



IPCC Fifth Assessment Report

Lima Climate Action High Level Session
Lima, Perú

IPCC AR5 Synthesis Report

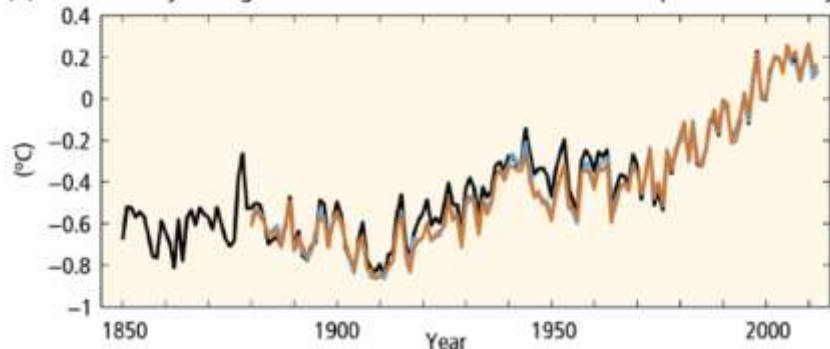
Key Messages

- **Human influence on the climate system is clear**
- **The more we disrupt our climate, the more we risk severe, pervasive and irreversible impacts**
- **We have the means to limit climate change and build a more prosperous, sustainable future**

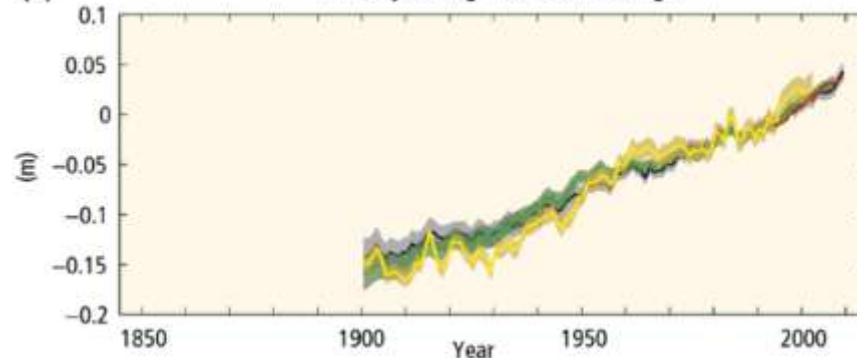
AR5 WGI SPM, AR5 WGII SPM, AR5 WGIII SPM

It is extremely likely that human influence has been the dominant cause of warming since the mid-20th century

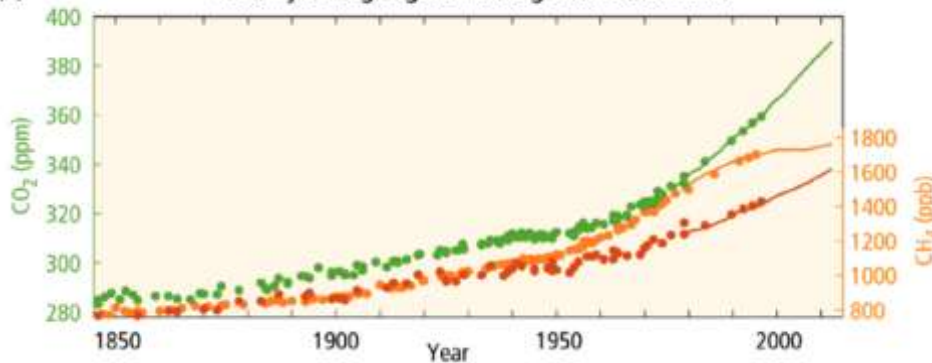
(a) Globally averaged combined land and ocean surface temperature anomaly



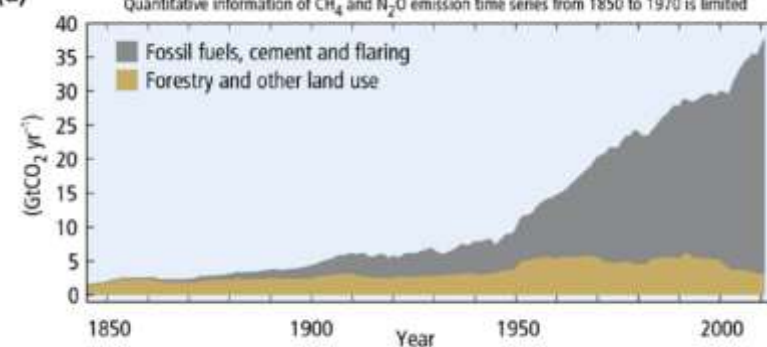
(b) Globally averaged sea level change



(c) Globally averaged greenhouse gas concentrations



(d) Global anthropogenic CO₂ emissions



Climate change will amplify existing risks and create new risks for natural and human systems



Continued warming increases the risks of severe, pervasive, and irreversible impacts.

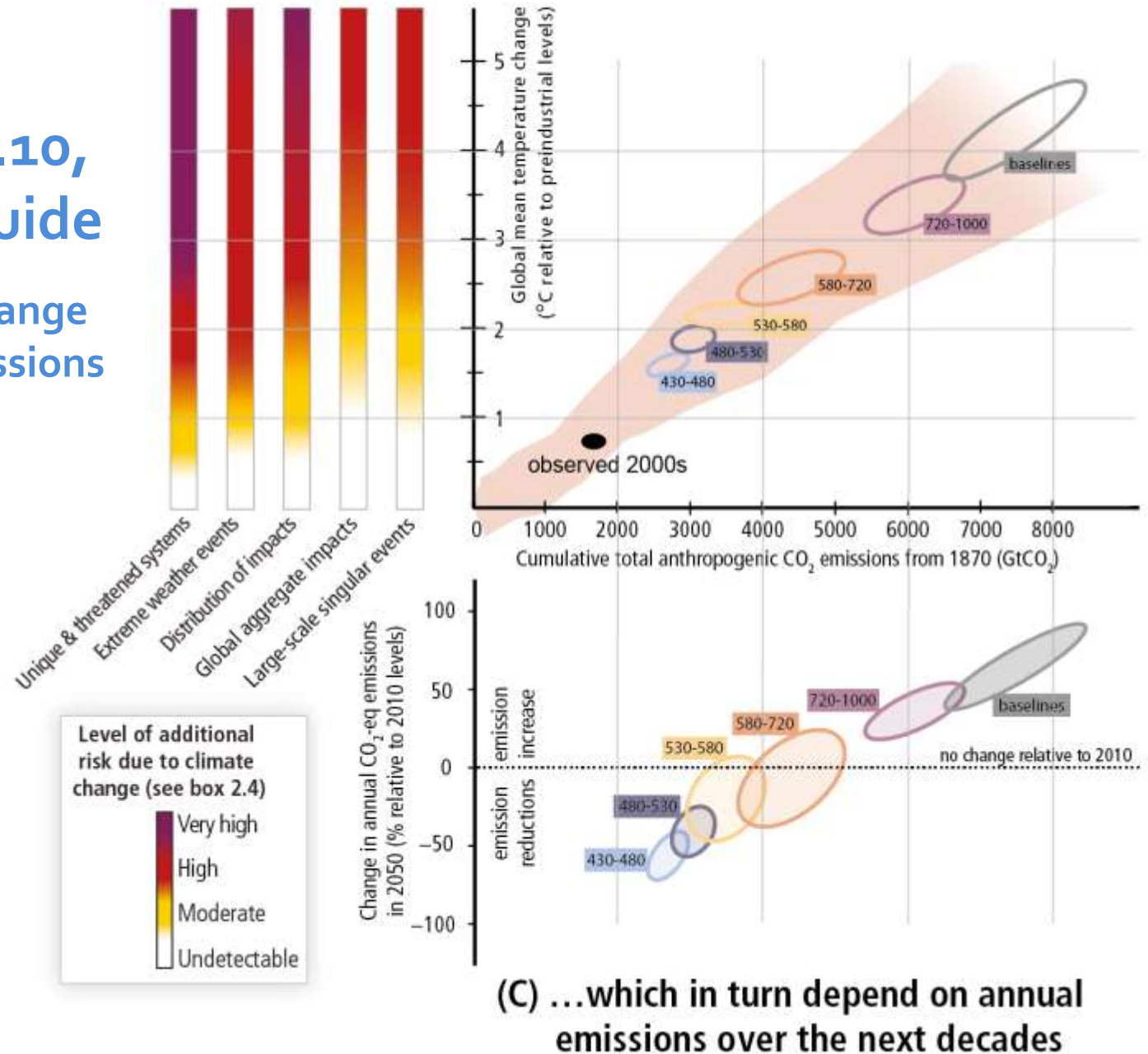
Risks are unevenly distributed and are generally greater for disadvantaged people and communities in countries at all levels of development.

People who are socially, economically, culturally, politically, institutionally or otherwise marginalized are especially vulnerable to climate change.

(A) Risks from climate change... (B) ...depend on cumulative CO₂ emissions...

Figure SPM.10, A reader's guide

From climate change
risks to GHG emissions





“Effective adaptation and mitigation responses will depend on policies and measures across multiple scales: international, regional, national and sub-national. Policies across all scales supporting technology development, diffusion and transfer, as well as finance for responses to climate change, can complement and enhance the effectiveness of policies that directly promote adaptation and mitigation.”

~ AR5 SYR



Evaluation of costs and limitations



- Ambitious mitigation is affordable and translates into delayed but not foregone growth (entails losses in global consumption of median value 1.7 % in 2030)
- Estimated costs of mitigation do not account for the benefits of reduced climate change
- Many impacts, such as loss of human lives, cultural heritage, and ecosystem services, are difficult to value and monetize, and thus they are poorly reflected in estimates of losses

Climate change and equity



Issues of equity, justice, and fairness arise with respect to mitigation and adaptation:

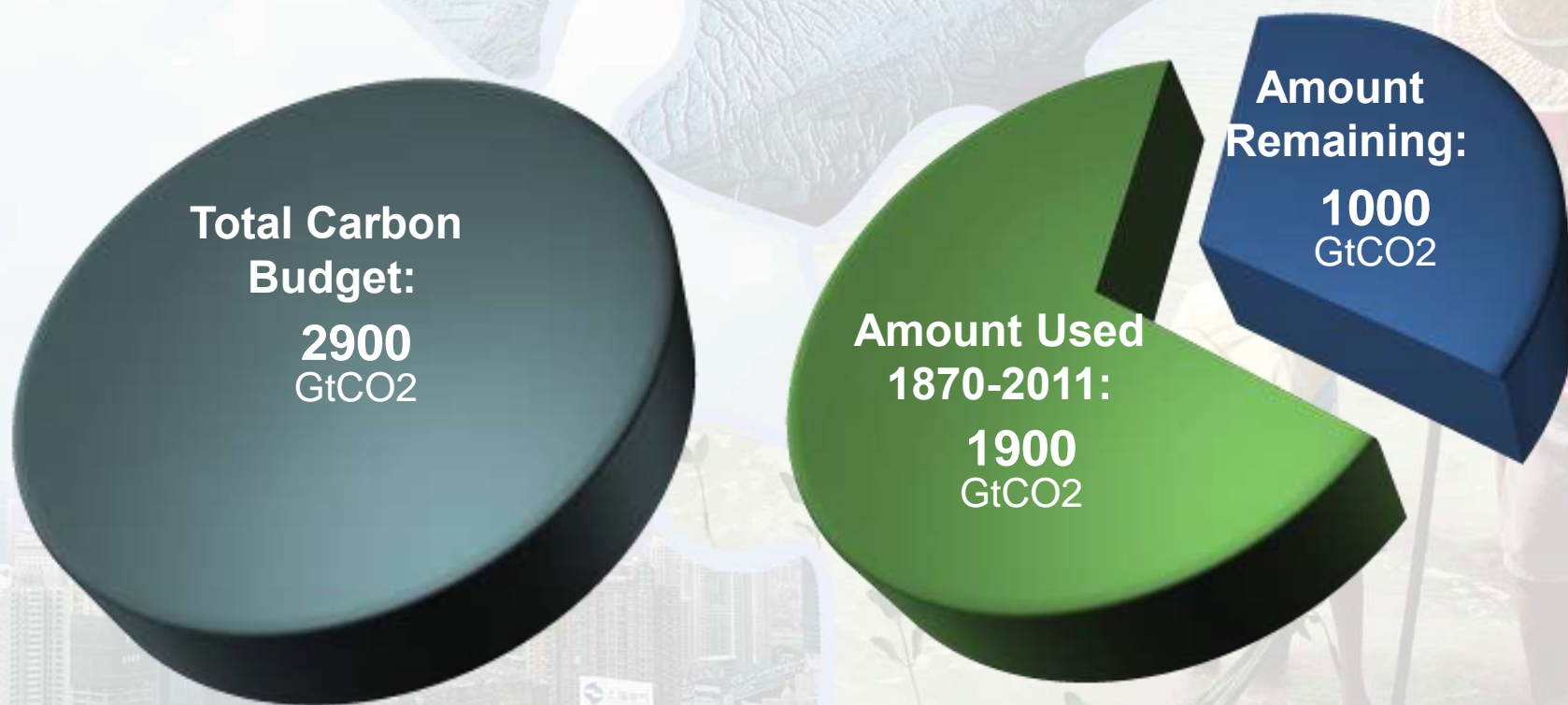
- Different past and future contributions to the accumulation of GHGs in the atmosphere
- Varying challenges and circumstances
- Different capacities to address mitigation and adaptation.

Options for equitable burden-sharing can reduce the potential for the costs of climate action to constrain development.

AR5 WGIII

The window for action is rapidly closing

65% of our carbon budget compatible with a 2° C goal already used



AR5 WGI SPM



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Synthesis Report