

Hvad er fup og fakta om danske produktionsskove?

Niclas Scott Bentsen

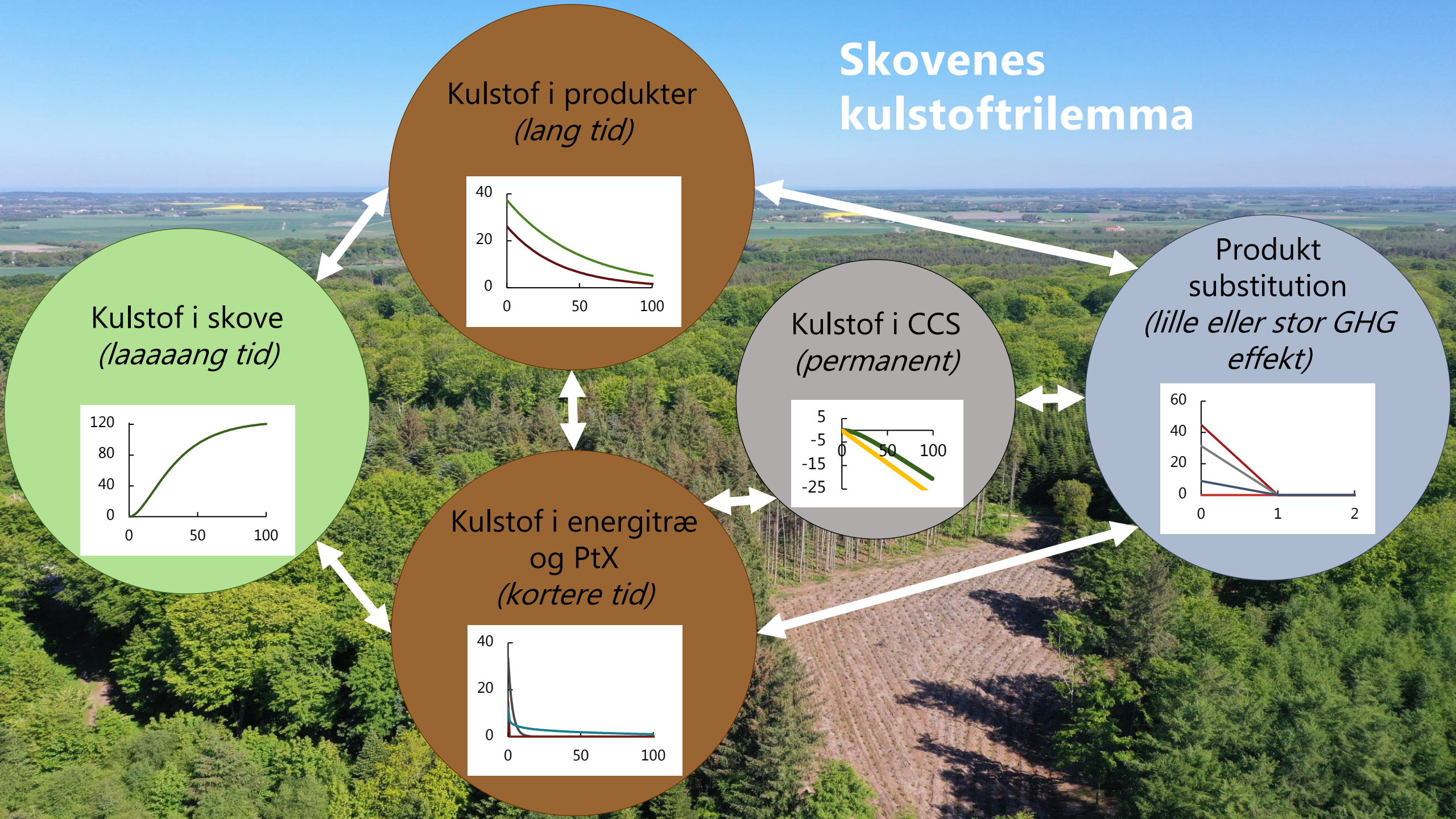
Lektor, PhD

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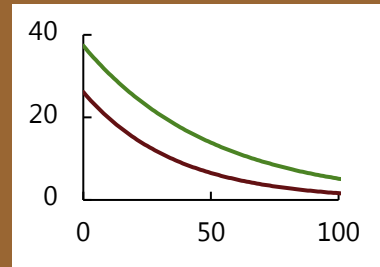
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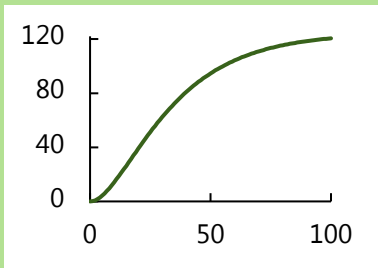
Skovenes kulstoftrilemma



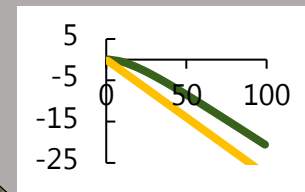
Kulstof i produkter
(lang tid)



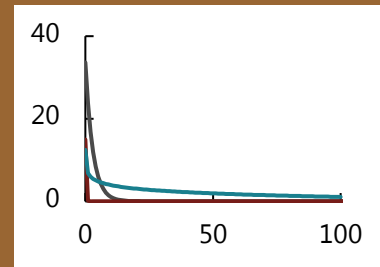
Kulstof i skove
(laaaaaang tid)



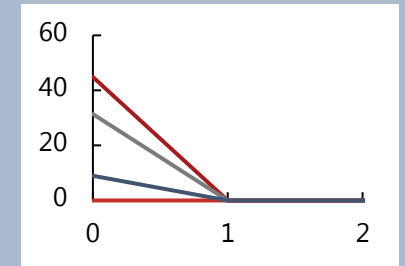
Kulstof i CCS
(permanent)



Kulstof i energitræ
og PtX
(kortere tid)

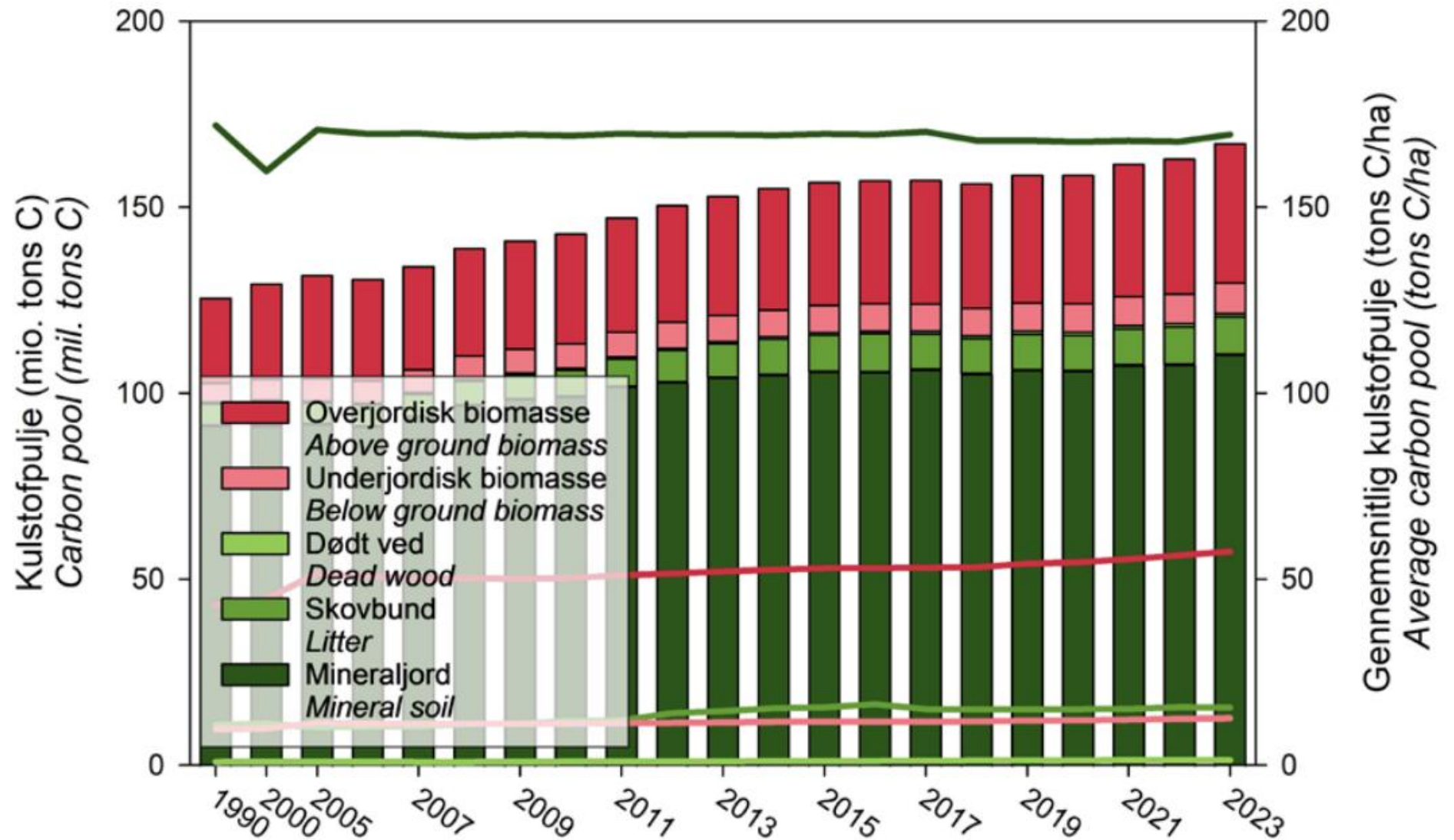


Produkt
substitution
(lille eller stor GHG
effekt)



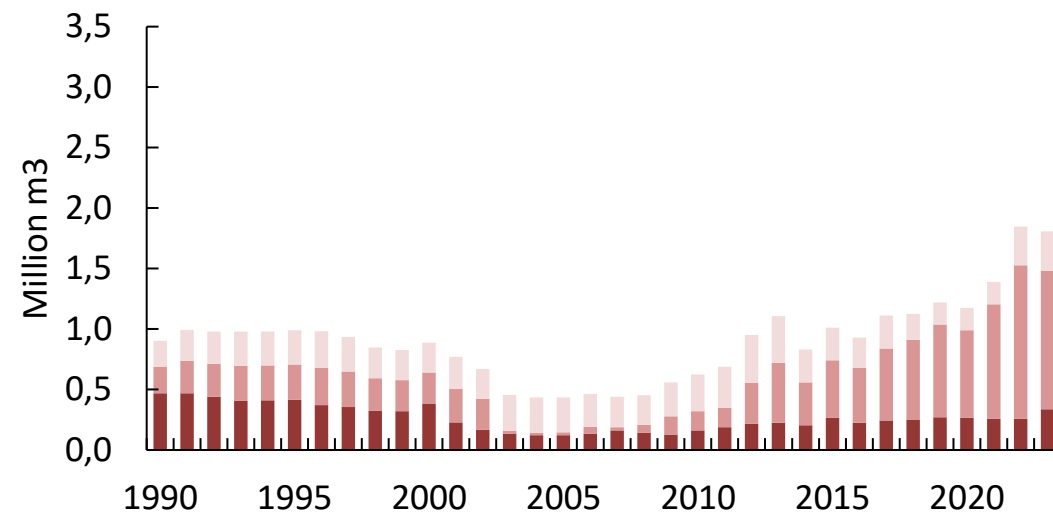
Kulstof i de danske skove

Thomas Nord-Larsen, Torben Riis-Nielsen, Iben Margrete Thomsen, Niclas Scott Bentsen, Bruno Bilde Jørgensen, Annemarie Bastrup-Birk og Vivian Kvist Johannsen (2025). Skovstatistik 2023, Institut for Geovidenskab og Naturforvaltning, Københavns Universitet, Frederiksberg. 77 s. ill.

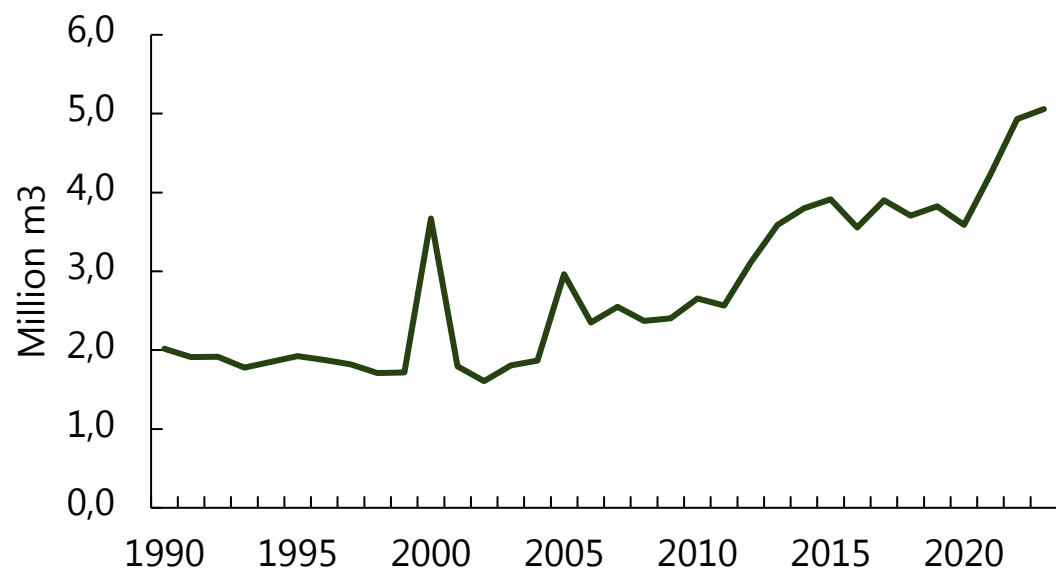


Hugst

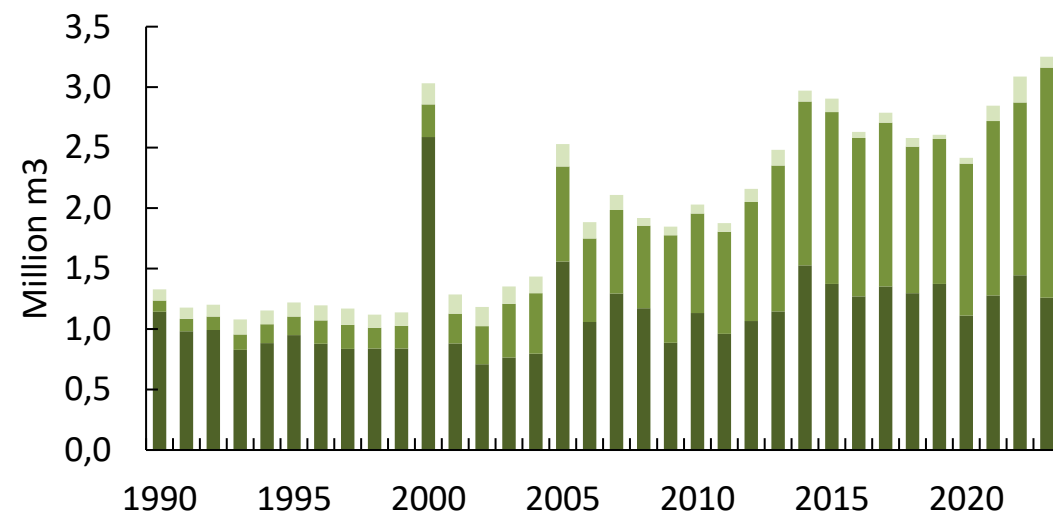
■ Broadleaved - Industrial wood ■ Broadleaved - Energy wood
■ Broadleaved - Firewood



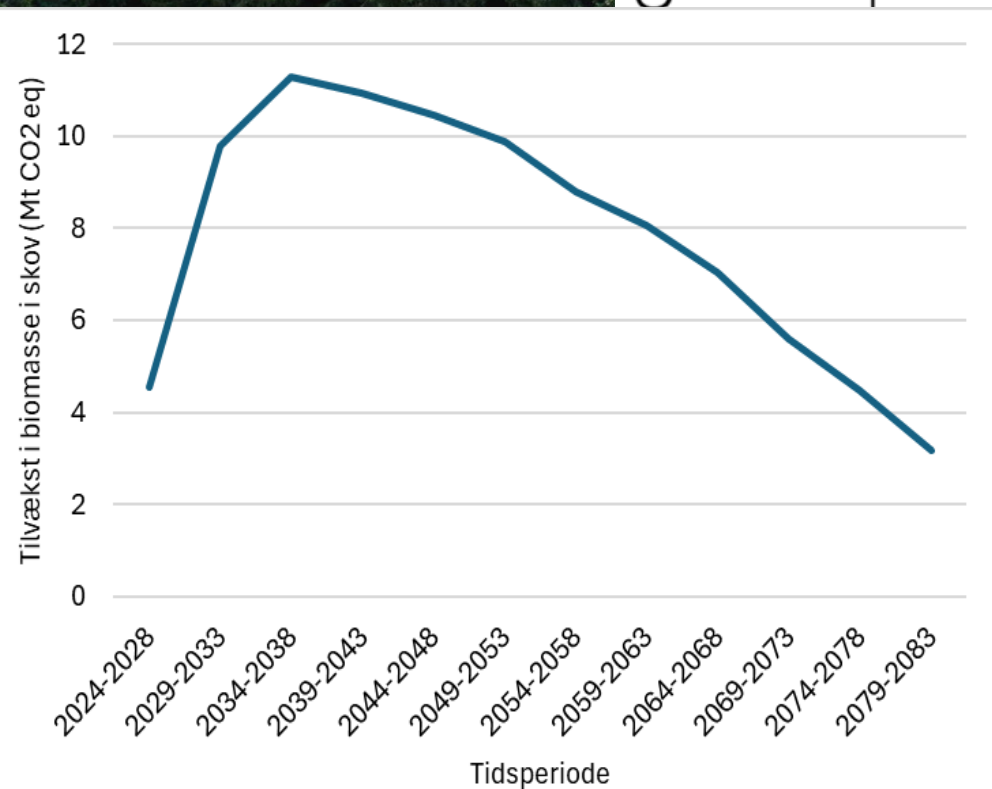
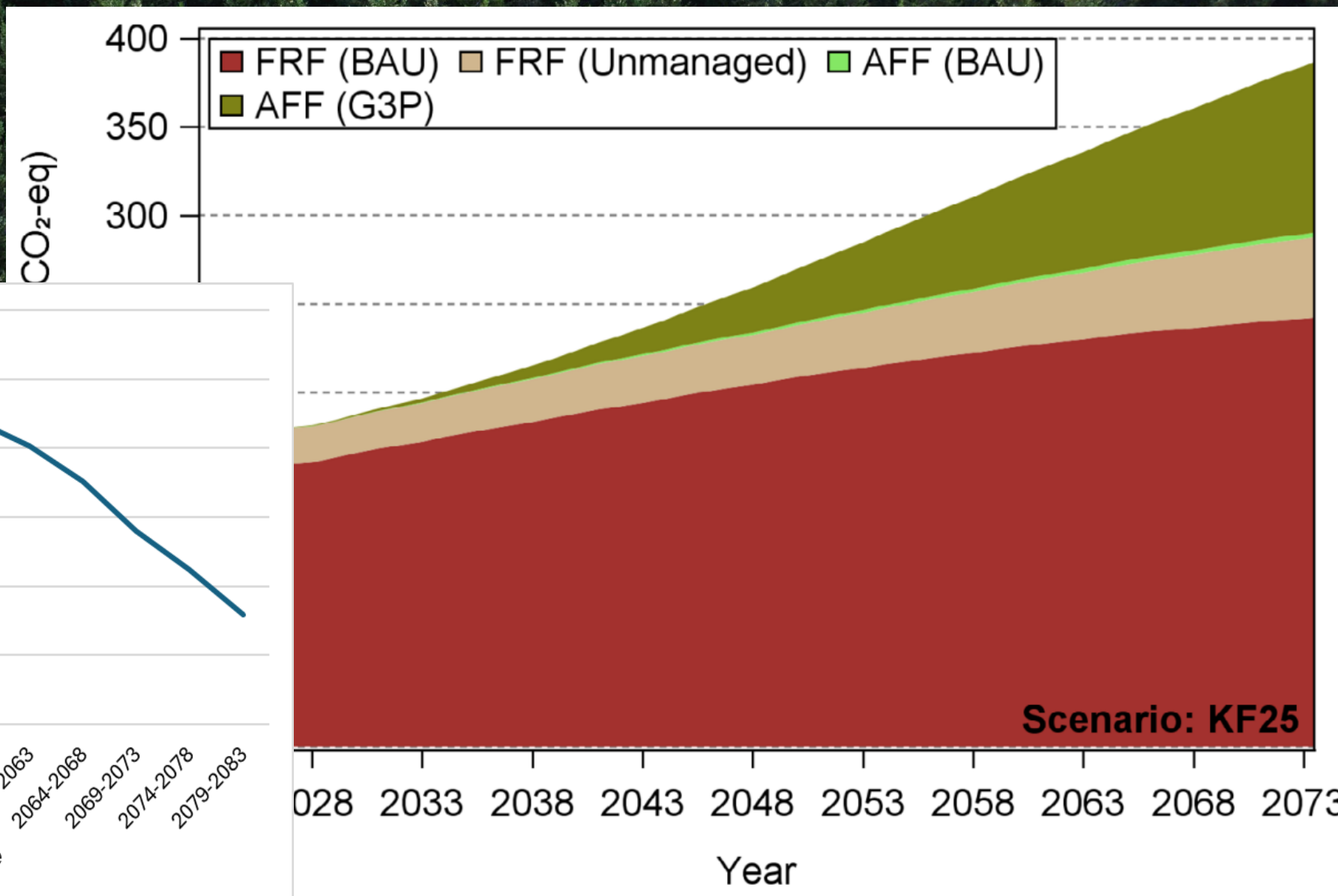
— Total harvest



■ Coniferous - Industrial wood ■ Coniferous - Energy wood
■ Coniferous - Firewood



Kulstof i skoven

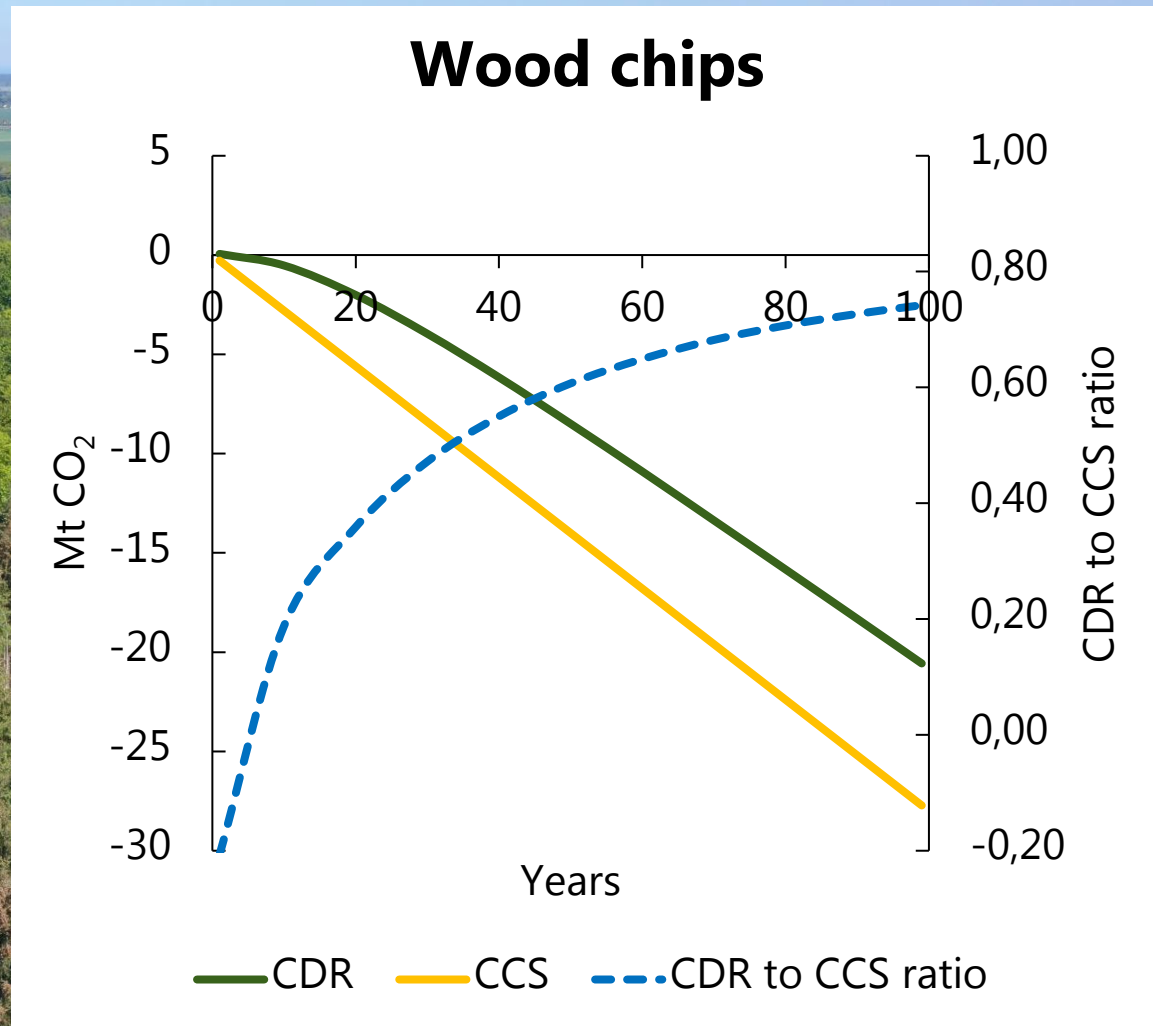


Permanent kulstoflagring via BECCS

En teknisk løsning på behovet for negative emissioner.

Der er forskel på mængden af CO_2 , der fanges og lagres (CCS) og mængden af CO_2 , der forsvinder fra atmosfæren (CDR).

Kulstoflagring har en kulstofomkostning.



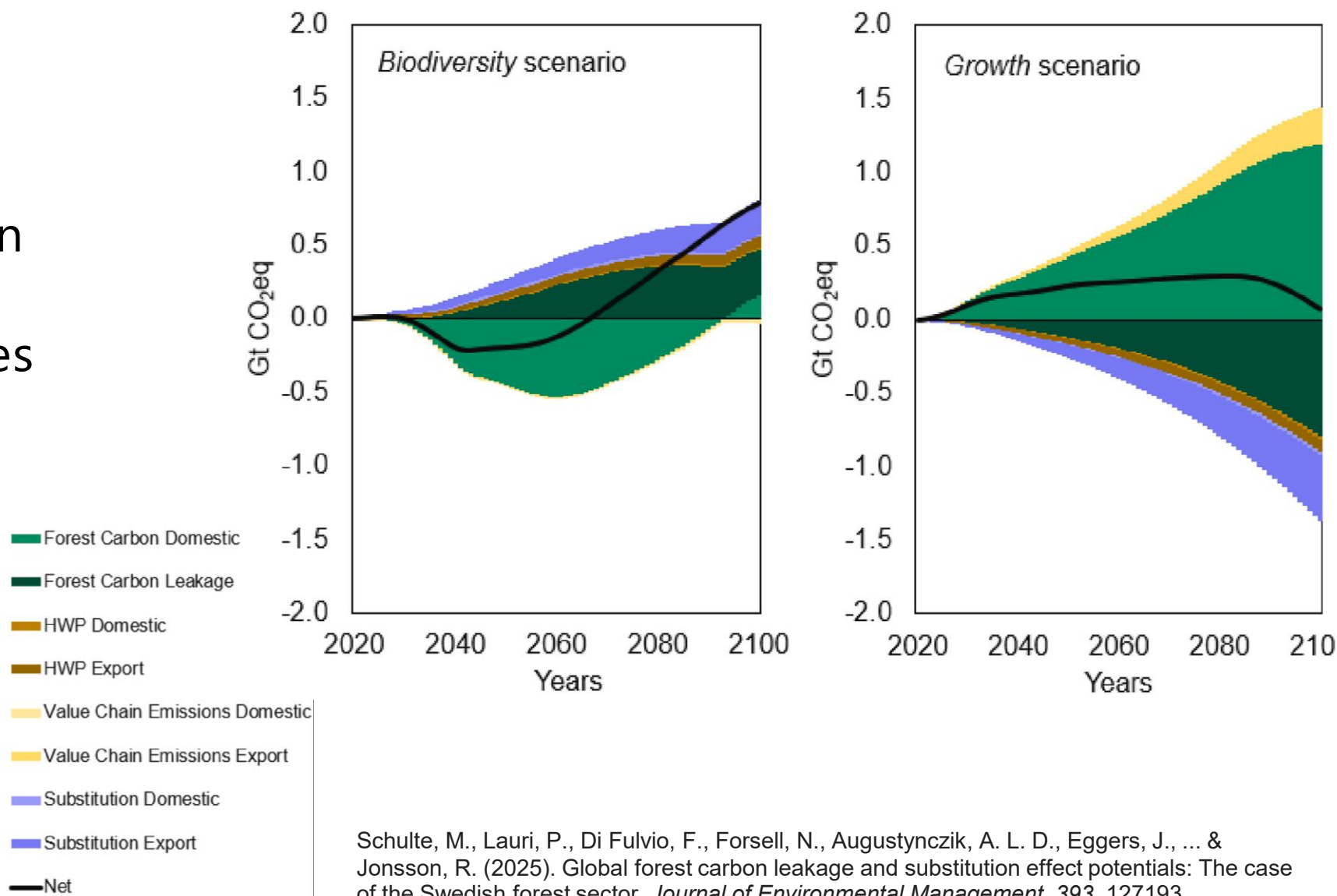
Adopted from : Weimann, G. G., & Bentsen, N. S. (2024). Potential for carbon dioxide removal of carbon capture and storage on biomass-fired combined heat and power production. GCB Bioenergy, 16(9), e13184.

Produktsubstitution er specifik i tid og rum

Et eksempel fra Sverige.

Ekstensivering giver en umiddelbar klimagevinst som tabes over tid.

Intensivering giver en umiddelbar klimapåvirkning som hentes hjem over tid.

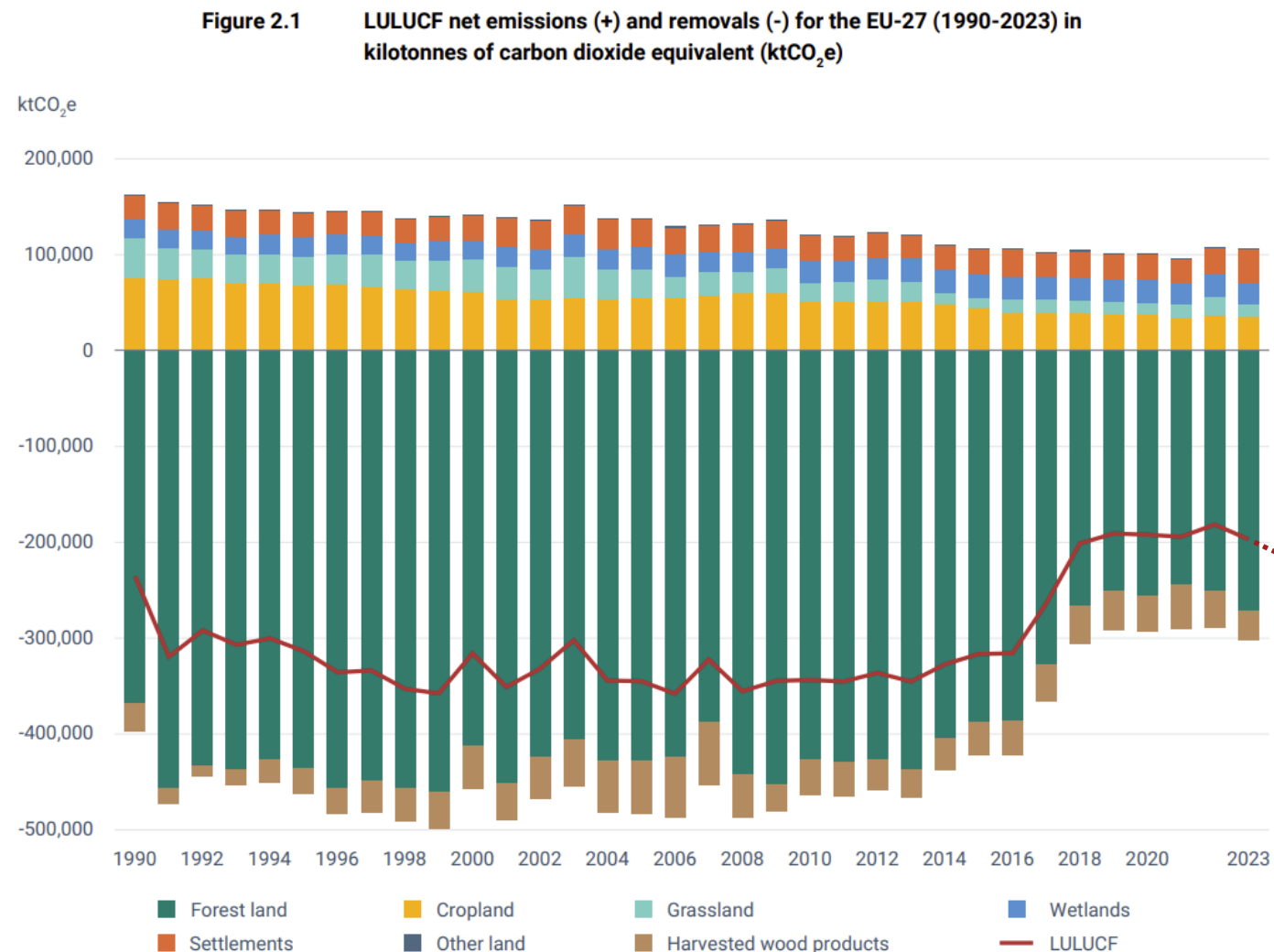


Schulte, M., Lauri, P., Di Fulvio, F., Forsell, N., Augustynczyk, A. L. D., Eggers, J., ... & Jonsson, R. (2025). Global forest carbon leakage and substitution effect potentials: The case of the Swedish forest sector. *Journal of Environmental Management*, 393, 127193.

Er Europas skove ved at miste pusten?

Fra 2014 til 2023 har landsektoren (LULUCF) mistet ~30% af nettooptaget.

EU har et mål om at landsektoren skal have et nettooptag i 2030 på 310 Mt CO₂.



Er Europas skove ved at miste pusten?

Figure 2.4 Emissions (+) and removals (-) per land use category and EU Member State in 2022 in ktCO₂e

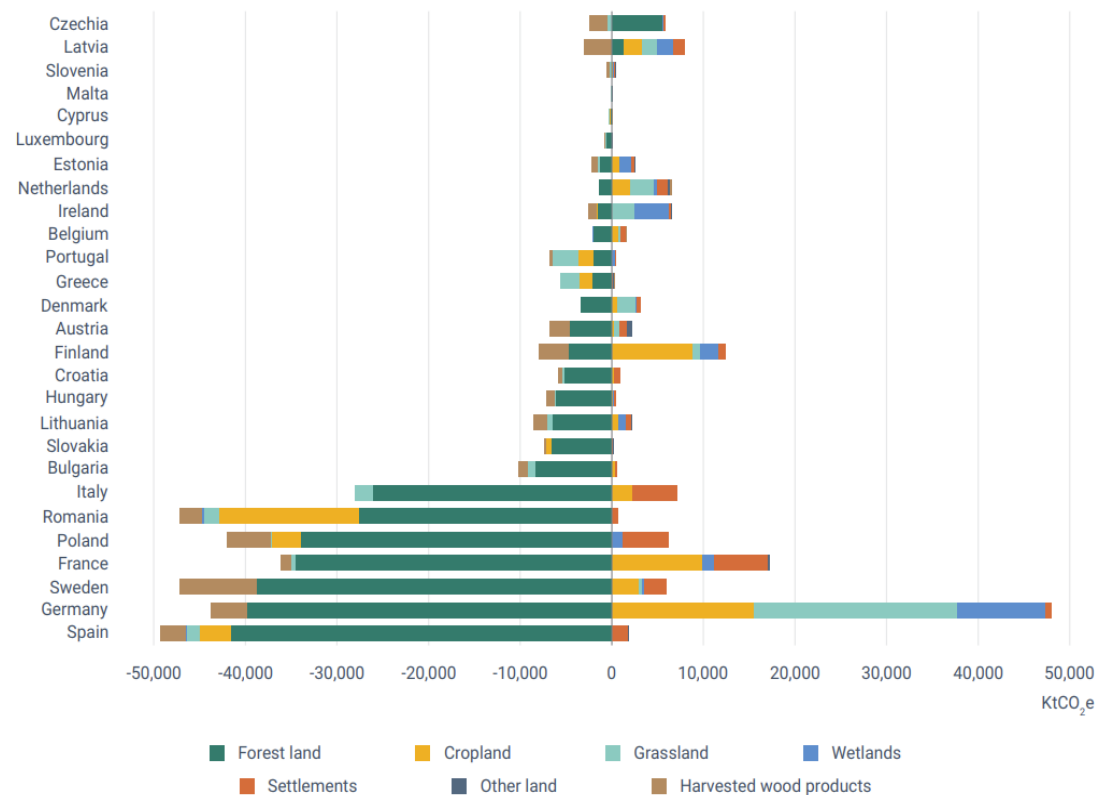
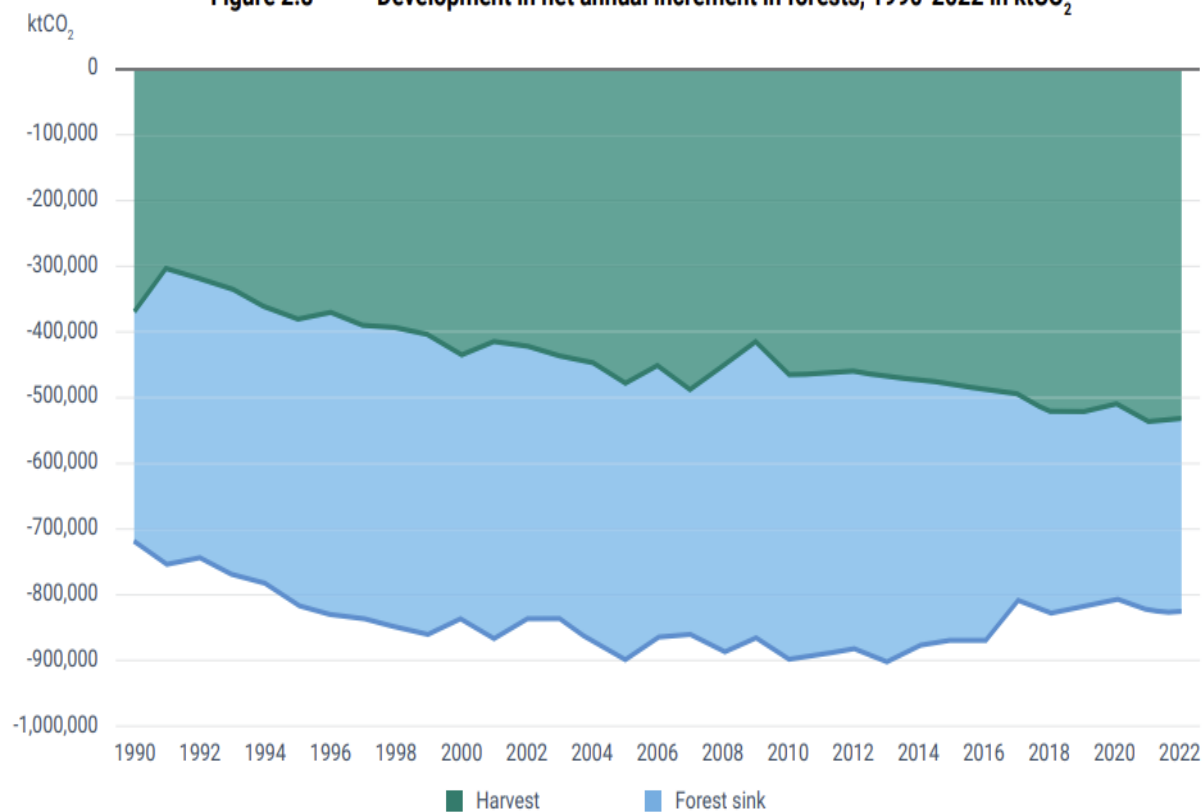
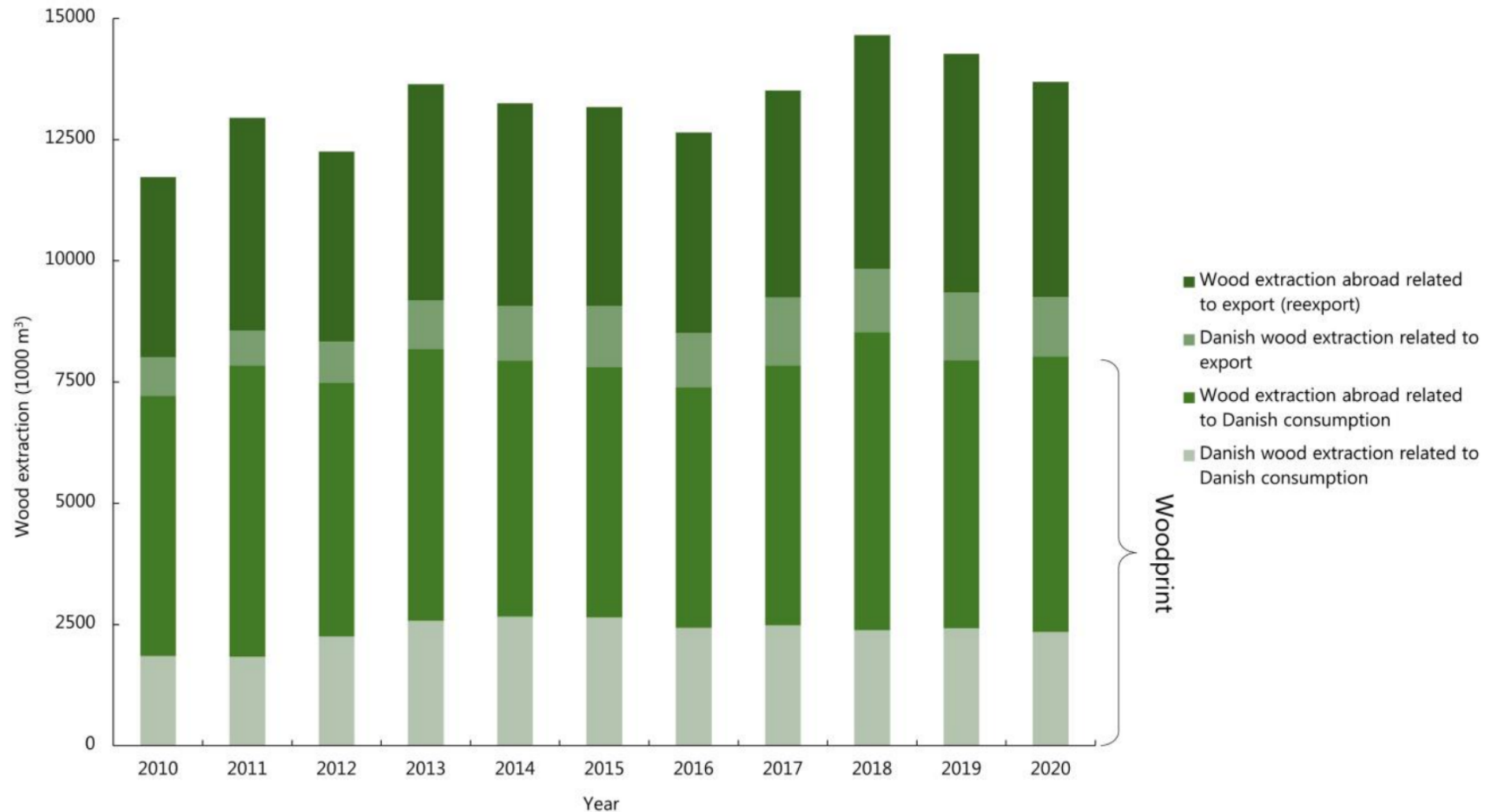


Figure 2.8 Development in net annual increment in forests, 1990-2022 in ktCO₂



Import af træ





Tak for opmærksomheden