

CLIMATE CHANGE 2014

Mitigation of Climate Change

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IPCC WGIII Co-Chairs

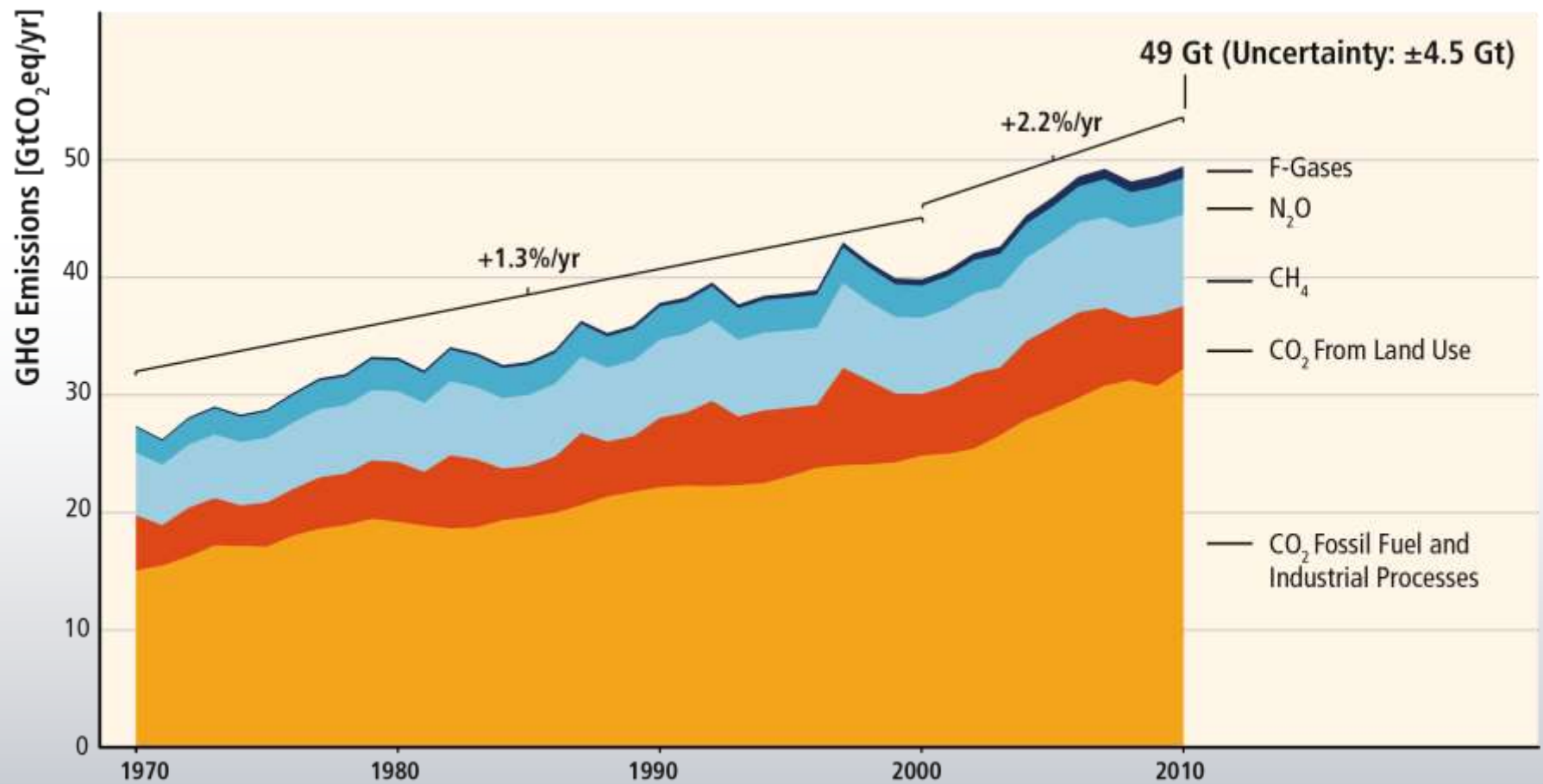
Understanding Climate Change & Enabling Climate Actions with a Special Focus on
Mountain Systems of the Hindu Kush Himalayas

Outreach event on IPCC Role and Findings, 11 Apr 2017 to 13 Apr 2017, Kathmandu (Nepal)

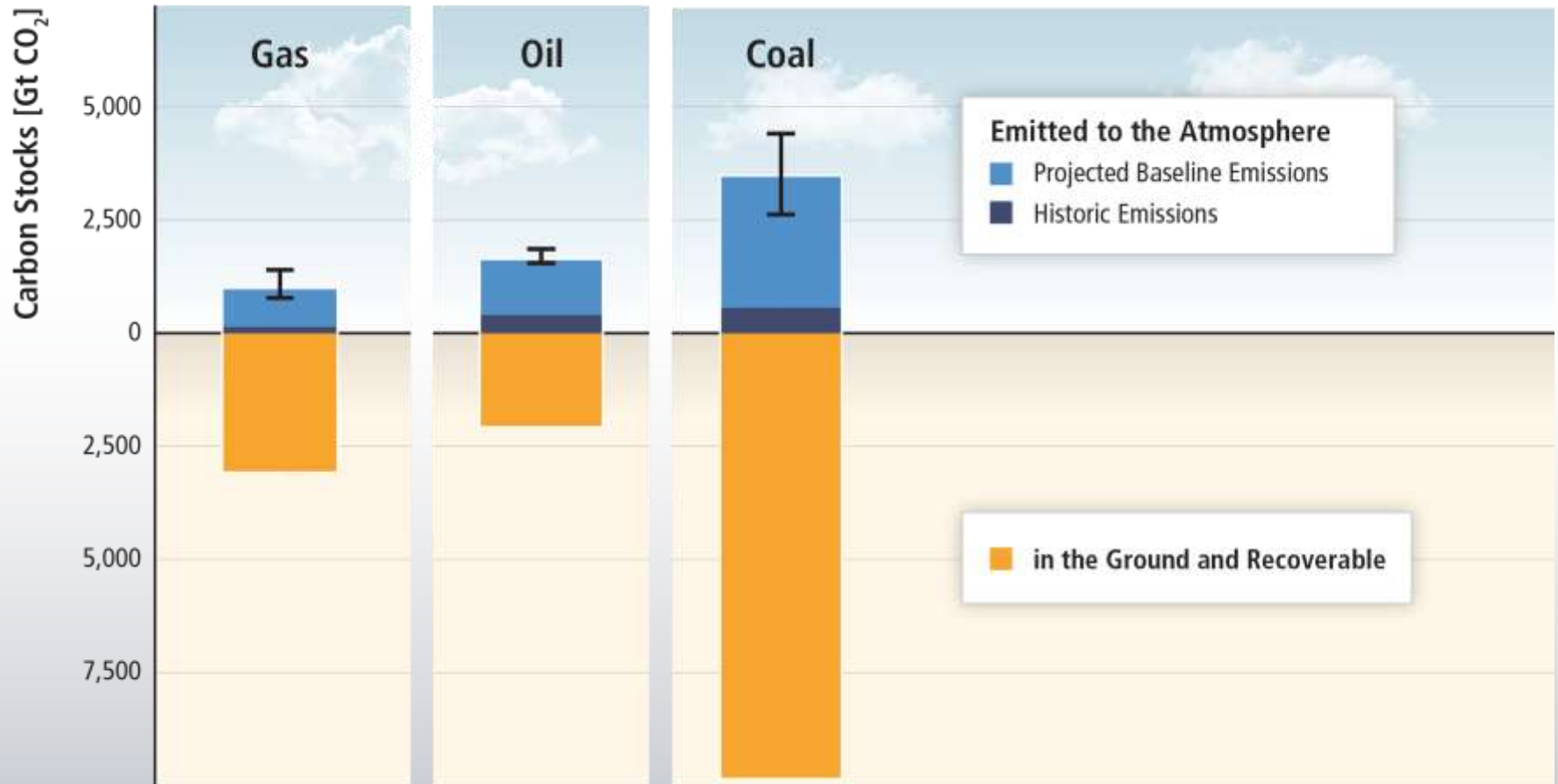
GHG emissions growth has accelerated despite reduction efforts.



But emissions growth has accelerated in the last decade – driven by CO₂ from fossil fuel combustion



There is far more carbon in the ground than emitted in any baseline scenario.

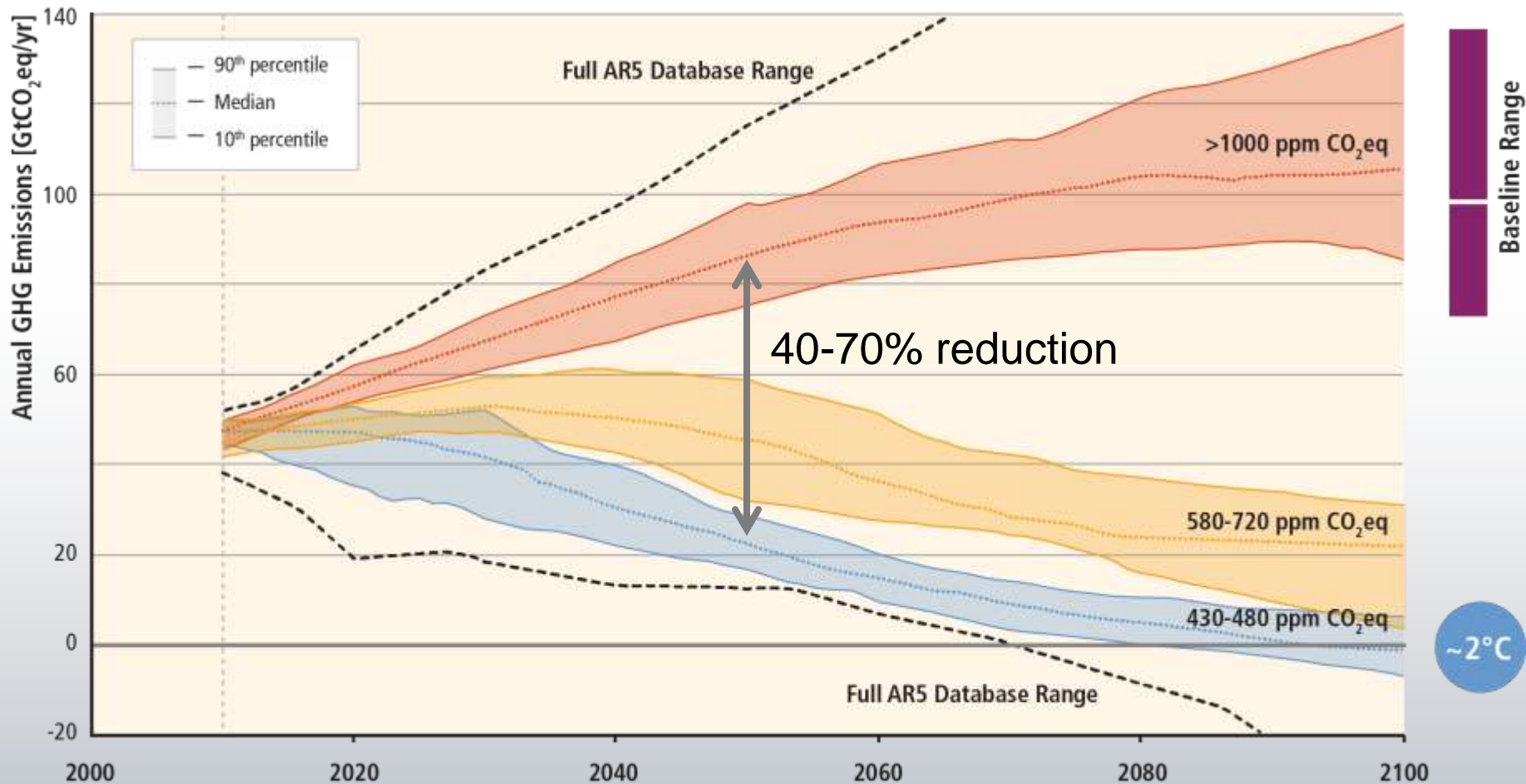


Based on SRREN Figure 1.7



**Climate change mitigation is possible –
and early action will make it easier**

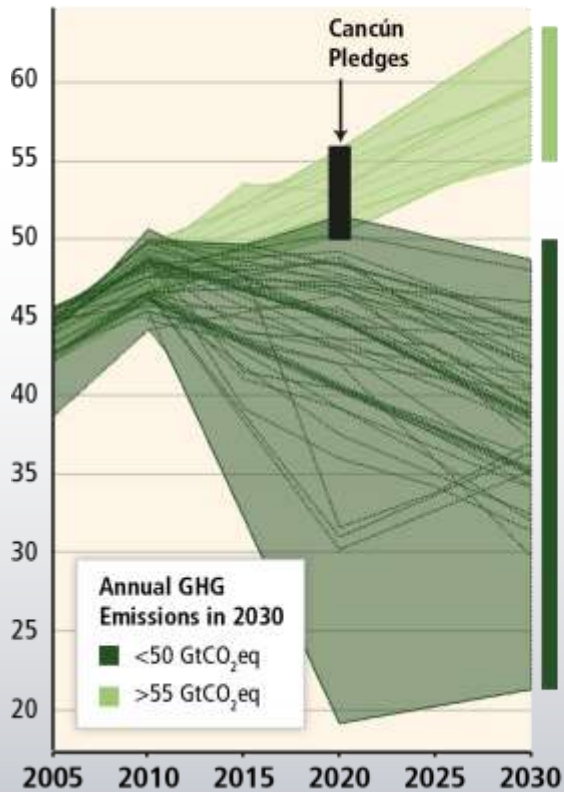
Stabilising the atmosphere means moving away from business-as-usual – regardless of how ambitious we are.



Delaying mitigation until 2030 increases the difficulty and narrows the options for limiting warming to 2°C.

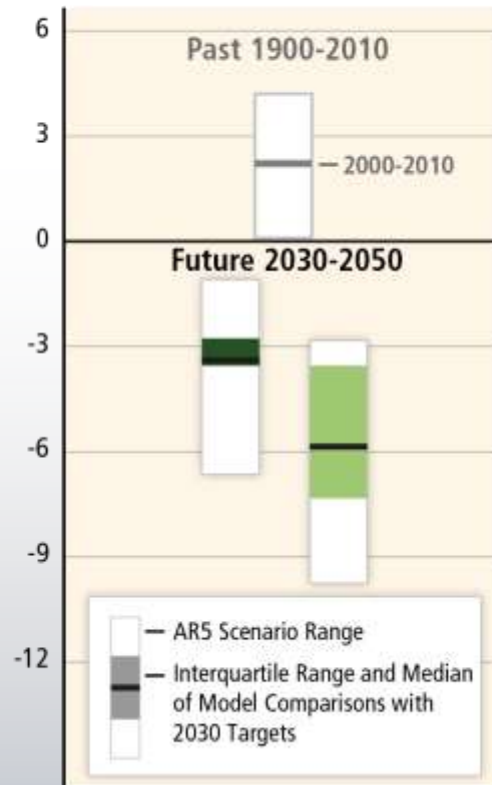
Before 2030

GHG Emissions Pathways [GtCO₂eq/yr]

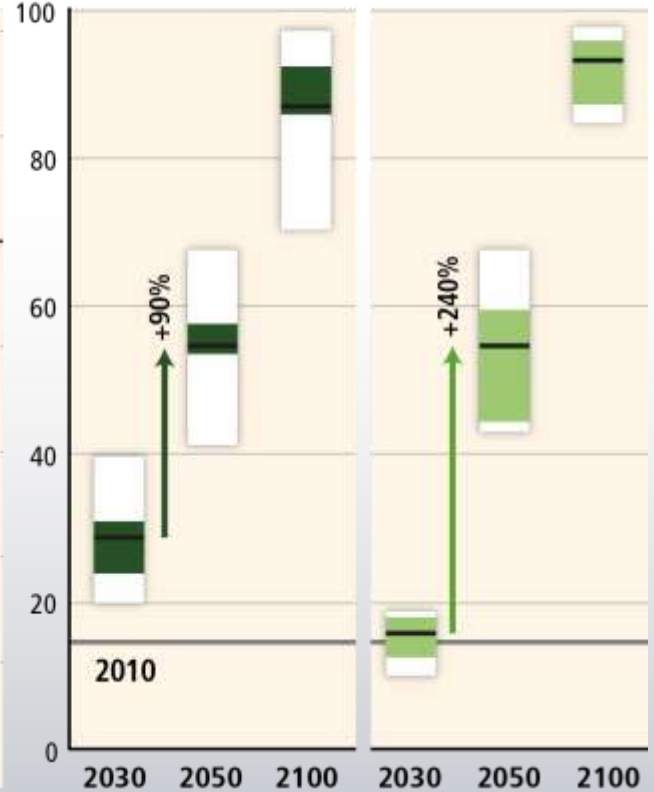


After 2030

Rate of CO₂ Emission Change [%/yr]



Share of Low-Carbon Energy [%]

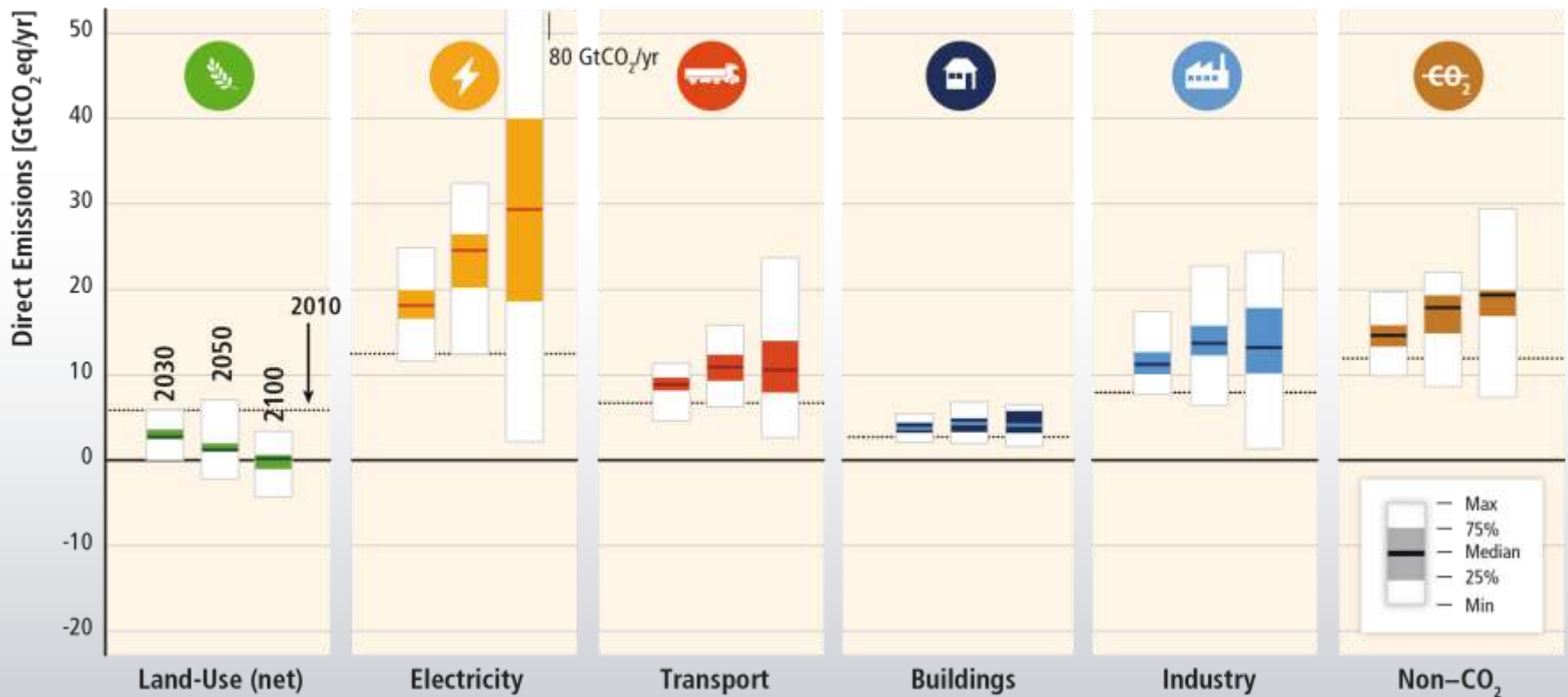


An aerial photograph of a dense urban landscape, likely a major city, featuring a complex multi-level highway interchange in the foreground. The city is filled with numerous high-rise buildings and skyscrapers. The sky is a deep, overcast blue with some light clouds. The text is centered in the upper half of the image.

Ambitious mitigation involves transformation of the energy system.

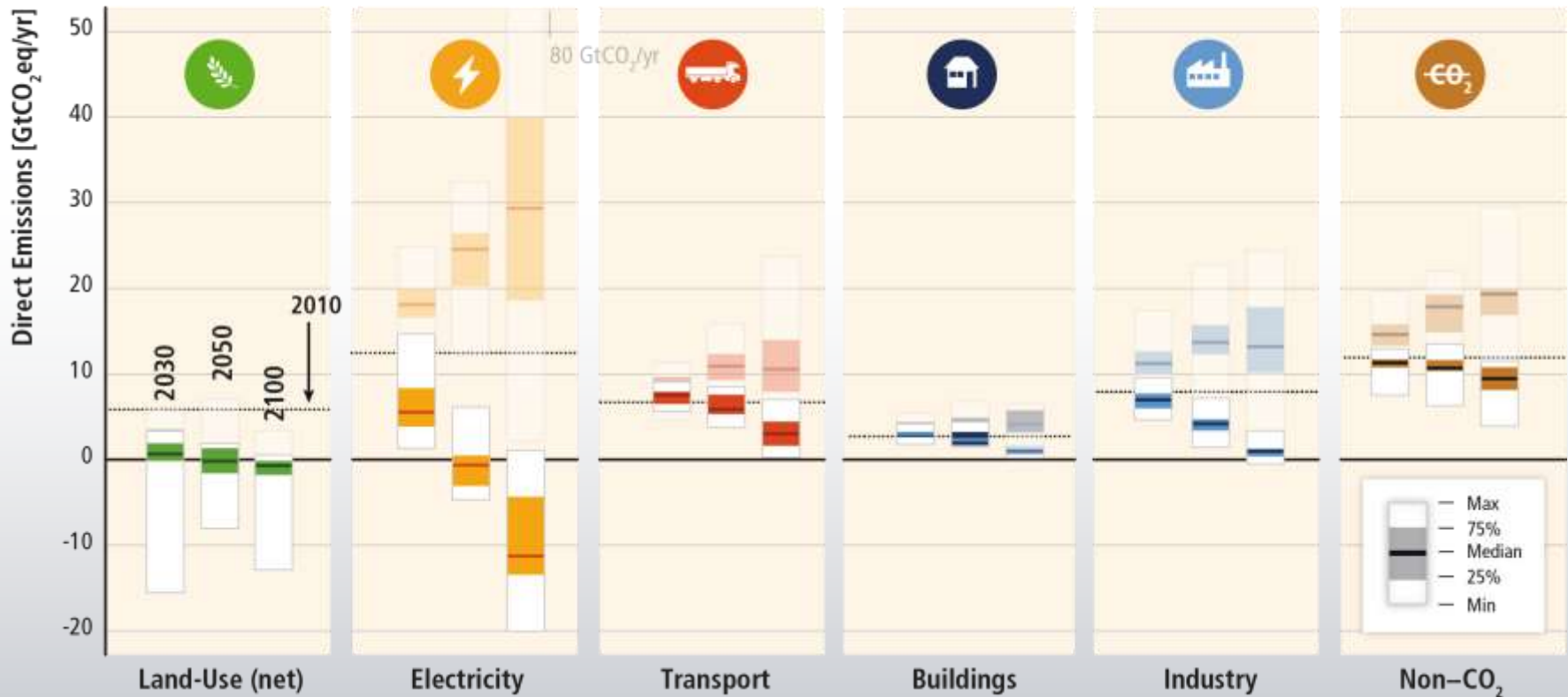
Emission patterns would need to change throughout the economy.

BASELINES



Emission patterns would need to change throughout the economy.

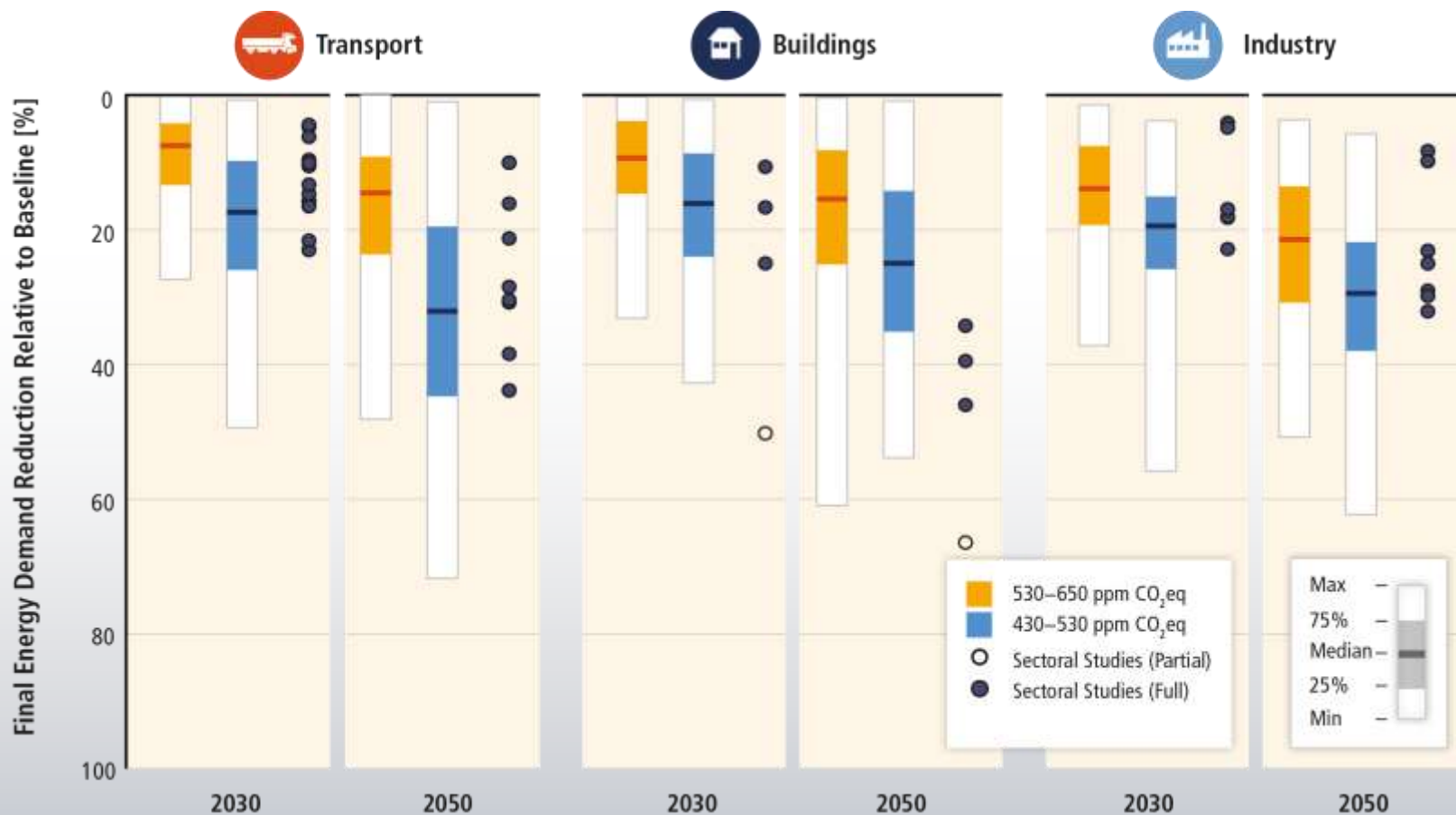
450 ppm CO₂eq with Carbon Dioxide Capture & Storage



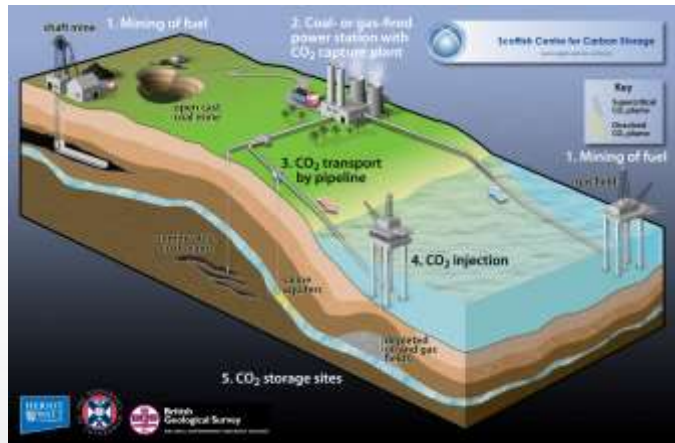
Reducing energy demand is key - efficiency and behavioural change.



Reducing energy demand is key

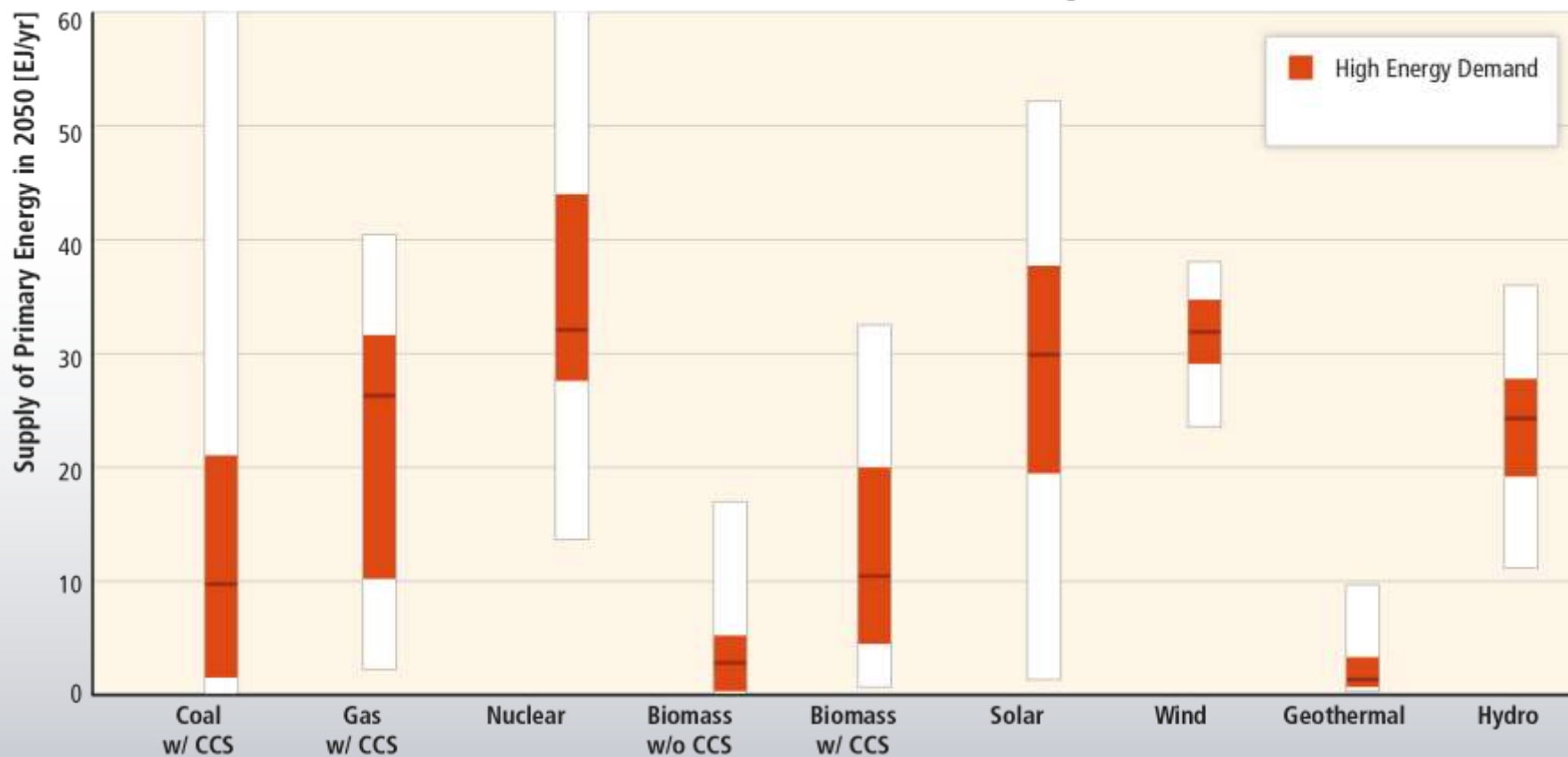


Decarbonization of energy supply would be needed



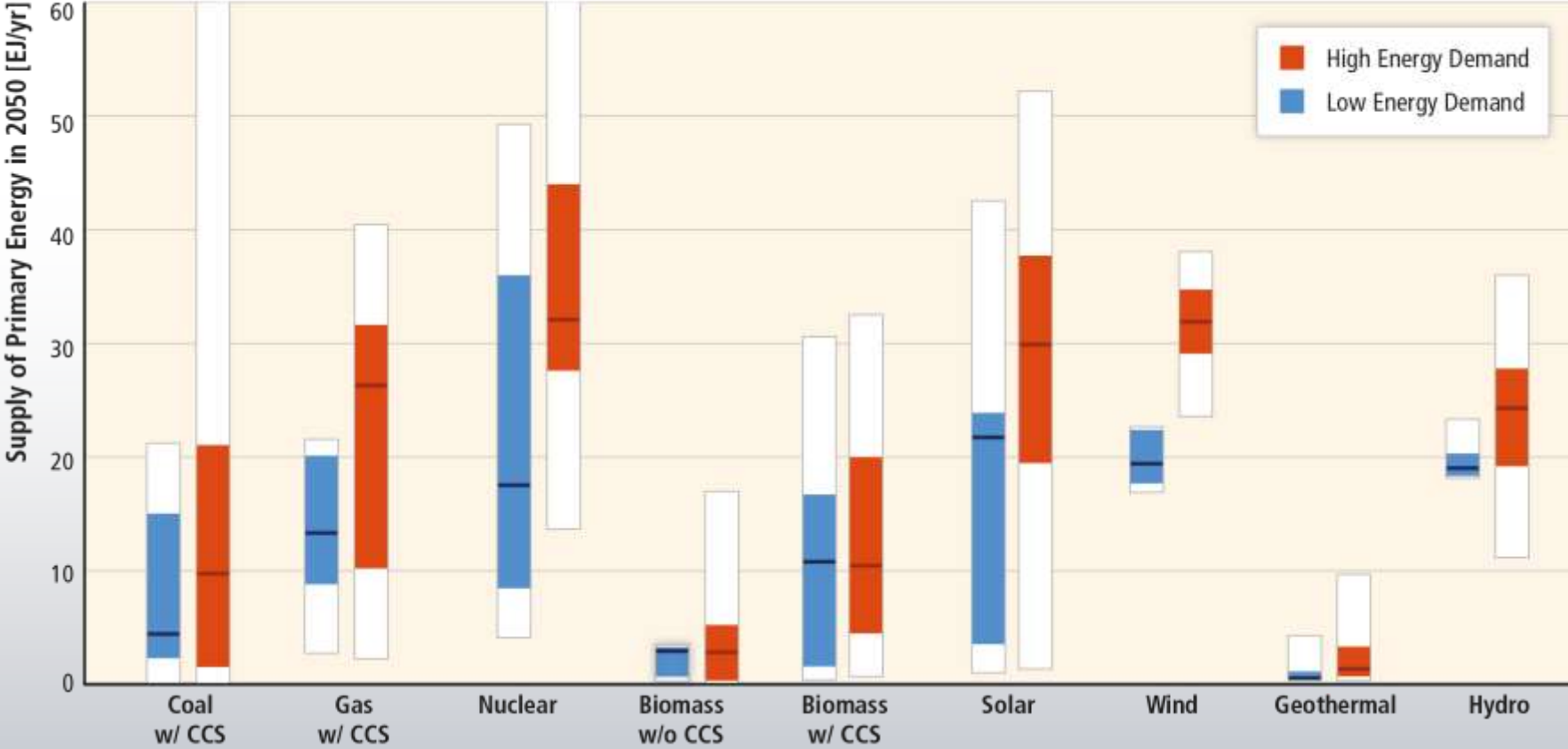
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Contribution of Low Carbon Technologies to Energy Supply (430-530 ppm CO₂eq Scenarios)



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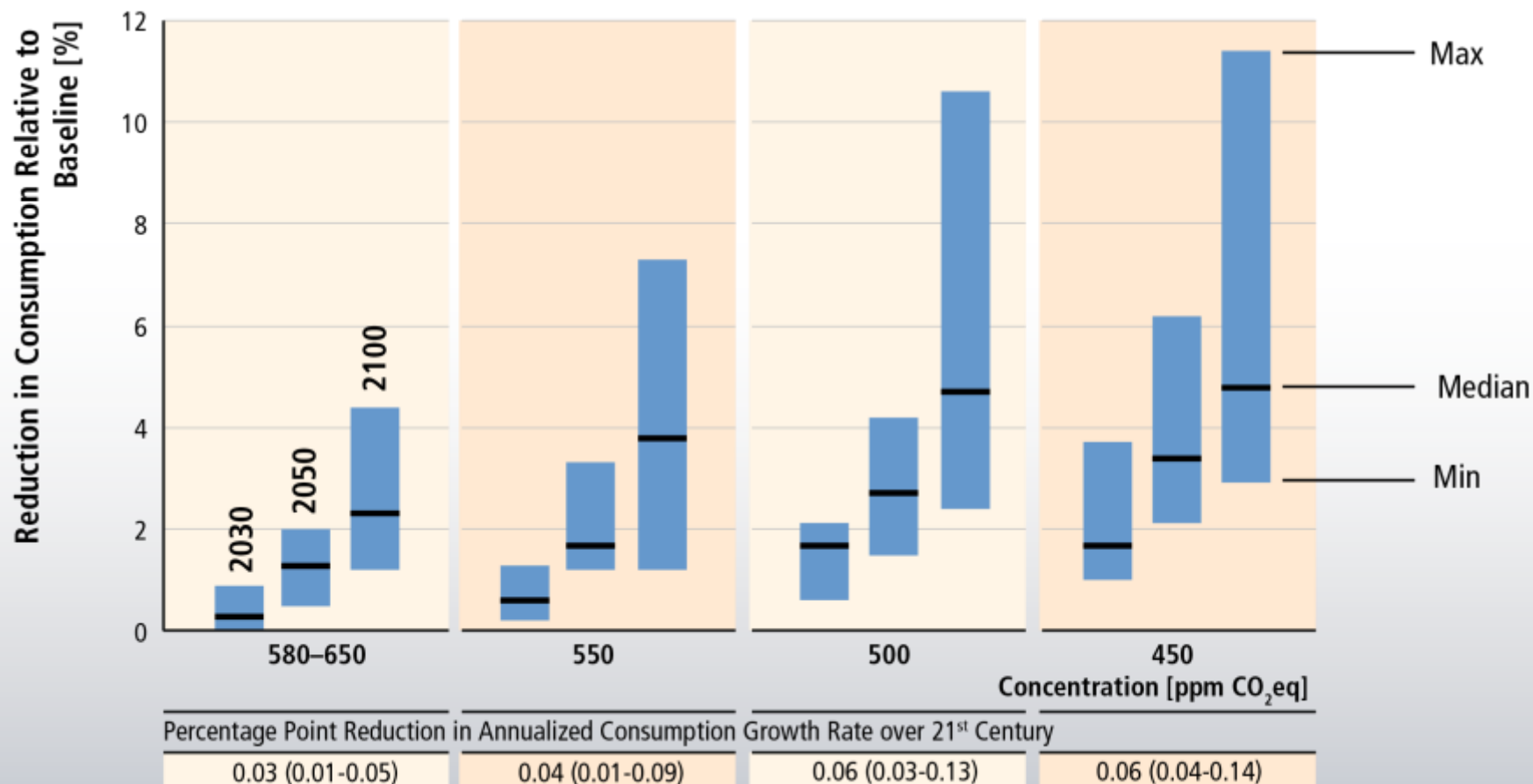
Contribution of Low Carbon Technologies to Energy Supply (430-530 ppm CO₂eq Scenarios)



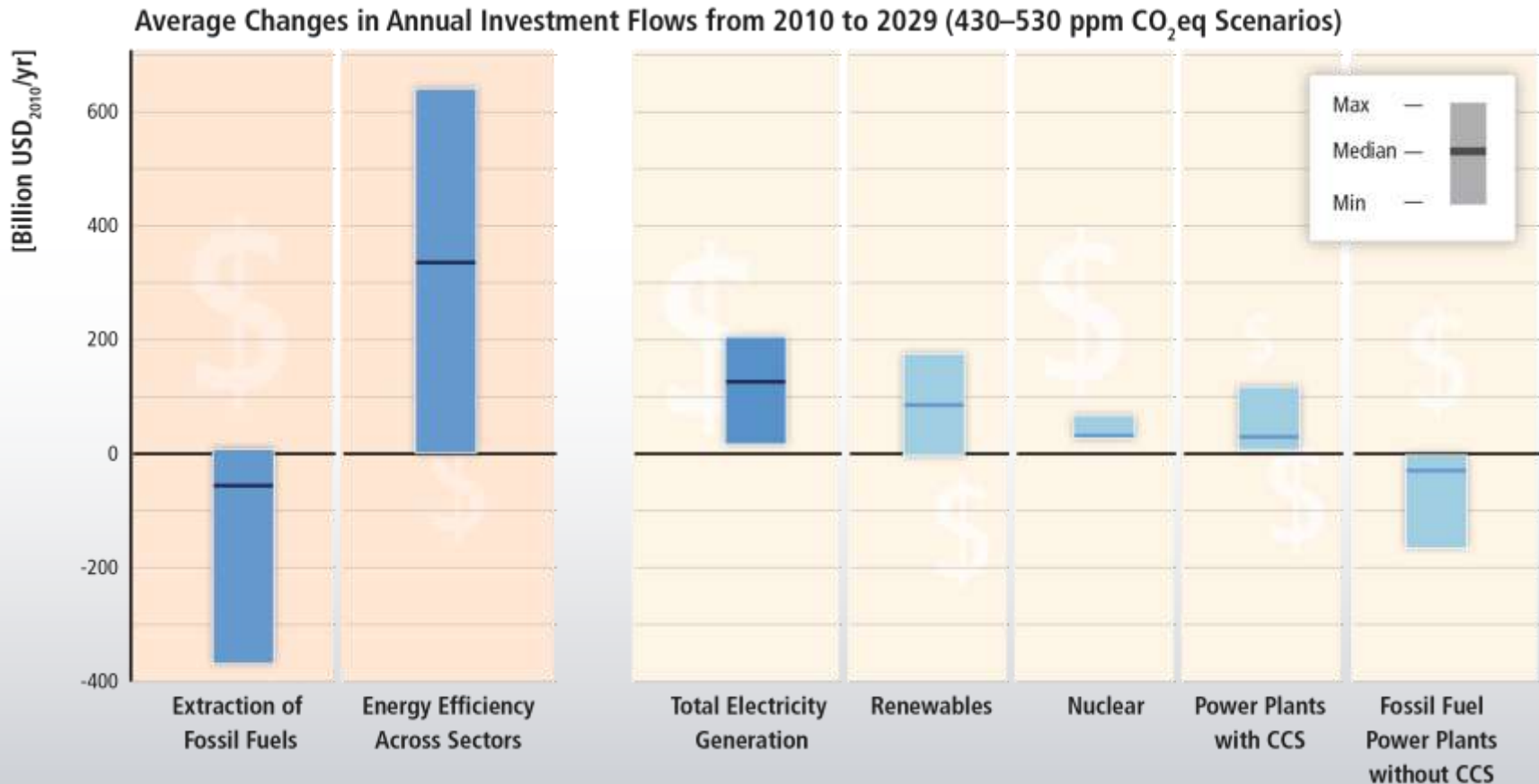
**Mitigation comes at a cost,
but strong economic growth can continue.**



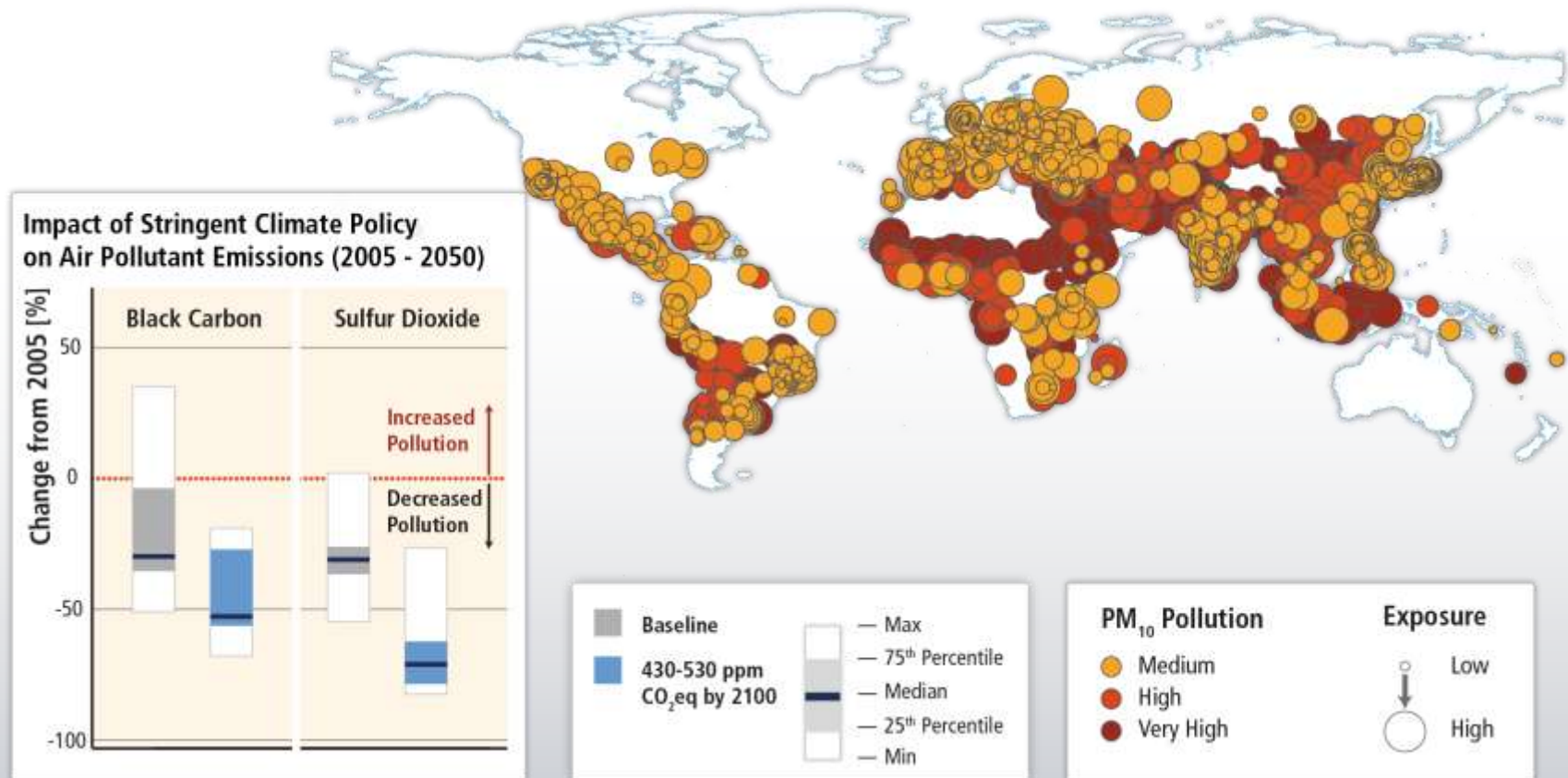
Global costs rise with the ambition of the mitigation goal.



Substantial reductions in emissions would require large changes in investment patterns.

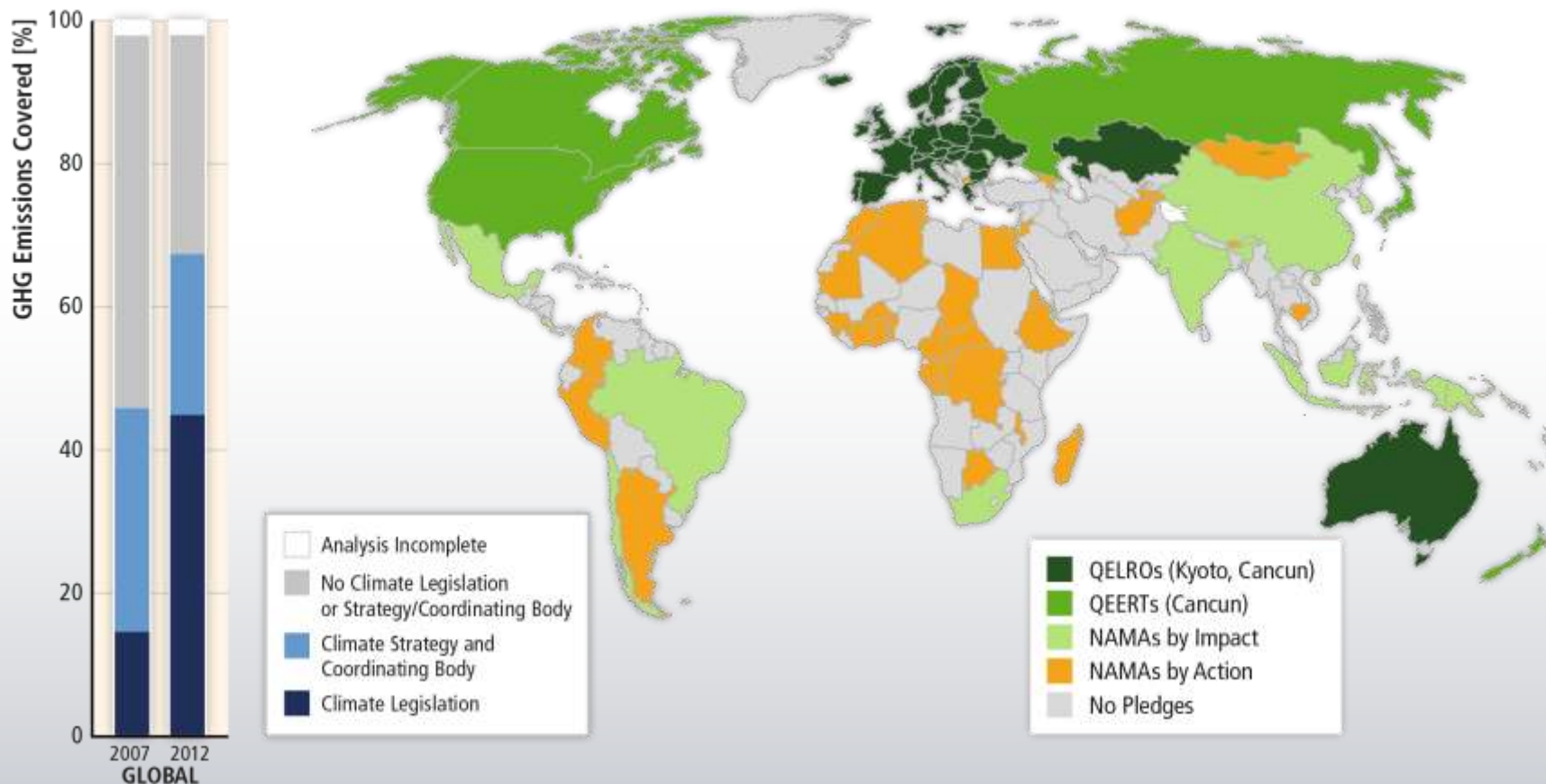


Climate change mitigation can bring co-benefits – health, energy security and other societal goals.



Based on Figures SPM.6 and 12.23

Plans and strategies have expanded since 2007.





Thank you