

Green Development Transition: From Peak of Carbon Emissions to Neutrality

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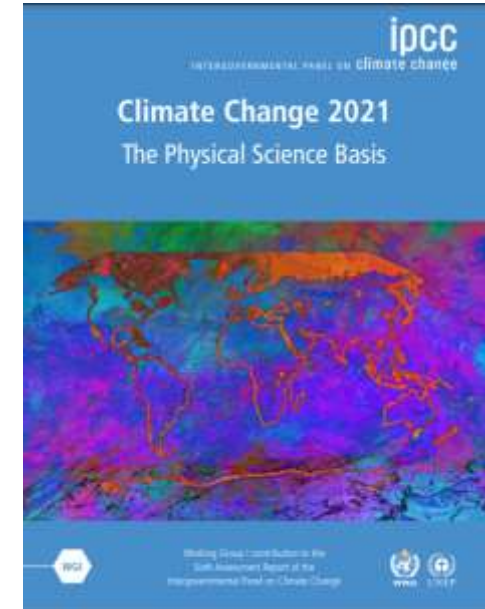


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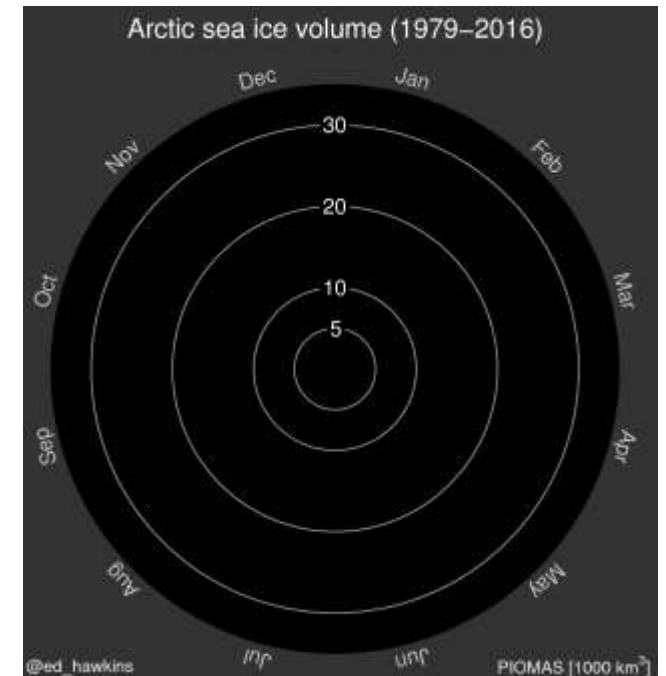
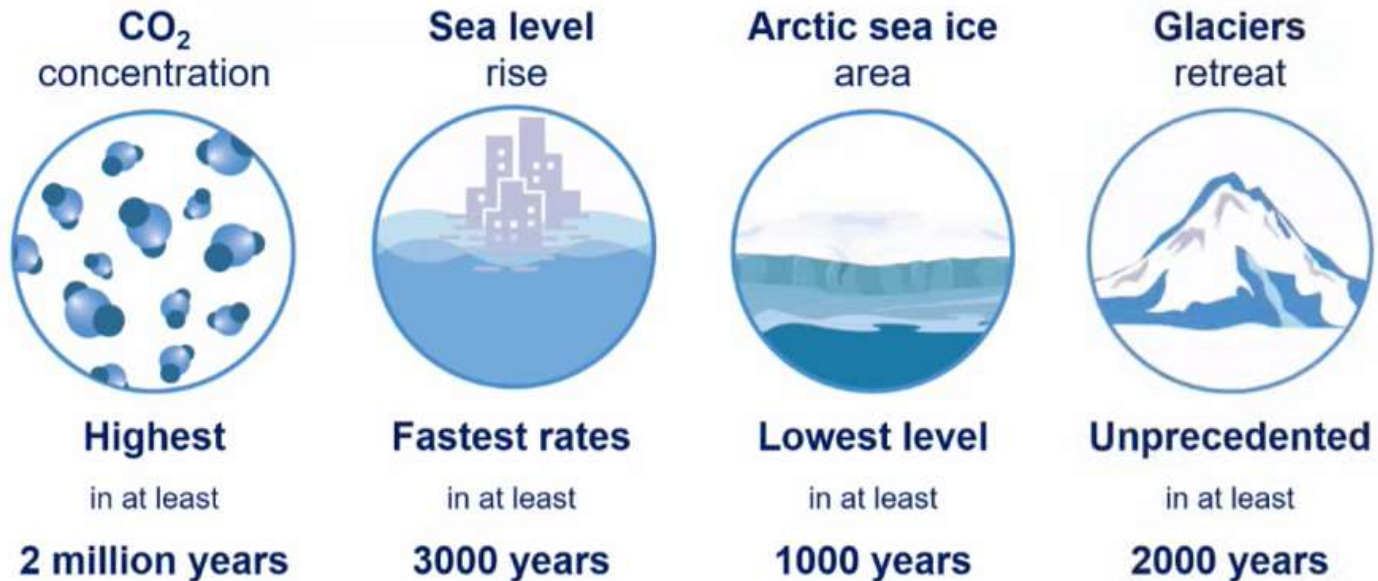
- Senior Research Fellow at Research Institute for Eco-civilization (RIEco) , Chinese Academy of Social Sciences (CASS)
- Deputy Director of CASS Research Center for Sustainable Development (RCSD)
- Professor at University of CASS
- Lead Author for Intergovernmental Panel on Climate Change (IPCC) the Fifth Assessment Report (AR5) and AR6
- Vice Chairman of Chinese National Committee for Future Earth (CNC-FE)
- Member of World Commission on the Ethics of Scientific Knowledge and Technology (COMEST), UNESCO
- Research interests include: environmental economics and sustainable development, energy and climate change policy as well as international climate regime etc.
- Pushan Award for Excellent Paper on International Economics in 2010
- Sun Yefang Award for Economics in 2011
- CASS Awards for Excellent Research Achievements in 2000, 2011, 2014, etc.



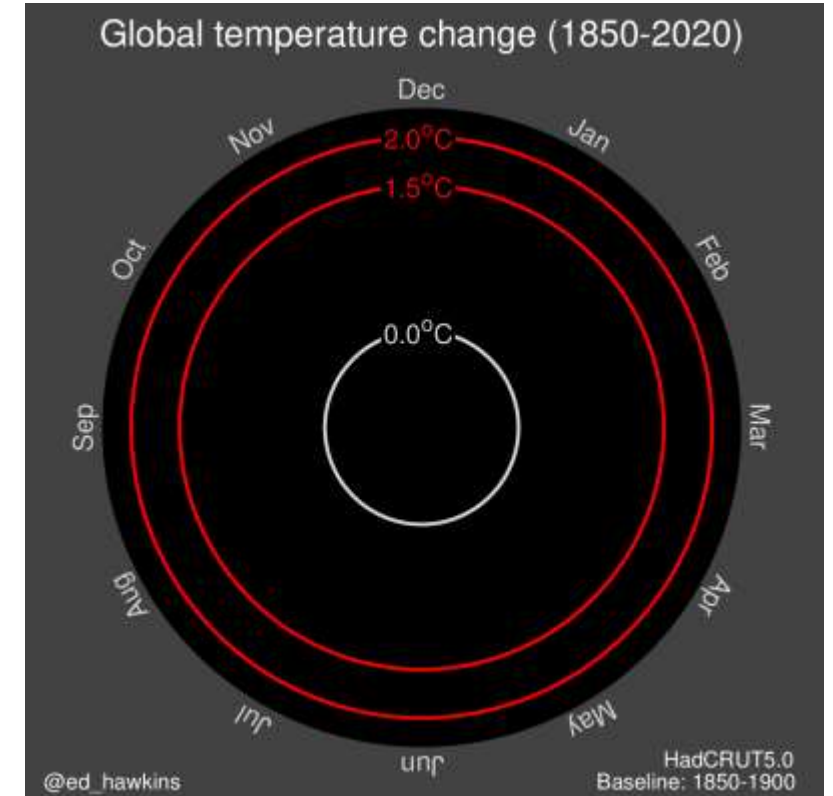
IPCC AR6 WGI (Aug.9 2021)



A1. It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.

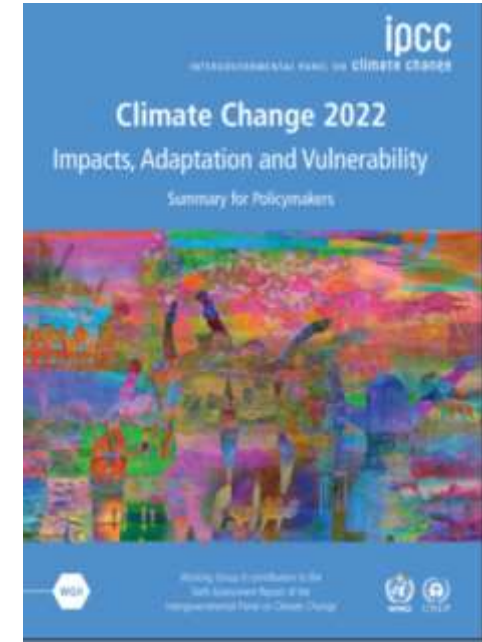


Climate Emergency/Climate Crisis



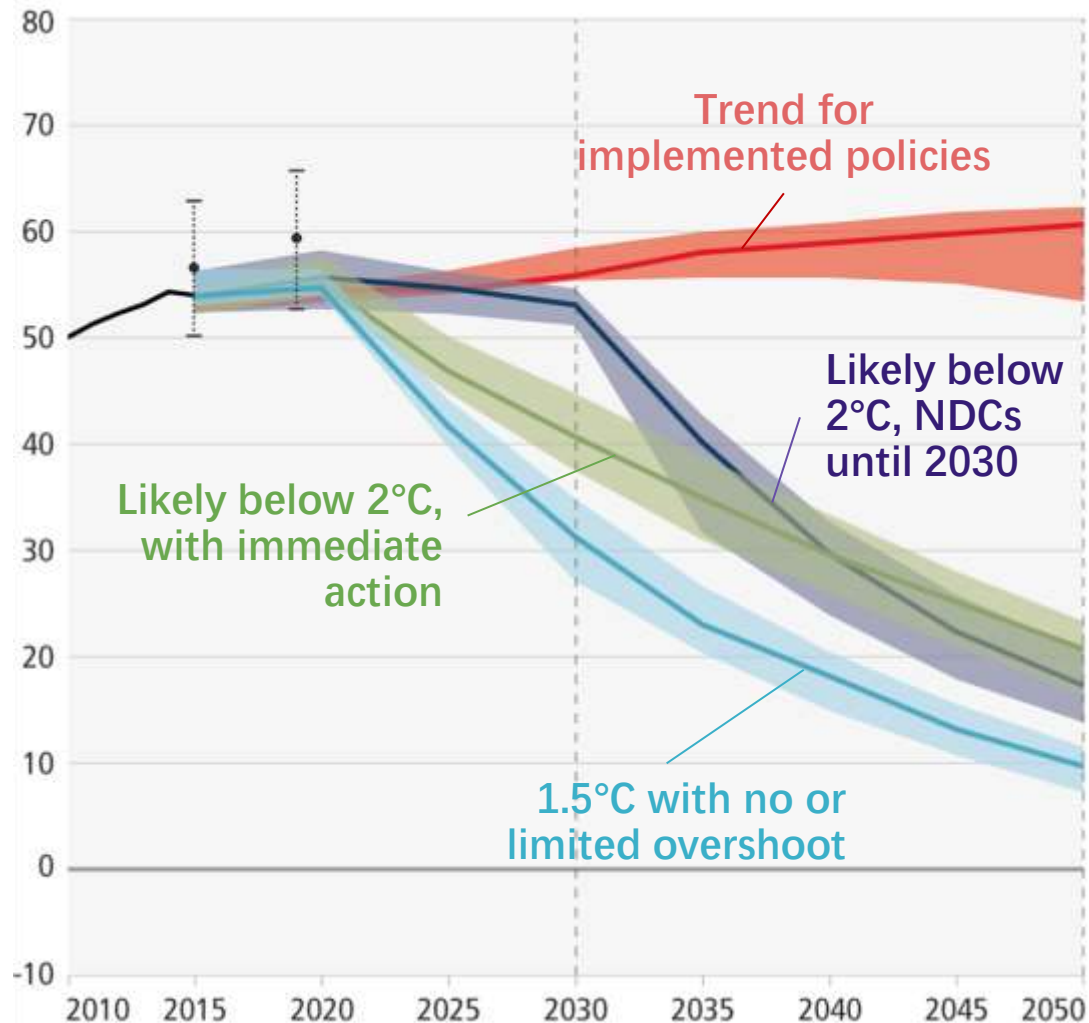
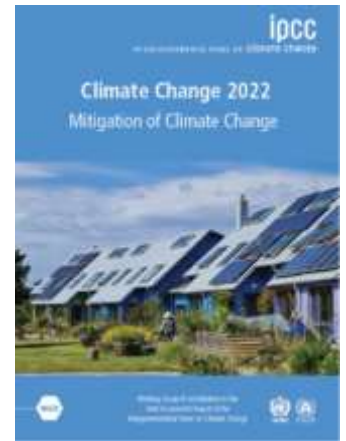
IPCC AR6 WGII (Feb.28 2022)

- SPM.B.2 Approximately **3.3 to 3.6 billion people** live in contexts that are highly vulnerable to climate change. Human and ecosystem vulnerability are interdependent. Current unsustainable development patterns are increasing exposure of ecosystems and people to climate hazards
- SPM.B.5 Climate change impacts and risks are becoming increasingly complex and more difficult to manage.

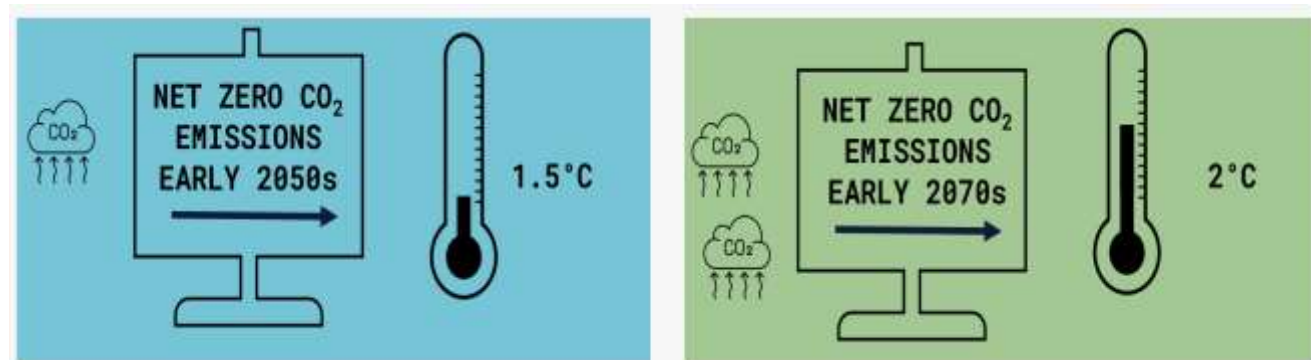


coral reefs

Limiting Warming to 1.5/2°C



- **We are not on track to limit warming to 1.5°C**
 - Average annual greenhouse gas emissions at highest levels in human history
- **Limiting warming to 1.5 °C**
 - Global GHG emissions peak before 2025, reduced by 43% by 2030.
- **Limiting warming to around 2°C**
 - Global GHG emissions peak before 2025, reduced by 27% by 2030.



Carbon peaking and carbon neutrality target (30-60)

- On Sept. 22 2020, President Xi Jinping announced at the 75th Session of the United Nations General Assembly: China will scale up its Intended Nationally Determined Contributions(NDC) by adopting more vigorous policies and measures. China aims **to peak CO₂ emissions before 2030 and try to achieve carbon neutrality before 2060.**



the Emerging “1+N” Policy System

- On Mar. 15 2021, carbon peaking and carbon neutrality target was **integrated into overall planning of eco-civilization construction**
- On Sept. 22 2021, The Communist Party of China Central Committee and the State Council jointly released a document titled **Working Guidance** for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy
 - 5 Principles: Exercising nationwide planning; Prioritizing conservation; Leveraging the strengths of the government and the market; Coordinating efforts on the domestic and international fronts; Guarding against risks
 - Targets by 2025, 2030 and 2060 (eg. Share of Non-fossil fuel in energy mix, 20%, 25%, 80%)
 - Key areas (11) and priority tasks (35)
- On Oct. 24 2021, **Actions Plan** for Carbon Dioxide Peaking before 2030 was launched.
- More **sectoral and supportive** policies and measures are coming...



Actions Plan for Carbon Dioxide Peaking before 2030 (Oct. 2021)

1. The action for green and low-carbon energy transition
2. The action for energy saving, carbon emission mitigation and efficiency improvement
3. The action for peaking carbon dioxide emissions in industry sector
4. The action for peaking carbon dioxide emissions in urban-rural development area
5. The action for promoting **green and low-carbon transportation**
6. The action for promoting circular economy in carbon mitigation purpose
7. The action for advancing green and low-carbon technology innovation
8. The action for consolidating and enhancing carbon sink
9. The action for **green and low-carbon society**
10. The action for promoting all regions to peak carbon dioxide emissions hierarchically and orderly



100 Q&A for Carbon Peaking and Carbon neutrality



Greenbook of Climate Change



Stories of Carbon Peaking and Carbon Neutrality For the Young

The future we want

- International cooperation is critical for global climate governance

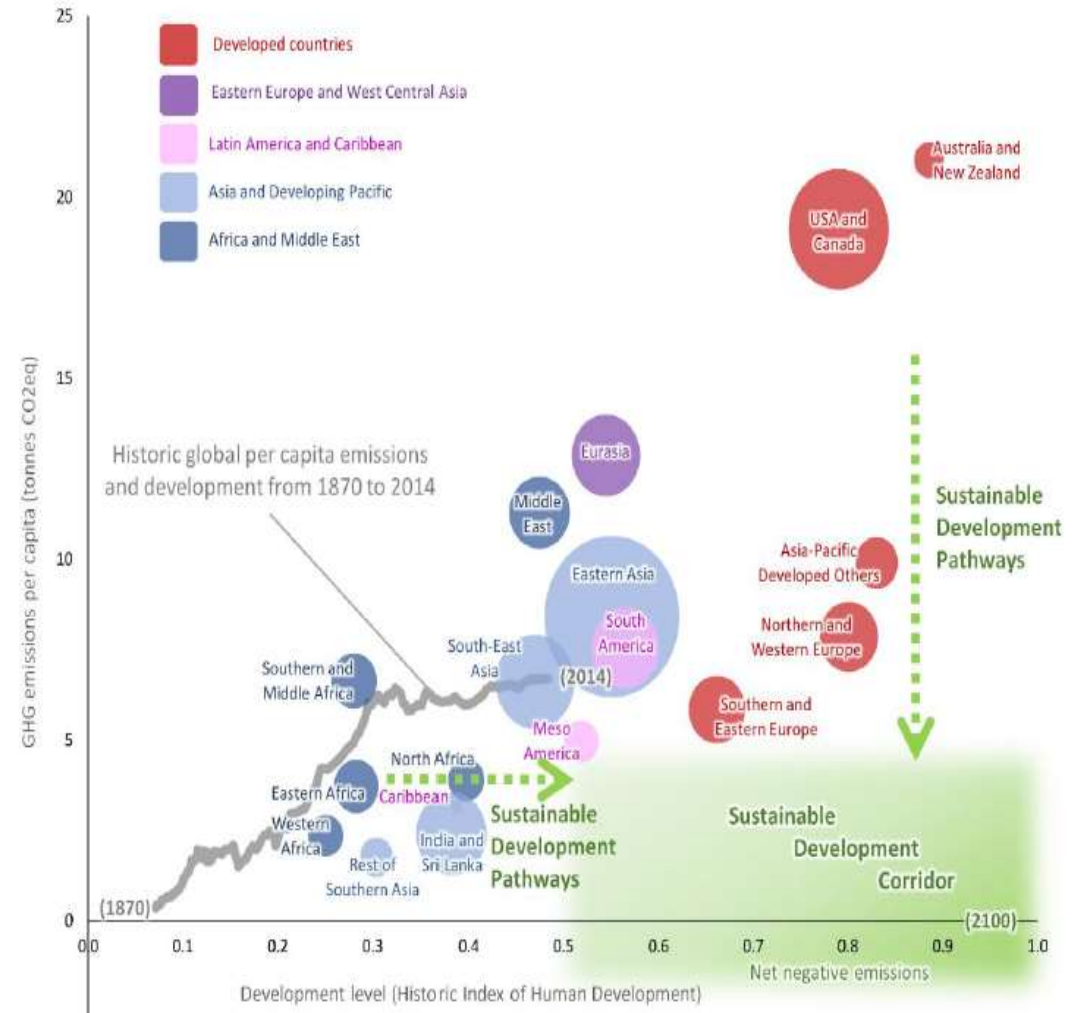


Figure TS.1: Sustainable development pathways towards fulfilling the Sustainable Development Goals

A pair of hands is shown from the bottom, one holding a small green tree with soil, and the other holding a realistic globe of the Earth. A small butterfly is perched on the top of the globe. The background is a bright, hazy sky with a sun flare. The text 'Only one Earth' is written in a large, orange, outlined font across the top, and 'Thank You!' is written in a similar font across the bottom.

Only one Earth

Thank You!