



SDGs and climate change

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Climate Leadership Coalition – developing business solutions for climate change



International network

United Nations Climate Change WE MEAN BUSINESS CARBON PRICING LEADERSHIP COALITION eit Climate-KIC

Board and some distinguished members

- Chairman:** **Henrik Ehrnrooth**, Chairman, Pöyry, Otava
- Vice-chairman:** **Jorma Ollila**, Former Chairman, Nokia, Shell, Outokumpu
- Members:** **Minna Arve**, Mayor, Turku
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Pertti Korhonen, Chairman, Business Finland
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Raimo Sailas, former Secretary of the State
Petteri Taalas, Secretary General, WMO
Risto Volanen, former Secretary of the State and CEO, Copa-Cogeca
Anders Wijkman, Co-president, Club of Rome

CLC activities and value creation for members

Theme areas and "think tanks"

- **sharing experiences, creating ideas new initiatives**

Theme areas

- Energy, Finance, Citizens, Construction, Transport, Carbon footprint and handprint, Circular economy, ICT, Forestry/Bioeconomy, Media
- 2019 new: Manufacturing, Food/agriculture, Health

"Think tankit"

- Energy, Finance
- 2019 new: ICT, Forestry/Bioeconomy, Citizens/Public procurement



Climate policy proposals

- **creating and promoting proposals**

European Union

- Proposal for EU climate targets (2018)
- Proposal to develop more systemic emission management solution in EU (2019)

Finland

- Proposal for government program (2019)
- Statements for the parliament and ministeries

Proposals for UN and World Bank



Implementing and sharing best practises

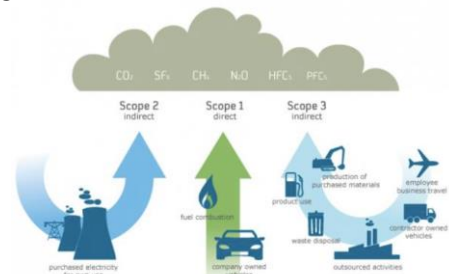
- **CLC team ja pilot-members will help to implement best practises, collaboration opportunities with the initial developers**

Strategic and operational planning, reporting

- Task Force on Climate Related Disclosures (TCFD)
- Science Based Targets (SBT)
- Carbon Law

Challenges:

- Zero Emission Day, Black Carbon



High-level events

- Spring and fall meetings
- Joint events with partners
- Events by theme areas
- Opportunity to participate COPs



International networking

- Contacts to influential "non-state actors"
- Networks of organisational members
- Networks of personal members





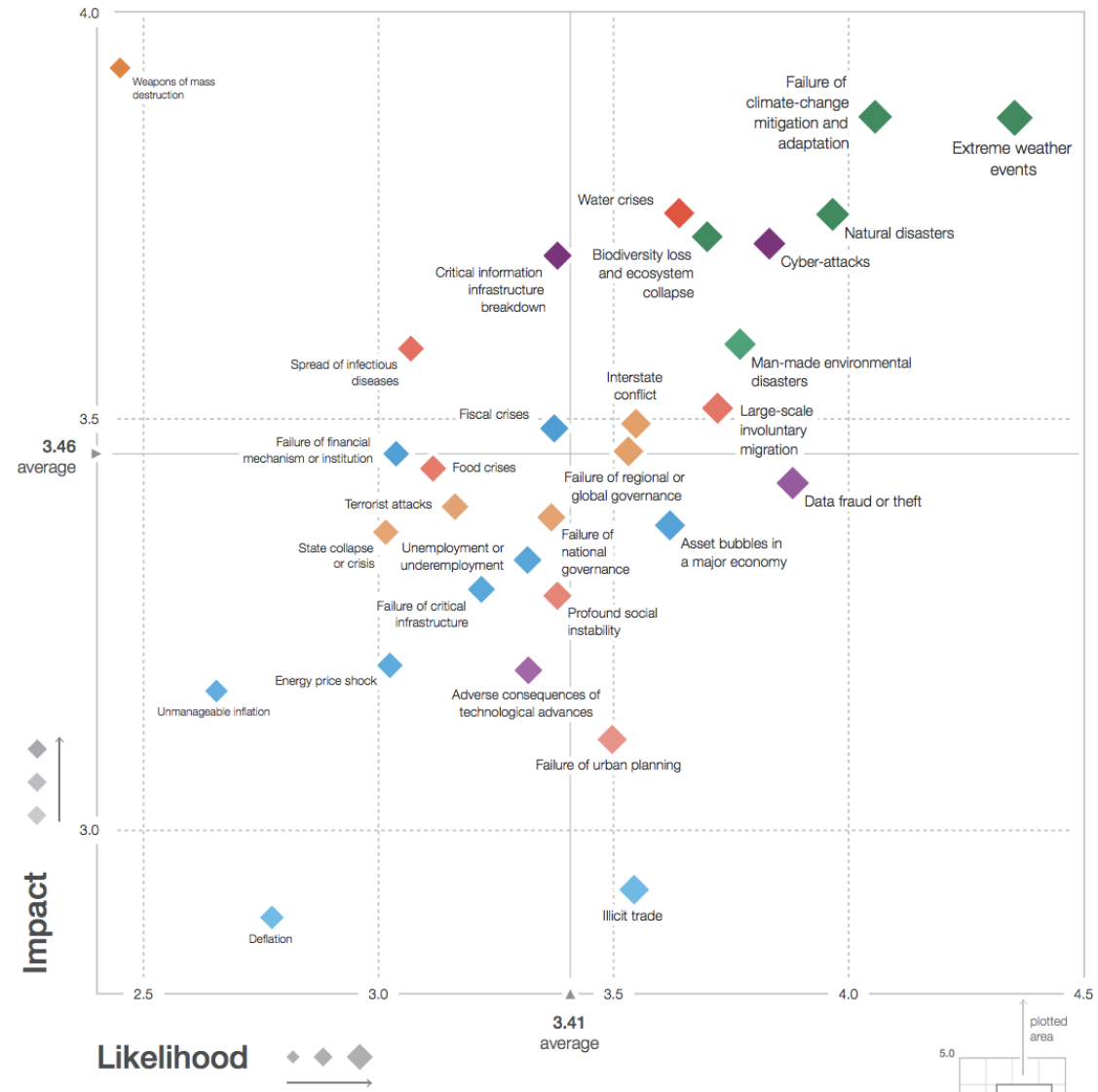
SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



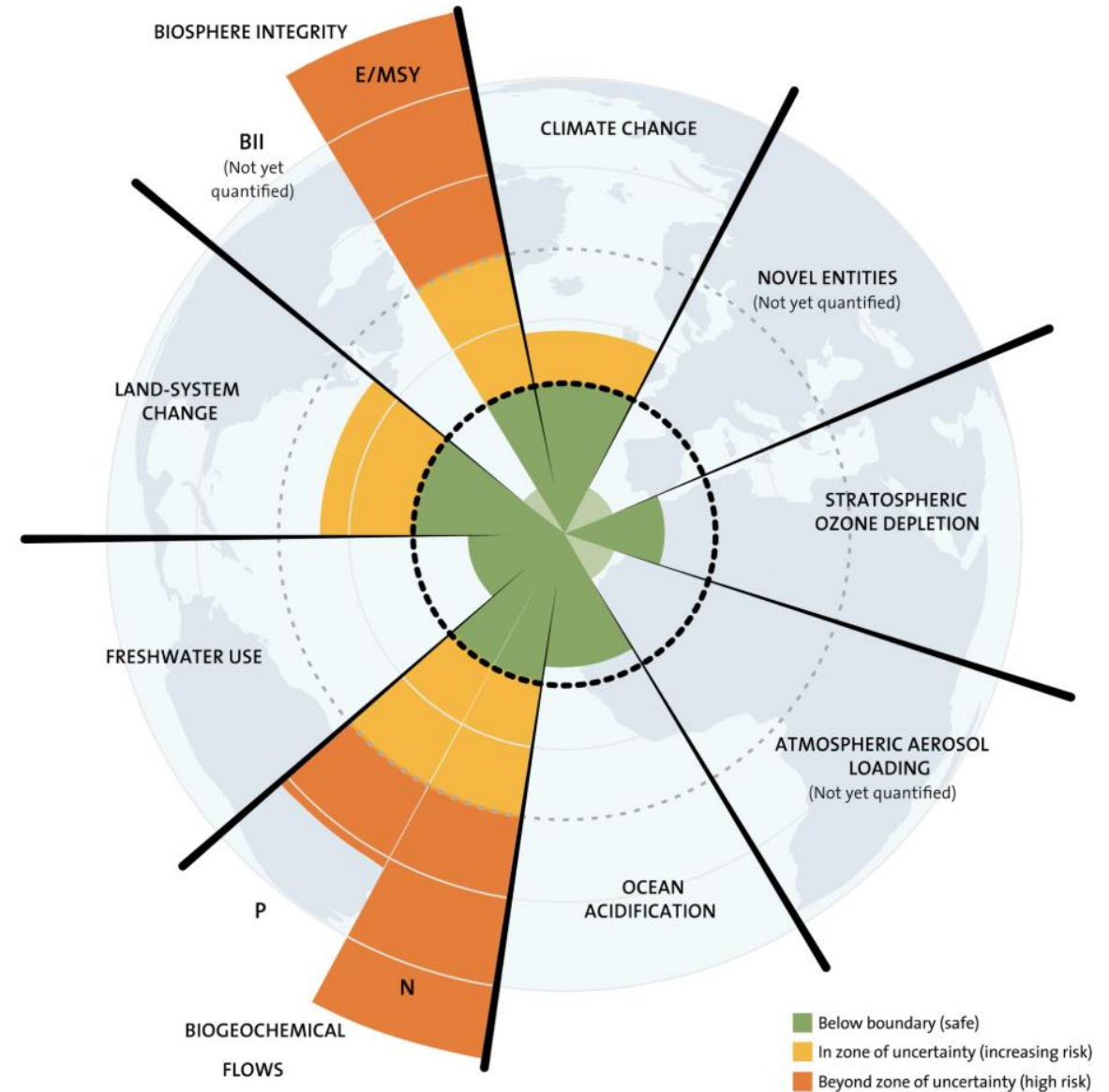
The Global Risks Report 2019

- Environment-related risks account for three of the top five risks by likelihood and four by impact
- Extreme weather is again out on its own in the top-right (high-likelihood, high-impact) quadrant
- Of all risks, it is in relation to the environment that the world is most clearly sleepwalking into catastrophe.
- The Intergovernmental Panel on Climate Change (IPCC) bluntly said in October 2018 that we have at most 12 years to make the drastic and unprecedented changes needed to prevent average global temperatures from rising beyond the Paris Agreement's 1.5°C target.

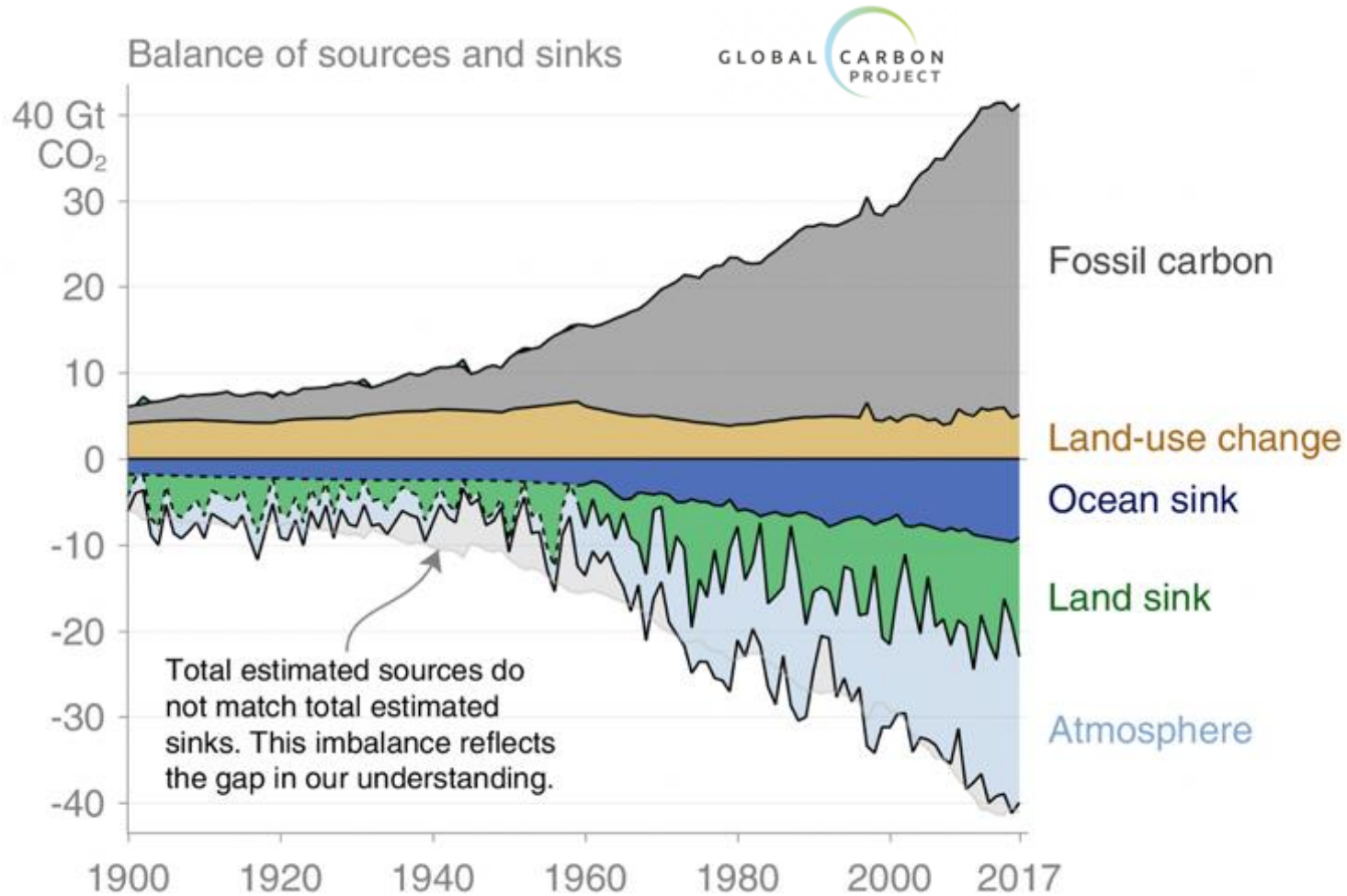


Planetary boundaries

- The relatively stable, 11,700-year-long Holocene epoch is the only state of the Earth System (ES) that we know for certain can support contemporary human societies.
- The planetary boundary (PB) framework contributes to such a paradigm by providing a science-based analysis of the risk that human perturbations will destabilize the ES at the planetary scale.
- The PB framework is based on critical processes that regulate ES functioning and it identifies levels of anthropogenic perturbations and a “safe operating space” for global societal development.



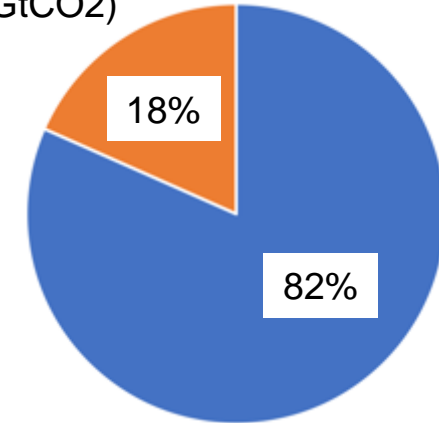
1,5 C carbon budget is decreasing rapidly



© Global Carbon Project • Data: CDIAC/GCP/NOAA-ESRL/UNFCCC/BP/USGS

<http://www.globalcarbonproject.org/carbonbudget/18/presentation.htm>

Remaining 1,5C
CO₂-budget (495 GtCO₂)



Used anthropogenic 1,5C
CO₂-budget 2017 (2200
GtCO₂)

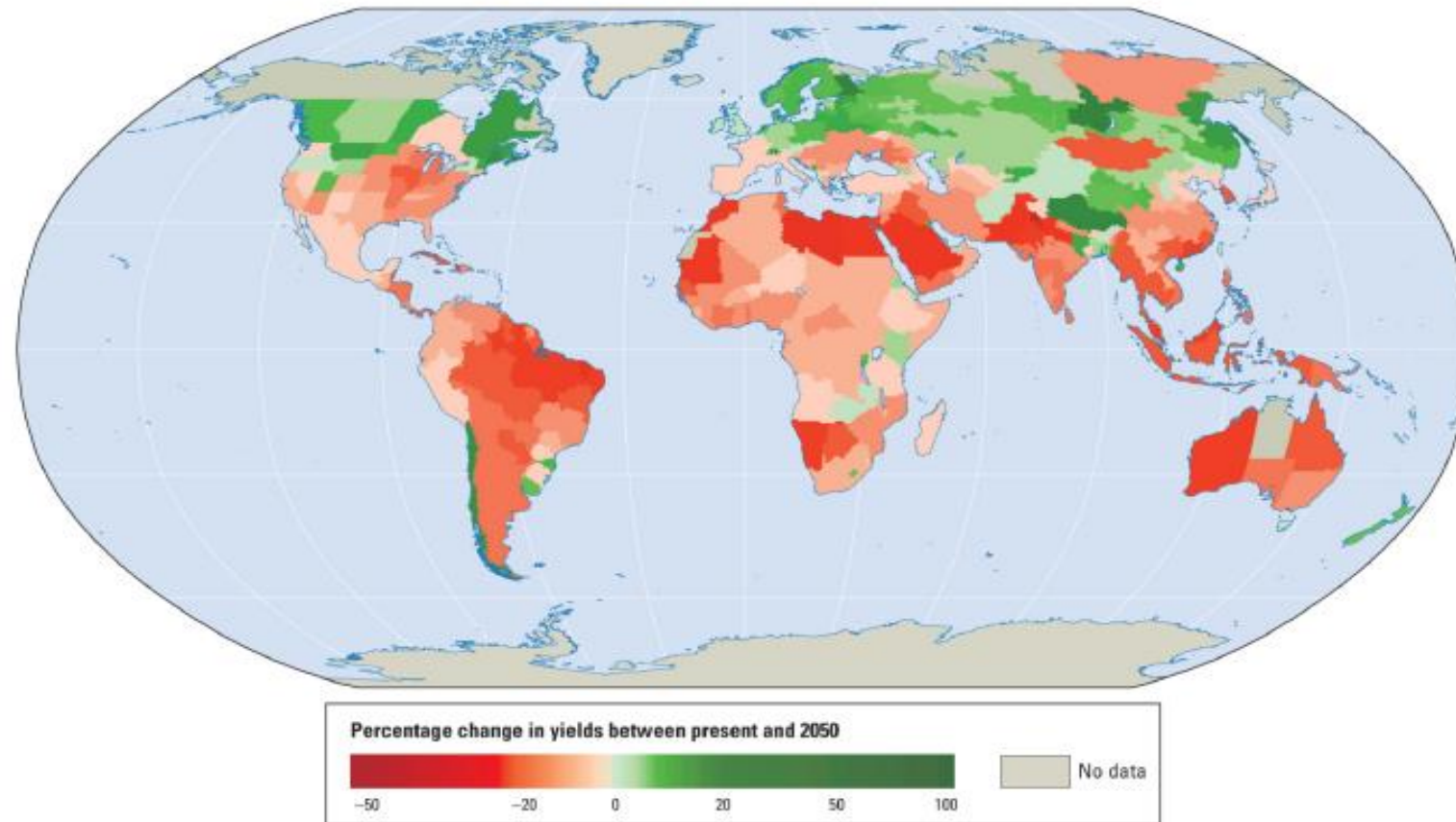
IPCC 1,5C-report presents two estimates for remaining CO₂-budget with 66% probability. The average is 495 GtCO₂. Current CO₂ emissions are 42 GtCO₂/y.

<https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers/>



+3°C world would create catastrophic consequences - Crop yields would be reduced significantly

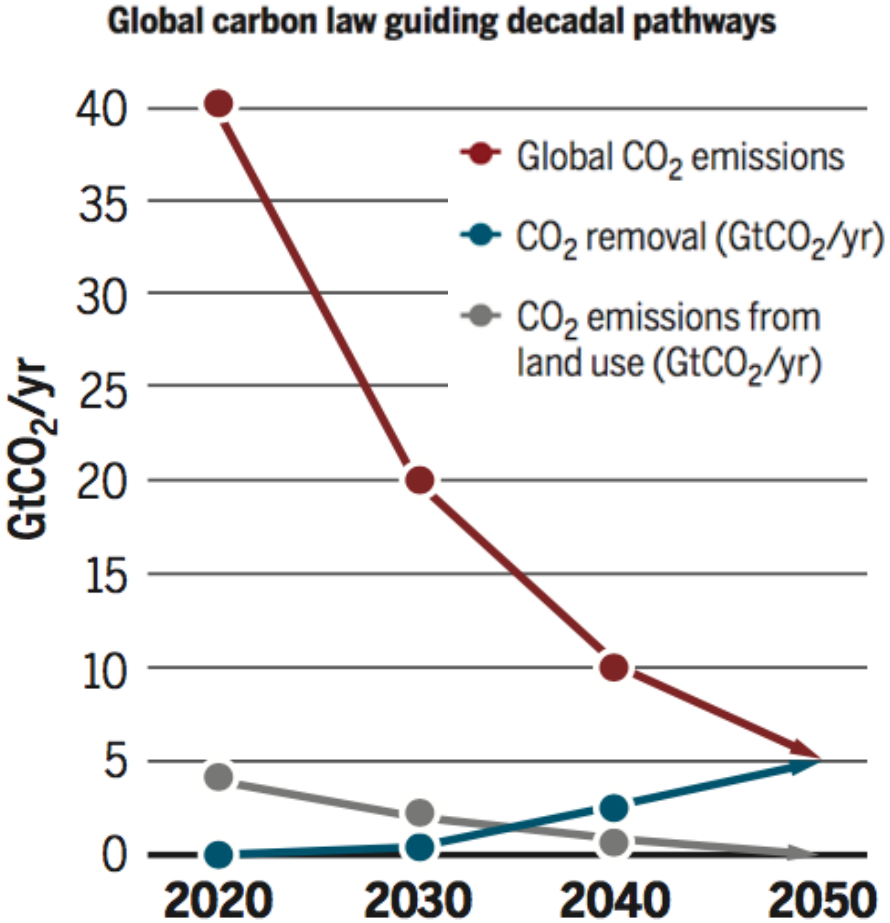
Figure 3.2.1: Projected Impacts on Crop Yields in a 3°C Warmer World



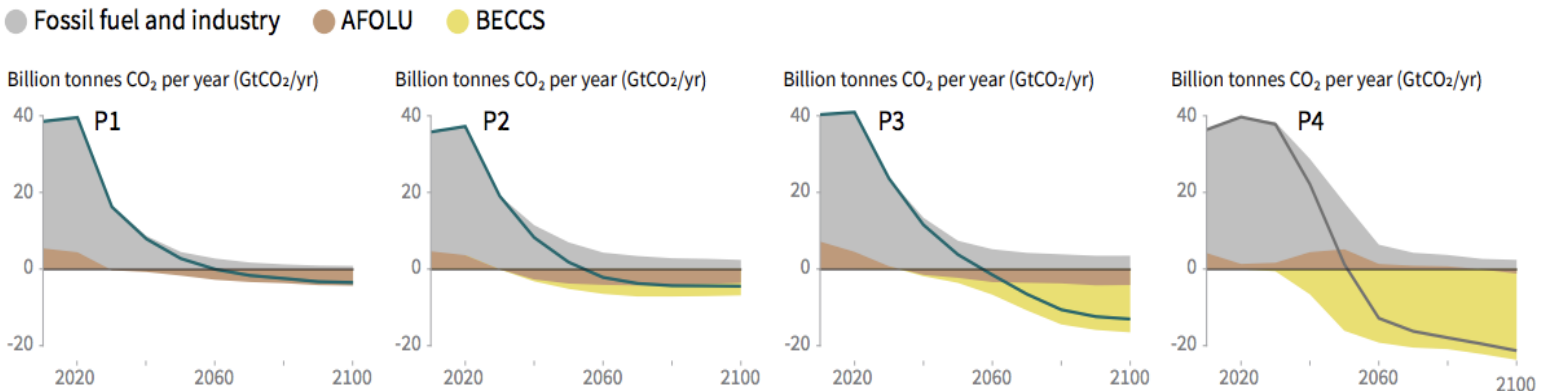
Source: WRI 2013.

Note: -50% change = half as productive in 2050 as in 2015; +100% change = twice as productive in 2050 as in 2015.

There are several possible scenarios to reach climate neutrality. We should not rely on wishful thinking with possible carbon sinks in the future (P3, P4) but rather aiming quick reductions like in Carbon law or P1 or P2.



Breakdown of contributions to global net CO₂ emissions in four illustrative model pathways



IPCC presents four scenarios for 1,5C target. Scenarios P3 and P4 are unrealistic due to huge land area requirement and absence of large scale CCS solutions.

So, emissions reductions should account >90% of the solutions before 2050.

A roadmap for rapid decarbonization SCIENCE sciencemag.org
 24 MARCH 2017 • VOL 355 ISSUE 6331

By Johan Rockström,¹ Owen Gaffney,^{2,3} Joeri Rogelj,^{4,5} Malte Meinshausen,^{6,6} Nebojsa Nakicenovic,⁷ Hans Joachim Schellnhuber^{8,9}



Everything will change...

De/recarbonising industry



Prices, taxes and financing



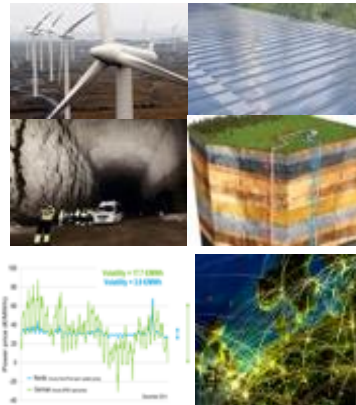
New materials, active buildings



Activating citizens



New energy, storages



Sustainable forestry and land use



New "fuels" for transport



New market mechanisms, smart grid

ICT, IoT everywhere



New agriculture, also C sinks



Challenge 1: How to involve the local community and the younger generation? - Awareness

- What SDG and climate mitigation solutions we need develop in the Baltic Sea Region? (Create a list of 10-20)
- Which solutions could have international or global impact?
- Pick top three solutions. How local community and younger generation can help?
 - Local policies
 - Pilot markets, communities, young generations
 - How to get awareness? Climate change, SDGs, solutions
 - Anything else?

Contact us

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Board 2018

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