Global Warming of 1.5°C

An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.

Strengthening the global response in the context of sustainable development

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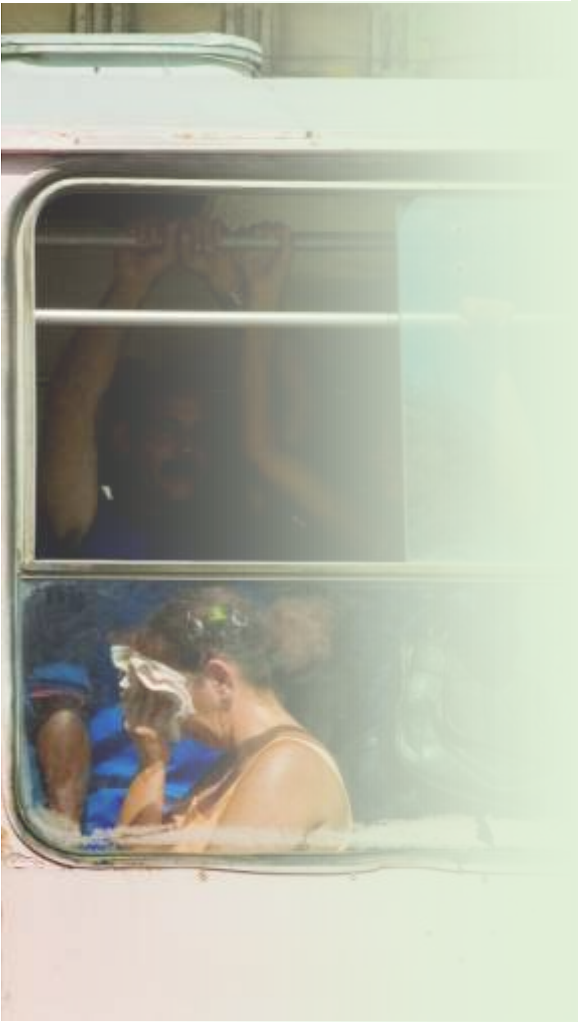
Key findings

Climate change is already affecting people, ecosystems and livelihoods all around the world. Every bit of warming matters

Limiting warming to 1.5°C is not impossible but would require unprecedented transitions in all aspects of society

There are clear benefits to keeping warming to 1.5°C compared to 2°C , or higher.

Limiting warming to 1.5°C can go hand-in-hand with achieving other world goals, such as achieving sustainable developments and eradicating poverty

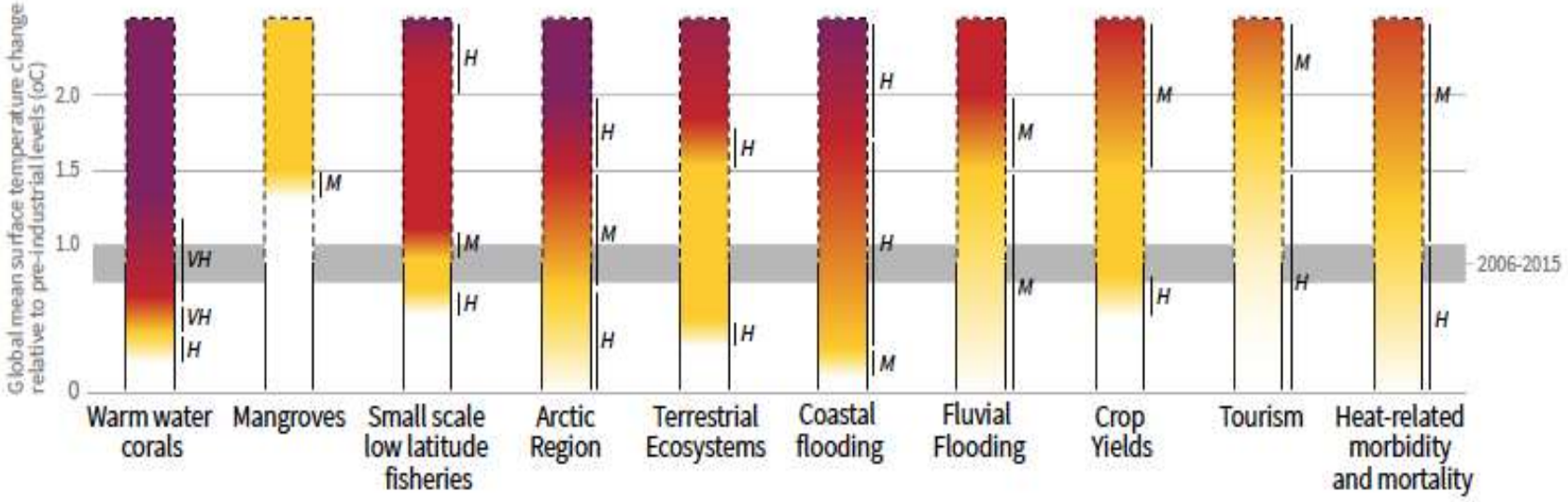


Why 1.5°C compared to 2 °C

- Less extreme extreme heat and rainfall
- Lower impact on biodiversity and species, fishery and livelihood
- Smaller reductions in yields of maize, rice, wheat
- 50% less exposure of global population to increased water shortages

Jason Florio / Aurora Photos

Impacts and risks for selected natural, managed and human systems



Confidence level for transition: *L*=Low, *M*=Medium, *H*=High and *VH*=Very high

Source: IPCC Special Report on Global Warming of 1.5°C

Natalie Behring / Aurora Photos

Even global warming 1.5°C is not safer

Local yields are projected to decrease in major food producing areas **South-East Asia, South-Asia**.

Highly unusual hot days increase the most in the tropics, extreme heatwaves.

Largest increases in heavy precipitation in several high-latitude regions such as northern Asia; mountainous regions (e.g. Tibetan Plateau); as well as Eastern Asia (including China and Japan)

Ashley Cooper/ Aurora Photos

Poverty Impact

Makes poor people poorer, increases poverty head count. Most severe impacts projected for urban areas, some rural regions in sub-Saharan Africa and Southeast Asia.

Negatively affect childhood undernutrition, stunting through reduced food availability, undernutrition-related childhood mortality with the largest risks in Asia and Africa.

Ashley Cooper/ Aurora Photos

Governance Issues

Risks of costal flooding are projected to be the highest in south and south-east Asia, assuming there is no upgrade to present protection levels

Ashley Cooper/ Aurora Photos

Governance Issues

Run off increase and hydro power potential

Water resources availability for livestock are expected to decrease due to increased runoff and reduced groundwater resource

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Opportunities

Built environment, spatial planning, infrastructure, energy services, mobility, urban-rural linkages necessary in **rapidly growing cities in South Asia** in the next three decades present mitigation, adaptation and development opportunities that are crucial for a 1.5°C world

Ashley Cooper/ Aurora Photos

Scalable experiments, governance

In 43 Asian cities Transit Oriented Development (TOD), has emerged as an organising principle for urban growth and spatial planning reducing demand for private cars. In India TOD has been combined with localized solar PV installations and new ways of financing rail expansion.

Mitigation actions

Energy demand (transport, buildings, industry) sector : behaviourial responses, fuel switching, energy use efficiency, (carbon capture and storage-CCS/U)

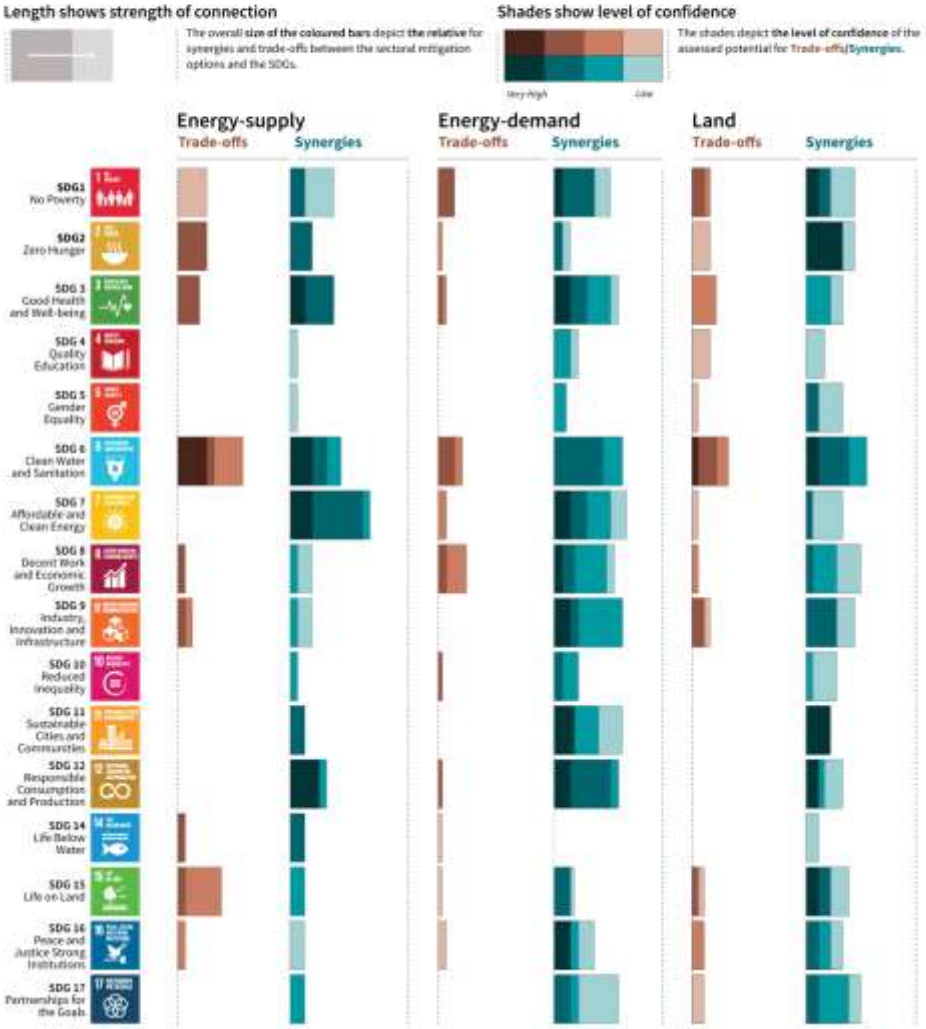
Energy Supply sector : Biomass-non biomass renewables, nuclear, CCS-bio energy, CCS-fossil

Land Sector: sustainable diets, reduced food waste, soil carbon sequestration, livestock manure management, reduce deforestation, afforestation, reforestation, responsible forest product sourcing

Strengthening the Global Response in the Context of Sustainable Development

Indicative linkages between mitigation options and sustainable development using SDGs (The linkages do not show costs and benefits)

Mitigation options deployed in each sector can be associated with potential positive effects (synergies) or negative effects (trade-offs) with the Sustainable Development Goals (SDGs). The degree to which this potential is realized will depend on the selected portfolio of mitigation options, mitigation policy design, and local circumstances and context. Particularly in the energy-demand sector, the potential for synergies is larger than for trade-offs. The bars group individually assessed options by level of confidence and take into account the relative strength of the assessed mitigation-SDG connections.



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