

Is the Practice of Forestry (Now) Socially Unacceptable?

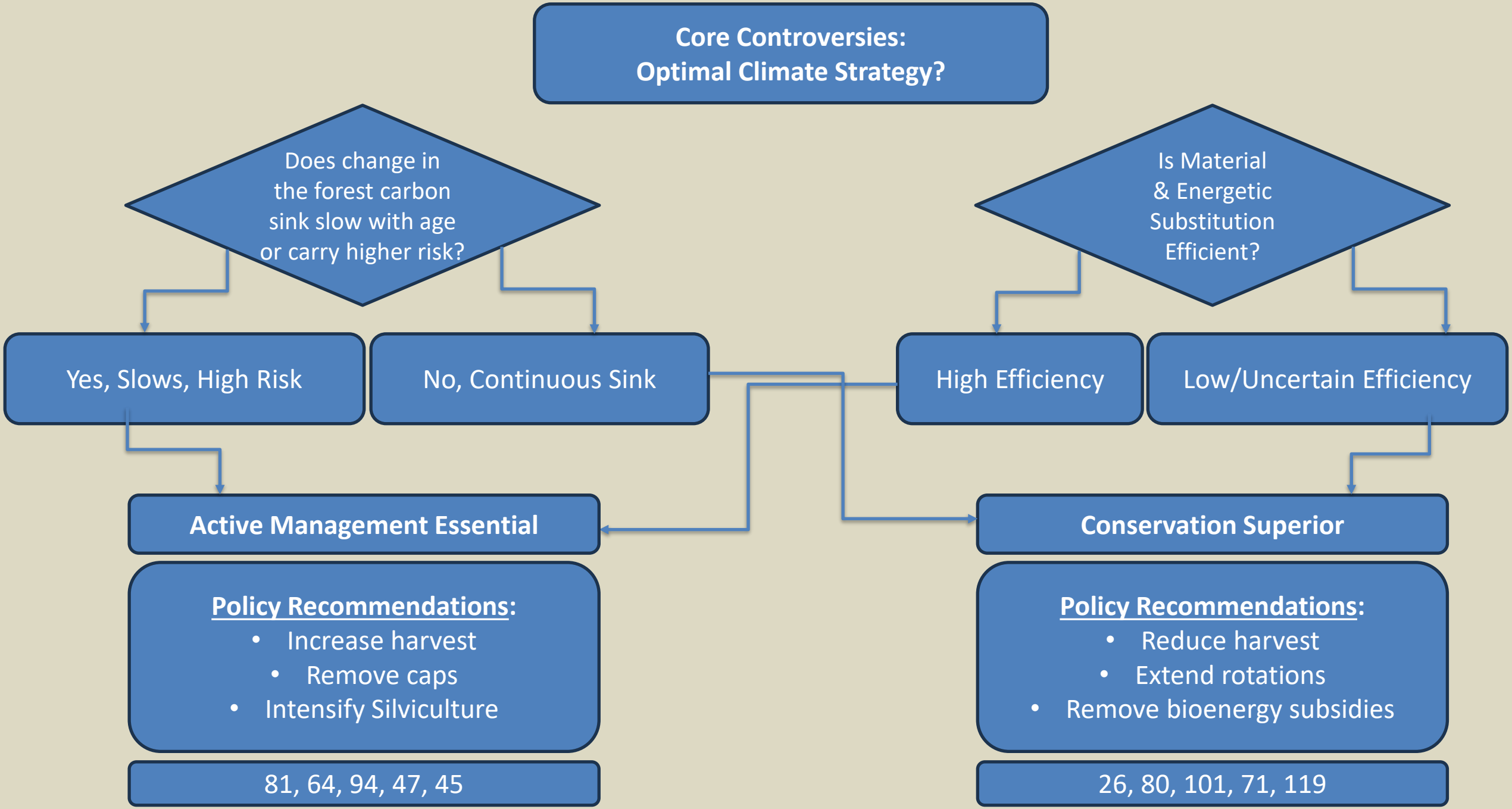
David Ellison

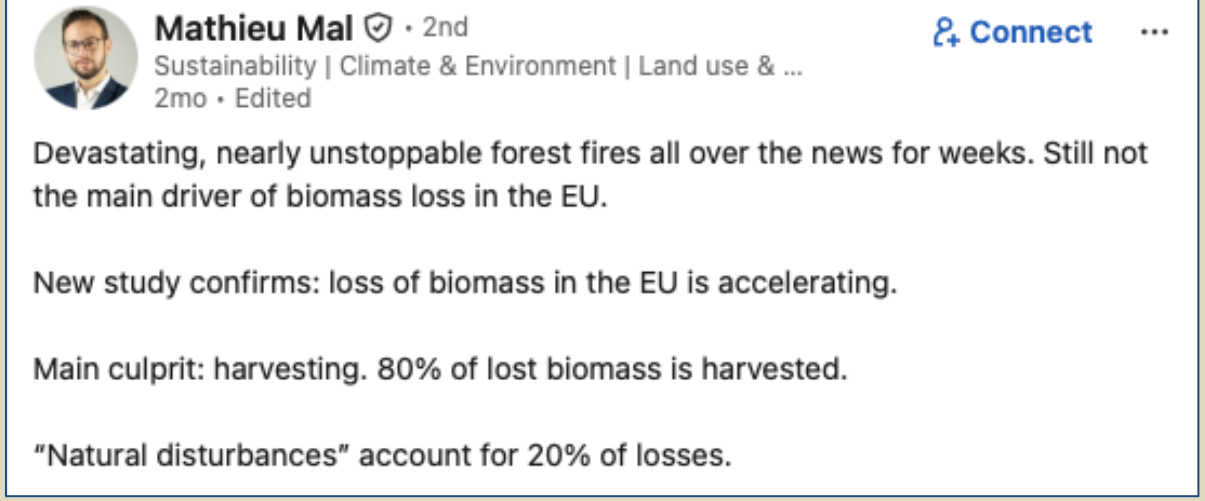
Swedish University of Agricultural Sciences (SLU), Umeå

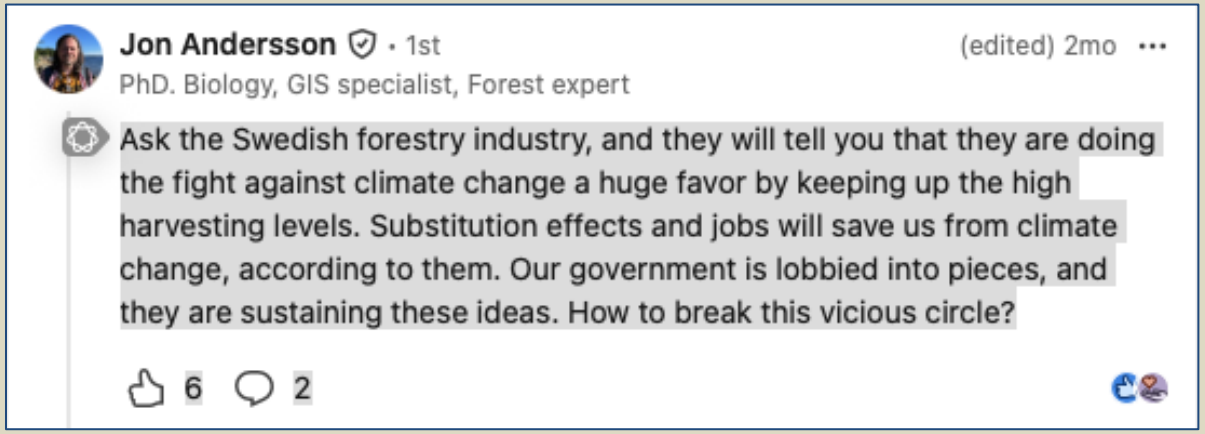
Latvian Forest Certification Council's 11th International Conference

October 26th, 2026

Feedback welcome: EllisonDL@Gmail.com


Core Controversies:
Optimal Climate Strategy?
Does change in the forest carbon sink slow with age or carry higher risk?
Is Material & Energetic Substitution Efficient?
Yes, Slows, High Risk
No, Continuous Sink
High Efficiency
Low/Uncertain Efficiency
Active Management Essential
Conservation Superior
Policy Recommendations:
• Increase harvest
• Remove caps
• Intensify Silviculture
81, 64, 94, 47, 45
Policy Recommendations:
• Reduce harvest
• Extend rotations
• Remove bioenergy subsidies
26, 80, 101, 71, 119





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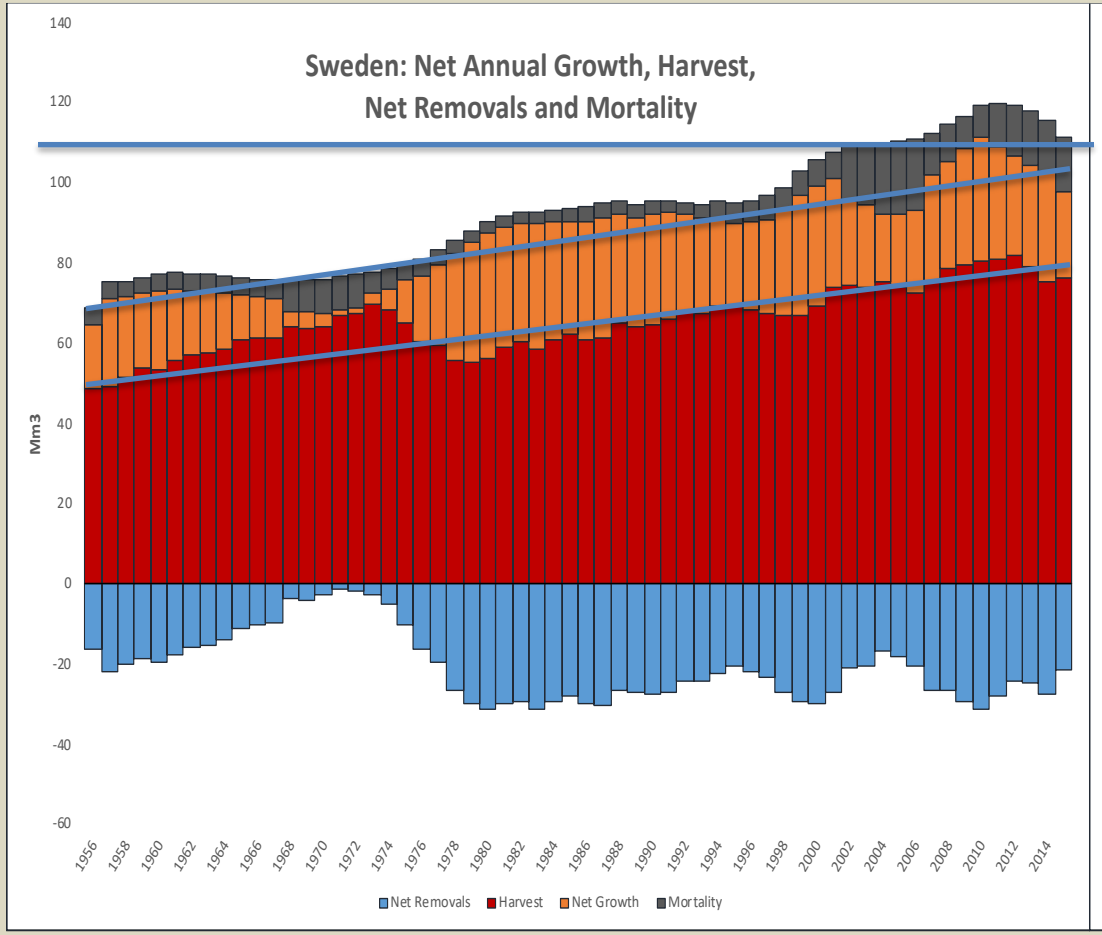
Analysis

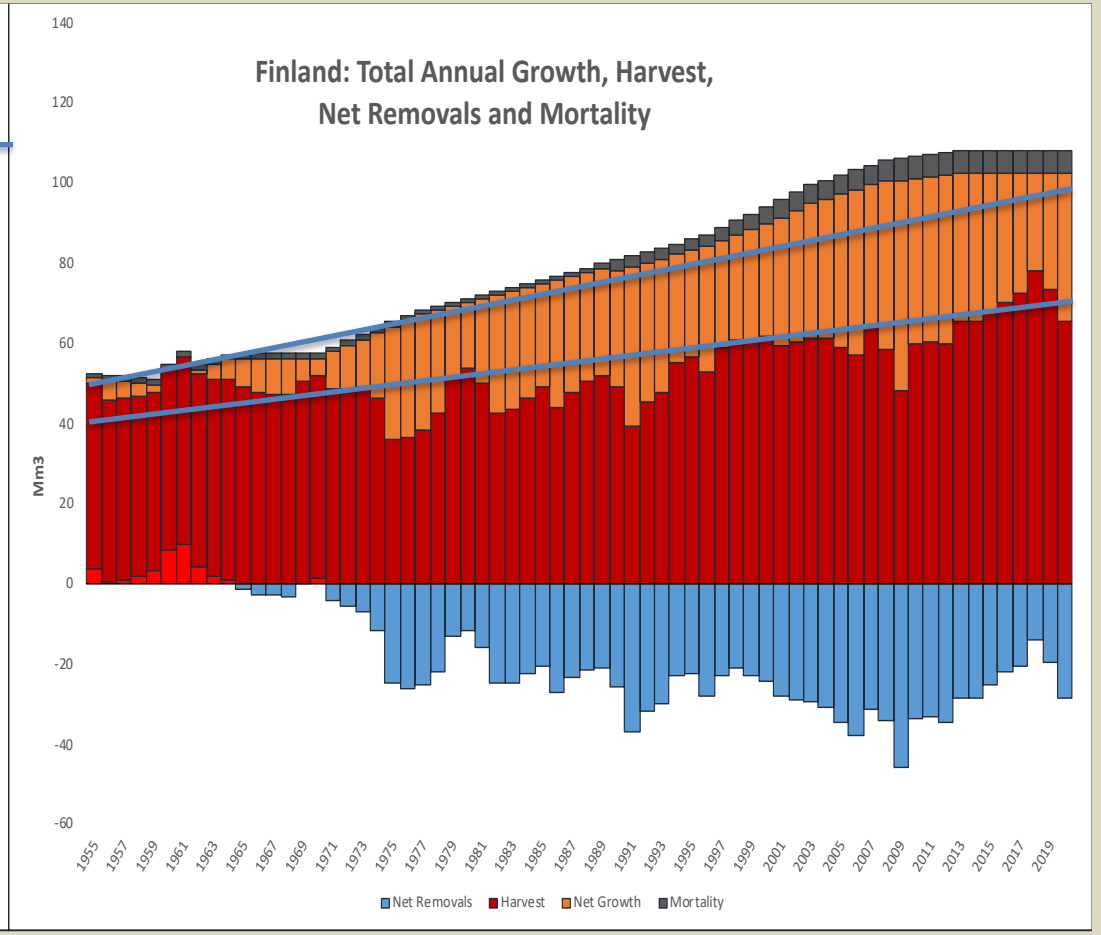
https://doi.org/10.1038/s41561-026-02032-y

across Europe (3.2 ± 0.4 Pg C), corresponding to an average annual loss rate of 0.8 ± 0.1 Mg per hectare forest (Mg haF^{-1} yr^{-1}). Those estimates are based on multiplying average severity estimates (Fig. 1) with annual area of tree cover loss derived from satellite records (Extended Data Fig. 5). Estimates exclude AGB gains from regrowth after tree cover loss and therefore do not represent the full forest carbon budget. Temperate forests had the highest AGB loss rates followed by boreal forests (Table 1). In Mediterranean forests, the AGB loss rate was less than half compared to boreal and temperate regions (Fig. 2b and Table 1). Harvests dominated AGB losses (82% of total, 5.3 ± 0.7 Pg) across ecoregions (Fig. 2b). Natural disturbances, in turn, caused a loss of 1.2 ± 0.1 Pg AGB (18.2%). In boreal forests, the largest share of AGB was lost to harvest (97.1%), followed by temperate (77.8%) and Mediterranean forests (65.8%). Rates of AGB loss increased over the observation period in boreal and temperate forests (Fig. 2a,d), which was primarily driven by rising harvests in boreal forests and by natural disturbances in temperate forests (Fig. 2d and Extended Data Table 1). We identified events of AGB loss from windthrow (for example, storm Lothar in northern France and Germany in 1999/2000, storm Kyrill in Germany, Poland, Czech Republic in 2007) and consistently increasing harvesting in northern countries, which dominated in the time periods from 1985 to 2017 (Fig. 2c). In

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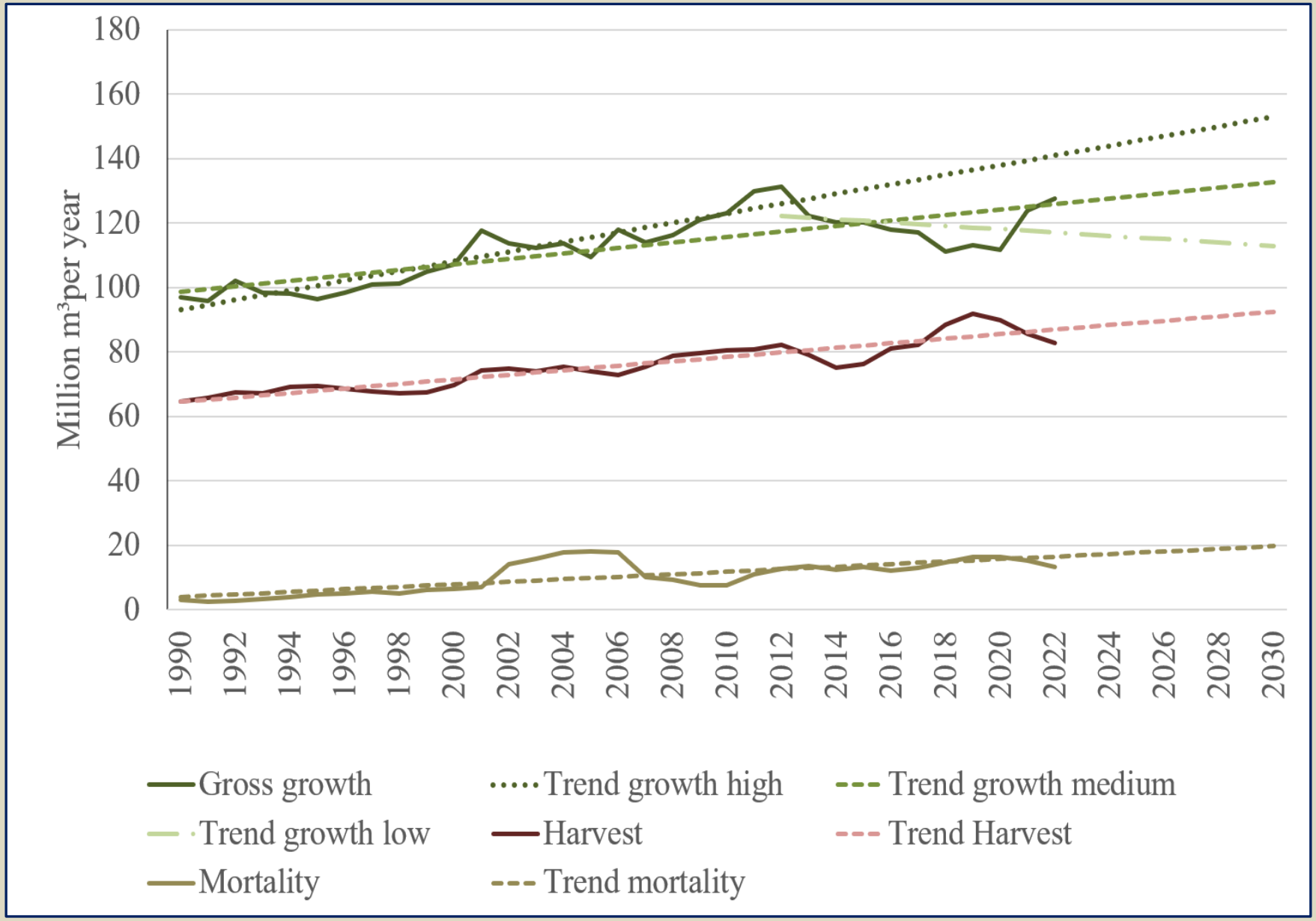
What are the Consequences of Forest Use Intensity?





Are there potential benefits to maximizing forest resource use intensity?

Increased Uncertainty in Growth Scenarios



Churkina et al., (2020) – [Buildings as a Global Carbon Sink]

The Harvested Wood Product Carbon Pool

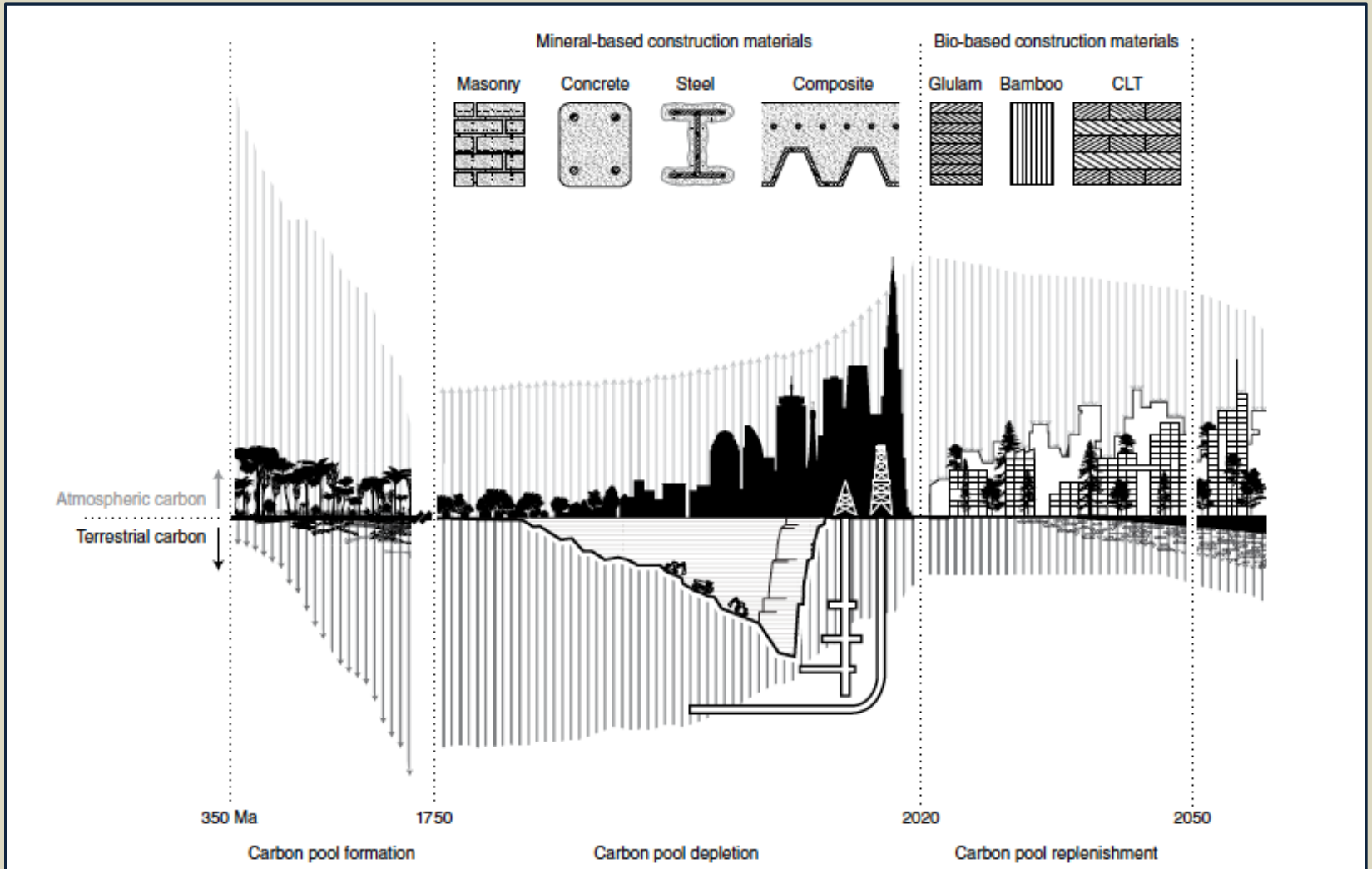
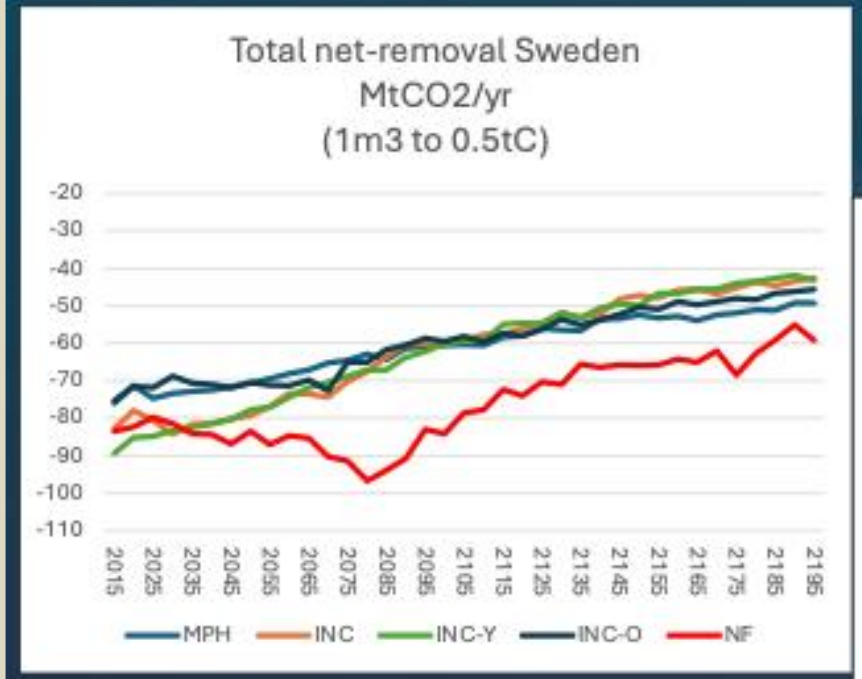
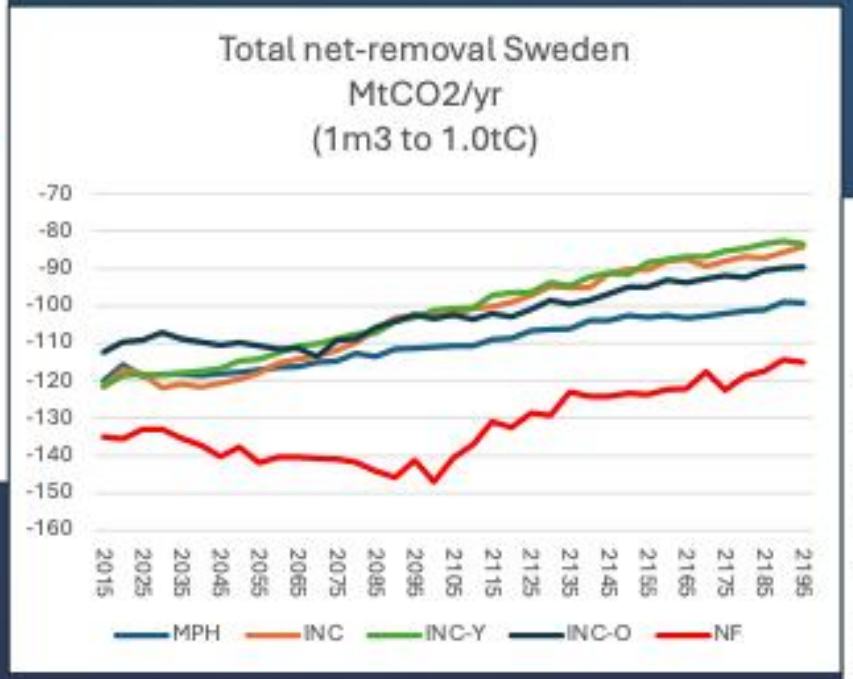
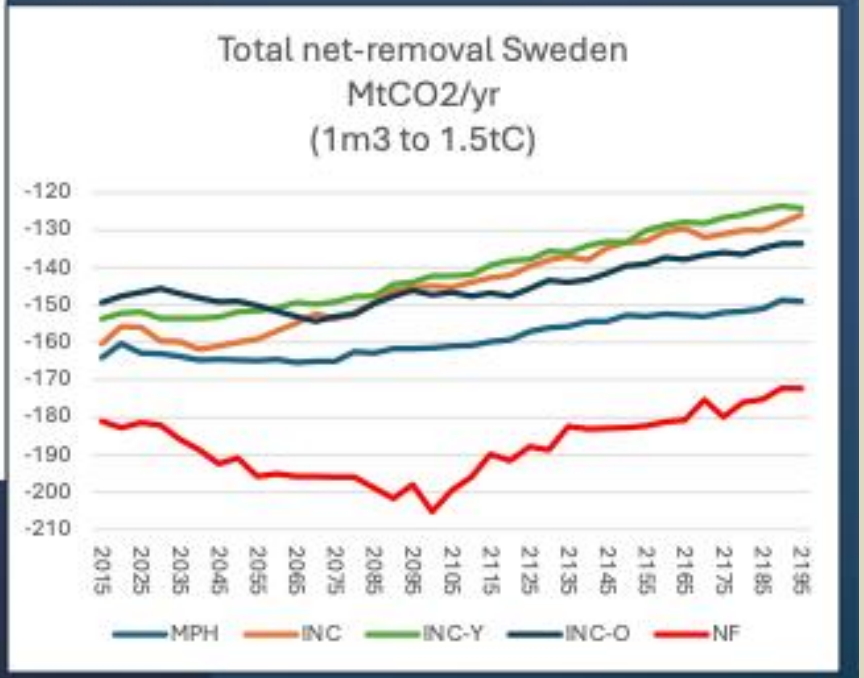


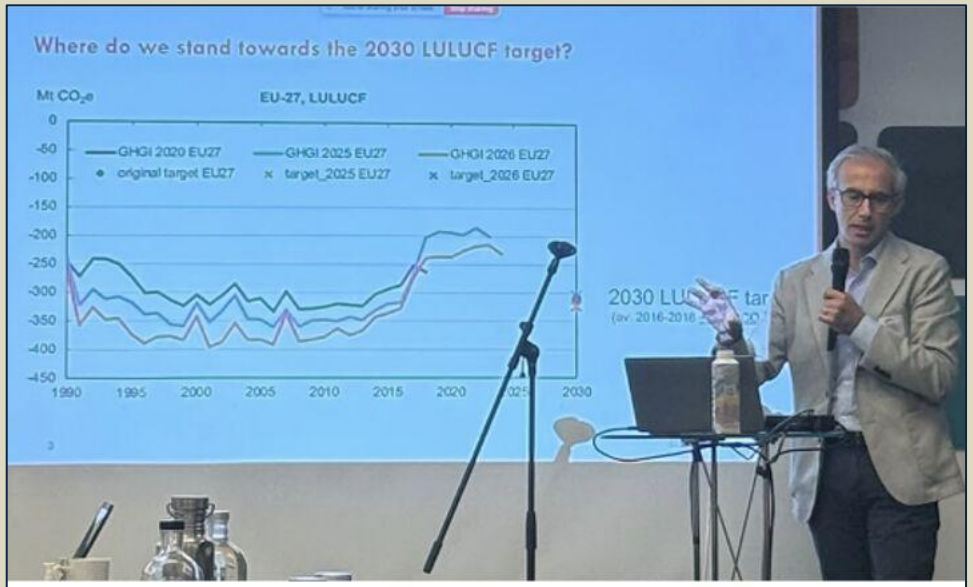
Fig. 1 | Processes responsible for formation, depletion and potential replenishment of land carbon pool and changes in atmospheric CO_2 concentrations over time. Left panel: over millions of years the carbon pool on land was formed and CO_2 concentrations in the atmosphere slowly declined because of various processes including organic carbon burial, rock weathering and so on. Middle panel: urban and industrial growth prompted by the industrial revolution have gradually depleted land-based carbon pools and increased atmospheric CO_2 concentrations. High-reaching and heavy-load-bearing urban buildings constructed from concrete and steel, produced with raw materials and fuels extracted from ever deeper layers of the Earth's crust, were intensive in both energy consumption and greenhouse gas emissions. Right panel: cities built from bio-based materials such as engineered timber and bamboo can serve as constructed carbon sinks. Storing and maintaining carbon in these densely constructed carbon pools will help replenish the terrestrial carbon storage, thereby reducing current atmospheric CO_2 levels and offsetting future emissions. Ma, million years ago.

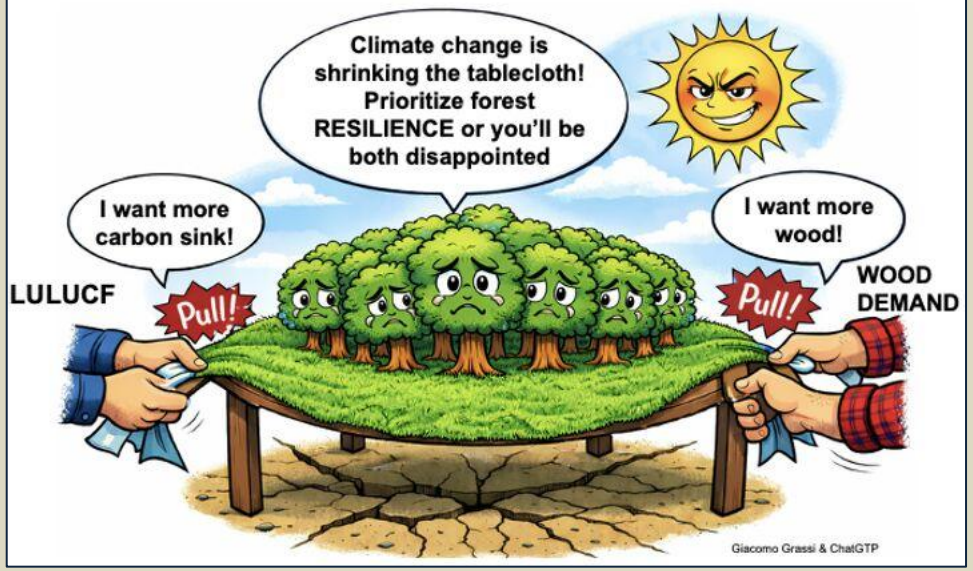
Substitution Potential in the Renewable, Circular Bioeconomy







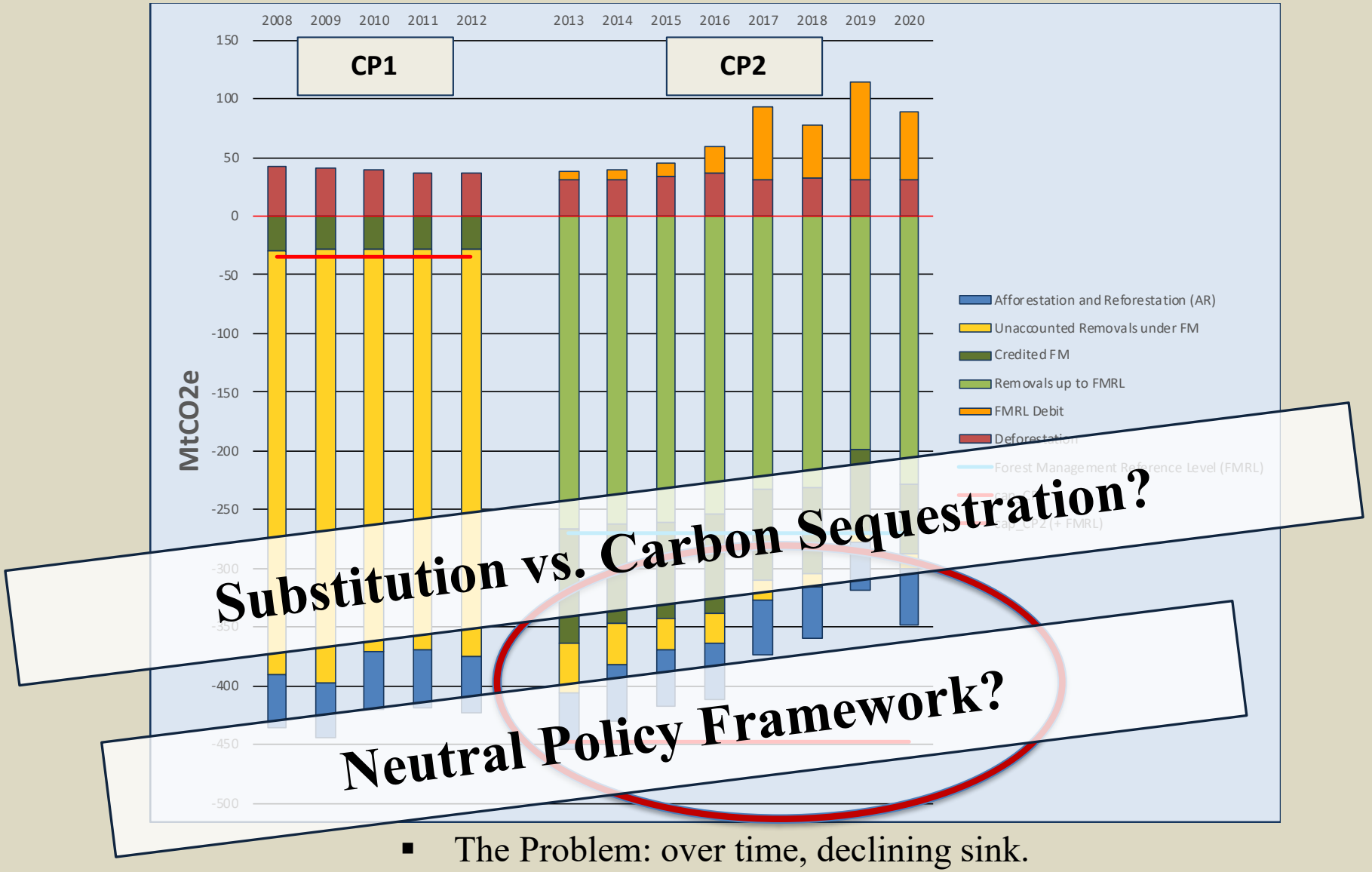




Main challenges ahead:

- Uncertain sink: we need better and more timely estimates, but accept that some uncertainty will remain
- Climate change requires prioritising resilience in vulnerable areas, e.g. through adaptive management and species diversification: an opportunity for the bioeconomy?
- Policy coherence: climate and bioeconomy targets draw on the same forests, so look for synergies (there are many, i.e. using wood in durable products to substitute fossil fuels) without overlooking trade-offs

LULUCF Performance in EU Climate Policy Framework (2008-2020)



- The Problem: over time, declining sink.
- What is the best way to solve this problem? (FRL?, cap?)
- Is this a Problem? Does it need to be solved…? (Substitution vs. sink?)

Change in EU Level LULUCF Performance across the LULUCF Policy categories

Categories	Avg Change 2019/2013	Avg Change 2019/2008
FMRL Debit	16698%	
Net ARD	9%	413%
AR	7%	23%
D	6%	-6%
Up to FMRL	-10%	
Accounted Removals (FMRL + cap)	-15%	
NET Total Removals	-18%	-11%
Sum Total Removals (-AR)	-18%	-14%
Sum Total Removals (+AR)	-19%	-11%
FM	-22%	-18%
Credited FM	-26%	
Non-accounted FM Removals	-59%	

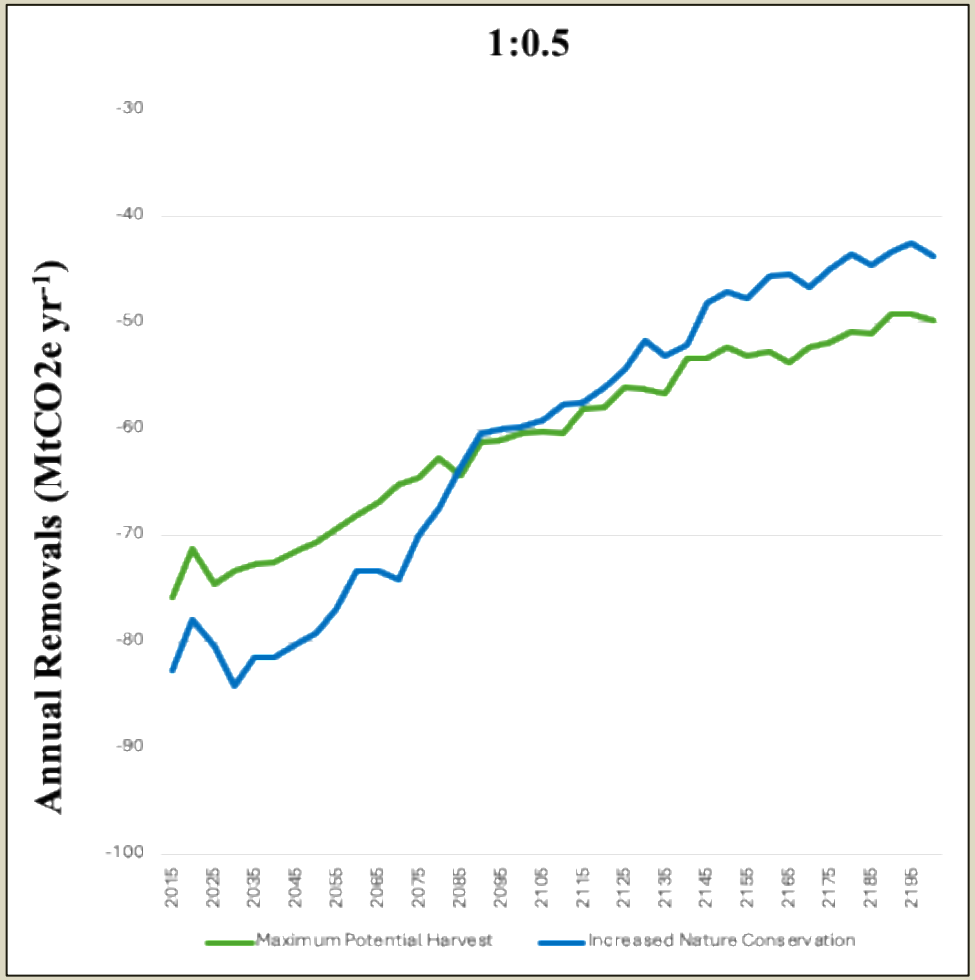
Should we think of ARD as the ONLY successful element of the LULUCF policy framework?

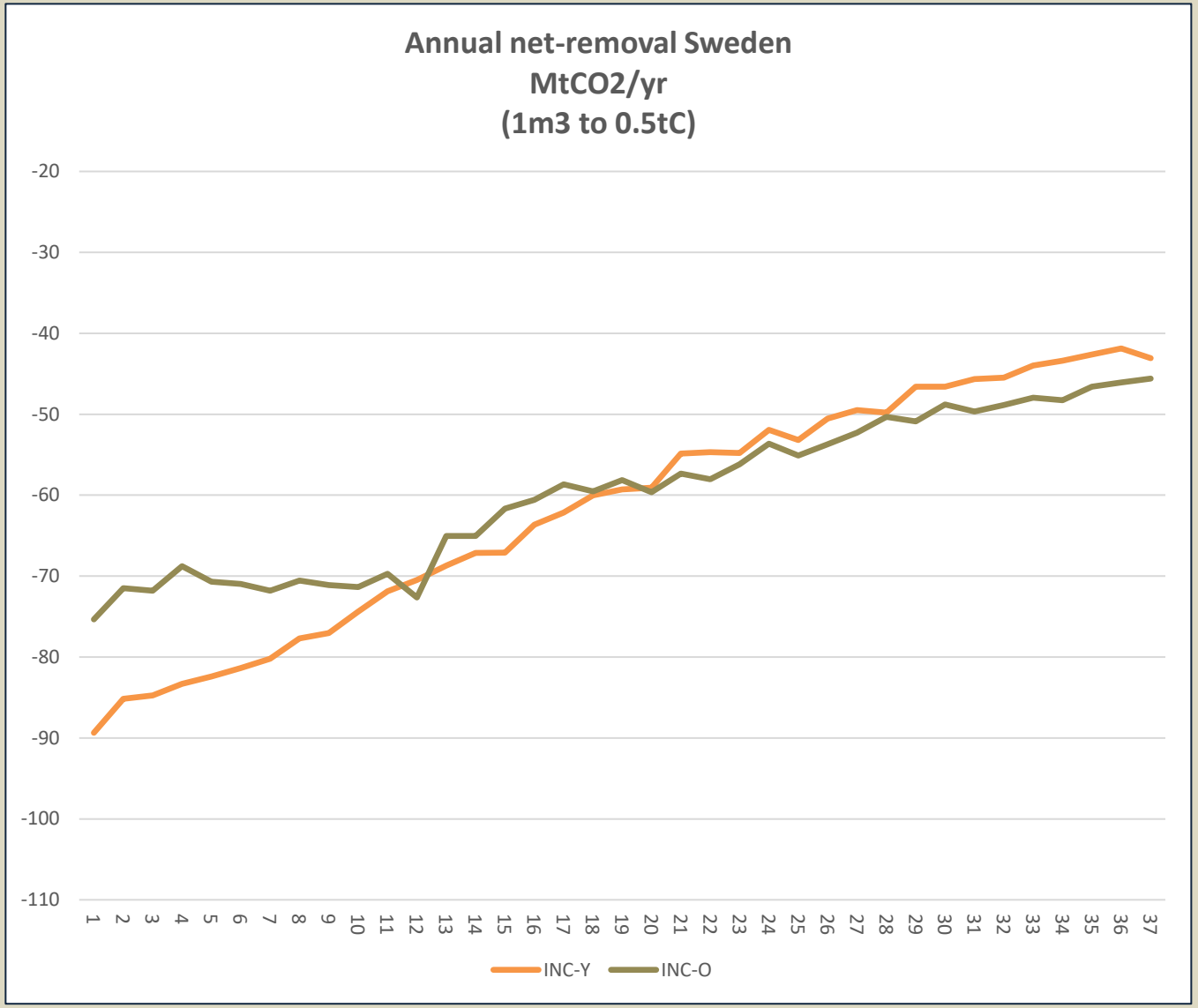
And WHY has it been successful, while the other components have not brought any improvement?

Who is to blame for LULUCF's failure to meet its targets?

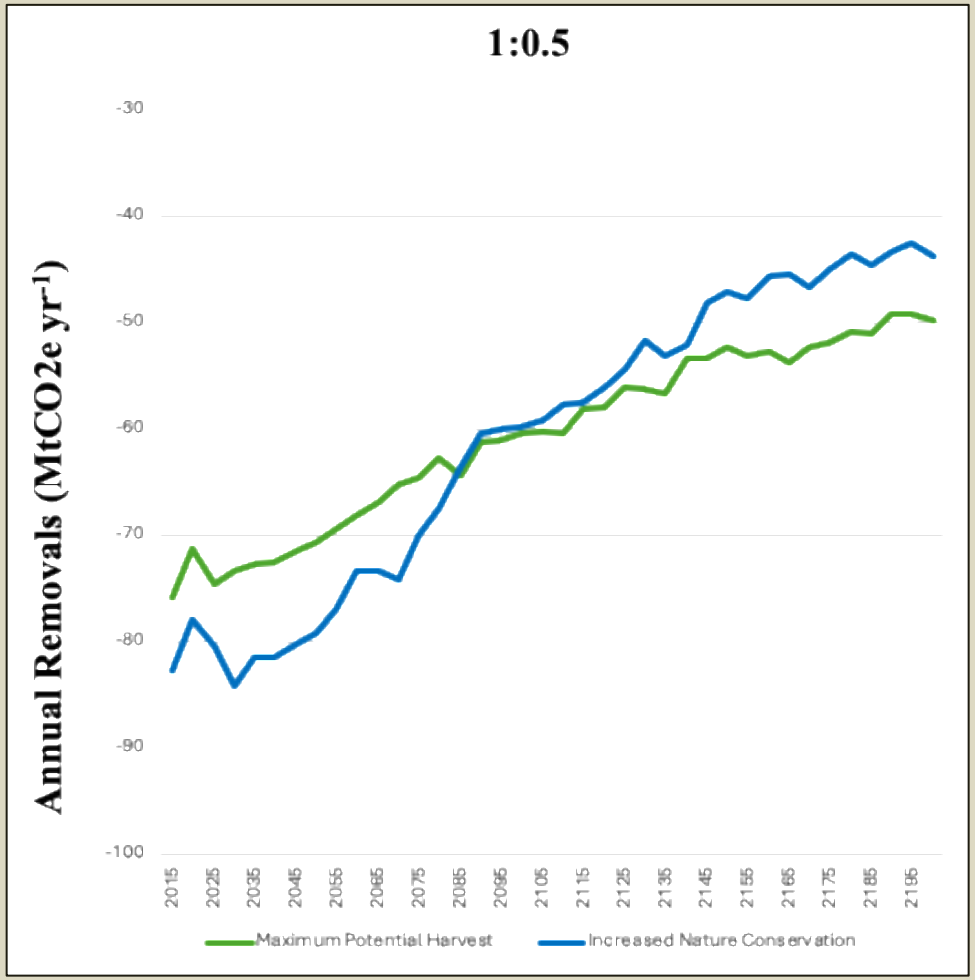
Is this the fault of the forestry sector? Or is this an example of policy failure?

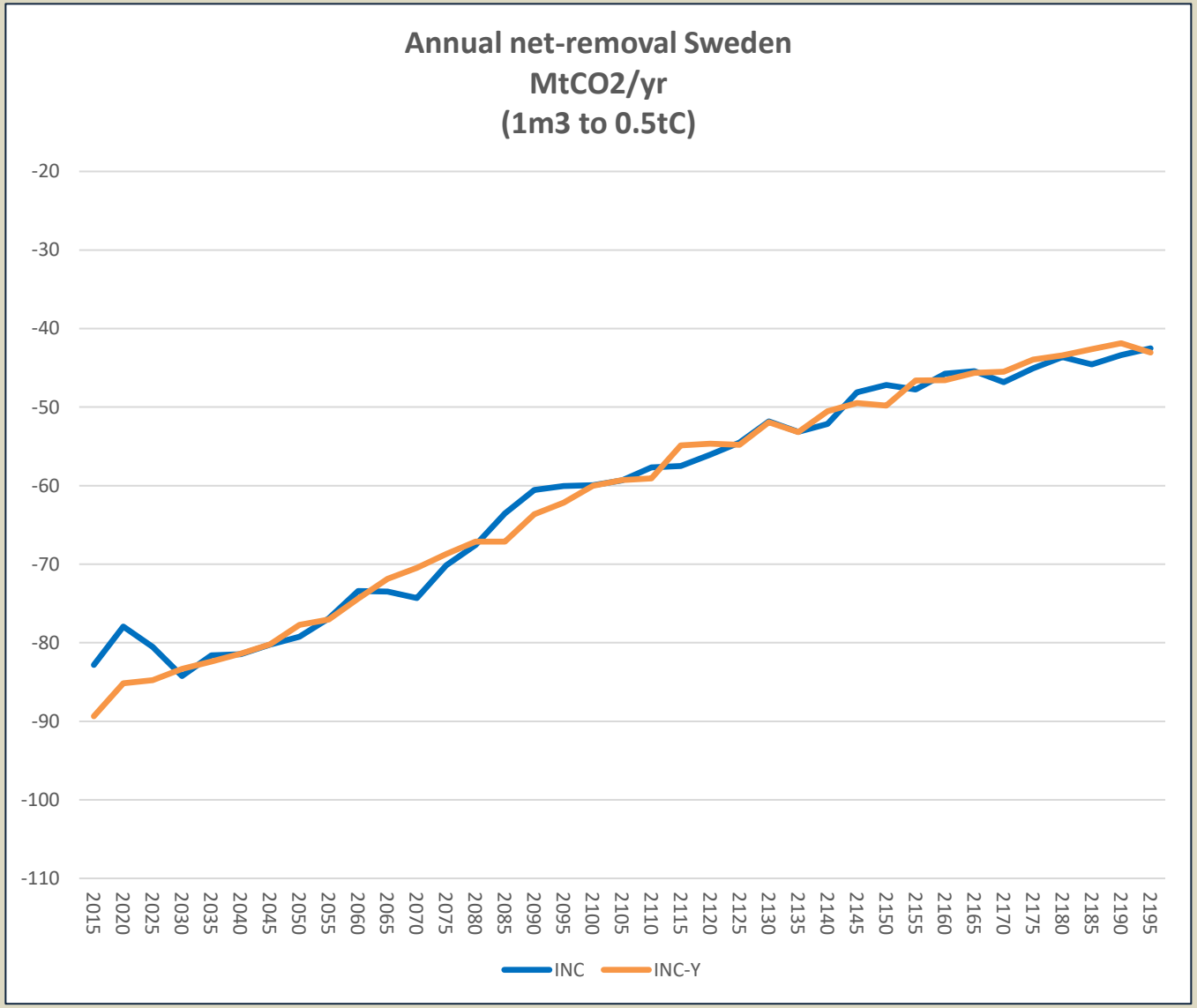
What Role of Forest Set-Asides Played in this General Discussion?



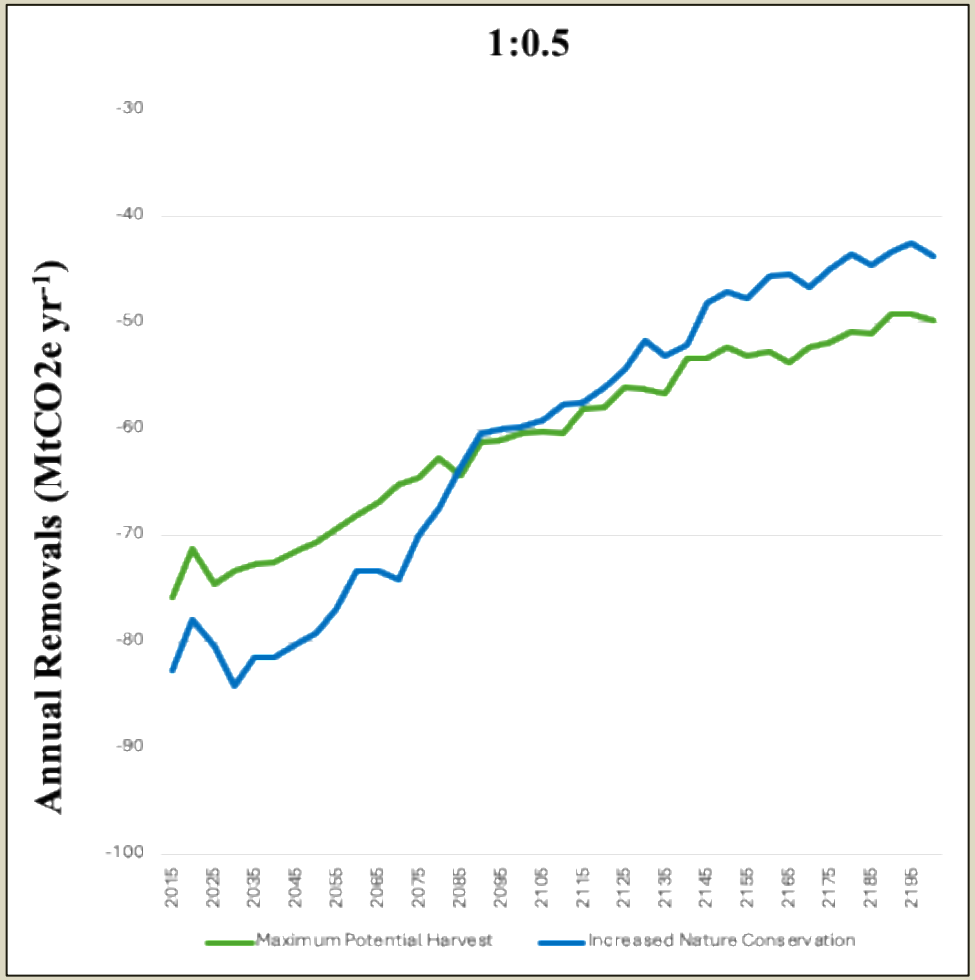


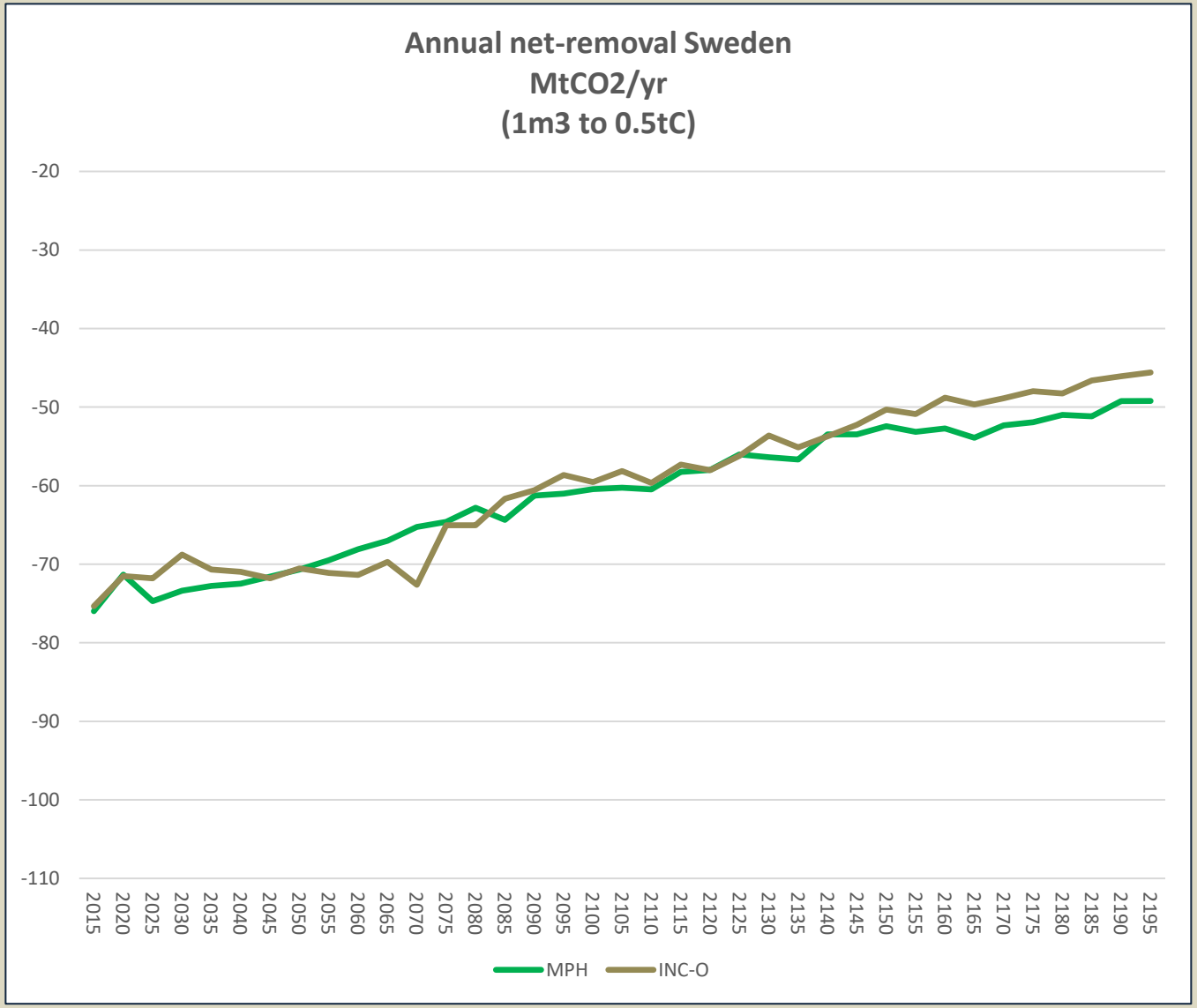
Do Forest Set-Asides Really Matter so Much?





Do Forest Set-Asides Really Matter so Much?





What are the Economy-Wide Consequences of Increasing Forest Set-Asides?

Such economy-wide consequences appear to be significantly under-researched

⇒ We tend to assume that, With the emergence of the circular (bio) economy, all solutions will be well-adapted to climate considerations

- But what exactly is the best alternative to wood-based resources?

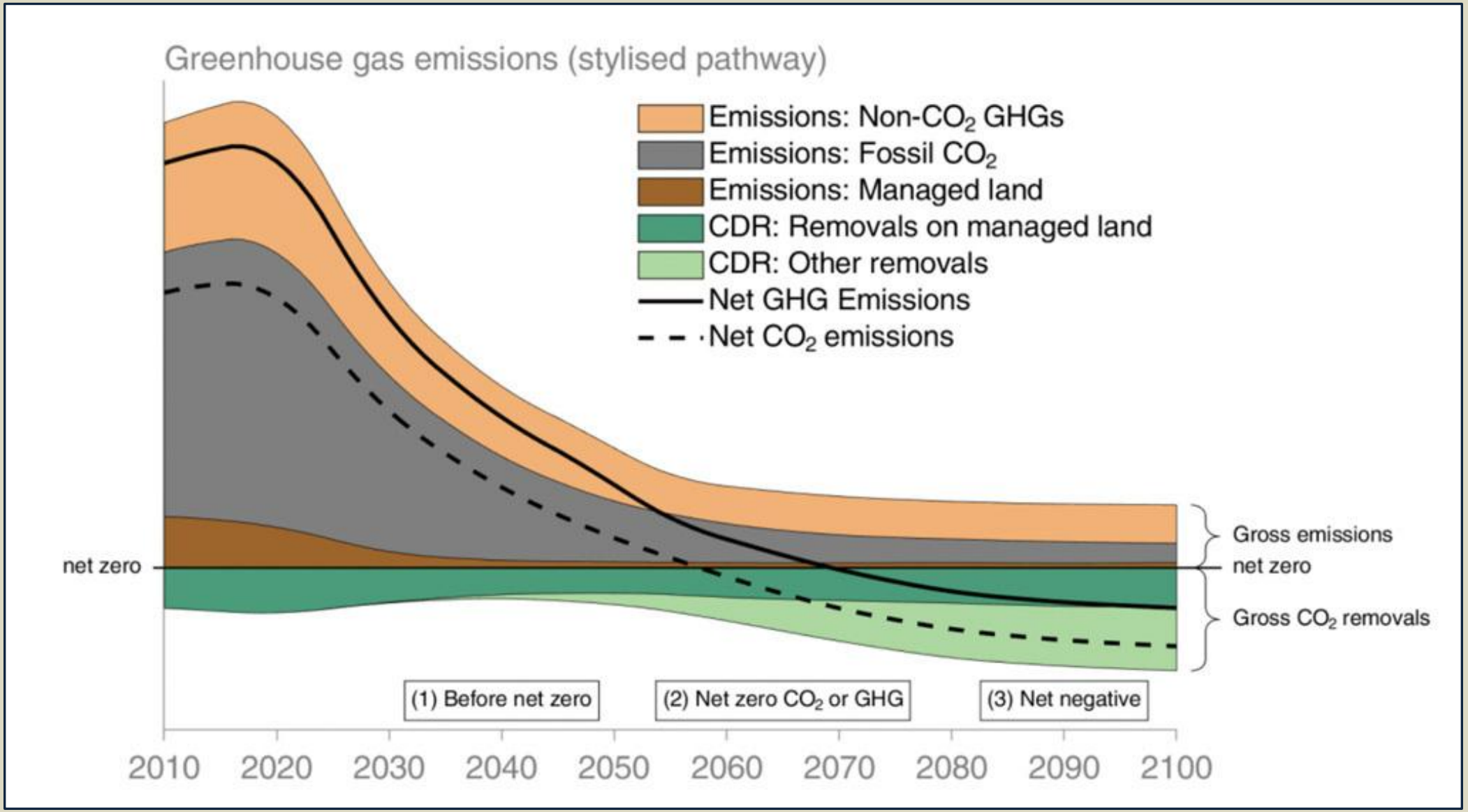
⇒ The complementary products that could replace wood are:

- Plastics, steel, cement, glass…?
- Impact on Emissions…? Reduced CDR potential?

⇒ And how would a 40% drop in harvest intensity affect the economy?

- Embeddedness of the wood resource-based economy
- 300,000 + land and forest owners (in Sweden)

“Negative Emissions” - A Basic Requirement for Decades to Come



Some Preliminary Thoughts

What are the real problems with respect to LULUCF?

⇒ Are these related to our ability to monitor forest growth?
⇒ Or to our capacity to reduce harvest intensity?

⇒ Why are we so focused on "*controlling*" and "*minimizing*" the impact of the land use sector?

⇒ Shouldn't we instead be focused on how best to mobilize and incentivize LULUCF and the forestry sector more generally?

There are of course many synergies across climate and bioeconomy "targets"

⇒ Perhaps we need to learn to take advantage of them
⇒ One place to start might be to create a LULUCF policy framework that is aligned with the goals of the bioeconomy
- And not opposed to them…???

The Need for Clear and Unambiguous Incentives to Invest in the Future Forest Resource

⇒ We must find better ways to successfully promote investment in the future forest

- And we need to do this in a way that *does not discourage and disincentivize* land and forest owners

⇒ Forestry represents one important tool among many for achieving our climate goals.

- Since Substitution is not Accounted for (other than as an emission) in the LULUCF segment, targets, and target setting, fail both to acknowledge and to mobilize Substitution Potential

⇒ Achieving greater policy coherence across climate, biodiversity, bioeconomy and forest resilience goals is a central requirement

- A neutral policy framework would permit Member states to choose between bioeconomy mobilization and reduced harvest intensity
- And thus to maximize potential synergies without losing mitigation potential


Thanks for Listening!
Comments Welcome
(EllisonDL@Gmail.com)

The Attack on the Forest Sector

"***If such a high rate of forest harvest continues***, the post-2020 EU vision of forest-based climate mitigation may be hampered, and ***the additional carbon losses from forests would require extra emission reductions in other sectors in order to reach climate neutrality by 2050***." (*JRC*, Ceccherini et al. 2020)



Article

Abrupt increase in harvested forest area over Europe after 2015

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Check for updates

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Forests provide a series of ecosystem services that are crucial to our society. In the European Union (EU), forests account for approximately 38% of the total land surface[1]. These forests are important carbon sinks, and their conservation efforts are vital for the EU's vision of achieving climate neutrality by 2050[2]. However, the increasing demand for forest services and products, driven by the bioeconomy, poses challenges for sustainable forest management. Here we use fine-scale satellite data to observe an increase in the harvested forest area (49 per cent) and an increase in biomass loss (69 per cent) over Europe for the period of 2016–2018 relative to 2011–2015, with large losses occurring on the Iberian Peninsula and in the Nordic and Baltic countries. Satellite imagery further reveals that the average patch size of harvested area increased by 34 per cent across Europe, with potential effects on biodiversity, soil erosion and water regulation. The increase in the rate of forest harvest is the result of the recent expansion of wood markets, as suggested by econometric indicators on forestry, wood-based bioenergy and international trade. If such a high rate of forest