

A photograph of a dense forest with tall, thin trees and a mossy forest floor. The text is overlaid on the image.

Net-zero and forests

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What does the IPCC report say?

- What are key messages from the IPCC 1.5° report on land?

What does the EU say?

- How do EU 2050 climate scenarios compare?

What does the CLARA report say?

- What untapped solutions can respond to gaps in objectives? (Sustainable development, ecosystem resilience, adaptation to climate change)

IPCC 1.5 report

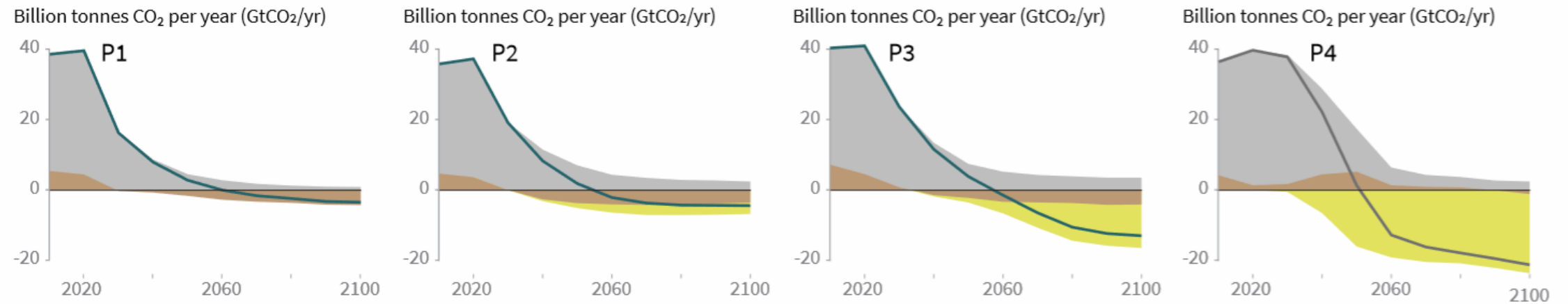
- Forests are a key solution to stabilizing temperatures, but are increasingly under threat

Impacts associated with other biodiversity-related risks such as forest fires, and the spread of invasive species, are lower at 1.5°C compared to 2°C of global warming (high confidence).



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

● Fossil fuel and industry ● AFOLU ● BECCS



Only **afforestation**
considered to remove
carbon dioxide



IPCC 1.5 report

- There are mitigation options limiting the demand for land

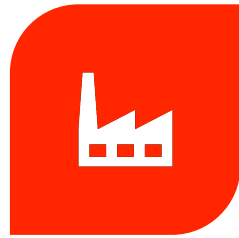
A wide range of adaptation options are available to reduce the risks to natural and managed ecosystems (e.g., ecosystem-based adaptation, ecosystem restoration and avoided degradation and deforestation, biodiversity management, sustainable aquaculture, and local knowledge and indigenous knowledge) (medium confidence).



Draft EU 2050 climate strategy



DECREASED
DEFORESTATION,
AFFORESTATION AND
BECCS ARE THE MAIN
ACTIVITIES CONSIDERED
IN SCENARIOS



ALL SCENARIOS ASSUME
A 2-3X INCREASE IN
BIOENERGY



INTENSIVE SCENARIOS
SEE 50MHA LAND USE
CHANGE (SIZE OF SPAIN)



FOREST SINK ASSUMED
TO GO FROM 420MT
TODAY TO 220-275MT



OUTSIDE OF THE
MODELING GOOD
ACKNOWLEDGEMENT
OF THE TRADE-OFFS (EG.
FOOD SECURITY), NEED
FOR RESTORATION,
STOPPING LAND
CONVERSION.
**HOWEVER, THIS IS NOT
IN THE MODELING.**

What does prioritization of land as energy mean?

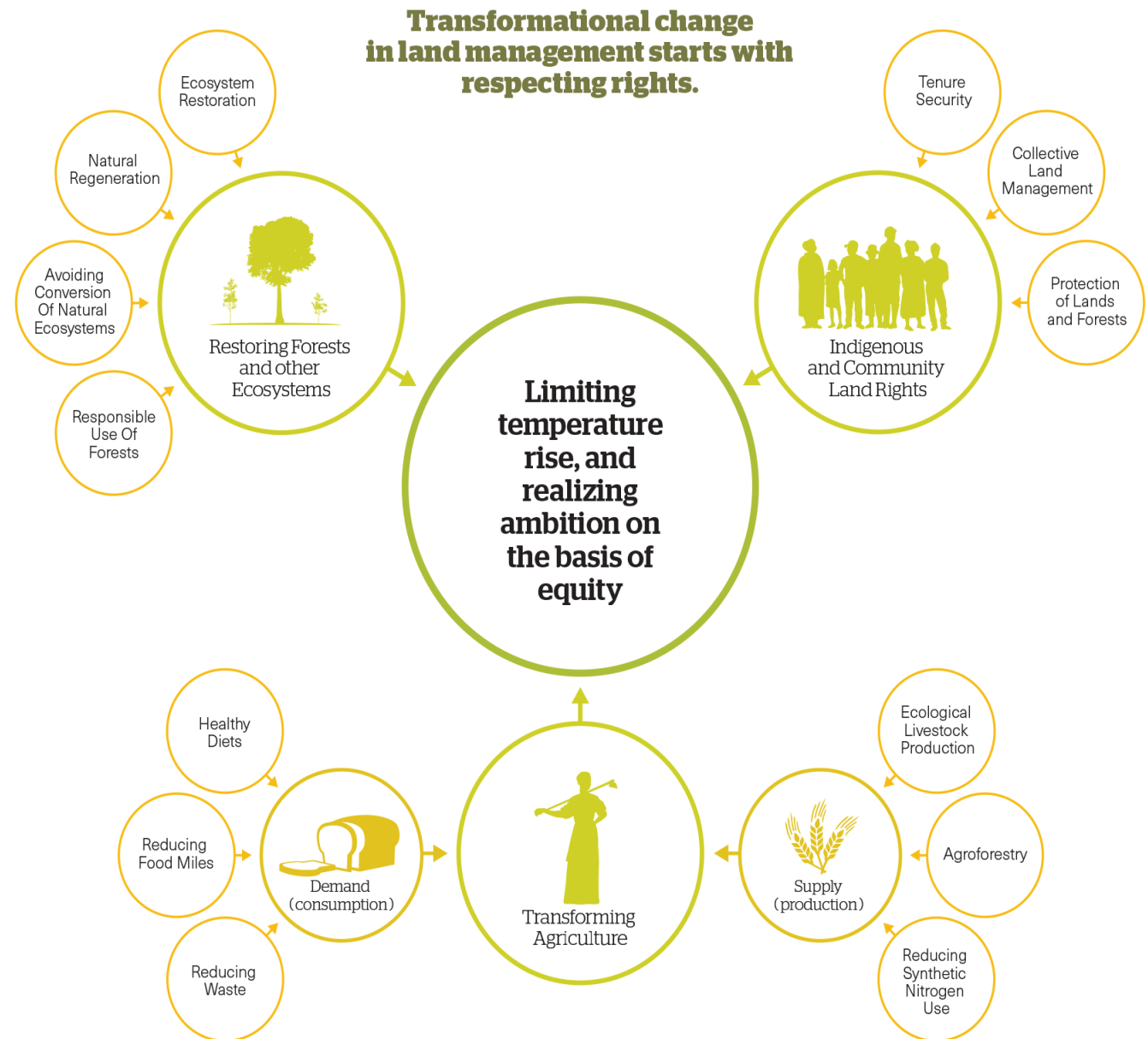
Risk that bioenergy incentives leads to demands exceeding sustainable limits to supply:

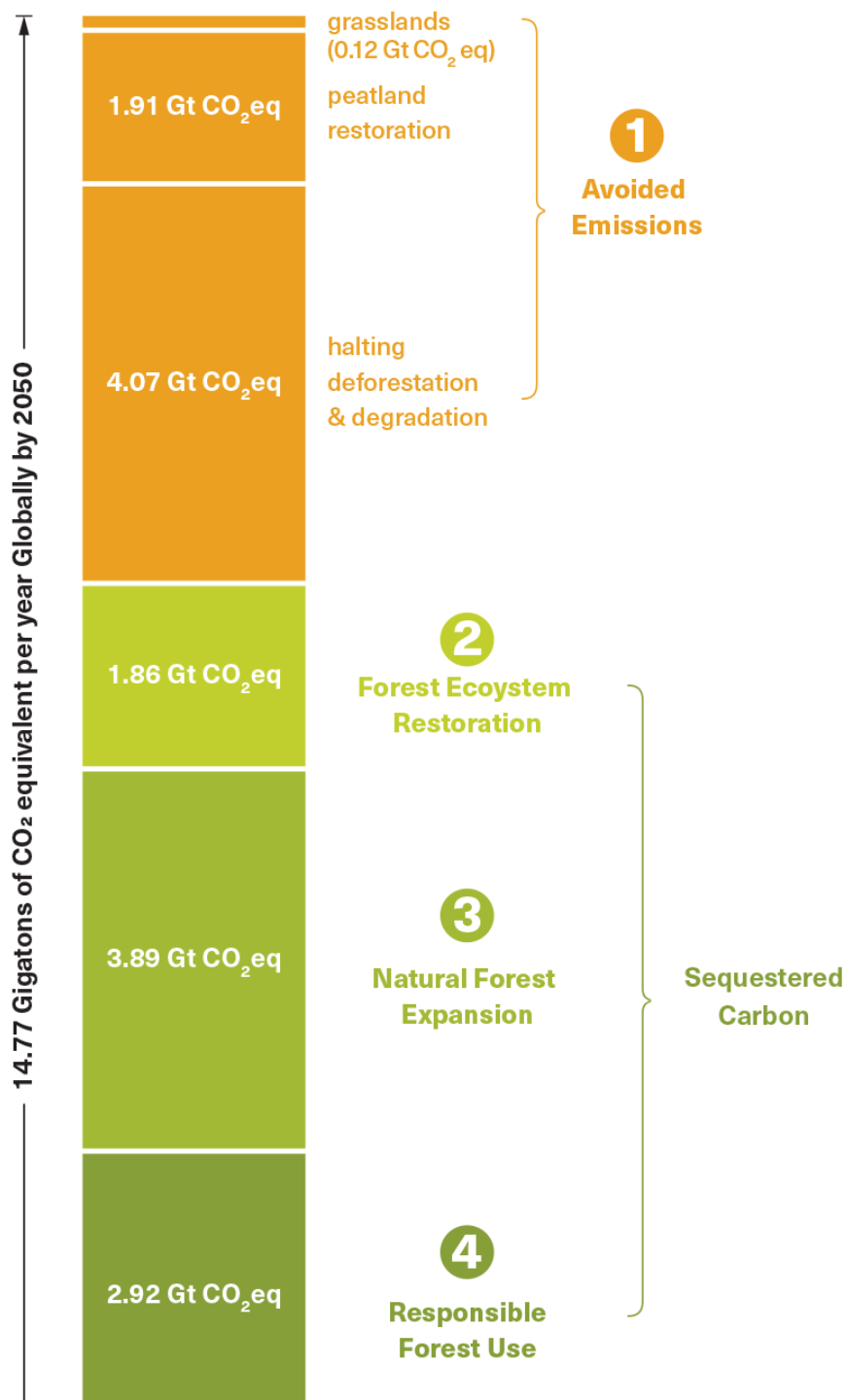
- Commission states 'the sustainably realisable potential of **wood for energy** from EU forests as high as **675 million cubic meters**'
- Other studies put sustainable wood harvest at **590-620 million cubic meters for all uses**
- Do we have a handle on the scope of various demands for wood?
- What about the potential of land to sequester carbon?



There are better pathways for land

- CLARA global report on natural solutions for 1.5°
- Emphasis on restoration, rights and diets
- Is more reflective of solutions that hit SDGs, reinforce biodiversity, respects the social impact of the sector





Ecosystems restoration

- Missing elements in EU strategy:
 - #2 Ecosystem restoration and #3 Responsible forest use (decreased harvesting levels)
- All activities combined = over 14GT of CO₂ per year by 2050
- 27% of forest ecosystem restoration is met in Temperate and boreal forests = .5GT/year by 2050

European figures

Finland: Using wood for materials/fossil fuel substitution was shown to be **a net-source of carbon over a 100 year period**. Reducing harvesting in Finland would allow an 209% increase in carbon removals and biodiversity benefits

Germany: Greenpeace/Oeko "Forest Vision" assumes ecological forest management across all of Germany, over 90-year period 48 MT CO₂/year on average. **Leaving forests alone sees continued carbon uptake over a nearly 100 year period.**

Need EU-wide numbers assessing carbon removal potential from forests and overall GHG impact of letting forests grow



Conclusions

Assess stand-alone potential of land and forests:

Separate land potential from the needs of hard to decarbonize sectors.

Expand land activities considered: to include more natural solutions

Avoid one-trick ponies: overconcentration on biomass sends the wrong policy signals

Create a pathway for restoration: There is a missing vision for land that maximizes biodiversity and carbon benefits

