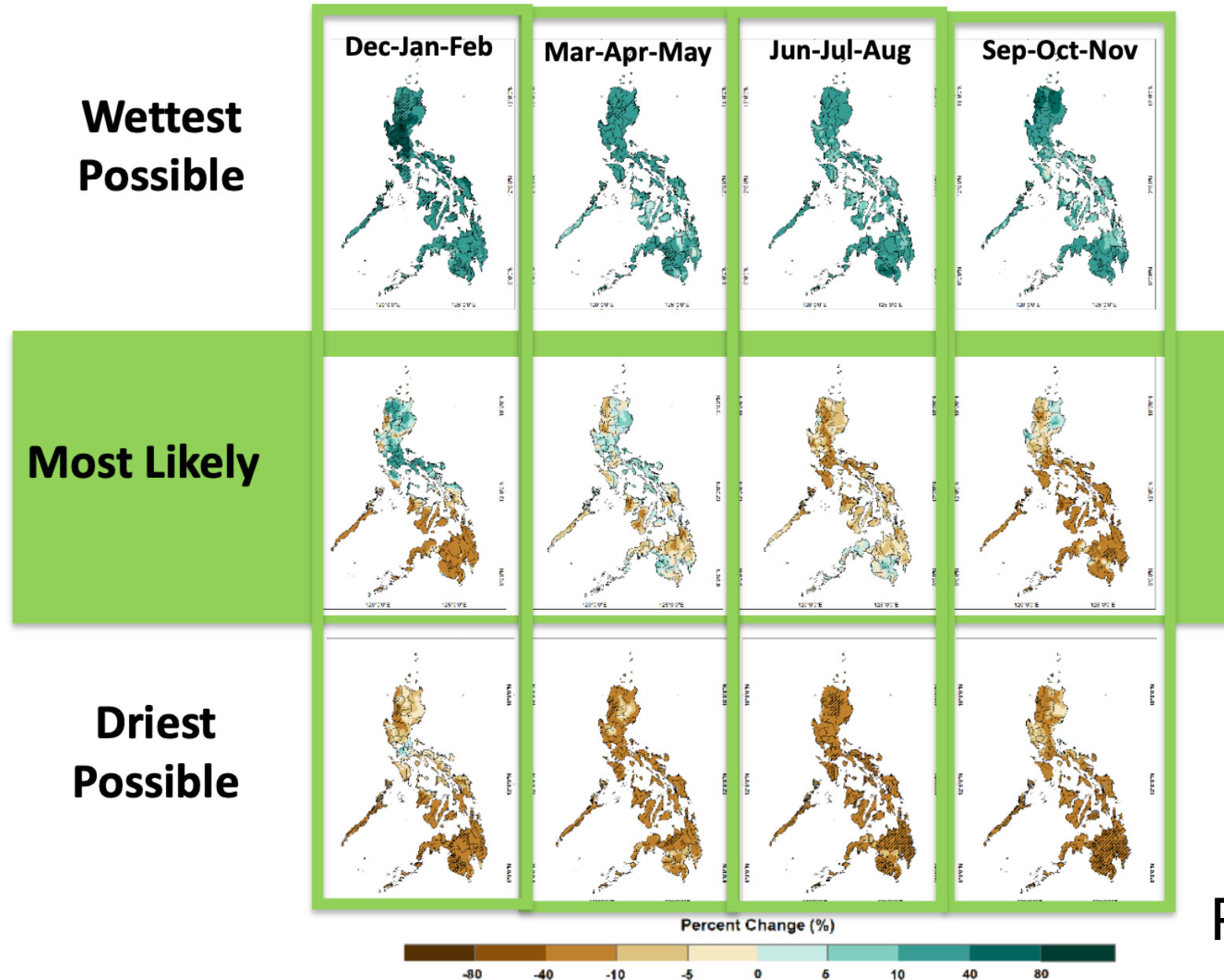
* See figure caption for details



630 M

6.8 M

Projected changes in seasonal total rainfall by the Mid-21st Century (2036-2065) based on RCP8.5 scenario



Emergency (Merriam-Webster)

1. an unforeseen combination of circumstances or the resulting state that calls for immediate action
2. An urgent need for assistance or relief

Crisis (Merriam-Webster)

- an unstable or crucial time or state of affairs in which a decisive change is impending...
- especially one with the distinct possibility of a highly undesirable outcome

What can we do?

- Address current climate risks
- In such as way that future resilience is enhanced
- Pursue scientific studies to provide a basis for sound policies and programs

Thank You!!!

