

SIXTH ASSESSMENT REPORT

Working Group II – Impacts, Adaptation and Vulnerability

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Key messages of the new IPCC report (WGII)

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1.1°C warming has already wide-ranging consequences for billions of people

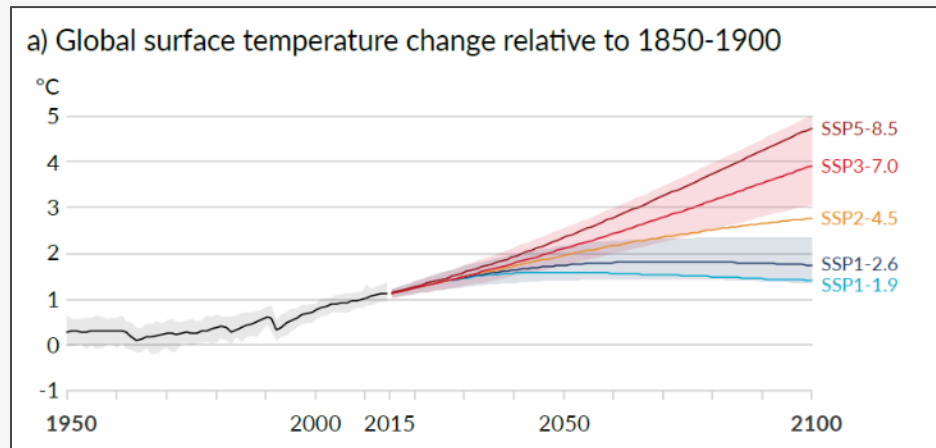
- Climatic extreme events can be increasingly attributed to human induced climate change, with severe consequences for people and infrastructure.
- 50% of the world's population face seasonal water scarcity every year.
- Climate change affects lives, health and livelihoods of more than 50% of the urban population
- 3.3 bn people (mainly in the developing world) are high vulnerable to climate change



see Figure SPM.2

For warming levels higher than 1.5°C risks multiply

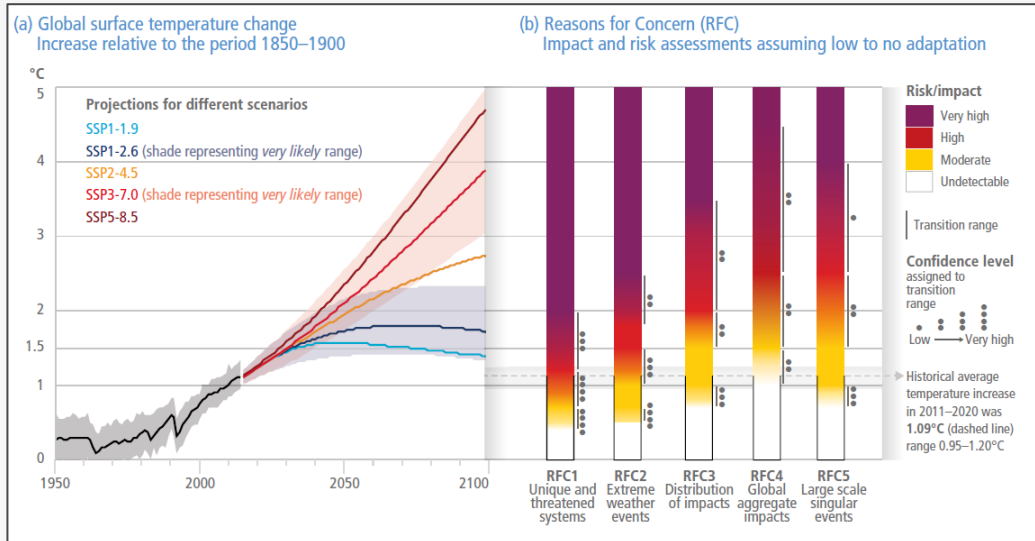
- The better we can mitigate warming and the more we can strengthen adaptive capacity and resilience the more risks are reduced and losses and damages avoided.
- The risk of species extinction increases by a factor of 10 from warming level of 1.5 to 3°C.
- With 2.5°C the risk of heat waves increases by a factor of 16, and more than 2 bn people will be exposed to risk of dengue.
- By 2050, 1 bn people will be exposed to risks related to sea level rise.



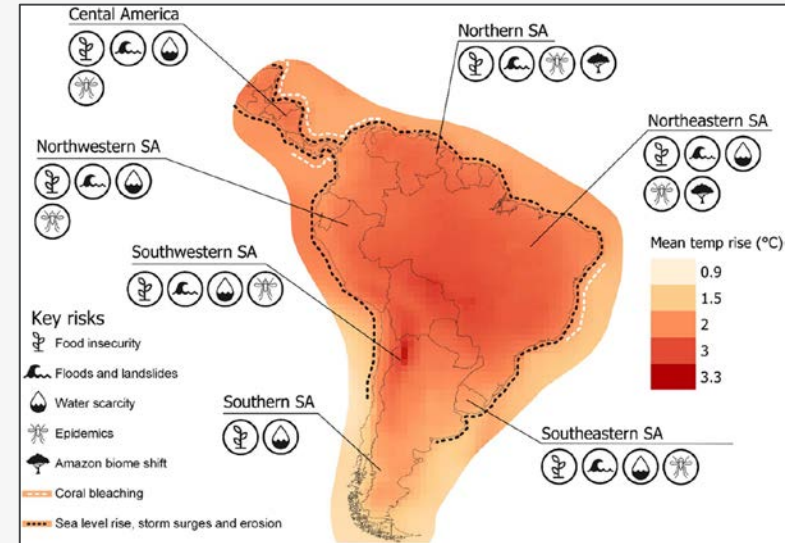
see Figure SPM.3

Risks at global and regional level

Global risks (Reasons for Concern)



Key risks for Central & South America



Risks increasingly become complex and occur in parallel which makes them increasingly difficult to manage

- For the first time complex and interconnected risks across national borders and economic sectors were assessed. They are significantly more severe than thought so far.
- Climate risks and weather extremes damage important infrastructure (e.g. ports) and disrupt supply chains; they threaten food security with large impacts on population and trade markets (supply, costs)
- Mountain regions are particularly exposed to cascading climate impacts and risks, with strong effects on settlements, energy production, agriculture, tourism, and sustainable development in mountain and lowland regions.



In all sectors and regions adaptation options and measures are available

- It is more effective to address climate change and biodiversity jointly.
- Systematic planning of climate adaptation now is much easier and cost-effective than retrofitting.



see Figure SPM.4

Examples of adaptation measures:

Protection, conservation and recovery of ecosystems (global goal: 30-50% of surface area); greening in urban areas, sustainable management of wetland areas in mountain and coastal areas; multi-purpose hydropower structures, participative and joint knowledge production processes with affected people, improvement of basic needs and services in rural areas, planned retreat and relocation.

With higher levels of warming adaptation measures become ineffective and we hit limits of adaptation

- Despite many adaptation efforts there is an increasing adaptation gap vis-à-vis ongoing climate change.
- Parts of populations and ecosystems (e.g. in mountains and oceans) have already reached limits of adaptation.
- With higher levels of warming ($>2^{\circ}\text{C}$) several adaptation measures are no longer effective or simply no longer possible.
- Large-scale retreat and relocation will become unavoidable, in particular with high levels of warming.



Massive efforts and investments are necessary to avoid strongly increasing losses and damages

- Climate resilient and sustainable development with transformative adaptation are more urgent than thought.
- The window is closing: action is indispensable over the next ~10 years if strongly increasing losses and damages should be avoided.



see Figure SPM.5

THANK YOU

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