Technical corrections to the forest reference levels

Tarja Tuomainen 23 May 2024, JRC LULUCF Workshop





Exercise to implement a technical correction to the forest reference level

Case Finland



Topics of the presentation



Overview of the situation of the LULUCF sector and forests, and what led to the calculation of the technical corrections



Requirement of the consitency between FRL and GHGI



Two technical corrections



Summary



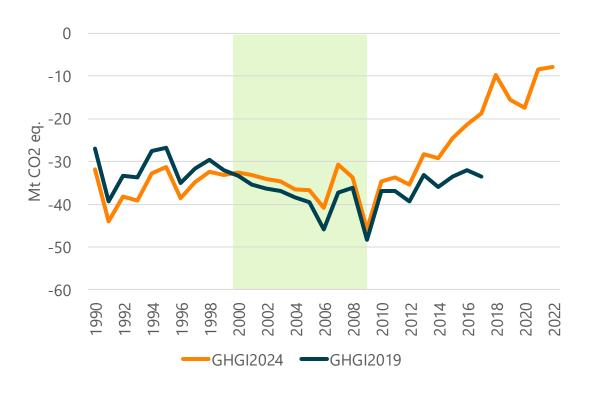
Why the technical corrections were made now?

- The net sink of forest land has decreased from -47.8 Mt CO_2 eq. in 2009 to -4.8 Mt CO_2 eq. in 2022.
- LULUCF sector turned from a net sink to a net source first time in 2018, and being a source of 4.4 Mt CO₂ eq. in 2022.
- Will Finland achive the LULUCF commitments under the Regualtion (EU) 841/2018?
 - Are the planned and implemented policies adequant?
 - Is there also impact on the Forest Reference Level? -> YES



Consistency between the FRL and the GHGI

Managed forest land in 2024 and 2019 GHGIs



Changes made in the GHGI not considered in the FRL or revised FRL

- Forest definition (Reg. (EU) 2023/839) and Managed Forest Land area
- Different method to estimate CO₂ emissions from drained peat soils
- Tree biomass gains recalculate 1990 to 2013
- Corrected statistics on total drain of stem wood from 1990 to 2018
- Restoration burnings included as a new source
- AR5 GWPs for CH₄ and N₂O



How the technical corrections were carried out?

Procedure adapted to one used for FRL

- GHGI 2023/2024
 - Data for years 2000 to 2009
 - CH₄ and N₂O emissions 2000 to 2009
 - Emissions from forest fires was included
 - Weather data (not for MELA modelling)
 - Forest land remaining forest land area
 - Forest definition
- New MELA simulations, corrected calibration factors for volume and log volume
- Ex-post calibration to the GHGI results

Two preliminary technical corrections

	FRL	TC	FRLcorr
	Mt CO ₂ eq.		
Official	-29.39		
TC1 – GHGI 2023		8.24	-21.15
TC2 – GHGI 2024		10.10	-19.29

Note: Mineral soils not modelled for TCs!



Summary

- Results are preliminary and prepared for national use
 - Gives an idea to which direction the technical correction takes the FRL
- Issues identified in the assessment of the revised NFAP and many changes in the GHGI trigger the technical corretion
- All issues not yet included as they should be
 - Needs close collaboration with modellers
- A good documentation is essential about
 - the changes in the GHGI, TC methods, and the original FRL methods and assumptions
- Finland continues to improve the process to be ready by 2027



Thank you!











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