# Introduction to JRC LULUCF workshop 2024

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Joint Research Centre (JRC), European Commission

JRC LULUCF workshop, 22-23 May 2024



Centre

**Joint Research** 

#### **Improving the Quality of Community GHG Inventories and Projections for the LUCF Sector**

Ispra, September 22-23, 2005

Workshop under mandate of Working Groups I and II of the EU Climate Change Committee

> **Introduction to the Workshop** by Günther Seufert

- The DG JRC of the European Commission
- The EC Inventory System
- The role of JRC in the EC Inventory System
- Workshop objectives

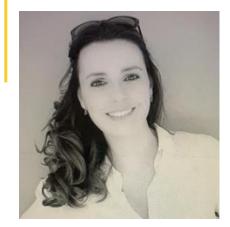
LUCF workshop, Ispra, Sep 22-23, 2005





Presentation of the past JRC LULUCF worshops available here: https://forest.jrc.ec.europa.eu/en/activities/lulucf/workshops/









### Housekeeping advice

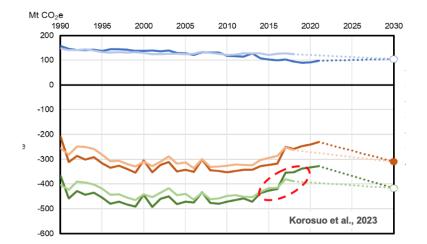
- Please keep your mic and camera off when not speaking
- Online questions will be managed through the chat
  - ask to take the floor
  - chat comments will be recorded for notes
- In-person participants: remember to mute your laptop microphone!

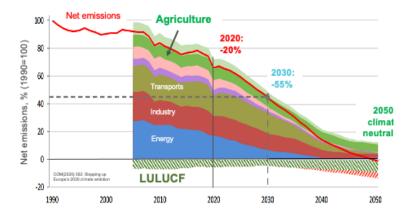
- The event will be recorded for internal purposes.
  - Recording available for registered participants for 7 days after the workshop

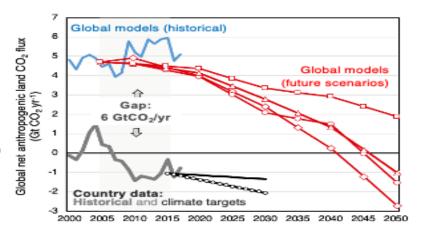


## **Overview of JRC-LULUCF activities**

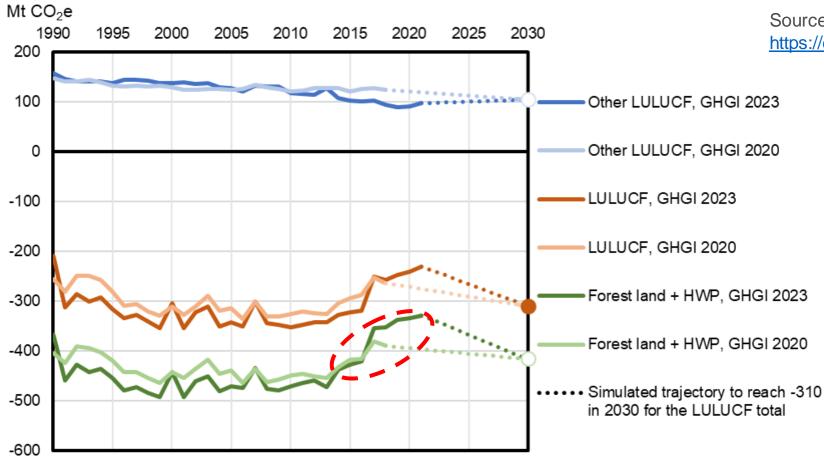
- > (QA/QC and technical support to GHG inventory) over to EEA
- Scientific support for implementing EU LULUCF policies
  - · Help improving the quality of GHG inventories
  - · Track progress towards targets and explore solutions
- **Forest modelling with the Carbon Budget Model** 
  - Support the preparation of 2040 EU climate targets
  - · Model the impact of sectoral scenarios on EU forests
  - · Towards near-real-time forest C fluxes at EU level
- **Global land-use CO<sub>2</sub> fluxes** 
  - · Global datasets (EDGAR-LULUCF and country inventories)
  - · Analysis of LULUCF role within countries' NDCs
  - · Reconciliation of global land-use CO<sub>2</sub> fluxes (IPCC/UNFCCC)







### EU climate targets: are we on the right track?



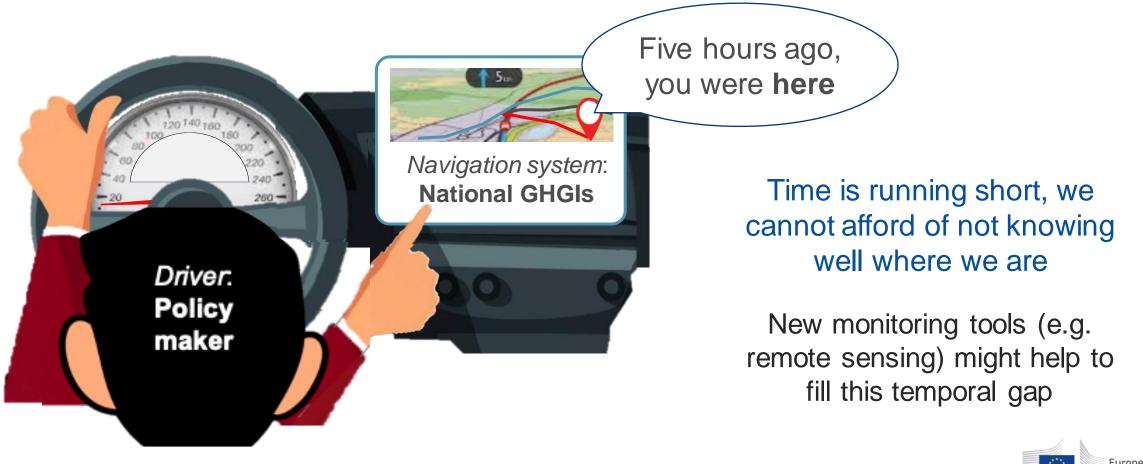
Source: Korosuo et al. (2023) https://doi.org/10.1186/s13021-023-00234-0

- LULUCF CO<sub>2</sub> sink going in the wrong direction due to the recent trend in forest sink
- Data often outdated: the actual situation is likely even worse

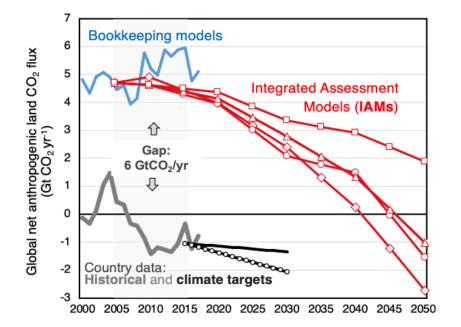


### Why are timely estimates important?

GHGIs are often based on data collected periodically  $\rightarrow$  lag of several years in reporting changes. This lag is problematic, as it gives delayed feedback on the consequences of forest management



### The global LULUCF emissions gap between global models and National GHGIs



Aims:

- Common understanding of the land emissions gap
- Set the basis for greater collaboration between communities
- Outline concrete steps forward to ensure a greater comparability between future IPCC products during AR7 and national GHG data

### IPCC Expert Meeting on reconciling land use emissions (9-11 July, Ispra, IT)

The meeting will gather experts from the following communities:

Global Carbon Budget Historical emissions from Bookkeeping models + DGVMs WGI Integrated Assessment

Earth System

Models

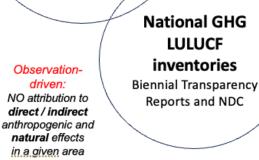
Emission/climate

scenarios in WGIII

#### Theory -driven:

attribution to direct / indirect anthropogenic and natural effects in a given area

#### Earth Observation Tree cover change, biomass stocks + stock changes and productivity, C fluxes upscaling, GHG concentration & inverse models



### JRC LULUCF Workshop 2024 - Day 1 JRC Ispra, 22 May 2024

- 09:00-09:15 Arrival at the Joint Research Centre
- 09:20-09:40 Welcome and Introduction

Director Alessandra ZAMPIERI, Directorate D Sustainable Resources Head of Unit Greet MAENHOUT & LULUCF Team Leader Giacomo GRASSI - JRC. D.1 Forests & Bio-economy Unit Bldg. ESE

- 09:40 -09:50 Photo Opportunity in the Europa Science Experience Building
- 09:50-10:15 **Guided Tour of Europa Science Experience Building** Bldg. ESE
- Walk to Conference Centre Bldg.36
- 10:30 10:45 **Welcome coffee**
- 10:45-11:30 Session 1 LULUCF in the EU climate change policy (WebEx link 1)

Setting the scene for the workshop and future JRC work on LULUCF – Giacomo GRASSI & Greet MAENHOUT LULUCF legislation updates – Jurij KRAJCIC, DG CLIMA

#### 11:30-12:30 Session 2 - QA/QC of the LULUCF inventories and reporting under the UNFCCC and EU (WebEx link 1)

Results of the 2024 QAQC initial checks for LULUCF and updates from the EEA – Peter IVERSEN & Raul ABAD, EEA Updates from the UNFCCC process – UNFCCC Secretariat

12:30-14:00 **Buffet Lunch** Bldg. 36

#### 14:00-15:30 Session 3 –Annual estimates: the challenge of reporting net emissions when they occur (WebEx link 1)

Introduction and background – Viorel BLUJDEA, JRC Annualization challenge for forestry GHG reporting in Czech Republic – Emil CIENCIALA, Czechia Adaptation of forest biomass monitoring and reporting in Austria according to the requirements of the EU LULUCF Regulation – Carmen Schmid, Austria Annual reporting based on periodic inventory data can be improved with growth simulations and harvest based on RS – Hans PETERSSON, Sweden Near-real time estimations of harvest for the EU – Roberto PILLI, JRC Improving NFI-based living biomass change estimates using Global Forest Change data – Christian MOHR, Norway

- 15:30-16:00 **Coffee Break** Bldg. 36
- 16:00-17:00 **Breakout groups** led by group rapporteurs (three groups in person and two online, using [GROUP 1] <u>Webex links 2</u> and [GROUP2] **Webex links 3**

LULUCF GHG inventory is based on periodic, rarely annual, measurements. However, annual estimates are needed for reporting and accounting. What implications arise under the LULUCF regulation, e.g. for informing policymakers in a timely manner and for meeting a single-year target? What data and methodological improvements are needed to obtain best estimates for the period 2026-2029 and target year 2030?

The participants are encouraged to reflect on these questions **in advance**, and share experiences, updates, and open questions from their respective countries.

- 17:00-17:30 **Wrap-up from breakout groups (WebEx link 1)** Lessons learned and open questions arising from the breakout sessions (reports by group rapporteurs)
- 17:30 Close of day 1
- 17:45 Bus transportation to hotels
- 19:30 Joint dinner at Lido Restaurant

#### JRC LULUCF Workshop 2024 – Day 2 JRC Ispra, 23 May 2024

08:45-09:00 Arrival at the Joint Research Centre

#### 09:00-10:15 Session 4 –Technical corrections to forest reference levels (WebEx link 4)

Concept of the technical correction to the forest reference level – Anu KOROSUO, JRC Potential technical corrections to the forest reference levels. Mattias LUNDBLAD, Sweden Improving Data Quality in Romanian Forestland category: Implications for technical correction of the FRL – Raul RADU, Romania Exercise to implement a technical correction to the forest reference level – Tarja TUOMAINEN, Finland

10:15-10:45 **Coffee Break** Bldg. 36

#### 10:45-11:45 Session 4 continues (WebEx link 4)

Technical corrections to Forest Reference Level - adjustment without revising FRL modelling – Sampo SOIMAKALLIO, Finland Harvest data as interface between forest and HWP – Sebastian RÜTER, Germany Reflections on FRL – Robert MATTHEWS, UK

#### 11:45-12:30 Session 5 – Reflections on advancements and challenges in other questions (WebEx link 4)

GHG emissions from drained versus undrained organic soil – Aldis BUTLERS, Latvia Open questions and challenges from the methodological requirements of the LULUCF Regulation – Roland FUSS, Germany

12:30-13:45 **Buffet Lunch** Bldg.36

### 13:45-14:40 Session 6 – Insights from related research projects (WebEx link 4)

Holi Soils: Tools for GHG inventories and science-based policy support– Aleksi LEHTONEN, Luke, Finland Insights from ForestPaths: Next generation of European forest disturbance maps based on the Landsat archive – Alba Viana-Soto, TUM, Germany PathFinder – Towards a common European Forest Monitoring System – Johannes BREIDENBACH, NIBIO, Norway ForestNavigator: forest policy modelling toolbox advancements – Fulvio di Fulvio & Mykola Gusti, IIASA, Austria

#### 14:40-15:00 **Coffee Break** Bldg. 36

#### 15:00-16:15 Session 7- Related EU policy development (WebEx link 4)

EU Carbon Removal Certification Framework, Jurij KRAJCIC, DG CLIMA; Mirco MIGLIAVACCA, JRC Forest Monitoring Law – Jurij KRAJCIC, DG CLIMA Soil Monitoring Law and a soil monitoring framework for the EU – Světlana CHOVANCOVÁ, DG ENV; Cristiano BALLABIO, JRC

#### 16:15-16:30 Conclusions (WebEx link 4)

Giacomo GRASSI and Viorel BLUJDEA, JRC

- 16:30 Close of day 2
- 16:45 Bus transportation to Milano Malpensa airport



## If we don't measure well, we don't manage well

### **THANK YOU**

