



Naturskyddsföreningen

IVA, 29 januari 2019
Caroline Westblom

Så fångas koldioxid och lagras i marken

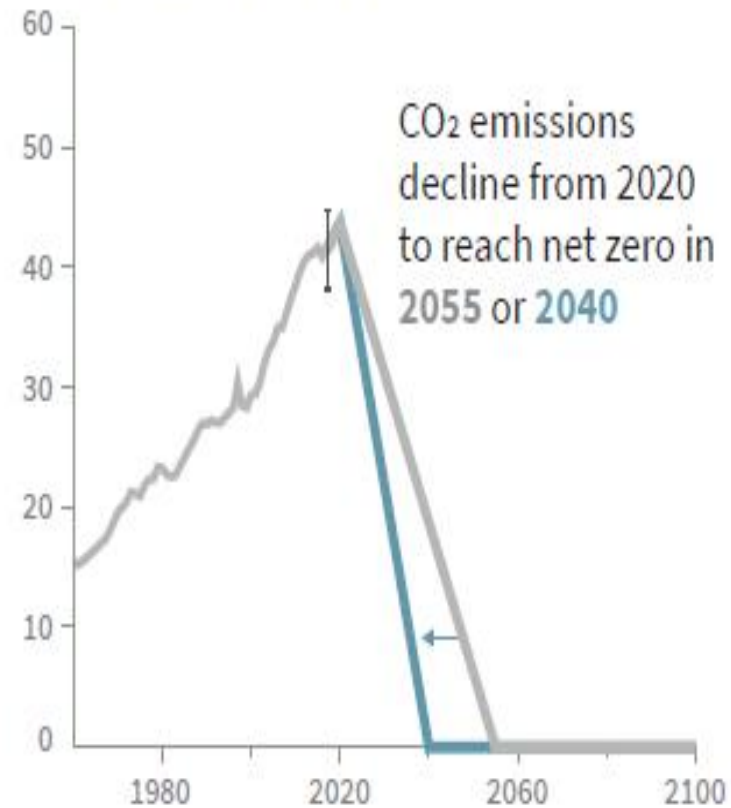
Kommentarer ur ett naturskyddsperspektiv



IPCC SR15: 1,5°C max!

- 2°C värre än vi trott
- Utsläppen går fortfarande upp
- Halvera utsläppen till 2030
- Nå netto noll runt 2050
- Stora osäkerheter
 - Tröskeeffekter
 - "over shoot"

b) Stylized net global CO₂ emission pathways Billion tonnes CO₂ per year (GtCO₂/yr)



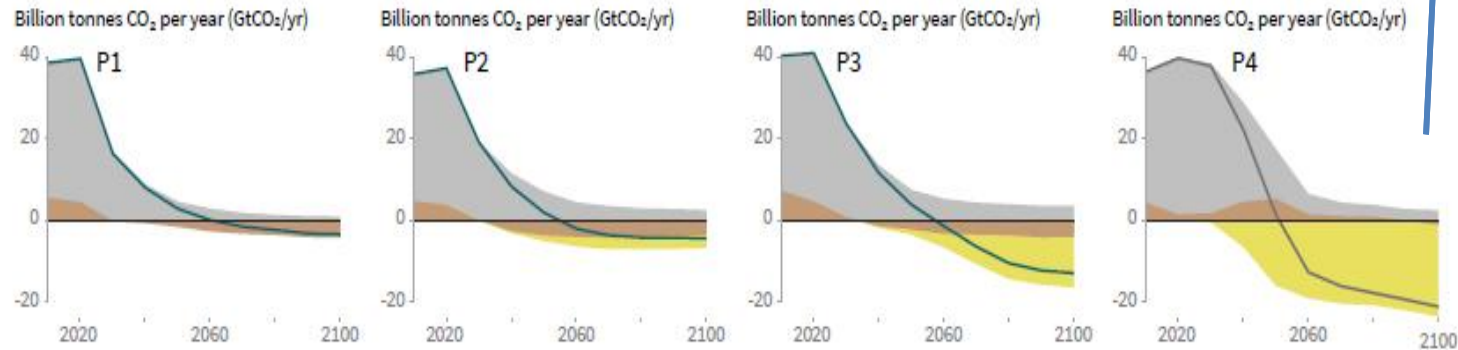
Källa: IPCC SR15



Olika sätt att "nå" målet....

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

● Fossil fuel and industry ● AFOLU ● BECCS



P1: A scenario in which social, business, and technological innovations result in lower energy demand up to 2050 while living standards rise, especially in the global South. A down-sized energy system enables rapid decarbonisation of energy supply. Afforestation is the only CDR option considered; neither fossil fuels with CCS nor BECCS are used.

P2: A scenario with a broad focus on sustainability including energy intensity, human development, economic convergence and international cooperation, as well as shifts towards sustainable and healthy consumption patterns, low-carbon technology innovation, and well-managed land systems with limited societal acceptability for BECCS.

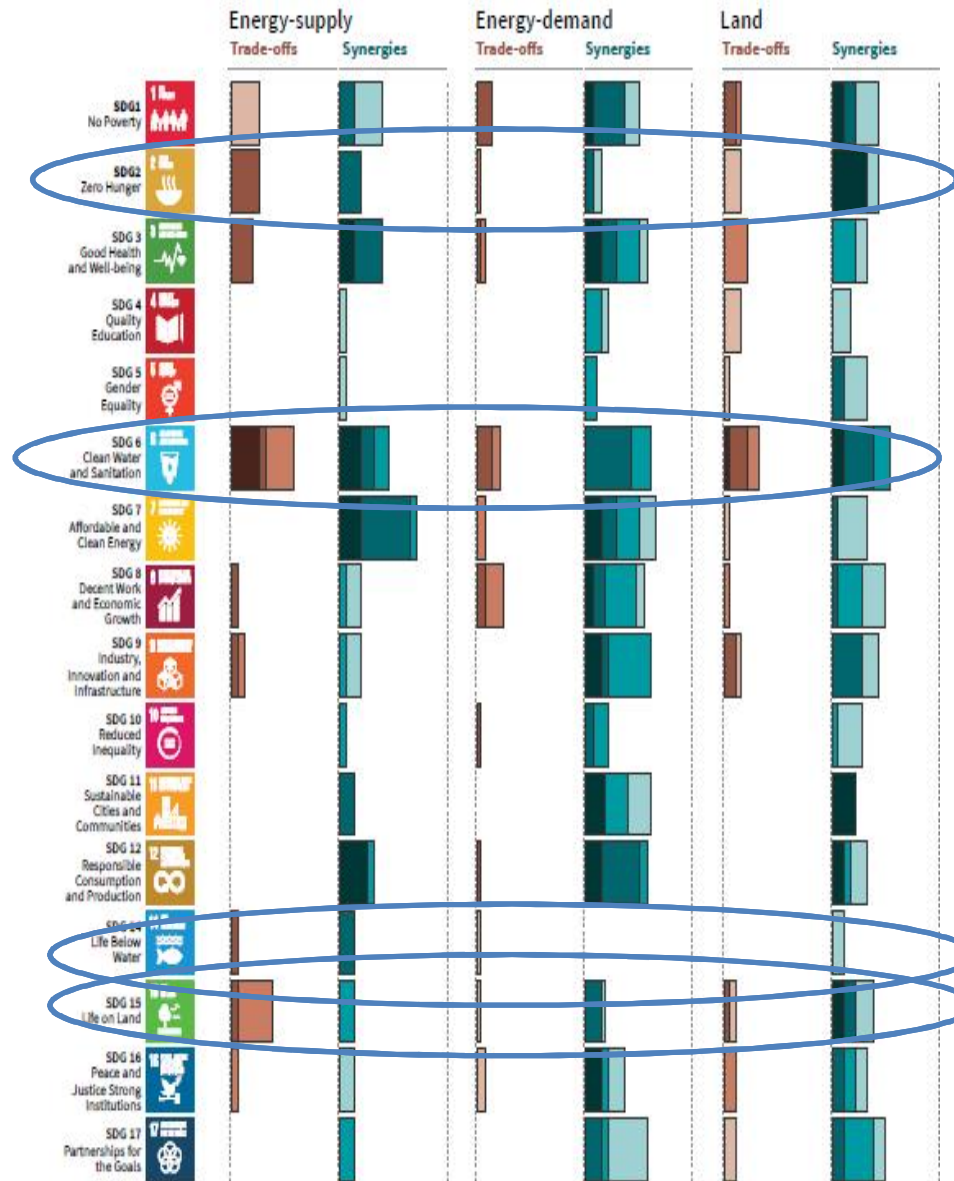
P3: A middle-of-the-road scenario in which societal as well as technological development follows historical patterns. Emissions reductions are mainly achieved by changing the way in which energy and products are produced, and to a lesser degree by reductions in demand.

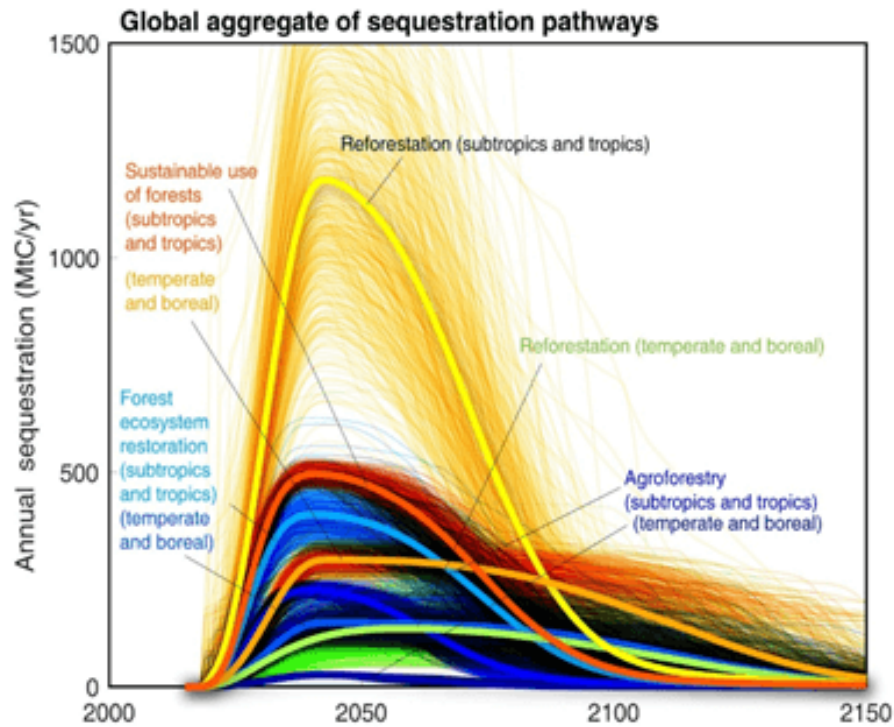
P4: A resource and energy-intensive scenario in which economic growth and globalization lead to widespread adoption of greenhouse-gas intensive lifestyles, including high demand for transportation fuels and livestock products. Emissions reductions are mainly achieved through technological means, making strong use of CDR through the deployment of BECCS.

Global indicators	P1	P2	P3	P4	Interquartile range
Pathway classification	No or low overshoot	No or low overshoot	No or low overshoot	High overshoot	No or low overshoot



Naturskyddsförningen

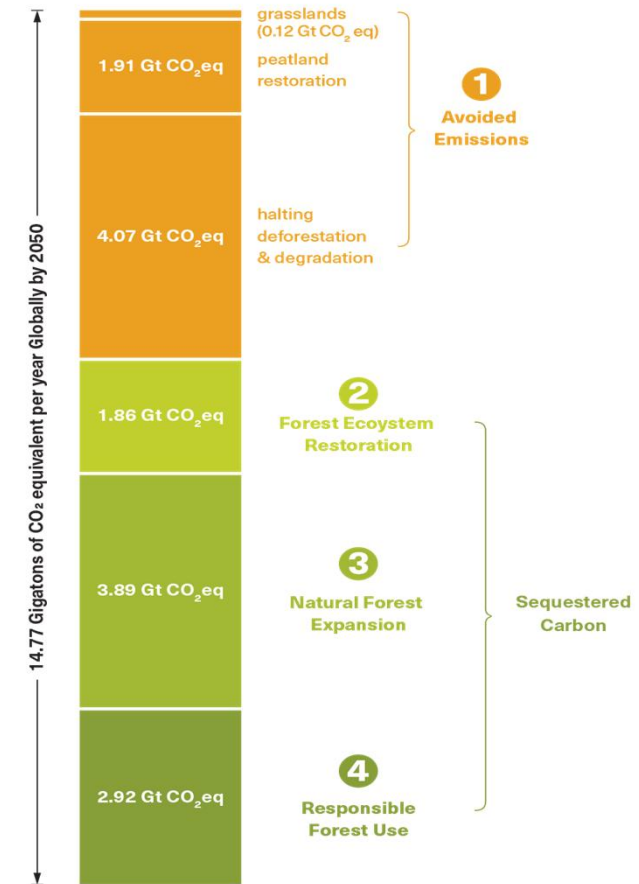




Källa: [Achieving the Paris Climate Agreement Goals](#)
Global and Regional 100% Renewable Energy Scenarios with Non-energy GHG Pathways for +1.5°C and +2°C

Mitigation Potential Across All Ecosystem Based Pathways

Terrestrial ecosystems are key to climate mitigation. 1 Avoiding ecosystem conversion to other land-uses is the first priority to prevent CO₂ emissions entering the atmosphere. 2 Restoration of degraded natural forests increases and further protects existing carbon stocks. 3 Regeneration by allowing forests to regrow in recently forested areas delivers large sequestration potential. 4 Responsible use of forests requires reducing harvest, and using wood products more efficiently.



Calculations and assumptions can be found in the supplementary table, available here: www.ClimateLandAmbitionRightsAlliance.org/report

Källa: [Missing Pathways to 1.5°C - The role of the land sector in ambitious climate action.](#)



Naturskyddsföreningen

Slutsatser

Vi måste lagra stora mängder kol, men hur mycket beror på hur snabbt vi minskar utsläppen

Stora risker med tekniker som CCS och BECCS, men även beskogning (*skala!*)

Stor potential i naturliga lösningar → många sidovinster

