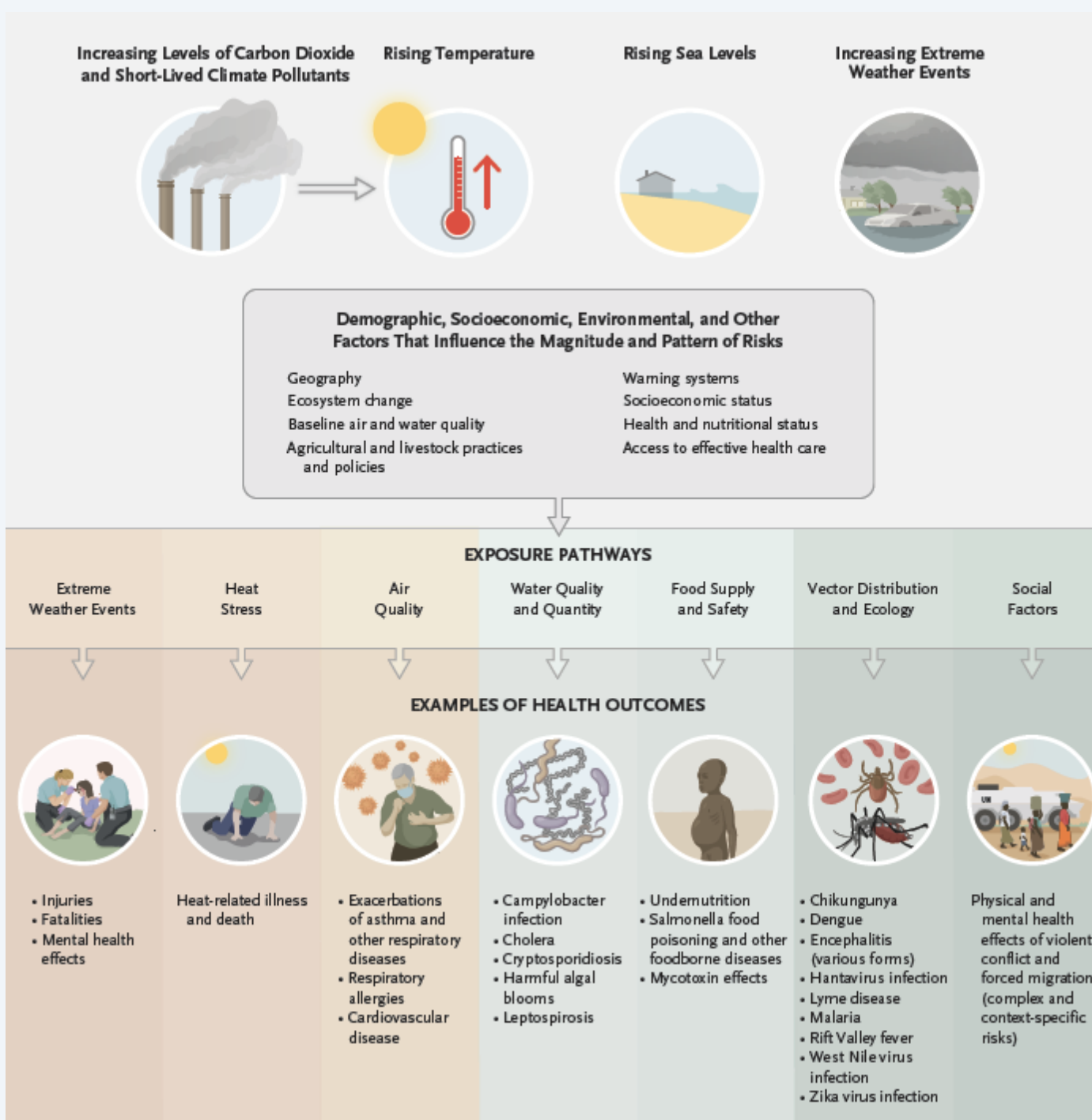


UN Climate Change Conference
Structured Expert Dialogue:
Second Periodic Review

Human health and well-being

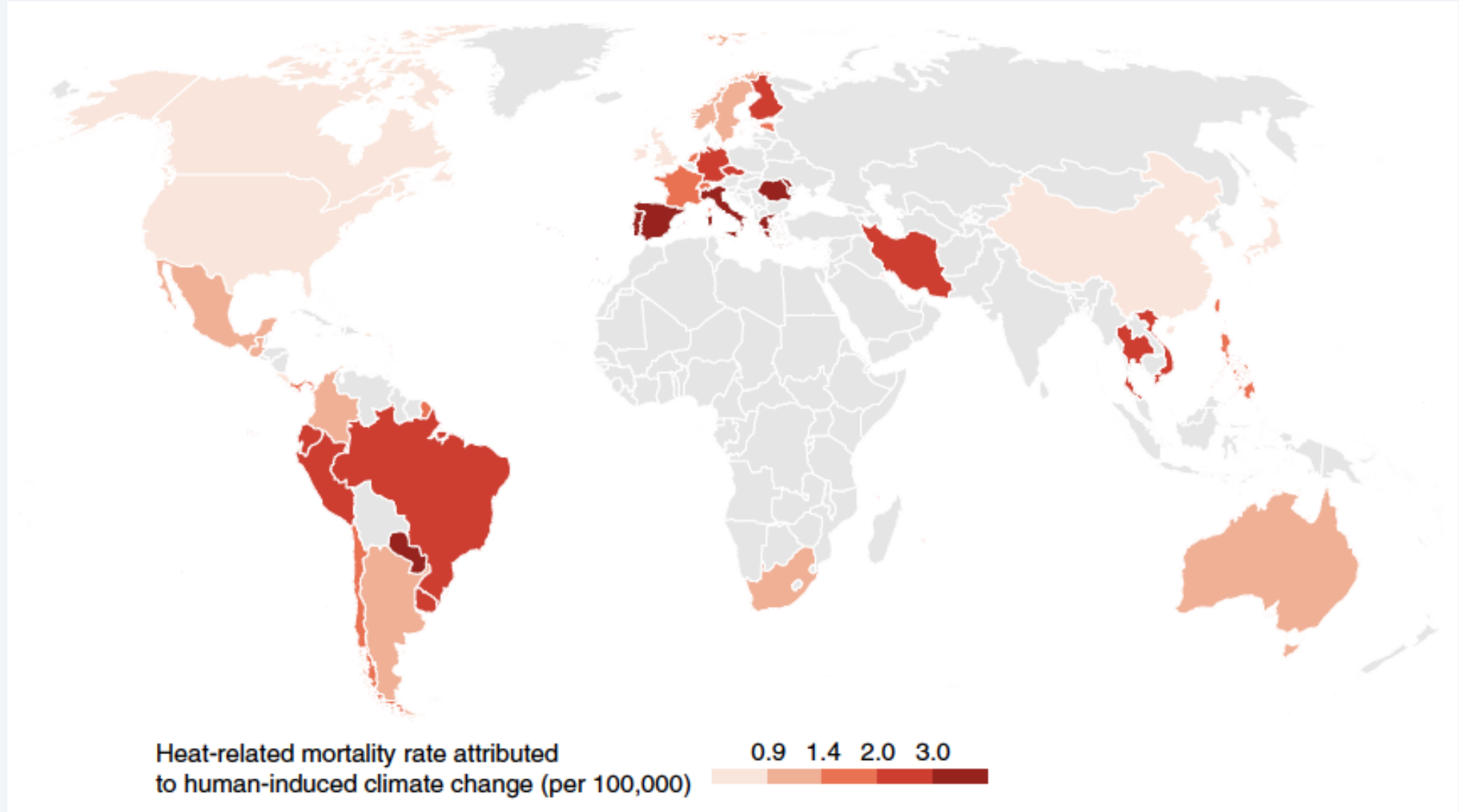


Detection and attribution

- Formal methods widely used in climate change to determine:
 - Whether a system is changing beyond a specified baseline that characterizes behavior in the absence of climate change; and
 - The extent to which climate change has contributed substantially to the observed change in the system
- Highly policy relevant

Heat-related mortality rate attributable to human-induced climate change, 1991-2018

Overall, 37% of warm season heat-related deaths can be attributed to anthropogenic climate change

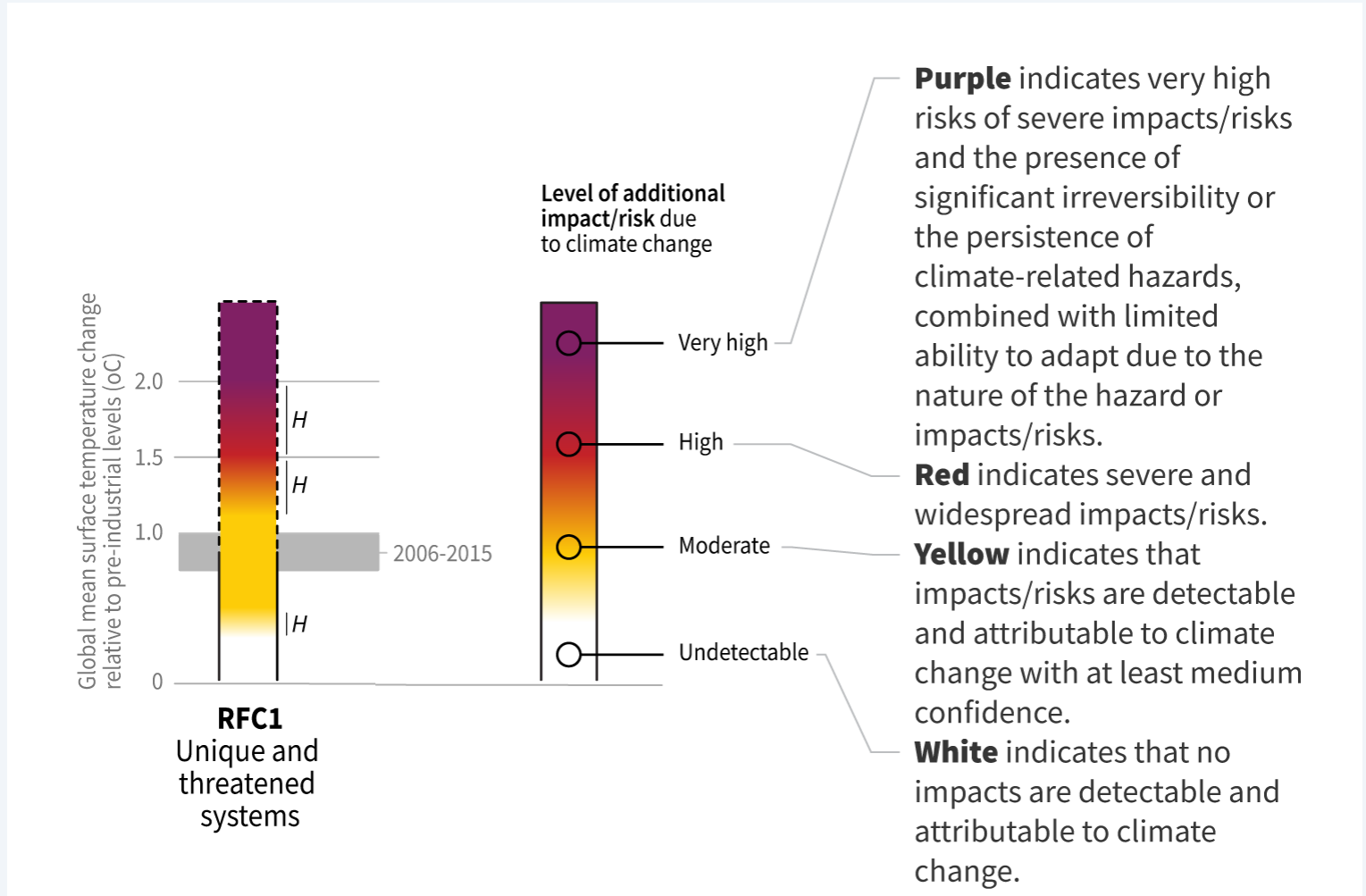


Short history

- In 1992, Article 2 of the United Nations Framework Convention on Climate Change stated its ultimate goal is *to stabilize greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure food production is not threatened, and to enable economic development to proceed in a sustainable manner.*
 - Questions about how to quantify dangerous
- In 2001, the Working Group II contribution to the IPCC 3rd assessment report (TAR) introduced the Reasons for Concern framework
 - Associated figure generally referred to as the “burning embers”
- This framework was used in subsequent assessment reports
 - Framework is familiar to IPCC focal points
 - Framework and figure facilitate communication of the magnitude of climate-related risks and how they could change over time

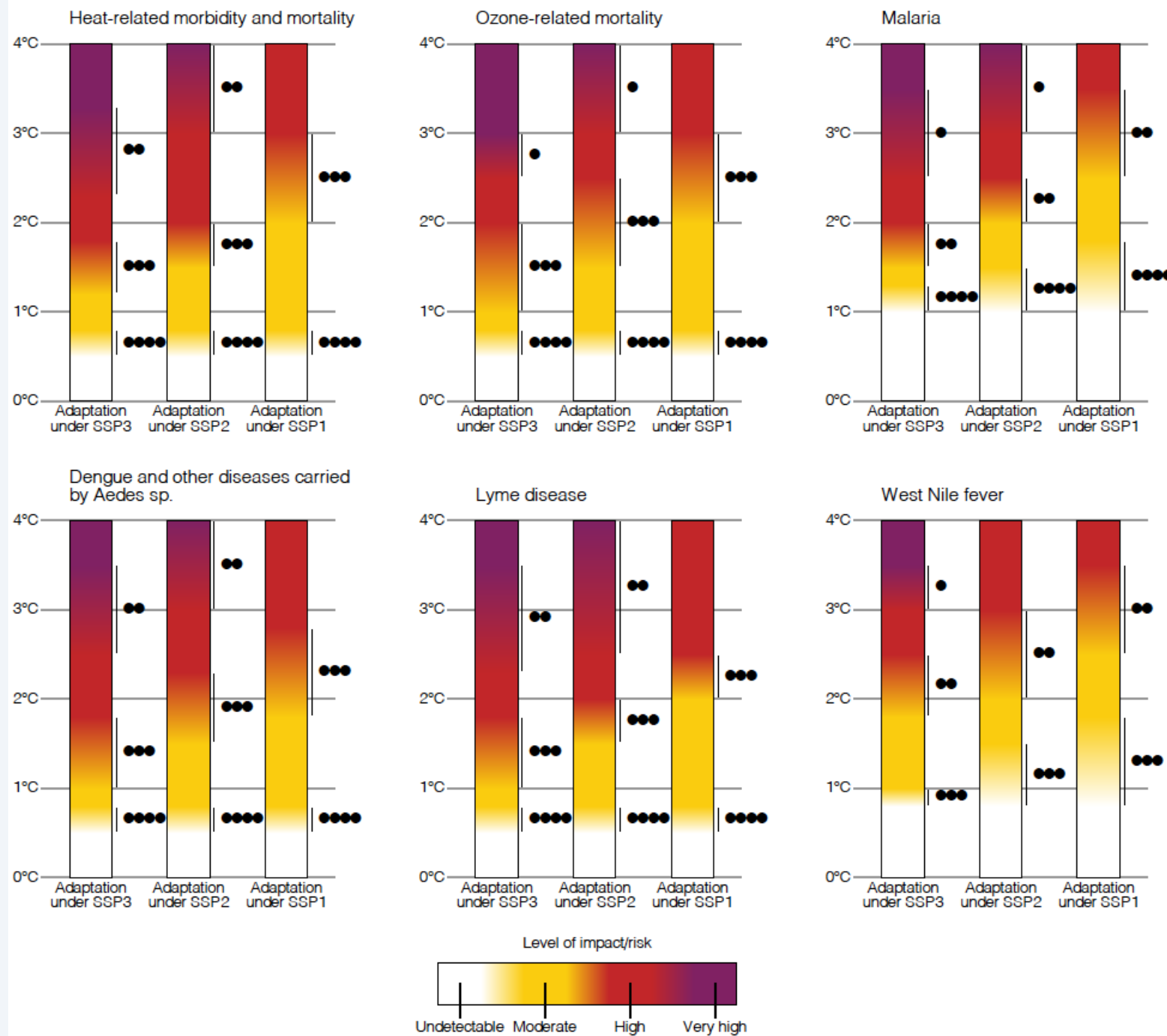
Reasons for Concern : example unique and threatened systems

RFC1 Unique and threatened systems encompass ecological and human systems that (i) have restricted geographic ranges constrained by climate related conditions and (ii) have high endemism or other distinctive properties. They include coral reefs, the Arctic and its indigenous people, mountain glaciers, and biodiversity hotspots

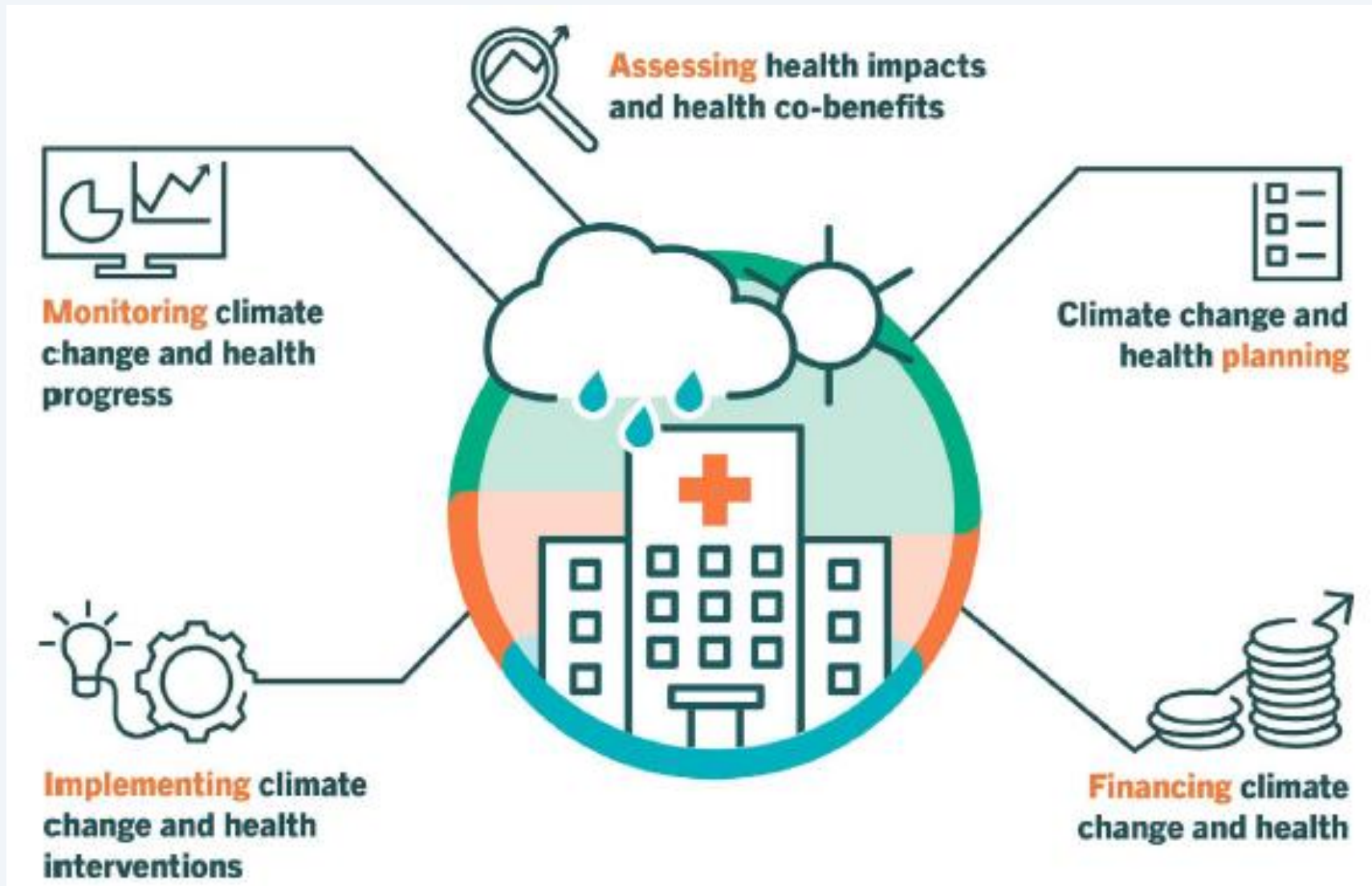


Selected characteristics of health systems under the Shared Socioeconomic Pathways

- **Characteristics of health systems under SSPs 1, 2, and 3**
 - SSP 1: Proactive; adaptively managed; frequent partnerships; interdisciplinary
 - SSP 2: Incomplete planning; new information incorporated as convenient; occasional partnerships
 - SSP 3: Reactive; failure to adapt; siloed information channels & national governance; limited partnerships
- **Building blocks of health systems**
 - Leadership & governance
 - Health information systems
 - Climate resilient & sustainable technologies & infrastructure
 - Service delivery



Response necessary to protect health from escalating risks

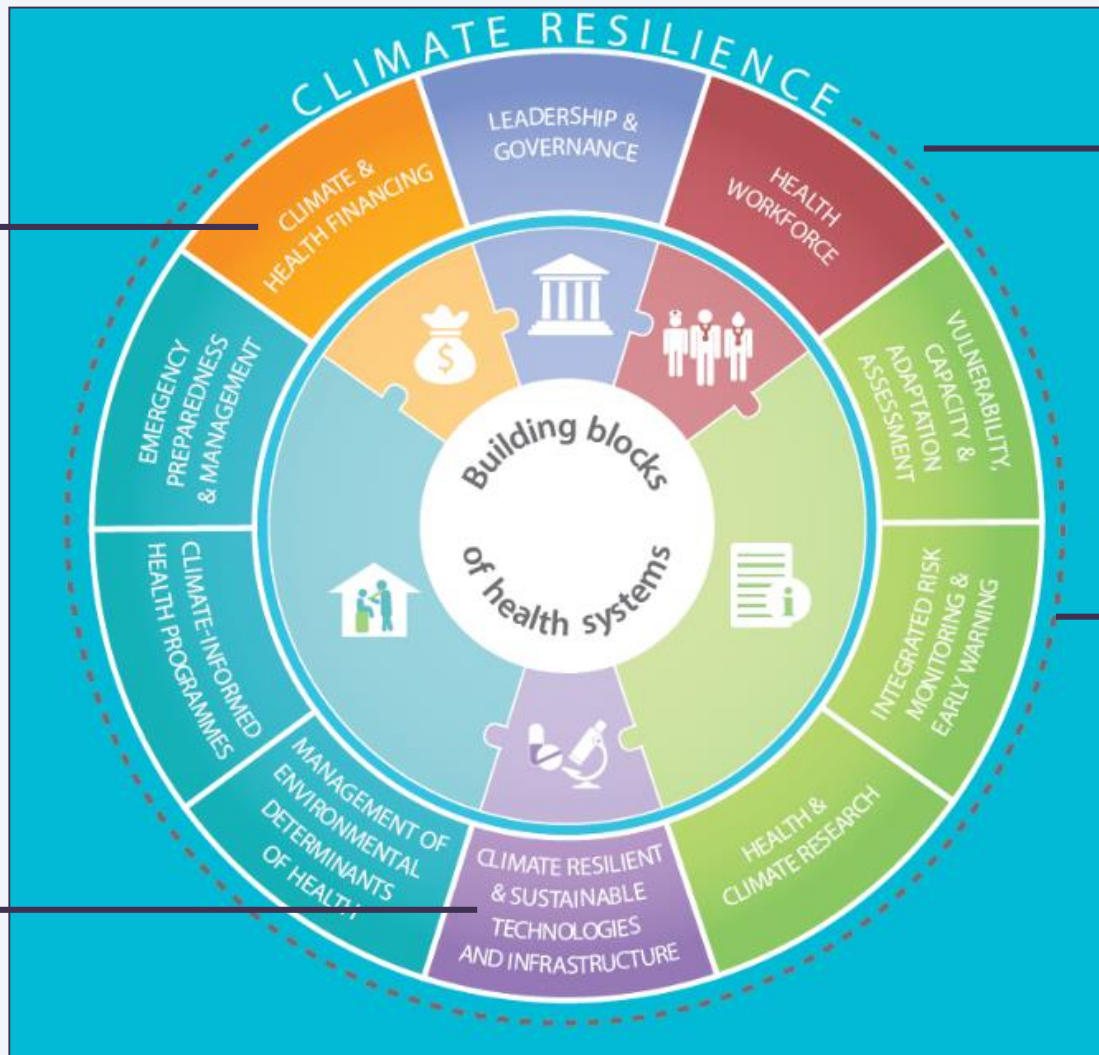


Strengthen health system resilience to climate change



Health access to climate finance

Resilient, sustainable health facilities

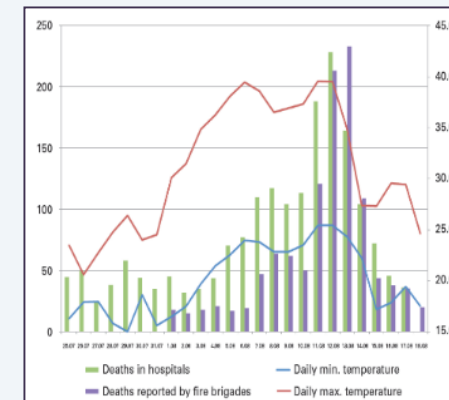


WHO Operational Framework for Building Climate-Resilient Health Systems (2015)



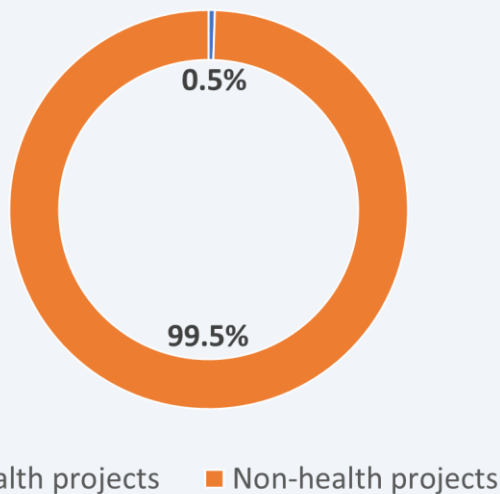
Health workers trained, engaged on climate

Climate informed surveillance systems

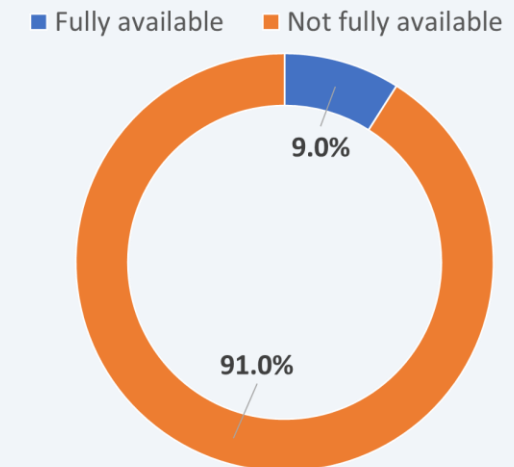
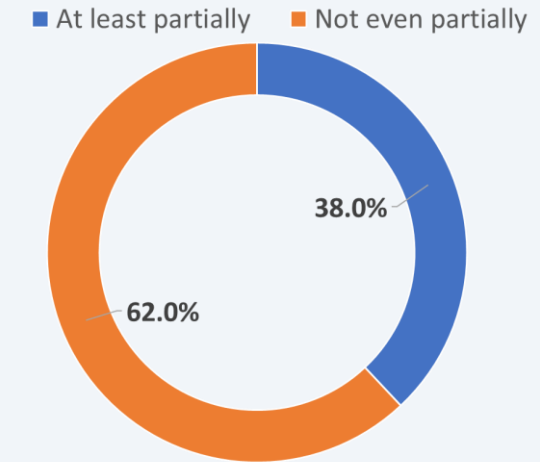


Planning is advanced, but funding is missing – and not supported from multilateral climate funds

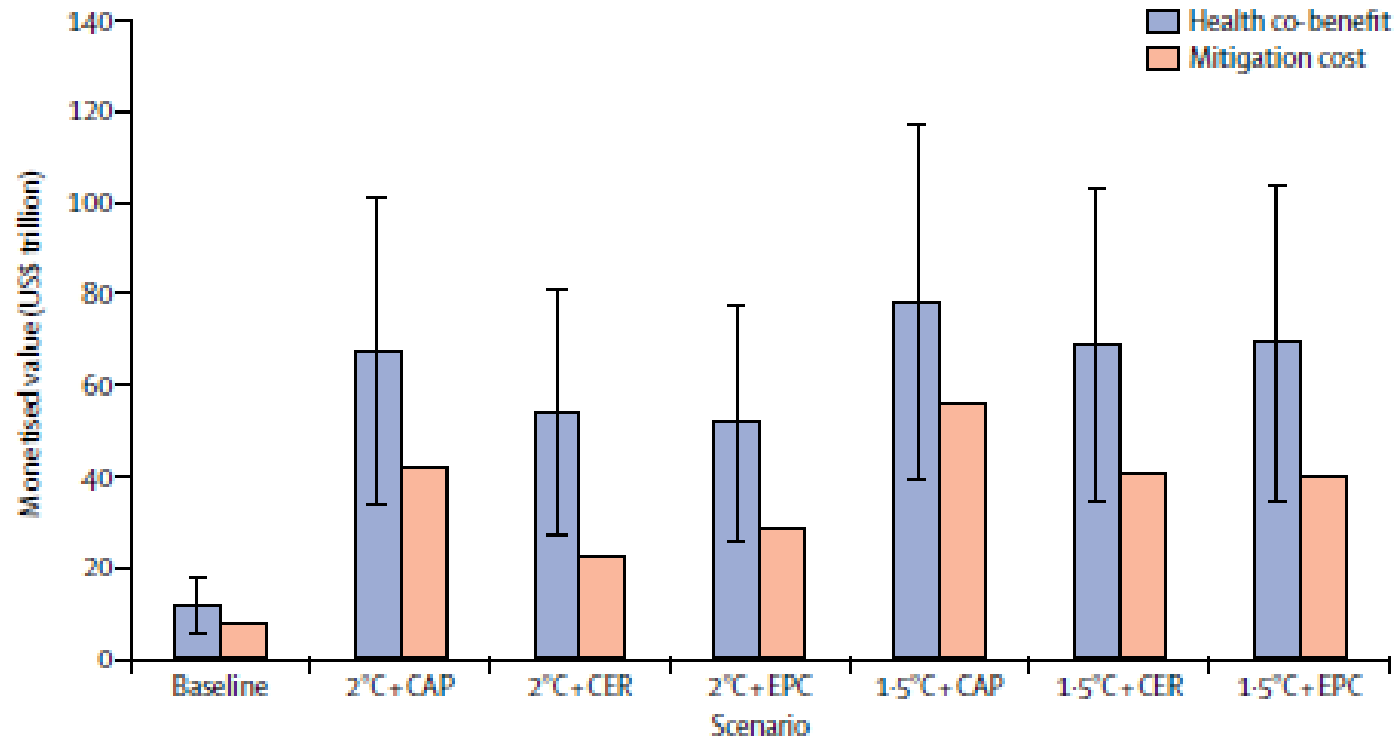
Countries with health adaptation strategies/plans



Funding available to support implementation



Meeting the Paris targets brings very large health “cobenefits”



Markandya et al, Lancet Public Health, 2018

The value of the health cobenefits of climate change mitigation, from air quality alone, are approximately twice as large as the costs

Thank you