

MERCATOR CLIMATE LECTURE

Potsdam Institute for Climate Impact Research
Stiftung Mercator | TU Berlin

Climate Policy and SDGs: United they stand, divided they fall*

Prof. Dr. Ottmar Edenhofer

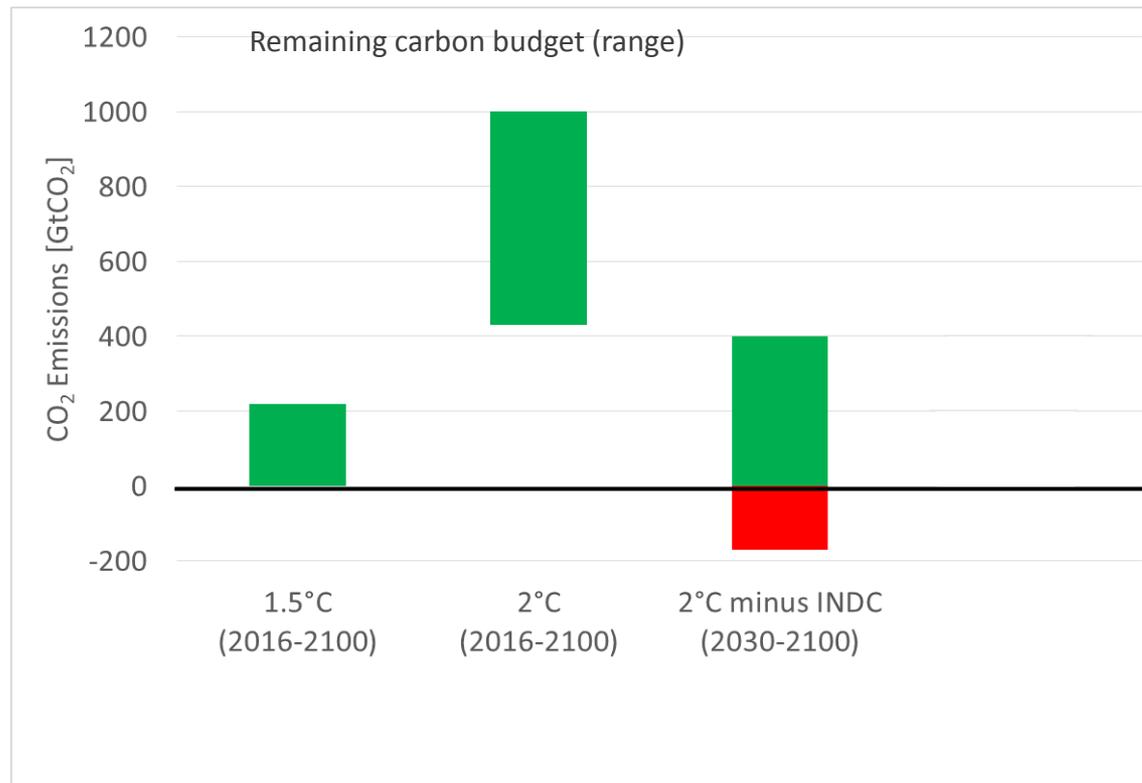
June 1, 2016

THE PARIS AGREEMENT



The Paris Agreement: INDCs

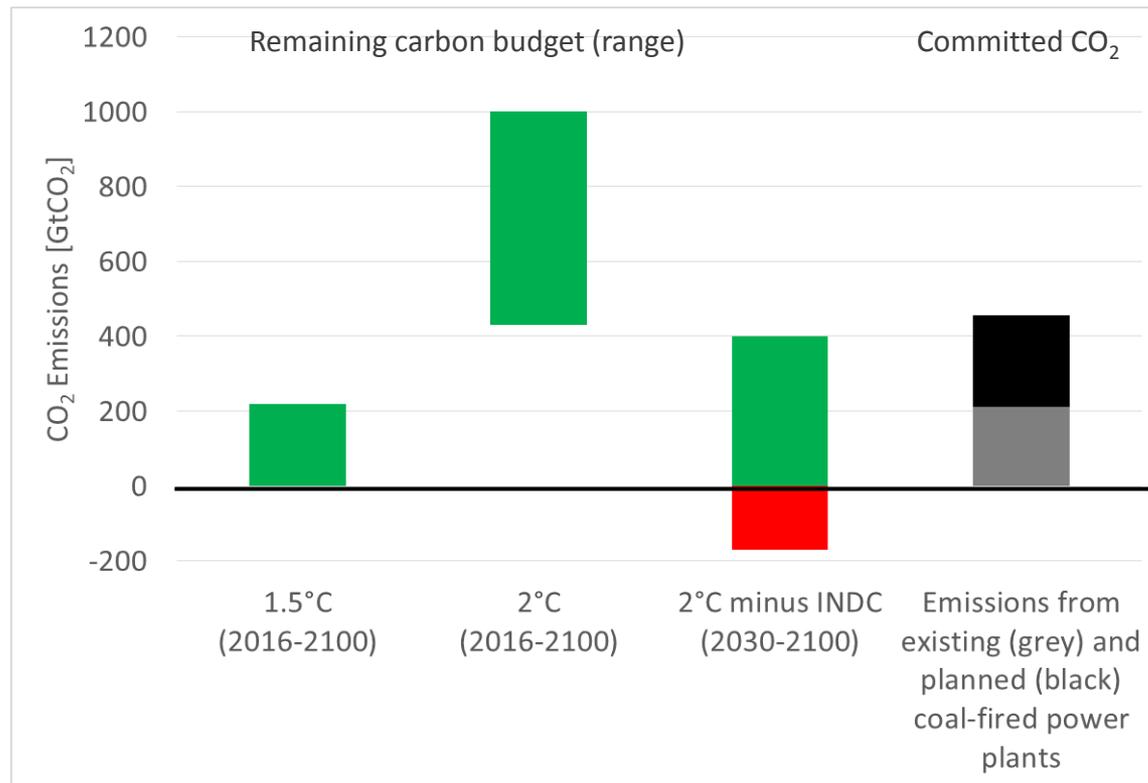
- Intended Nationally Determined Contributions are inconsistent with the temperature target.



Data sources: Le Quere et al. (2015), Rogelj et al. (2015), Luderer et al. (2015); Fig. adapted from Jan Minx 2016

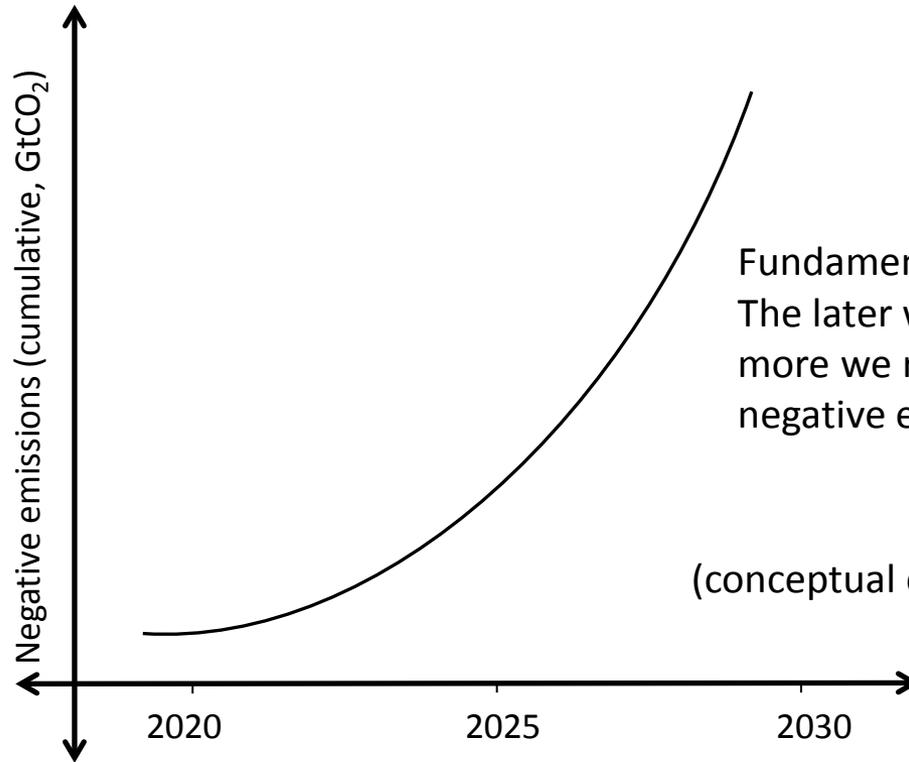
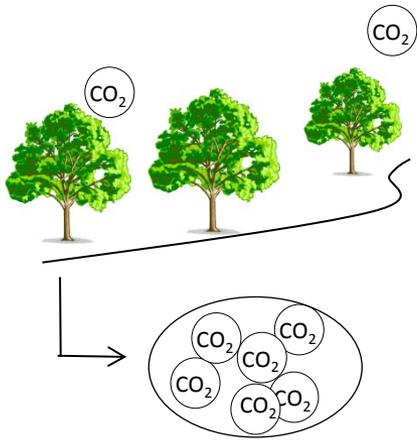
The Paris Agreement: INDCs

- Intended Nationally Determined Contributions are inconsistent with the temperature target.



Data sources: Le Quere et al. (2015), Rogelj et al. (2015), Luderer et al. (2015); Fig. adapted from Jan Minx 2016

Coal and negative emissions

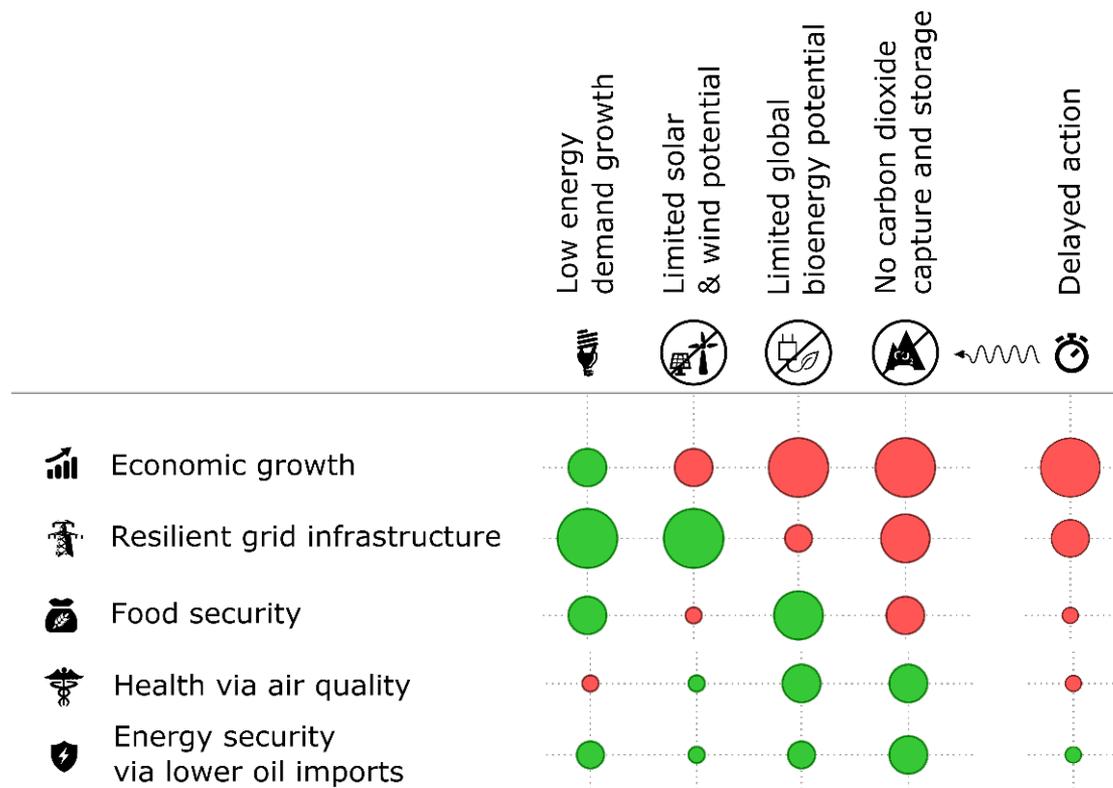


Fundamental trade-off:
The later we act, the
more we rely on
negative emissions

(conceptual chart)



Sustainable development and climate mitigation: Synergies and trade-offs



risk increase/decrease relative to unconstrained 2°C pathways



● higher than the multiples of 2, 1.5, 1.1, 1.05, respectively

● lower than the shares: 1/2, 1/1.5, 1/1.1, 1/1.05, respectively

*von Stechow et al. (2016): 2°C and SDGs: united they stand, divided they fall? Environmental Research Letters 11 034022.

THE AGE OF SUSTAINABILITY



2015: a turning point for sustainable development

UN General Assembly:

- Adopted: The 2030 Agenda for Sustainable Development
- “We are determined to take the **bold and transformative steps** which are urgently needed to shift the world on to a sustainable and resilient path”



New focus on quality of growth: Pursue welfare not GDP



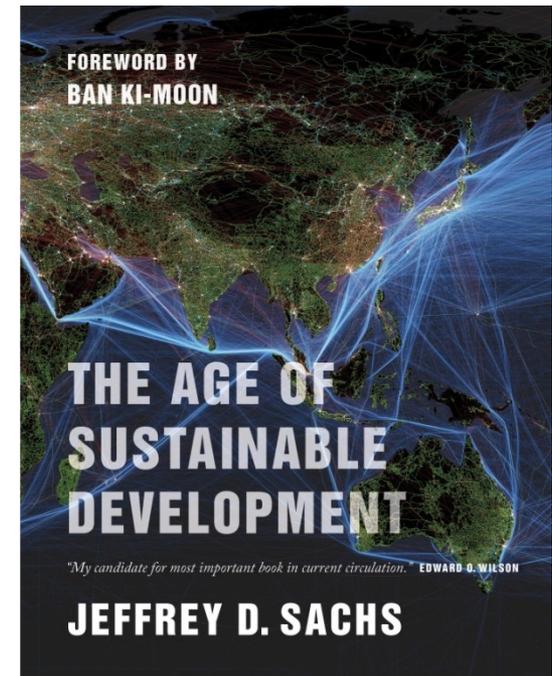
Quality of growth is fundamental for future well-being

- Inclusiveness: reduction of inequality
- Climate-smart

Meditating economist

Jeffrey D. Sachs - The age of sustainable development

- New framework for **human well-being**
- Drivers of **inequality** and **social exclusion**
- Sustainable pathways for **natural, social** and **physical capital**, including **infrastructure investments**



Developing countries face fundamental infrastructure challenges

Water



Electricity



Transportation



Telecommunication



Reasonable policy and financing instruments are needed



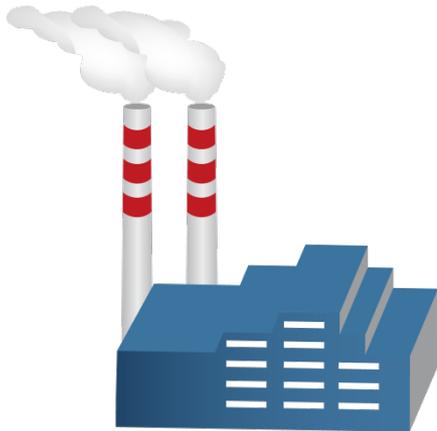
User charges



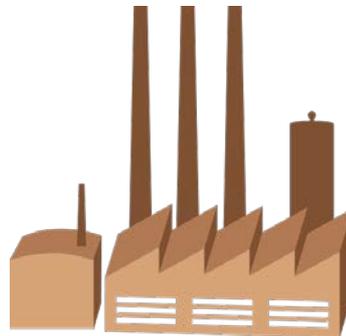
Land rent taxation



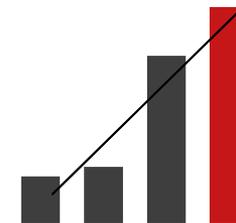
Private finance



CO₂ prices

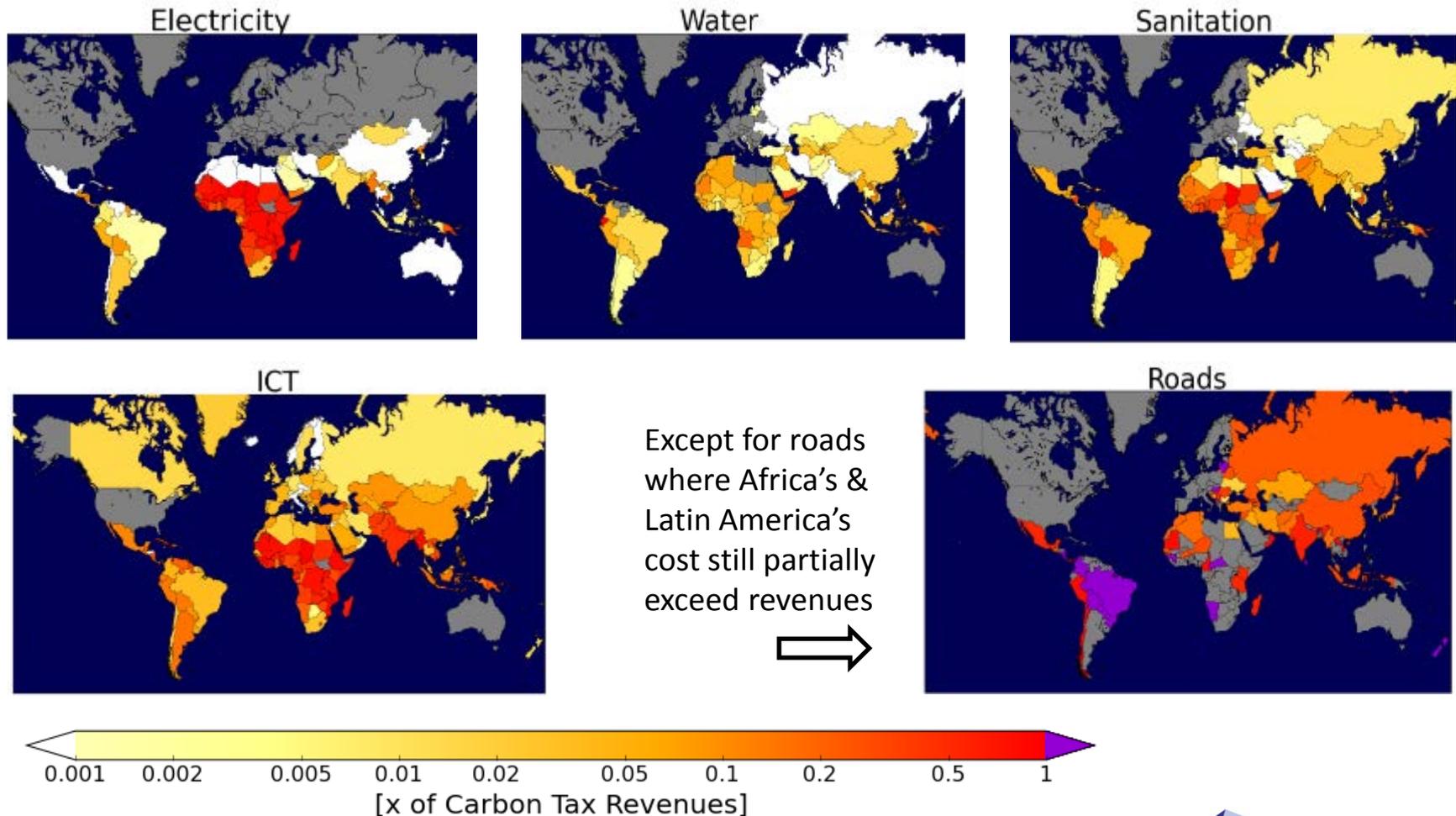


Reduction of subsidies



Public debt

Carbon pricing revenues with redistribution are sufficient to finance universal access to infrastructure...



SDGs and the Public Wealth of Nations should frame the G20 agenda



1. The Public Wealth of Nations: Managing infrastructure investments
2. Tools for financing SDGs: user charges, taxes, public debt, private finance
3. Carbon pricing and phasing-out of fossil fuel subsidies
4. Technology transfer and cooperation