



ipcc

INTERGOVERNMENTAL PANEL ON climate change



WMO



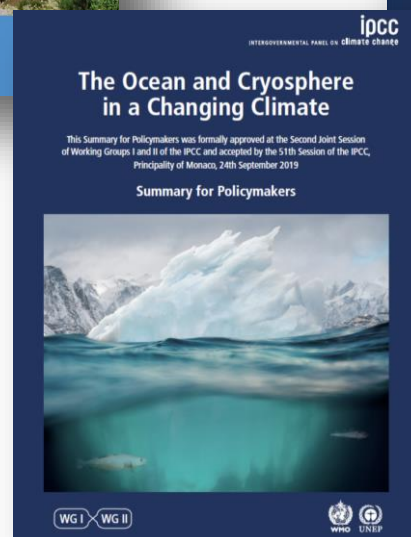
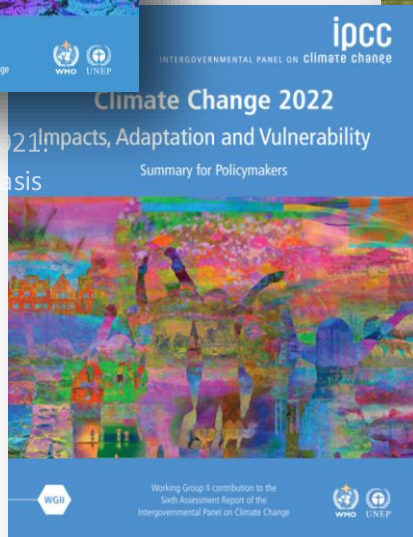
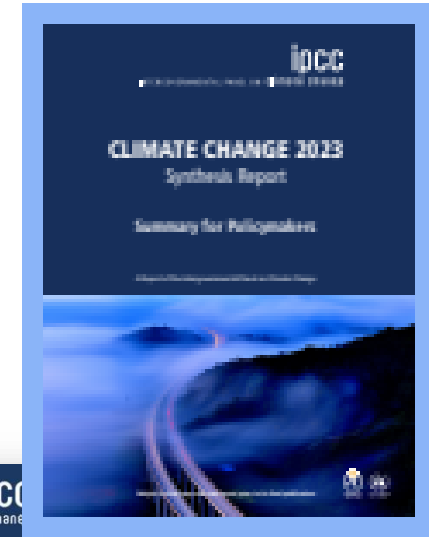
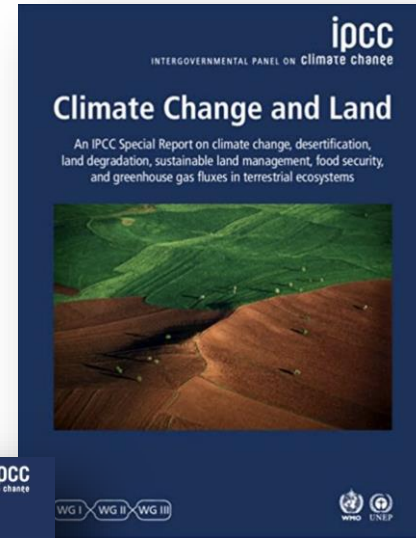
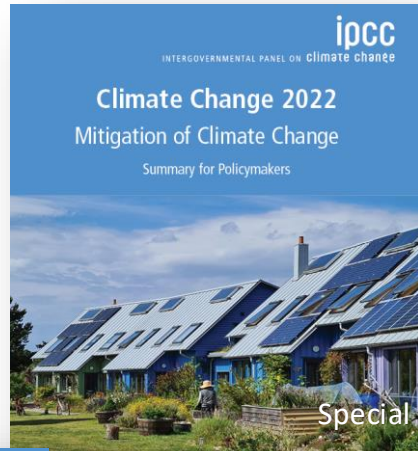
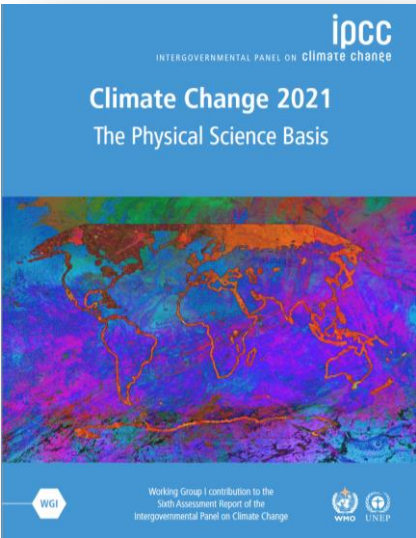
UNEP

Sixth Assessment Report of the IPCC and its implications for Latin America and the Caribbean

Ermira Fida
Deputy Executive Secretary
Intergovernmental Panel on Climate
Change (IPCC)

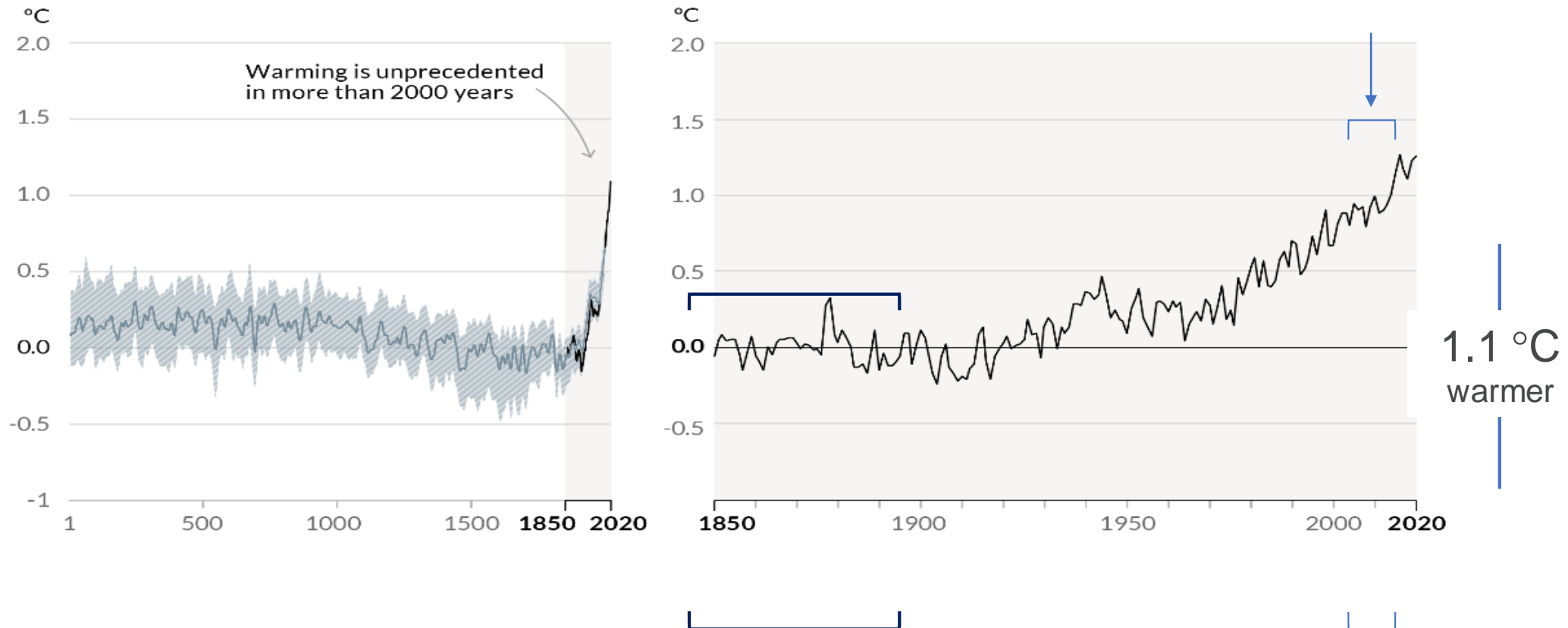
Boosting regional coherence on adaptation
In Latin America and the Caribbean,
Panama City, 26 October 2023

The State of Knowledge about Climate Change



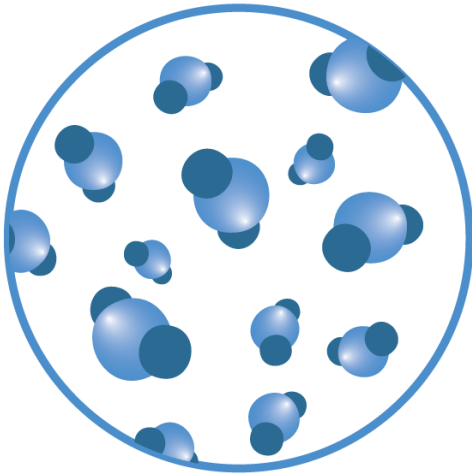
Human influence has warmed the climate at a rate that is unprecedented in at least the last 2000 years

Changes in global surface temperature relative to 1850-1900



Recent changes are widespread, rapid and intensifying

CO₂
concentration



Highest

in at least

2 million years

Sea level
rise



Fastest rates

in at least

3000 years

Arctic sea ice
area



Lowest level

in at least

1000 years

Glaciers
retreat



Unprecedented






in at least

2000 years

3.3 – 3.6 billion people across (Africa, South Asia, **Central and South America**, SIDs and Arctic) live in hotspots of high vulnerability to climate change.



Common regional changes in Central and South America

-  **Mean temperatures** have **very likely increased** in **all sub-regions** and will continue to increase at rates greater than the global average (high confidence).
-  **Mean precipitation** is projected to change, with **increases in North-West South America (NWS)** and **South-East South America (SES)** (high confidence) and **decreases in North-East South America (NES)** and **South-West South America (SWS)** (medium confidence).
-  Compared to global mean sea level, over the last three decades, relative **sea level has increased** at a higher rate than global mean level in the South Atlantic and the subtropical North Atlantic, and at a lower rate in the East Pacific.
-  Relative **sea level rise is extremely likely to continue** in the oceans around Central and South America, contributing to **increased coastal flooding** in low-lying areas (high confidence) and **shoreline retreat along most sandy coasts** (high confidence).
-  **Marine heatwaves** are also projected to **increase around the region** over the 21st century (high confidence)

Common regional changes in North America (and Caribbean)



Mean and extreme temperatures have **very likely increased** in **all sub-regions** and will continue to increase at rates greater than the global average.



Relative **sea level rise** is increased and is **projected to increase** along most coasts (high confidence) and are associated with **increased coastal flooding and erosion**. Exceptions include regions with strong coastal land uplift along the south coast of Alaska and Hudson Bay. **Ocean acidification** (along coasts) and **marine heatwaves** (intensity and duration) are **projected to increase** (virtually certain and high confidence, respectively).



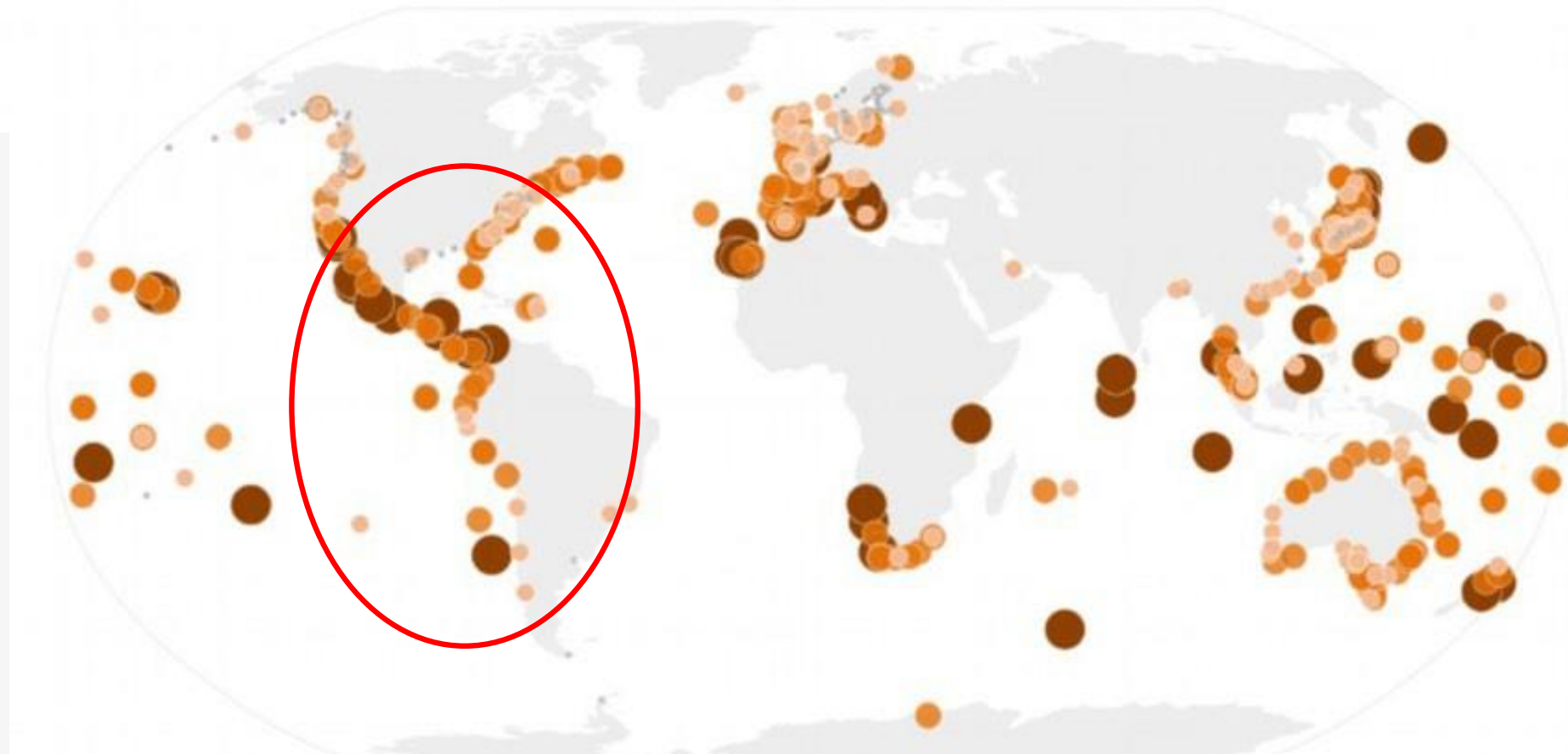
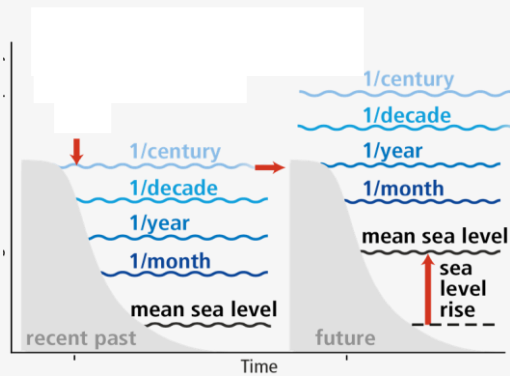
Strong declines in glaciers, permafrost, and snow cover are observed and will continue in a warming world (high confidence), with the exception of snow in northern Arctic.



Tropical cyclones (with higher precipitation), **severe storms**, and **dust storms** are expected to become more extreme (Caribbean, USA Gulf Coast, East Coast, Northern and Southern Central America) (medium confidence)

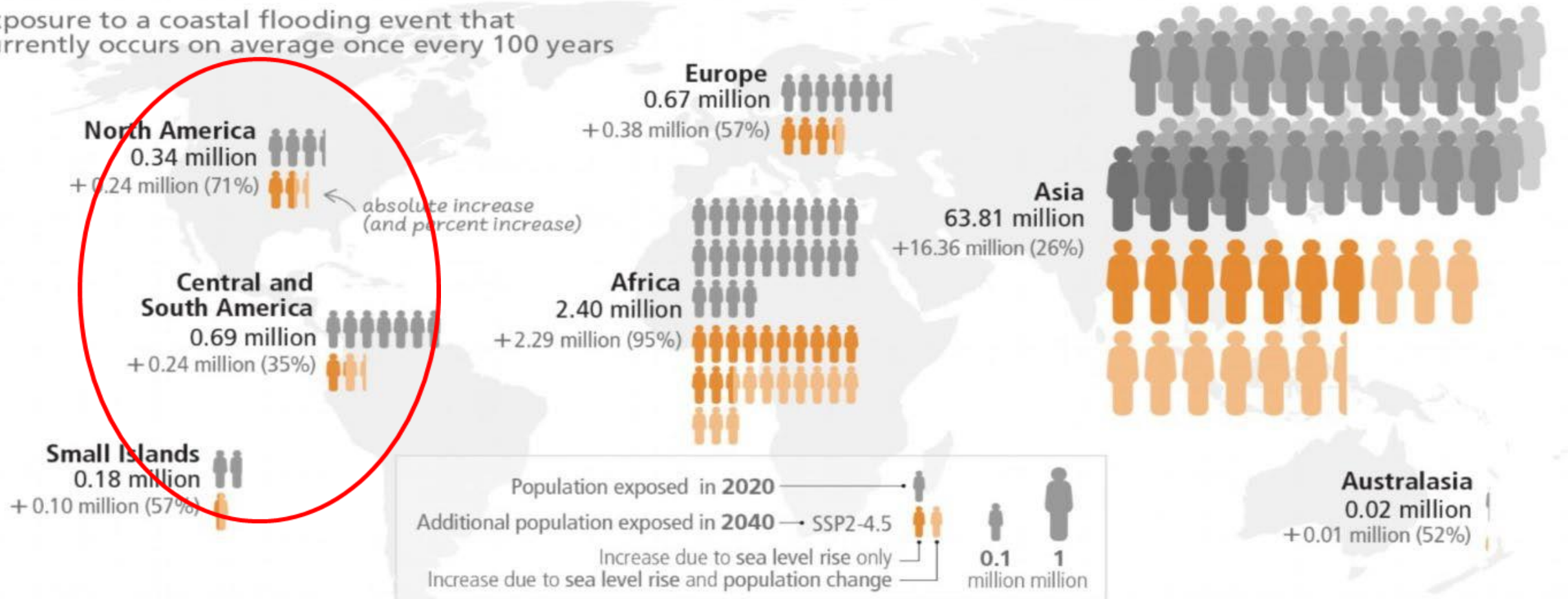
Increased frequency of extreme sea level events by 2040

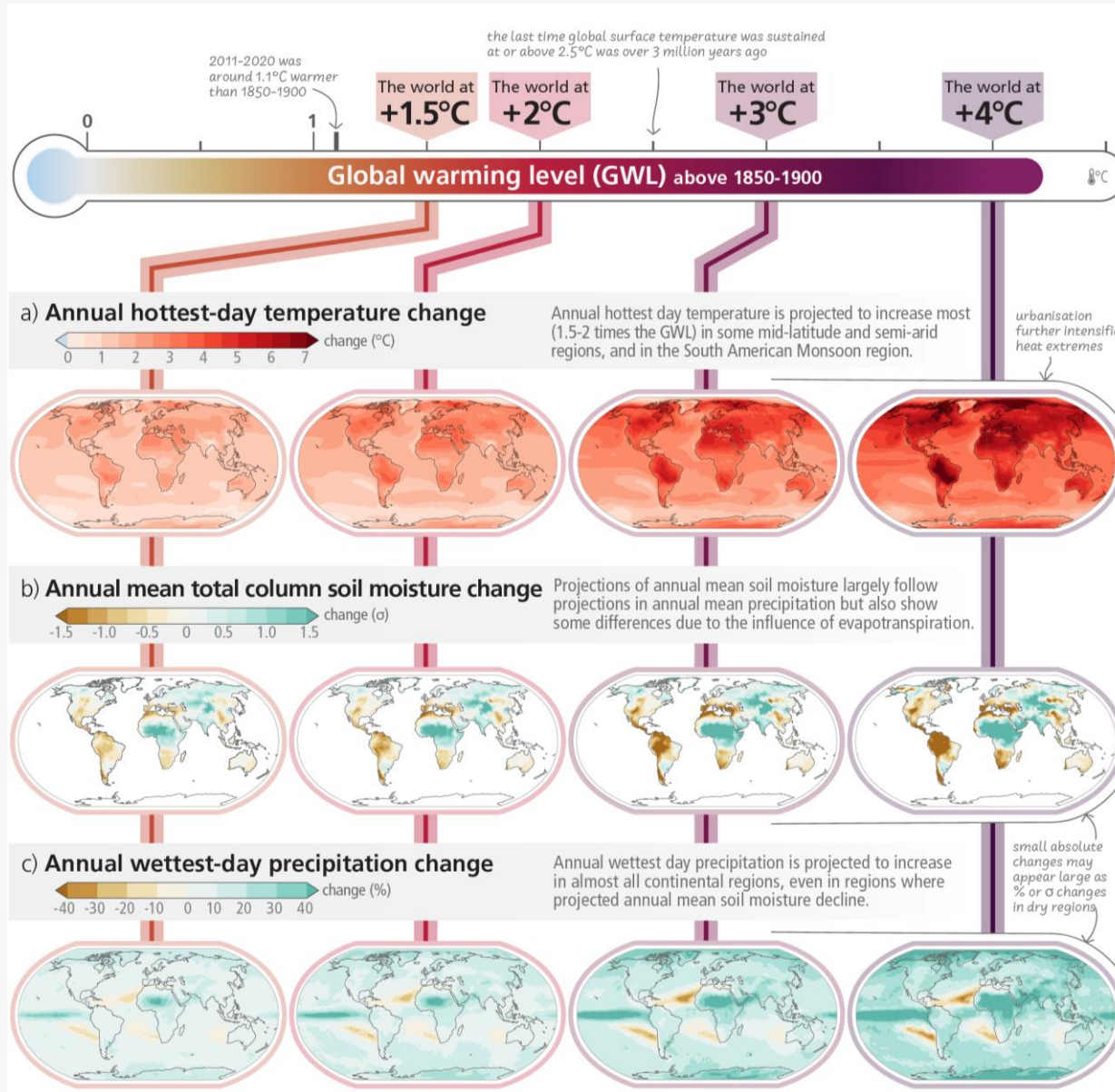
Frequency of events that currently occur on average once every 100 years



Projected population number exposed to coastal flooding events

Exposure to a coastal flooding event that currently occurs on average once every 100 years



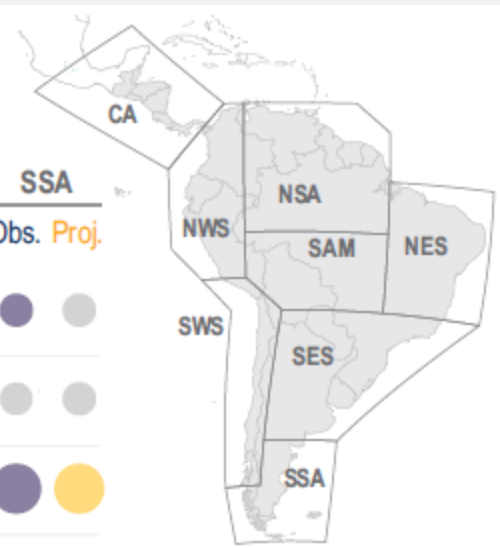


With every increment of global warming, regional changes in mean climate and extremes become more widespread and pronounced

Synthesis of observed and projected impacts to main sectors in Central and South America

Projections averaged across scenarios and 21st century

	CA		NWS		NSA		SAM		NES		SES		SWS		SSA	
	Obs.	Proj.	Obs.	Proj.	Obs.	Proj.	Obs.	Proj.	Obs.	Proj.	Obs.	Proj.	Obs.	Proj.	Obs.	Proj.
Terrestrial and freshwater ecosystems and their services	Low	Low	High	High	Medium	Low	High	High	Low	Low	High	High	High	High	Low	Low
Ocean and coastal ecosystems	Low	High	High	Low	Low	Low	na	na	Low	Low	High	Low	Low	Low	Low	Low
Water	Low	Low	High	High	Low	Low	Low	Low	High	Low	Low	High	High	High	High	High
Food, fibre and other ecosystem products	High	Low	High	High	Low	High	High	Low	High	High	High	Low	High	High	High	/
Cities and infrastructure	Low	Low	High	Low	High	Low	Low	Low	High	High	High	/	/	/	/	/
Health	Low	Low	High	Low	High	/	High	Low	High	High	High	/	/	/	/	/
Populations in poverty and their livelihoods	High	Low	Low	Low	Low	/	/	/	High	Low	High	/	/	/	/	/
Migration, conflict and indigenous knowledge and local knowledge	Low	Low	High	High	/	/	/	/	High	Low	High	/	/	/	/	/



- Central America (CA)
- Northwestern South America (NWS)
- Northern South America (NSA)
- South America Monsoon (SAM)
- Northeastern South America (NES)
- Southwestern South America (SWS)
- Southeastern South America (SES)
- Southern South America (SSA)

Impact level Low ○ Medium ○ High ○

/ = not assessed na = not applicable

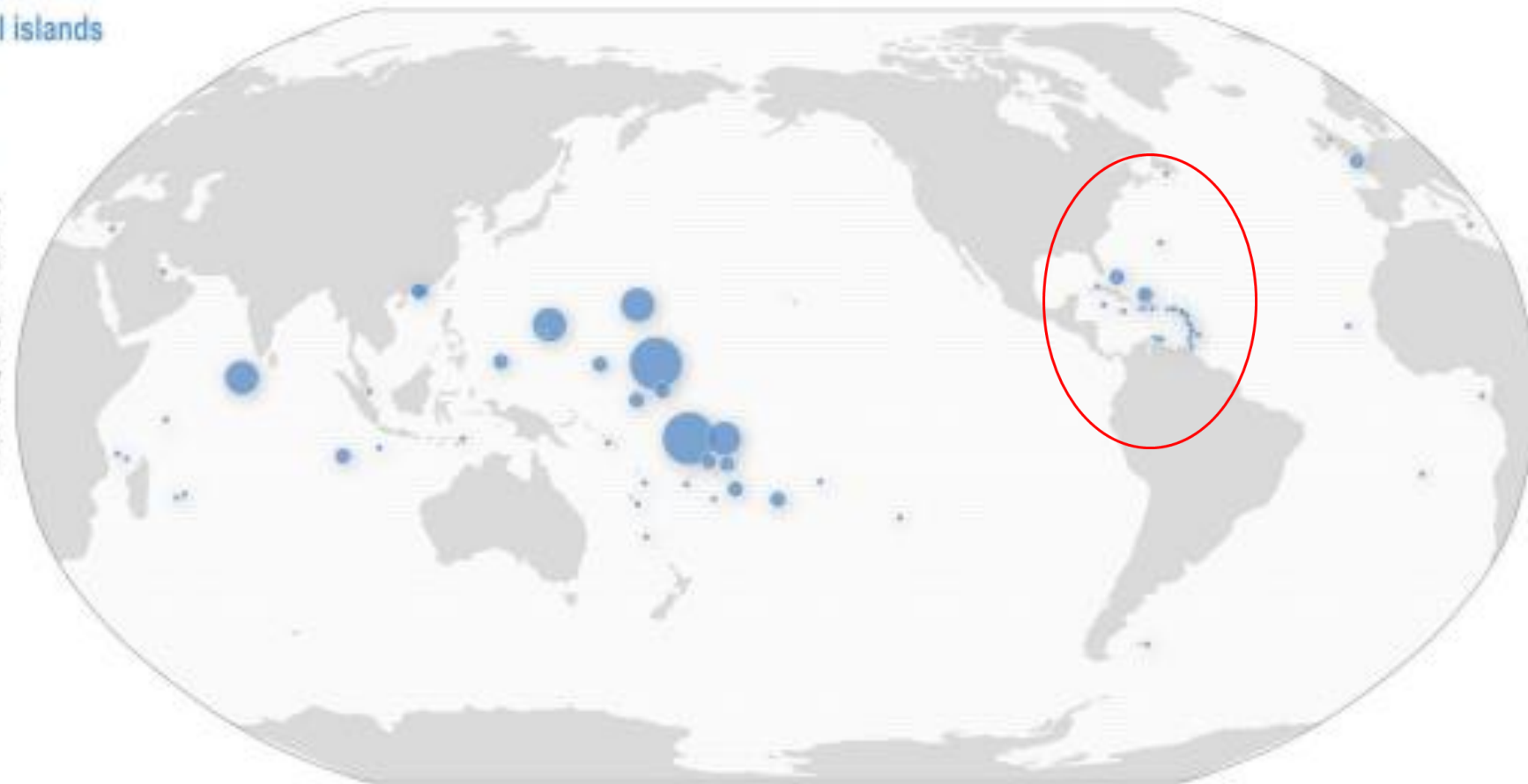
Confidence level: Observed impacts Low Medium High
Confidence level: Projected impacts Low Medium High

Population living in small islands that may be exposed to coastal inundation by 2100 under RCP4.5

For selected islands, each dot represents the corresponding percentage of the population occupying vulnerable land, that may be exposed to coastal inundation either by permanently falling below mean higher high water (MHHW), or temporarily falling below the local annual flood height.

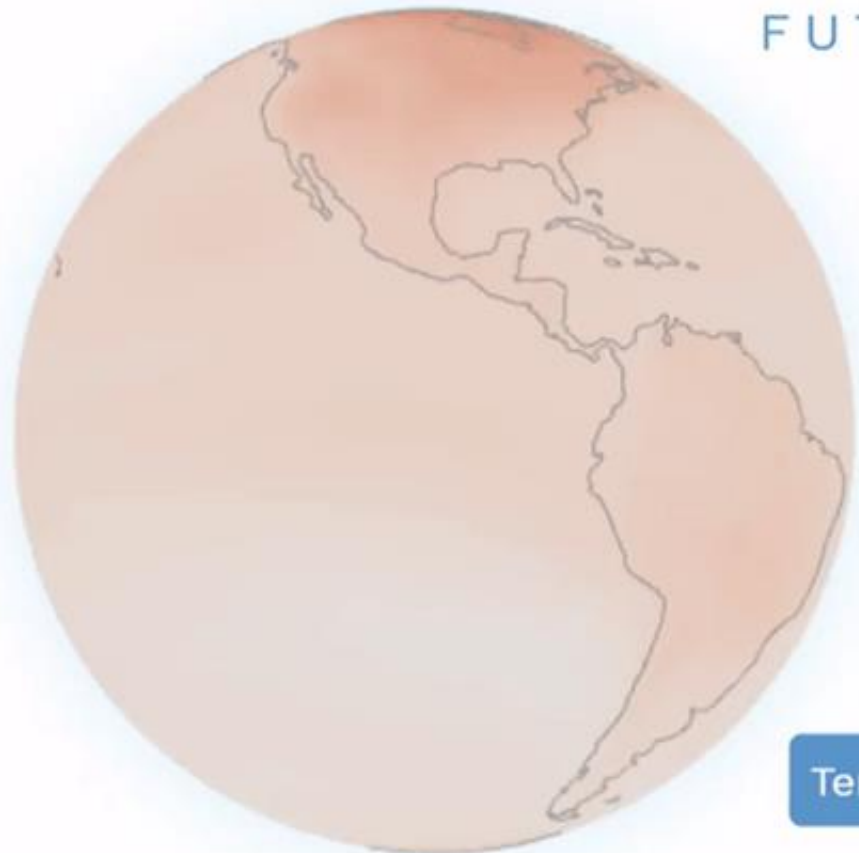
Percentage of island's population exposed to coastal inundation

- >50%
- 31-50%
- 10-30%
- <10%



Interactive atlas

OUR POSSIBLE
CLIMATE
FUTURES



+1.5°C

+2°C

+3°C

+4°C

Temperature

Precipitation

<https://interactive-atlas.ipcc.ch/>

#IPCCData

#IPCCAtlas

Action on adaptation has increased but progress is uneven and we are **not adapting fast enough**

Most adaptation responses are **fragmented, incremental, sector-specific and unequally distributed** across regions.

Despite progress, **adaptation gaps** remain and will grow at current rates of implementation.

Soft limits to adaptation are being experienced by small-scale farmers and households in low-lying coastal regions.

Some coastal ecosystems have reached **hard adaptation limits**.

Current **global financial flows** for adaptation are **insufficient** especially in developing countries.

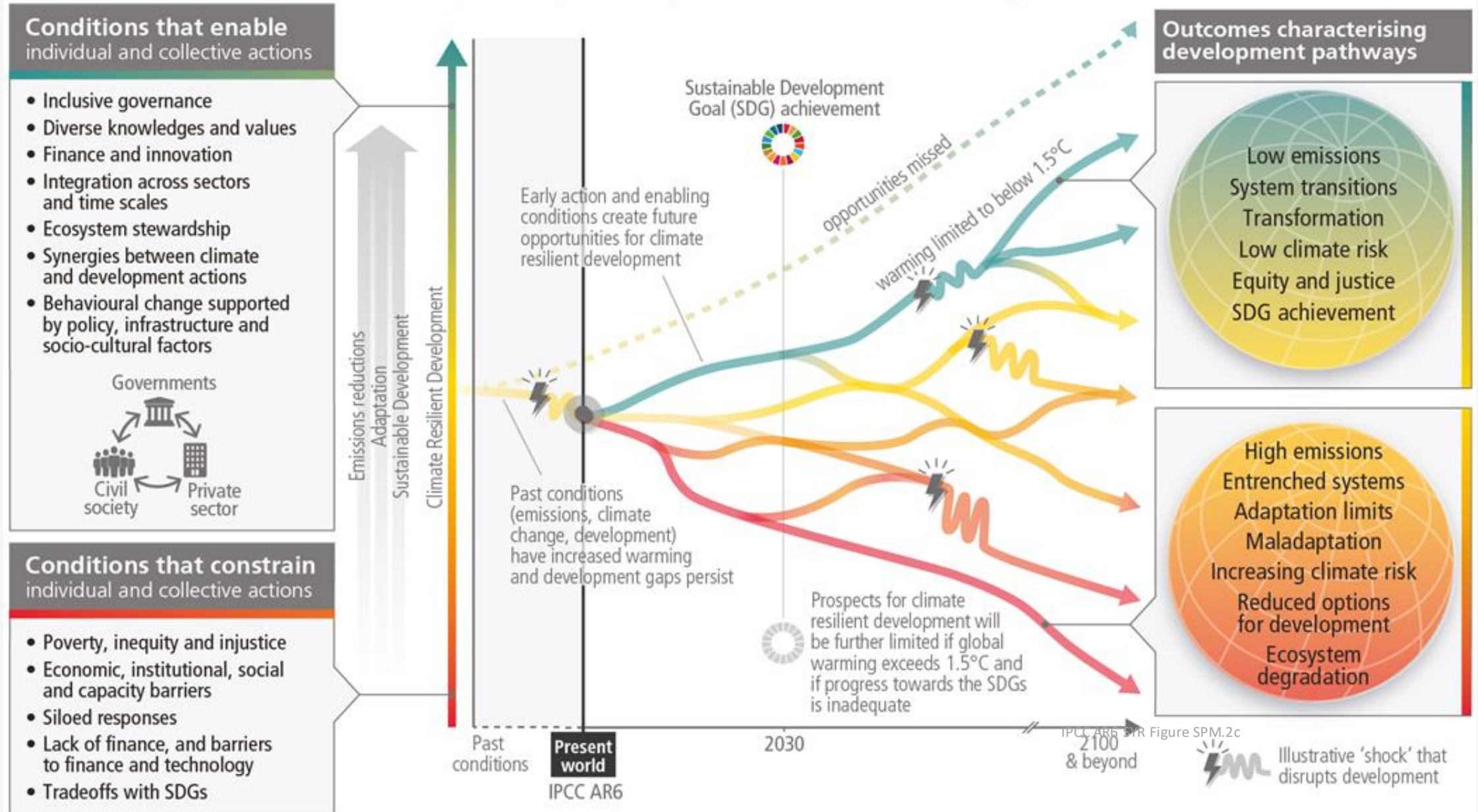


The Feasibility of Adaptation measures



Nature offers significant untapped potential.

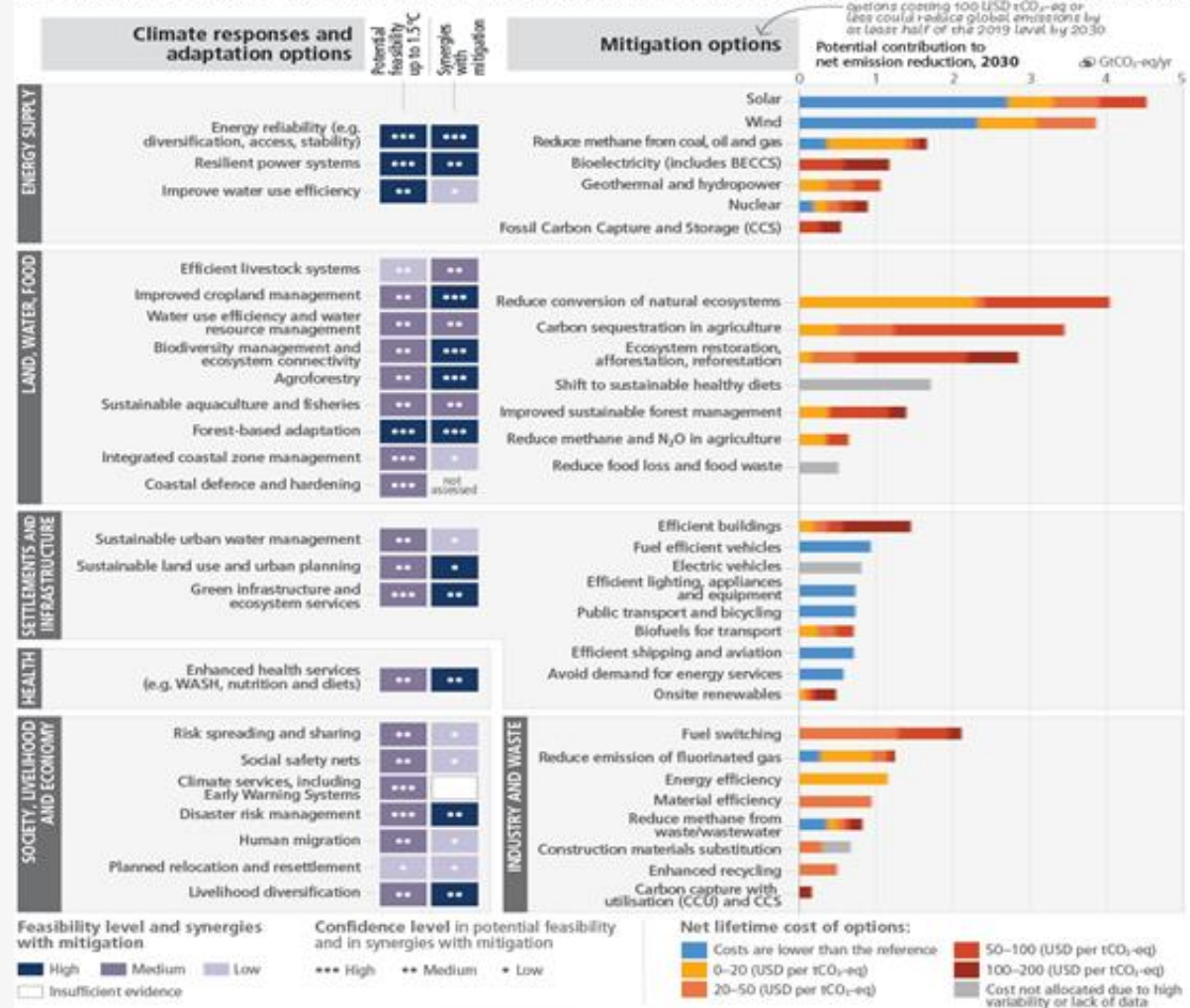




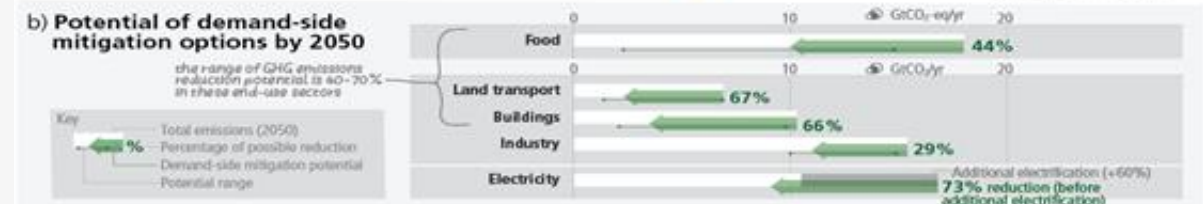
IPCC AR6 SYN Figure SPM.2c

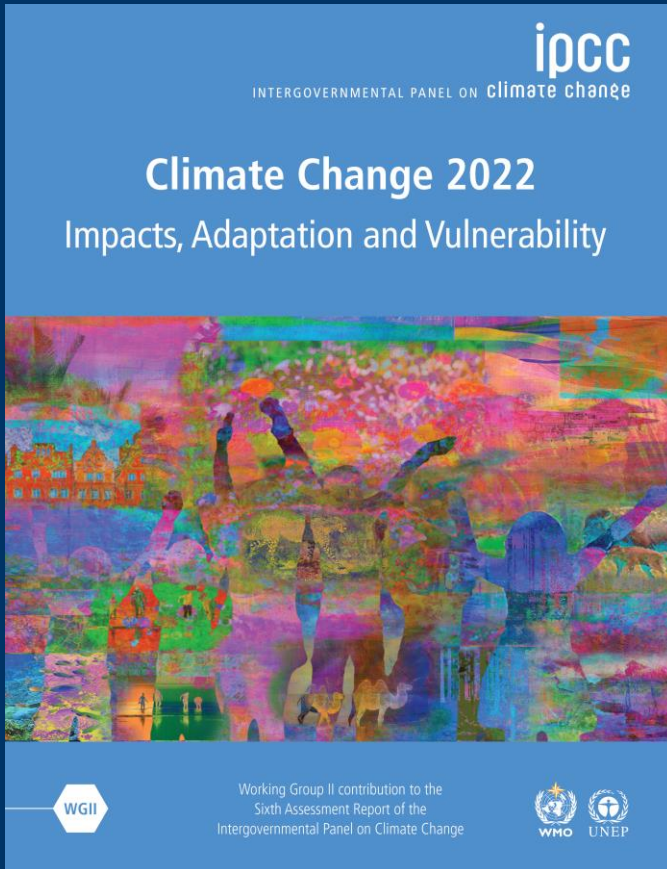
 Illustrative 'shock' that disrupts development

a) Feasibility of climate responses and adaptation, and potential of mitigation options in the near-term



There are multiple opportunities for scaling up climate action

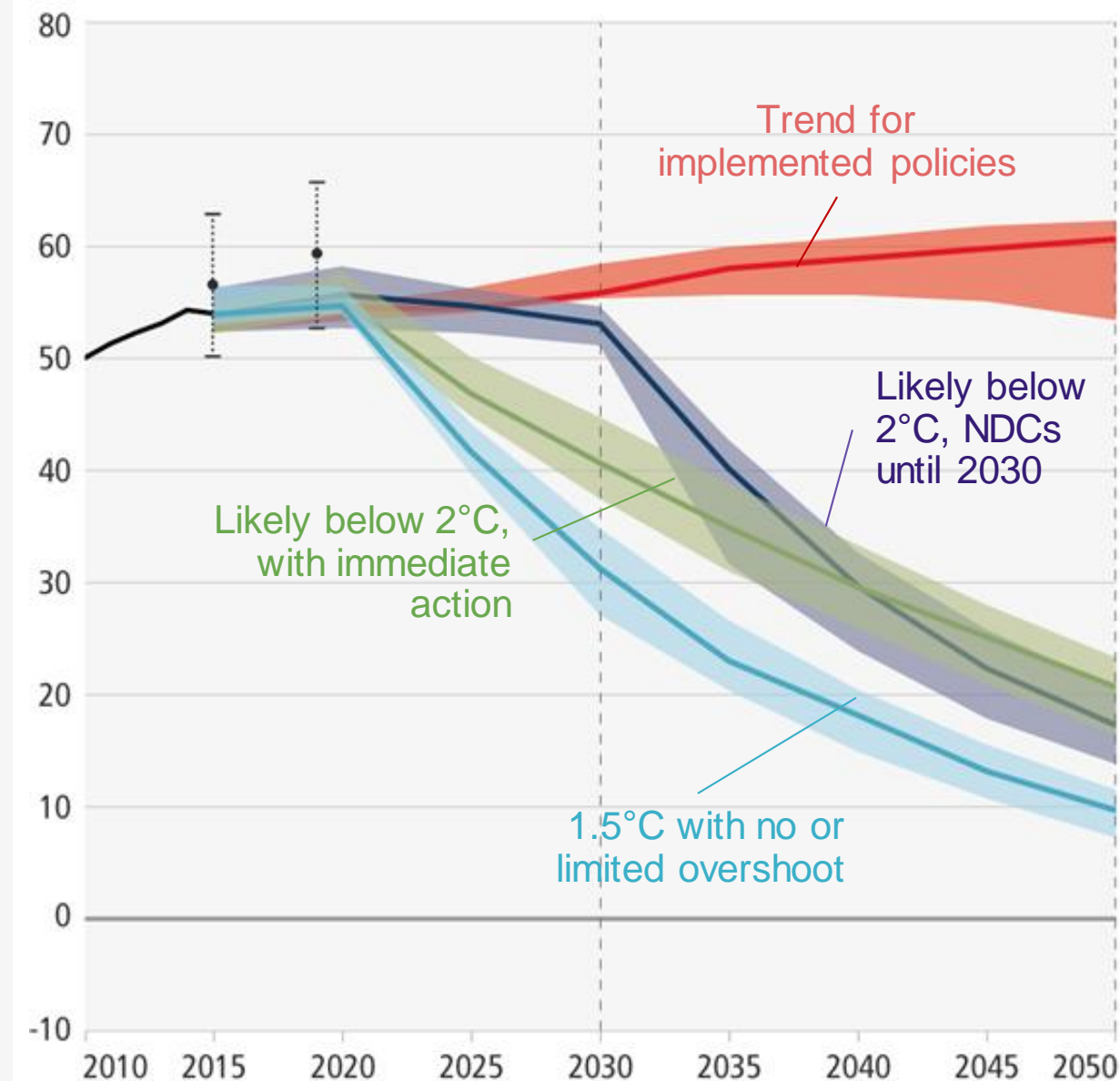




The science is clear.

Any further delay in concerted global action will miss a brief and rapidly closing window to secure a liveable future.

▪



Limiting warming to 1.5 °C

- Global GHG emissions peak before 2025, reduced by 43% by 2030
- Methane reduced by 34% by 2030
- Net zero by 2050

Limiting warming to around 2°C

- Global GHG emissions peak before 2025, reduced by 27% by 2030.
- **Net zero by 2070**



The choices made in the next few years will play a critical role in deciding our future and that of generations to come.



AR6 Working Group III Authors, India, 2019

GET INVOLVED



CONTRIBUTE TO EXISTING LITERATURE

IPCC assessments are as good as the literature available. Look out for the various cut off dates for literature for the different reports.



AS AUTHORS OR REVIEW EDITORS

Bureau selects Authors and Review Editors from lists of nominations provided by governments and observer organizations.

Look out for the calls for nomination of authors and contact your IPCC Focal Point if you are interested in being nominated.



AS EXPERT REVIEWERS

Be involved in the two review stages:

Expert Review of the First Order Draft

&

Government and Expert Review of the Second Order Draft

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#ClimateReport #IPCC

Changing by Alisa Singer

"As we witness our planet transforming around us we watch, listen, measure ... respond".