The Climate Challenge and Possible Roles for LULUCF: the Carrot or the Stick?

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Sustainability of land use sectors in the context of the European Green Deal policies and the current geopolitical realities, Riga, Latvia
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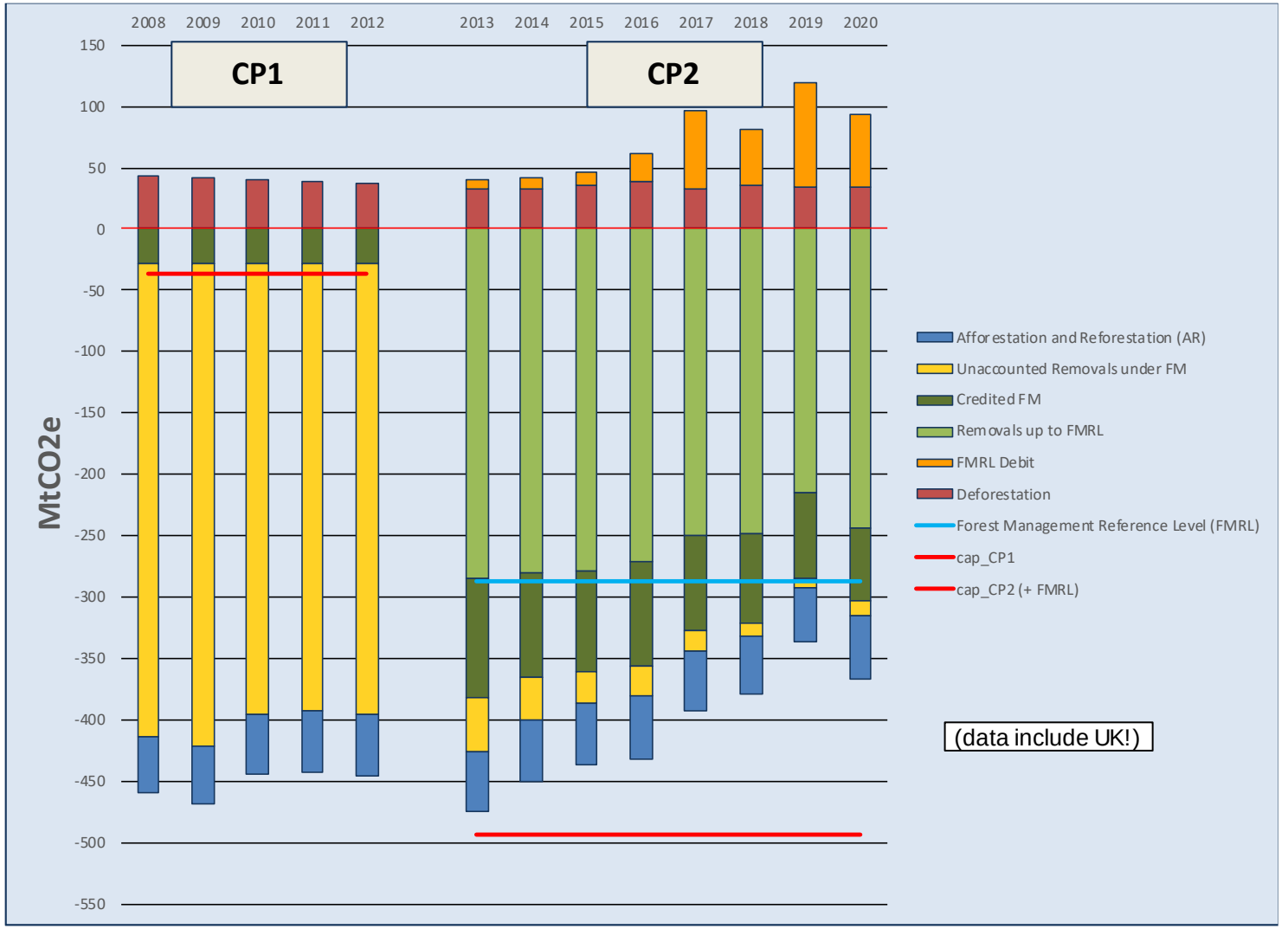
LULUCF Climate Performance in Europe (2008-2020)



- The Problem: over time, there is clearly a 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?)

European Commission LULUCF Proposals

Focus on the Following Goals (the Stick?):

Currently, the EU removes approximately 380 $MtCO_2e\ yr^{-1}$ from the atmosphere, or approximately 10% of 2020 emissions.

By 2030, LULUCF should remove 430 $MtCO_2e\ yr^{-1}$

By 2035, LULUCF should remove 480 MtCO2e yr -1

And by 2050, LULUCF should remove 550 MtCO2e yr -1

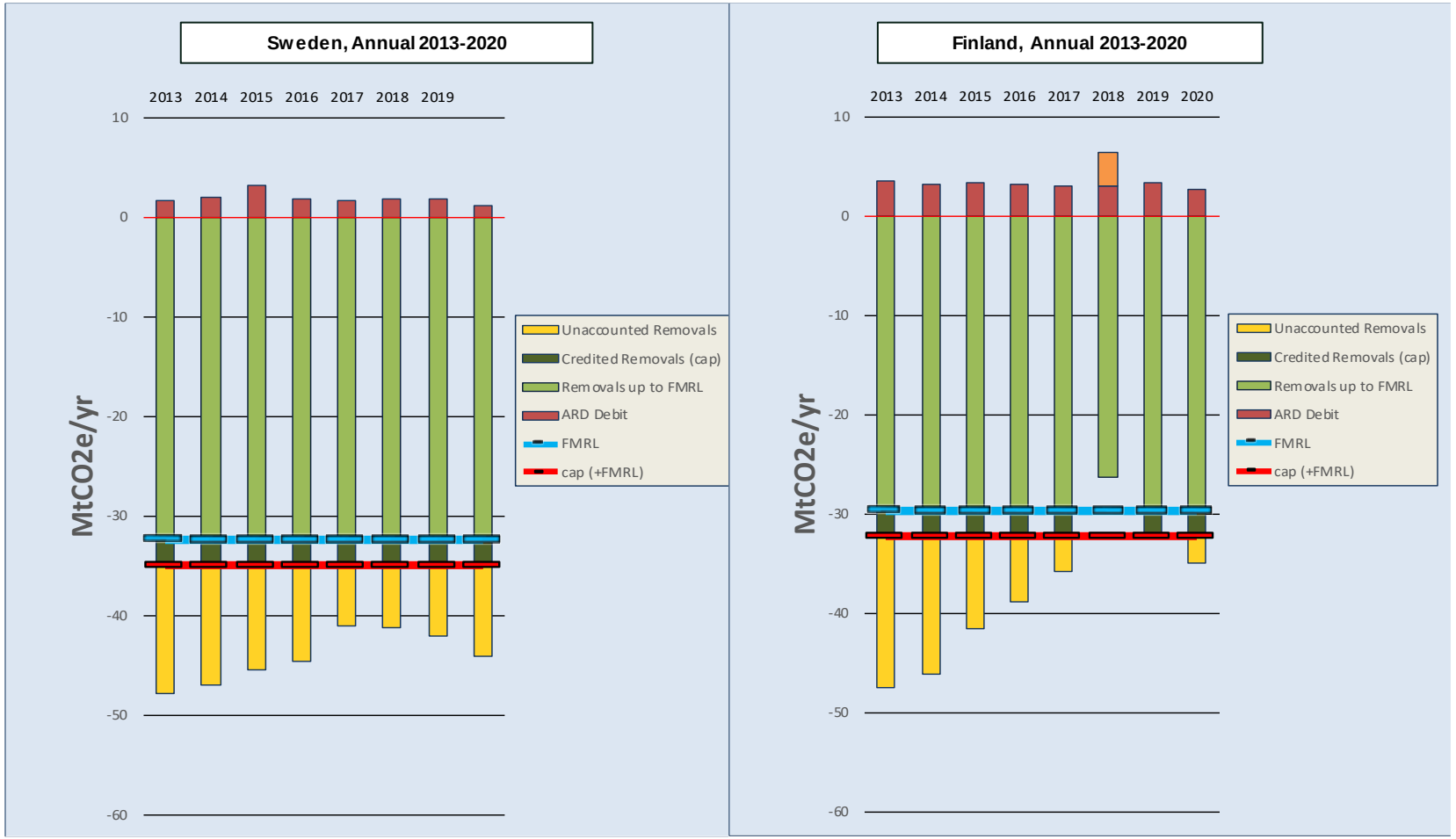
What is really the argument here?

What are the most appropriate tools for achieving these mitigation goals?

Should the principal focus really be:
'to reduce the role of forestry?'

What Effect do the FRL and the cap have?

What message is the EU sending?

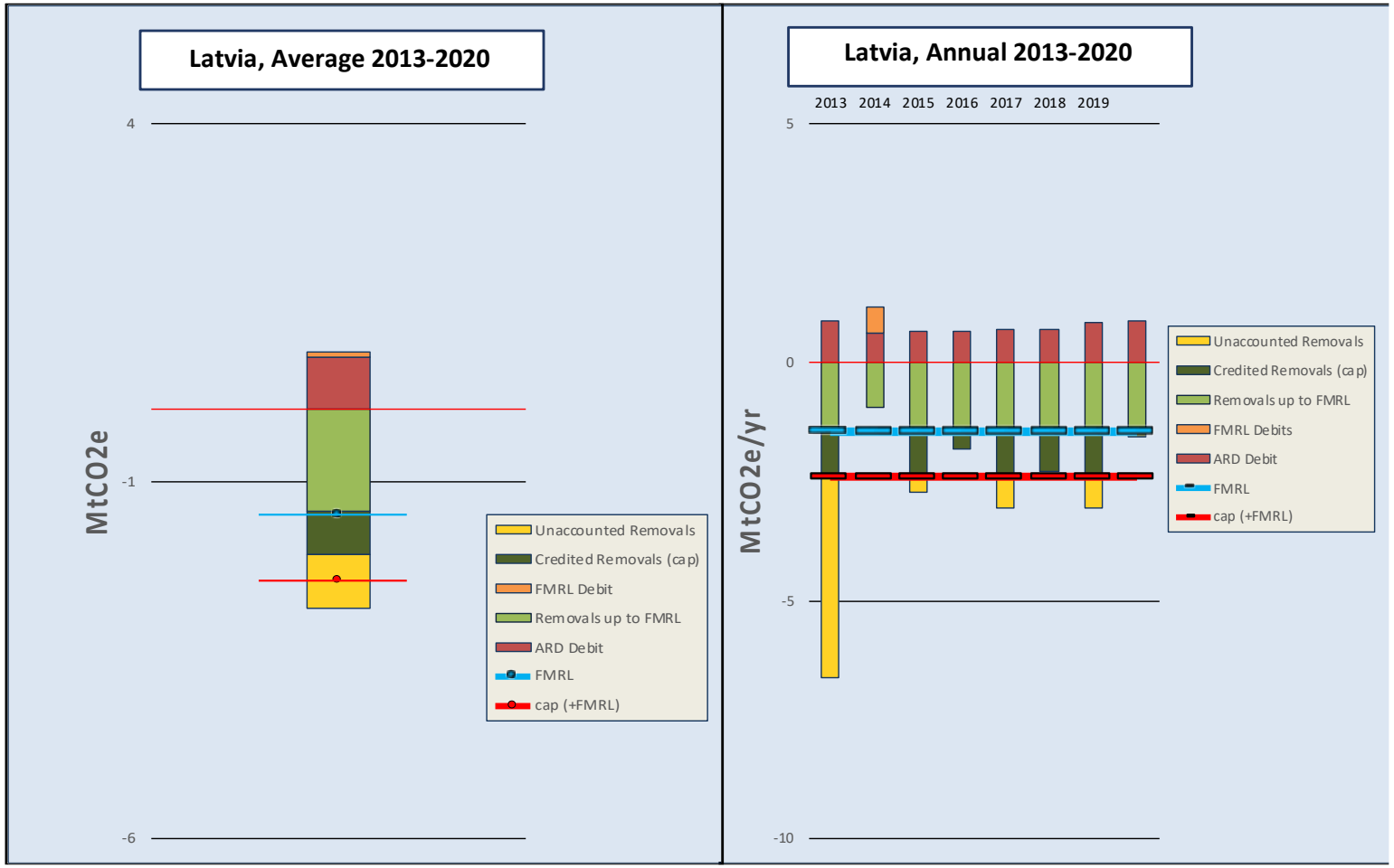


Bioeconomy Strategy vs. Focus on the Land Carbon Sink?

Can Sticks be Turned into Carrots?

What Effect do the FRL and the cap have?

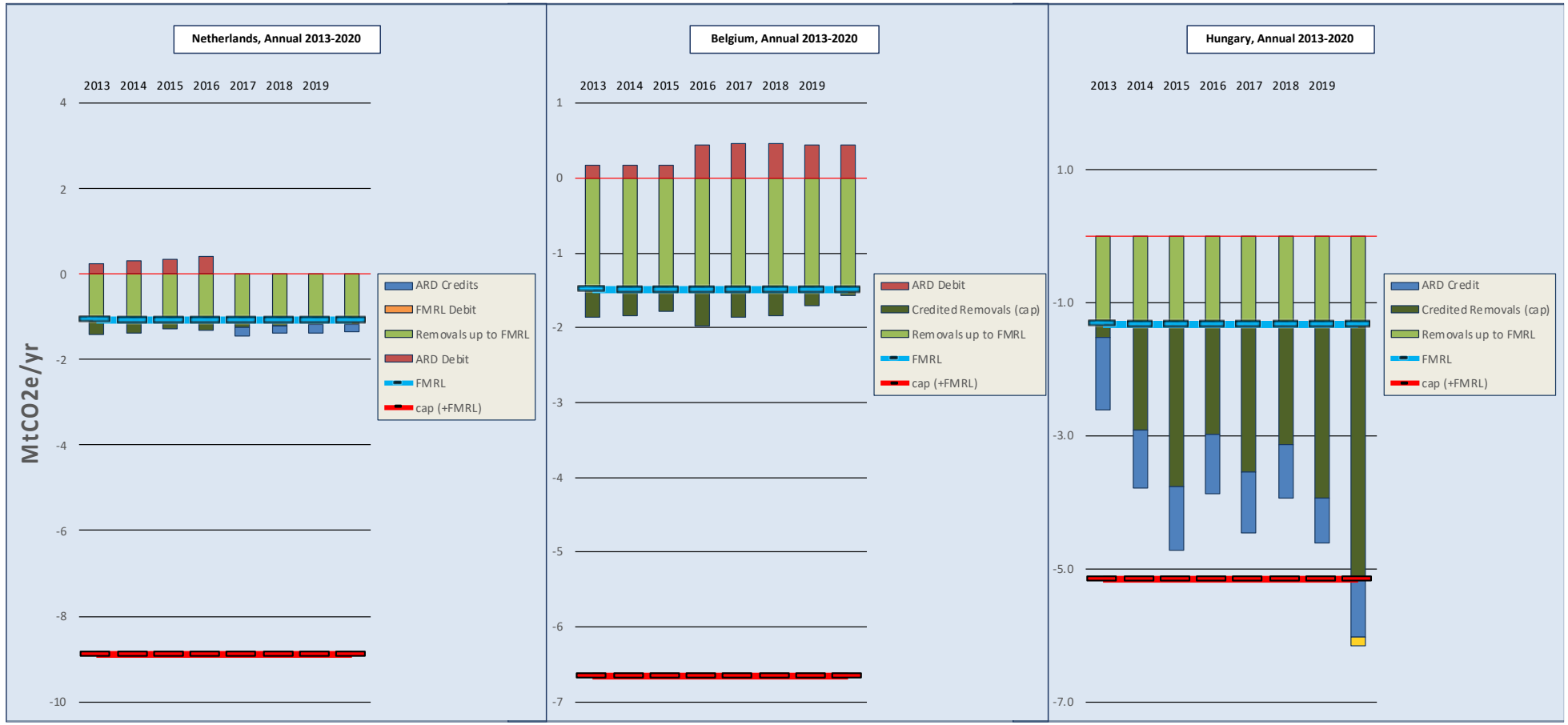
How does Latvia read the EU message?



Bioeconomy Strategy vs. Focus on the Land Carbon Sink?

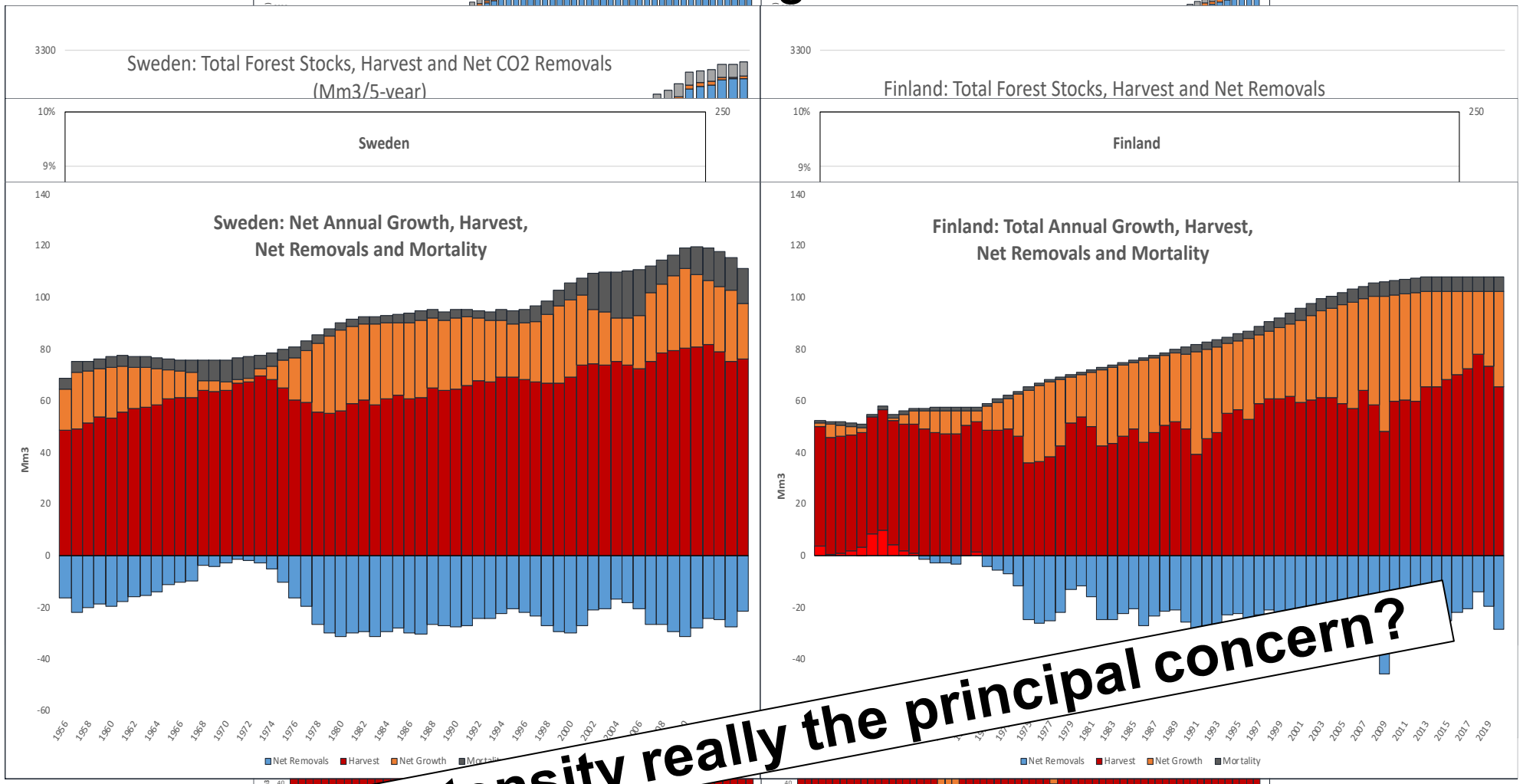
How can we shift from Negative to Positive Incentives?

Does the LULUCF strategy work for all Member states?



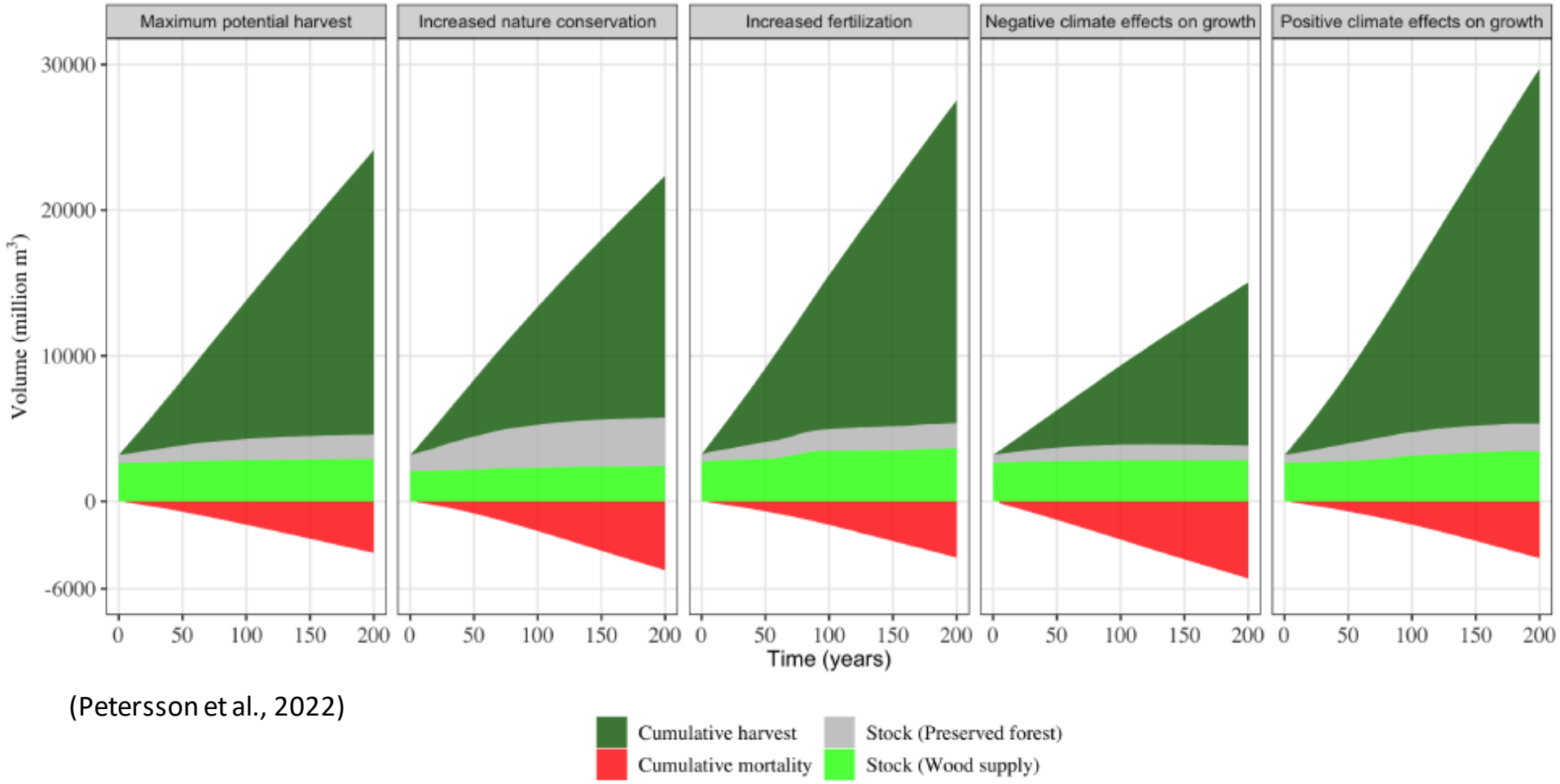
- Can LULUCF Policy Create “Positive” Incentives for All Member States?

How serious is the problem of harvest intensity?
What are the Long-Term Trends?



Is harvest intensity really the principal concern?

Maximizing harvest intensity vs. Increasing Conservation



(Petersson et al., 2022)

- Increasing harvest intensity also means we can plant more forest

Substitution Effects and the Potential Benefits of the Bioeconomy

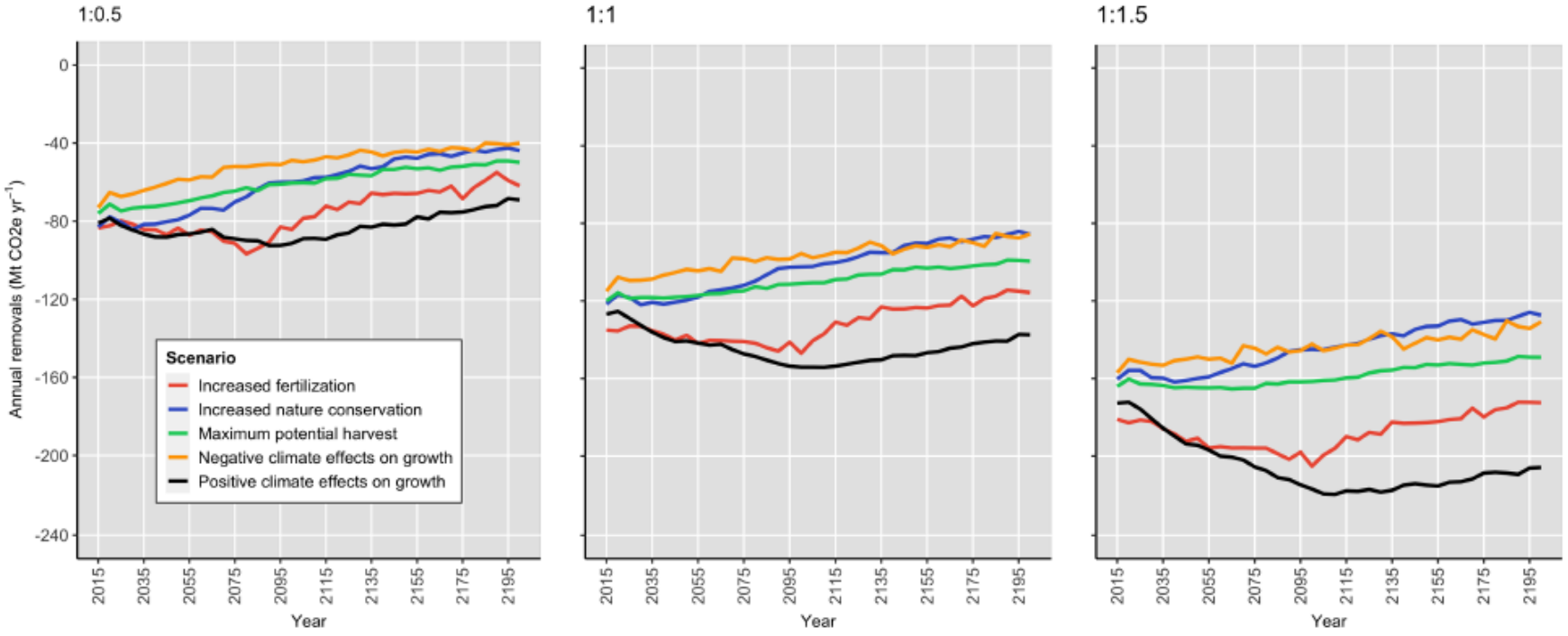
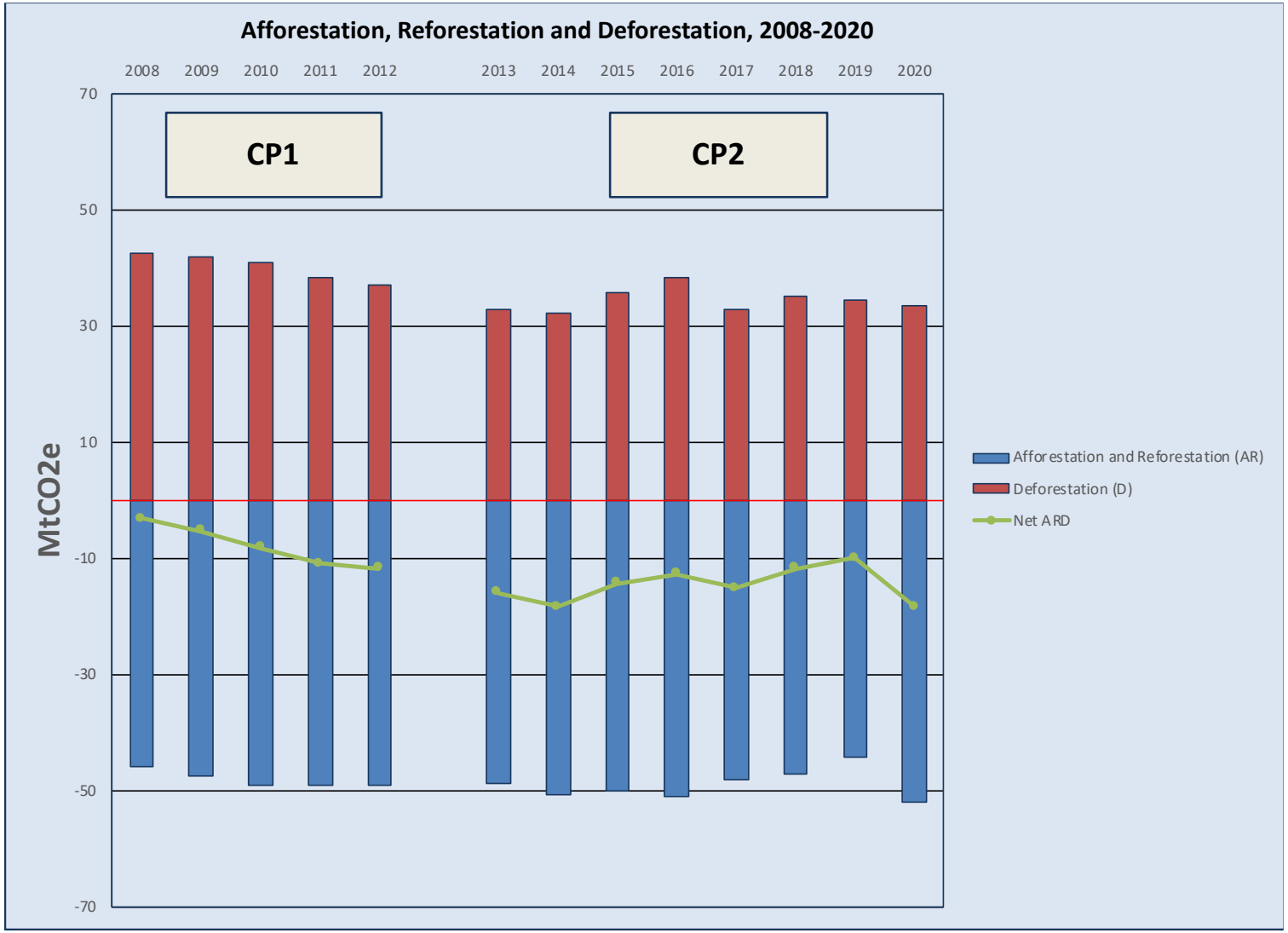


FIGURE 2 Total annual estimated net carbon sequestration and substitution, selected scenarios (2015–2195). The scenarios include changes in all carbon pools (see Table 2) and substitution for three different assumed substitution effects (0.5, 1 and 1.5 tonne CO_2e per m^3 stem wood)

(Petersson et al., 2022)

- Potential Advantages of Public Policy, Fertilization?

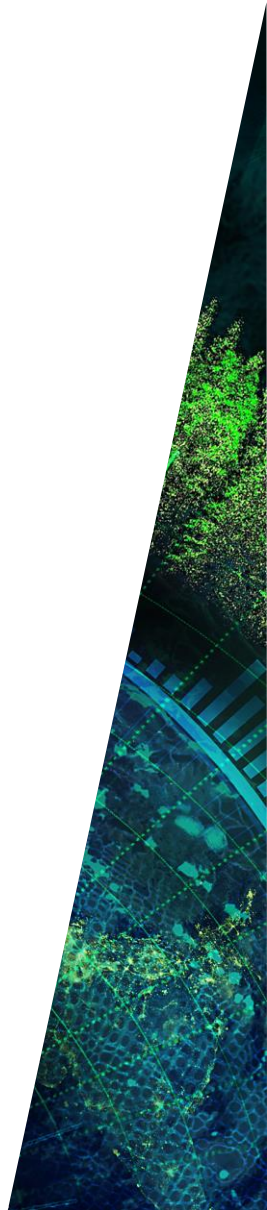
Should we focus Less on Forestry, More on Protected Forests?



Net ARD in 2020 represents only -18 $MtCO_2e$ (MFL: -410 $MtCO_2e$)

Can these Dilemmas be Resolved?
What does a Carrot look like?

- If the problem is NOT harvest intensity:
  - What factors weaken the EU strategy and why has it failed to deliver increasing net removals?
- Are Mixed Incentives a Problem?
  - How are the investment strategies of land and forest owners affected by EU LULUCF policy? (cap, FRL)
  - What messages do FRLs send to bioeconomy aspirations?
- The EU LULUCF framework was written to govern Member states.
- NOT written to drive/propel micro-level action by land and forest owners.
- => land and forest owners and the motivations that drive them have, for the most part, been ignored.
- => the EU LULUCF Framework was *not designed to mobilize* forestry (sets limits: caps, FRL, compartmentalization).



Why Mixed, Unaligned Incentives Matter

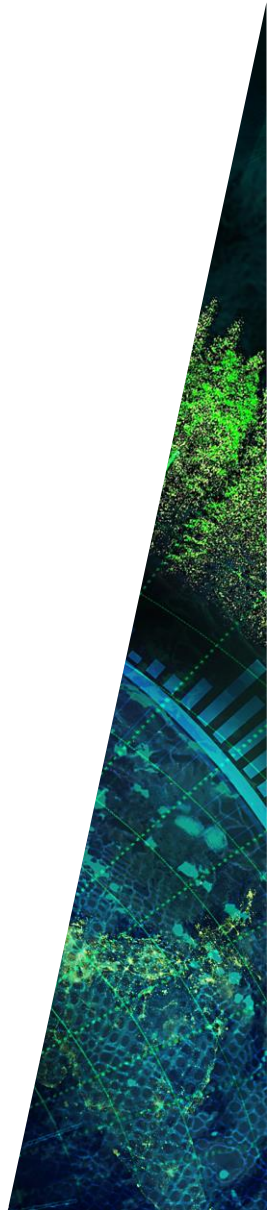
Incentives Faced by Forest Owners and National Governments (Parties) under the New EU LULUCF Policy Framework for Commitment Period 3 (2021-2030)

EU Managed Forest Land Framework			Party/Government perspective		Landowner perspective			
Scenario	Net Removals (From–To)	Accounting Options	Paris Agreement and NDC-based Incentives (1)	Promote Growth (G)/ Harvest (H)? (2)	Economic Drivers (3)	With Government Intervention & Incentives (4)	Logic (5)	Possible Mechanisms (6)
(1)	**0 - FRL**	Debits Only (Target/Commitment)	Standing Forest	G	HWP, Bioenergy	Standing Forests, HWP and Bioenergy	fully incentivized G/H	Carbon Price (Tax/ETS), carbon neutrality, CS Standing Forest Payments, HWP Carbon Pool incentives
(2)	**FRL - cap**	Credits Only	Standing Forest	G	HWP, Bioenergy	Standing Forests, HWP and Bioenergy	fully incentivized G/H	
(3)	**Surplus beyond cap to Flexibility Limit**	Credits can be transferred to LULUCF activities & ESR	Harvest for bioenergy, HWP not significantly different from Standing Forest	G/H	HWP, Bioenergy	Standing Forests, HWP and Bioenergy	fully incentivized G/H	
(4)	**Flexibility Limt - Total MFL removal**	Credits for HWP removals (only)	Harvest for HWP and Bioenergy (with cascading, preference for HWP)	H	HWP, Bioenergy	Harvest for HWP and Bioenergy (with cascading, preference for HWP)	Standing forests not incentivized H	+ Legislate Cascading

- The EU fails to consider incentives to land and forest owners.
- And the EU framework sets relatively strict limits on carbon offsetting potential.

Imaginative & *Inventive*
Climate Policy Frameworks

- Defining a LULUCF strategy based on positive incentives (what a Carrot looks like)
  - Full flexibility (no Pillars / no Compartmentalization)
  - Full tradability across sectors
  - Neutrality (no favoring individual strategies)
  - Additional Floating Commitment (FRL equivalent)
    - (problem of where bioenergy is accounted)
    - Member states can choose optimal strategy
  - Eliminate the FRL and the cap
  - Account all LULUCF emissions/removals from a “0” baseline
  - IPCC, negative emission role of forests?



Thanks for Listening!

Comments Welcome
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