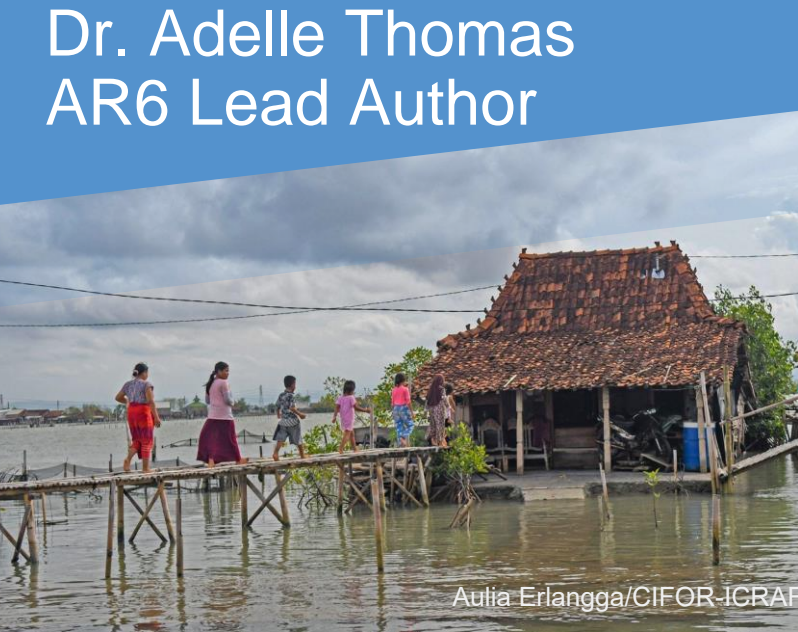


# Key Findings of the IPCC Synthesis Report in the 6<sup>th</sup> Assessment Cycle: Addressing Slow Onset Events

UNFCCC First workshop on addressing loss and damage in the context of decisions 2/CP.27 and 2/CMA.4

29 - 30 Apr. 2023

Dr. Adelle Thomas  
AR6 Lead Author





# The State of Knowledge about Climate Change

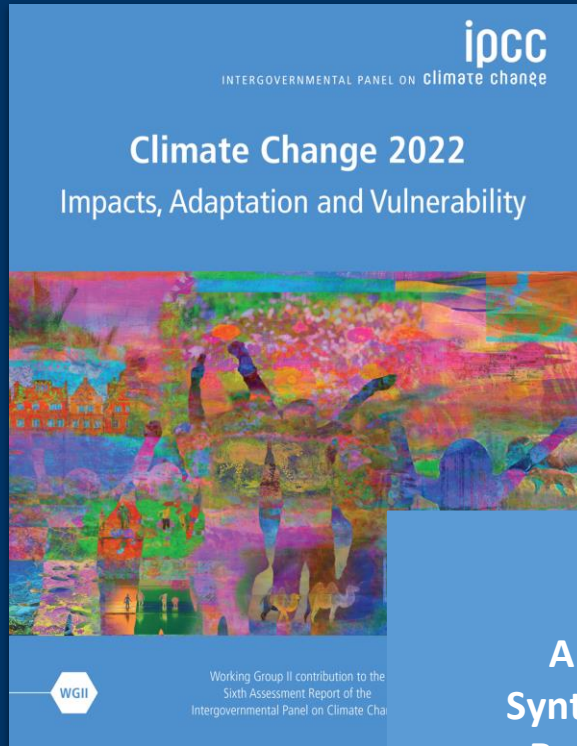


- Slow onset events refer to the risks and impacts associated with e.g.:
  - increasing temperature means,
  - desertification,
  - decreasing precipitation,
  - loss of biodiversity,
  - land and forest degradation,
  - glacial retreat and related impacts,
  - ocean acidification,
  - sea level rise and salinization

**Impacts of climate change are caused by slow onset and extreme events**

- Complex risks result from **multiple climate hazards occurring concurrently**, and from multiple risks interacting, **compounding overall risk** and resulting in risks transmitting through interconnected systems and across regions.
- **Concurrent and repeated climate hazards occur in all regions**, increasing impacts and risks to health, ecosystems, infrastructure, livelihoods and food
- **Multiple risks interact**, generating new sources of vulnerability to climate hazards, and compounding overall risk
- E.g. Future sea level rise **combined** with storm surge and heavy rainfall will increase compound flood risks

**Complex risks: slow onset  
and extreme events **interact****

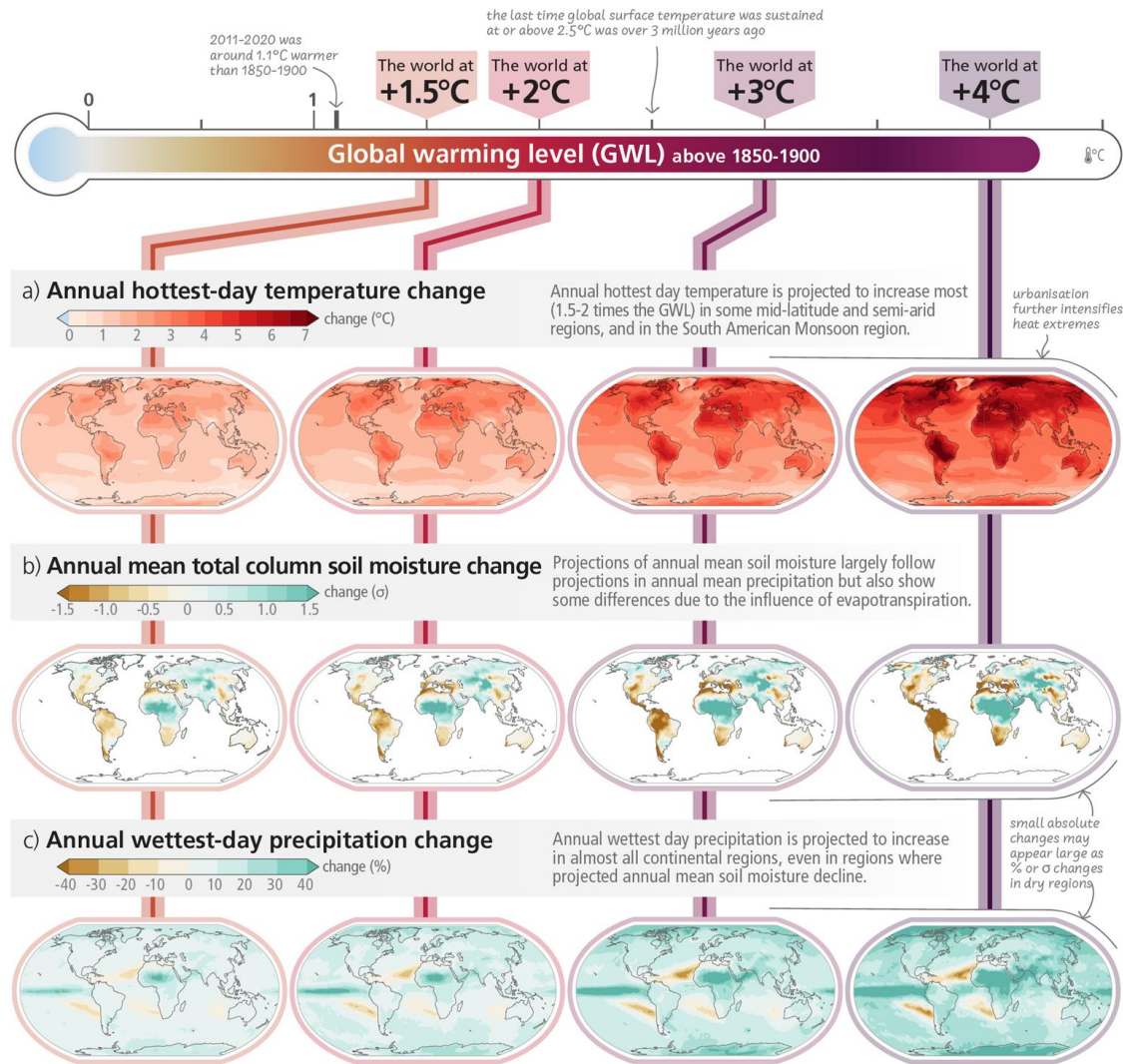


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**Scientific advances have resulted in a better understanding of what our future will look like, depending on the choices we make today.**

**With every increment of warming, the risks, impacts and related losses and damages escalate.**





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

# Adverse impacts from human-caused climate change will continue to intensify

Observed widespread and substantial impacts and related losses and damages attributed to climate change

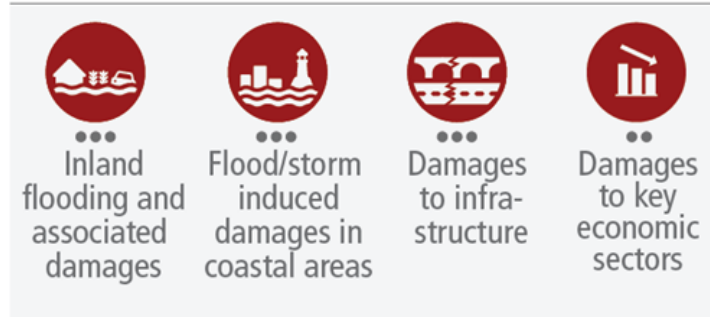
## Water availability and food production



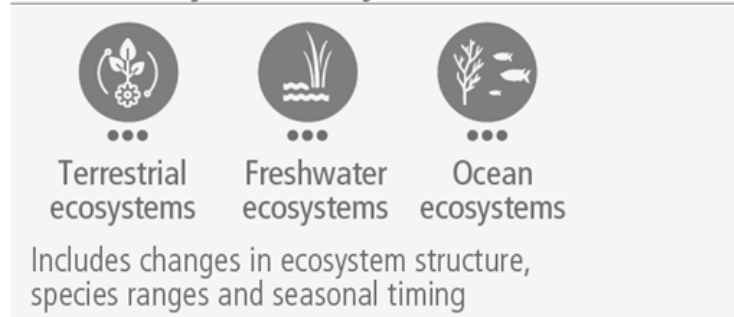
## Health and well-being



## Cities, settlements and infrastructure



## Biodiversity and ecosystems



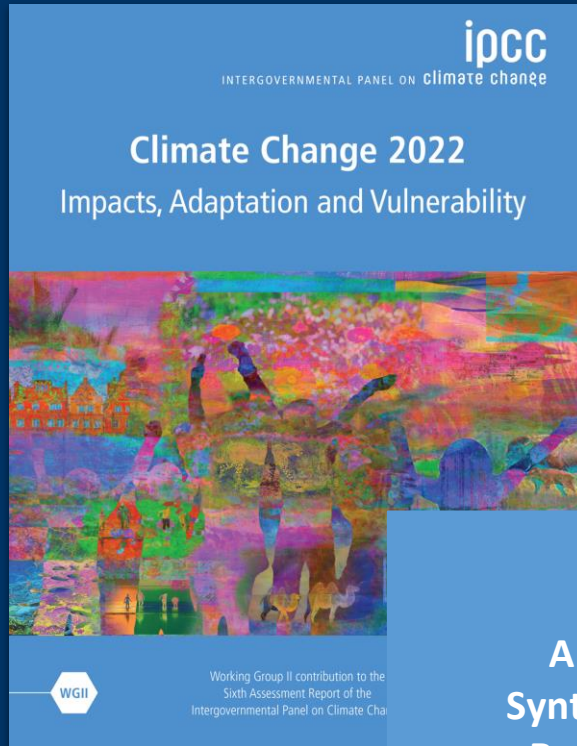
Key

Observed increase in climate impacts to human systems and ecosystems assessed at **global level**

- Adverse impacts
- Adverse and positive impacts
- Climate-driven changes observed, no global assessment of impact direction

Confidence in attribution to climate change

- High or very high confidence
- Medium confidence
- Low confidence



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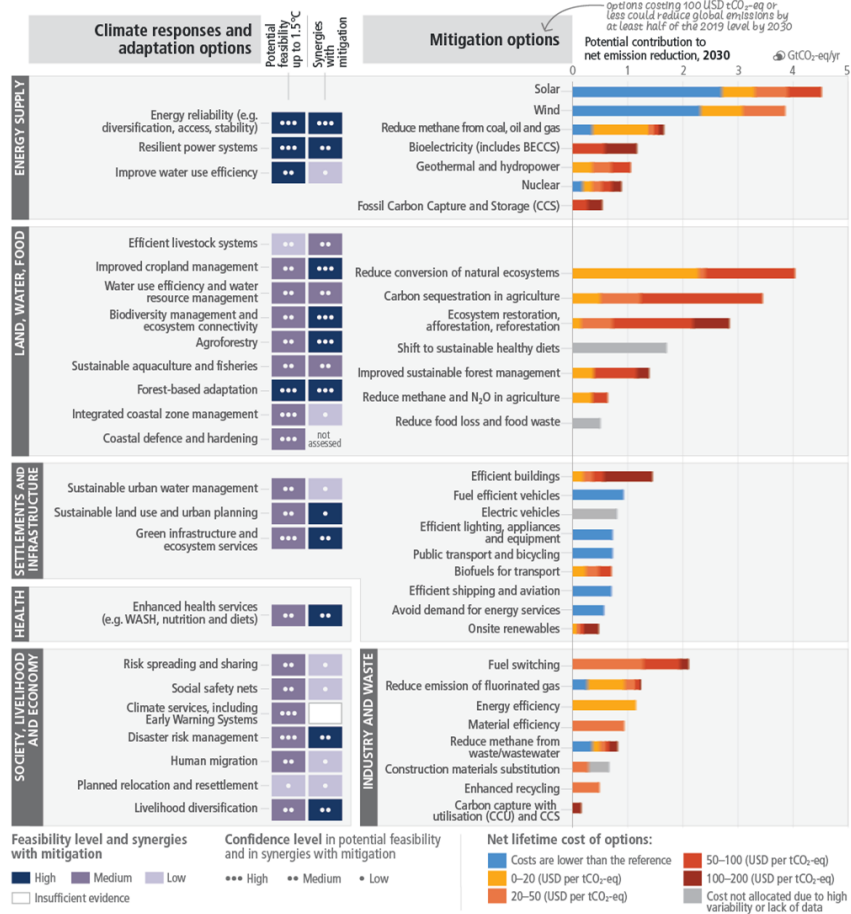
Where we are and where we're headed

**The pace and scale of what has been done so far, and current plans, are insufficient to tackle climate change.**

Despite some progress to reduce climate risks, we are ill-prepared for the hazards and extraordinary threats we face today and into the future.



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

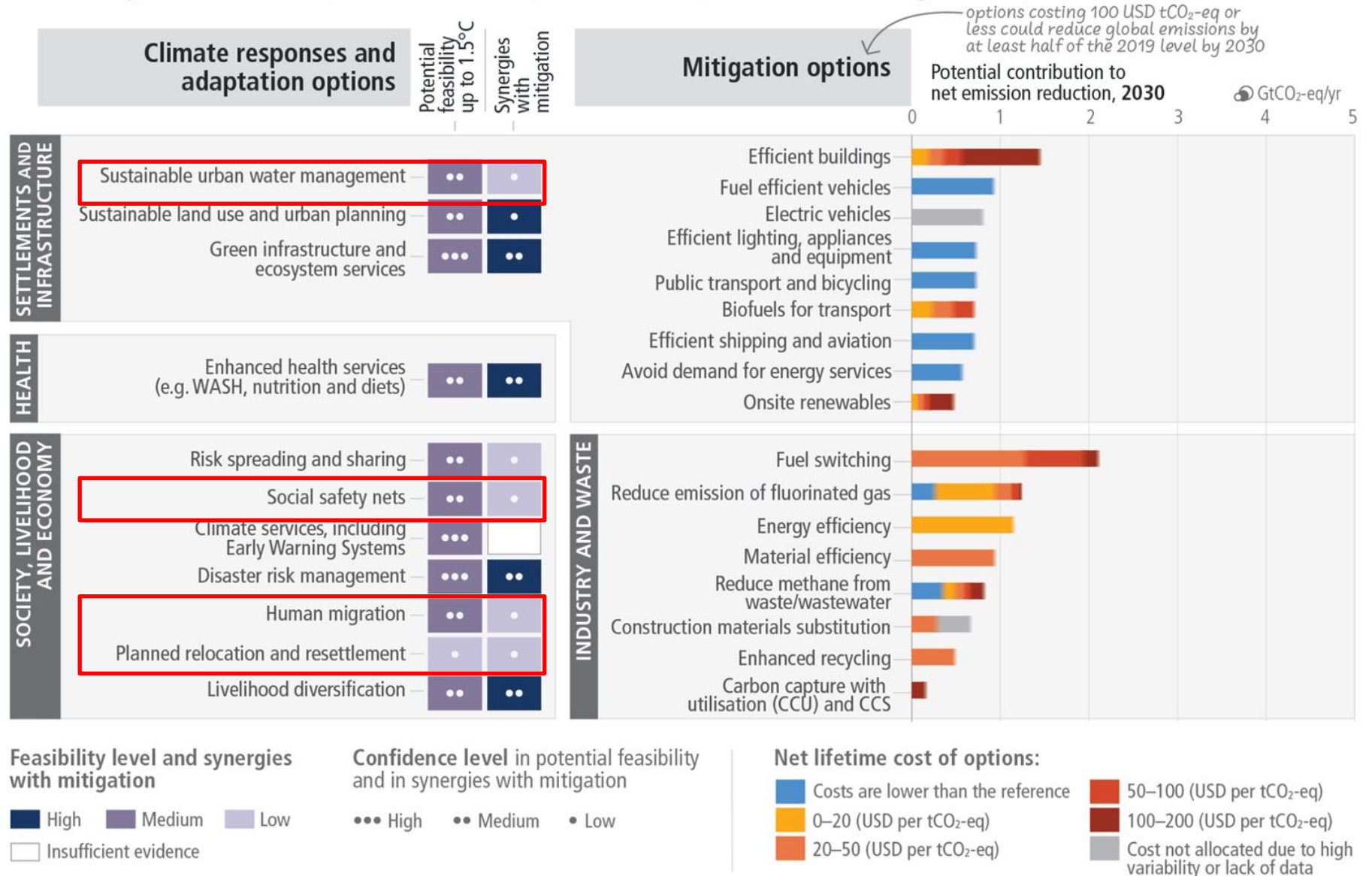


SYR Figure SPM.7

There are multiple opportunities for scaling up climate action

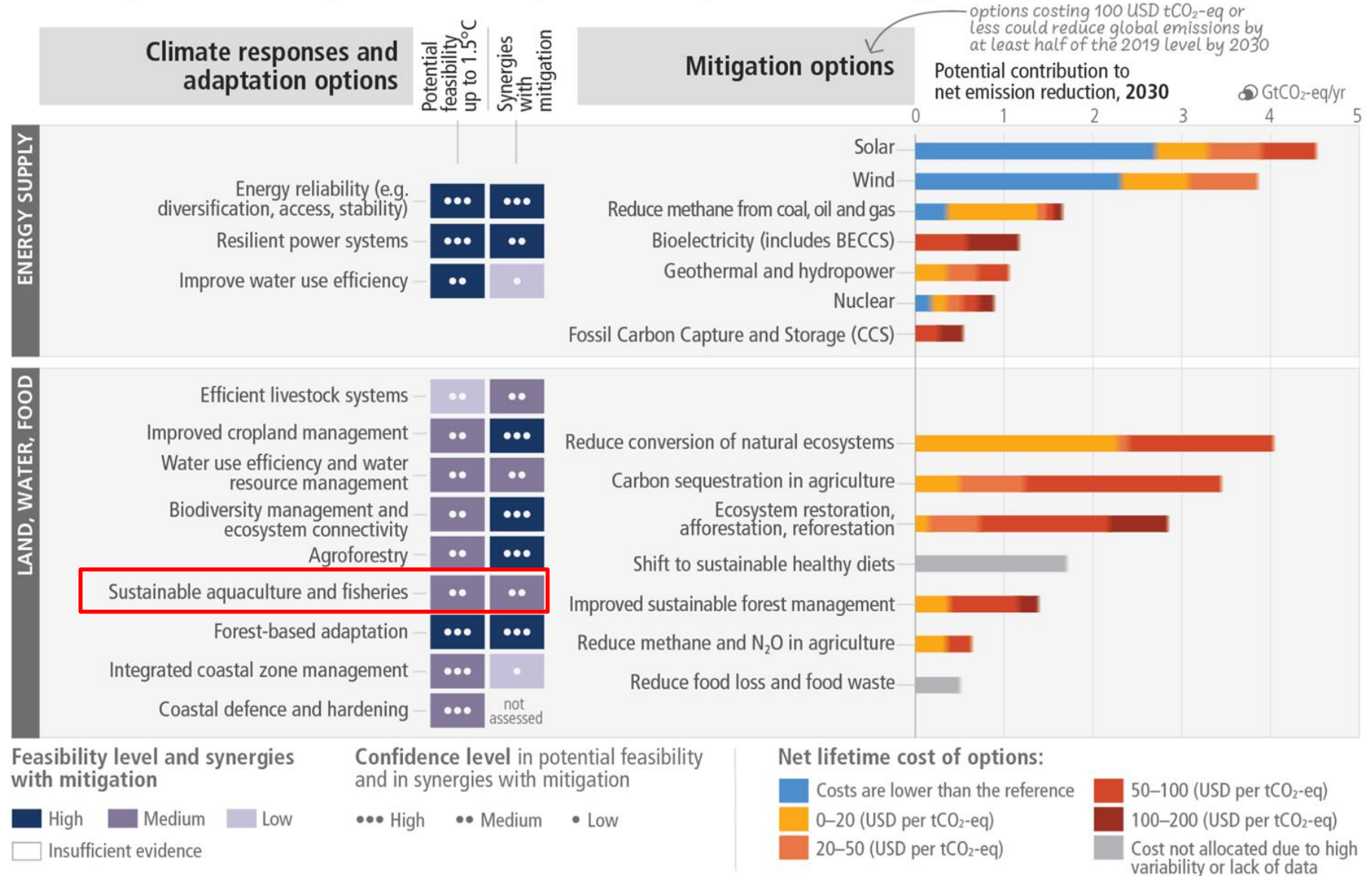
Feasibility of climate responses and adaptation, and potential of mitigation options in the near-term

There are multiple opportunities for scaling up climate action

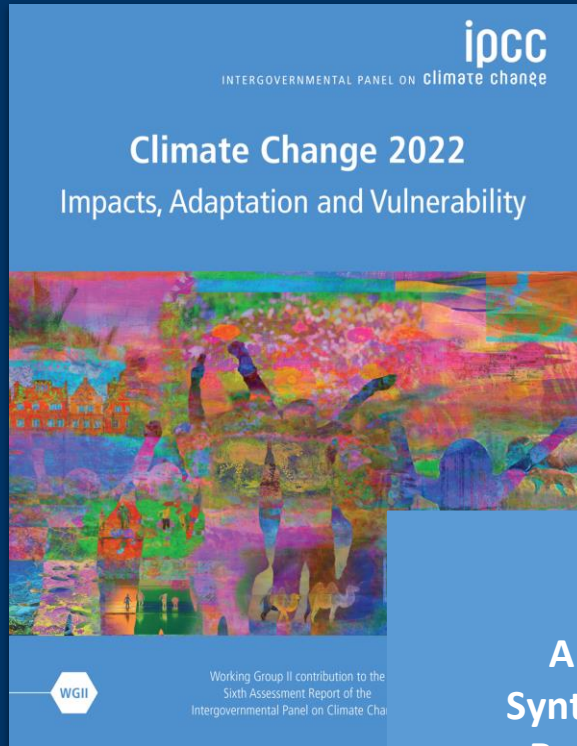


There are multiple opportunities for scaling up climate action

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





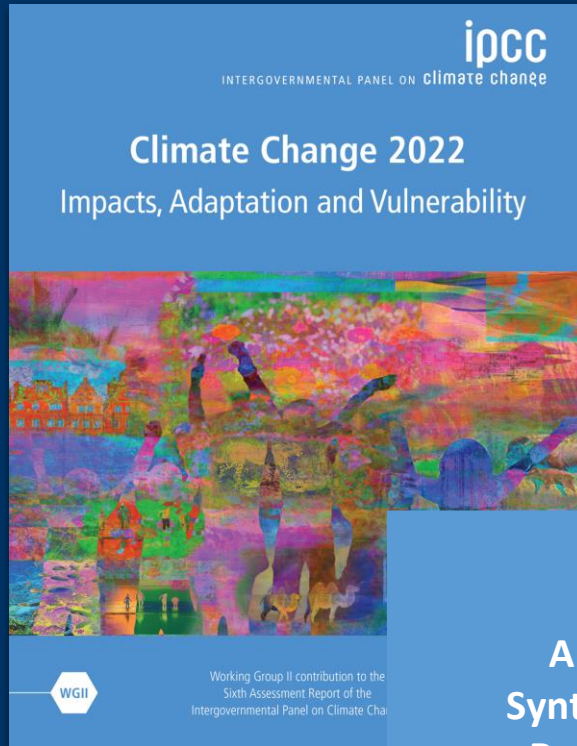


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## Solutions

**Scaling up climate finance is crucial for climate action, especially in developing countries where the finance gap and opportunities are the largest.**

There is sufficient global capital to close gaps if existing barriers are reduced. Governments are key in reducing these barriers. Investors, central banks and financial regulators can also play their part.



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## Our Future

**Questions of climate justice arise as vulnerable people who have contributed least to climate change are being disproportionately adversely affected.**

This is one other reason why fairness and equity are key to successfully tackling the threats from climate change.