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Slovenian issues and challenges in the LULUCF sector

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Introduction

LULUCF sector

- Land Use, Land Use Change and Forestry
- Highly dynamic and complex compared to other sectors
- LULUCF is the only sector with CO_2 sink
- Globally, net LUC represent ≈ 9% of total emissions in 2006-2015
- Last sector included in the EU climate and energy policy 2030
- In EU, LUC account for > 29% of total GHGs
- In EU, LULUCF offsets ≈ 7% of total GHGs (Forest ≈ 10%)

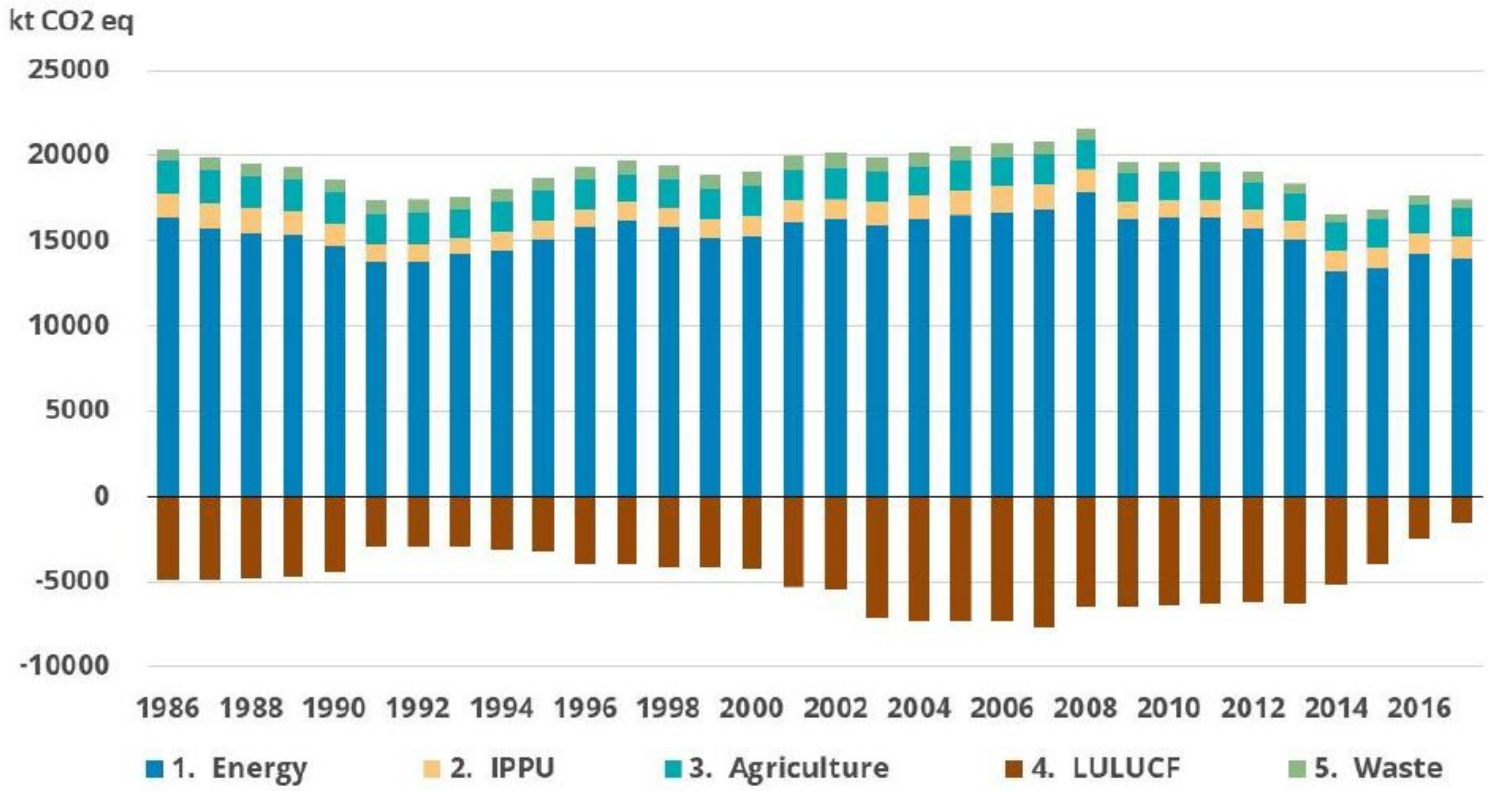
Introduction

LULUCF Regulation

- Adopted on 30 May 2018
- binding in its entirety and directly applicable in all Member States
- Aims at contributing to the goals of the Paris Agreement
- Aims at contributing to at least 40% emission reduction by 2030 compared to 2005
- Strives to establish a robust accounting system
- Shifts to the UNFCCC's land-based approach of emission estimation
- Sets the „no-debit" rule
- Sets rules for land accounting categories

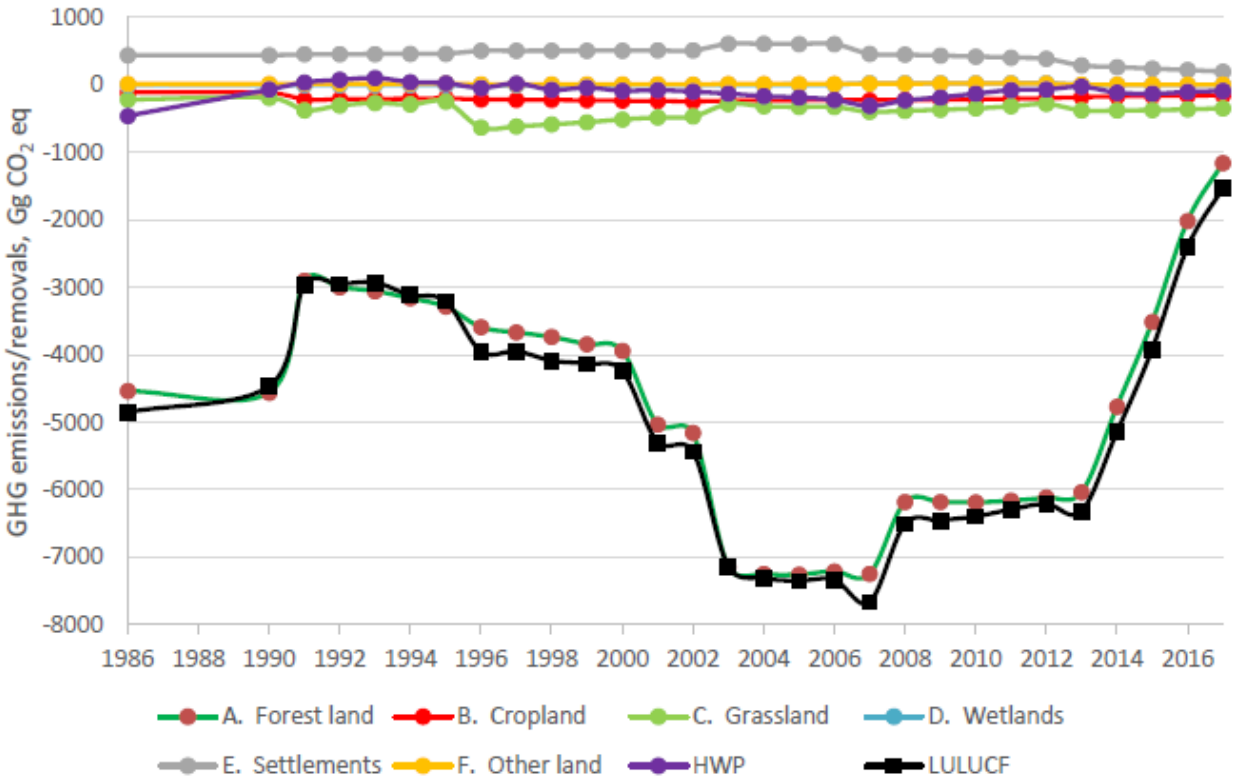
Past trends

GHG emissions in Slovenia by sector



Past trends

LULUCF GHG emissions, CRF 2019



The state of play

Current system

MAFF

SFI

SFS

AIS

SORS

Data collection

- Activity data
- Emission factors

Data processing

- Emission estimation
- QA/QC

Reporting & Accounting

- UNFCCC
- EU

The state of play

Current system

Reduced Uncertainty

Tier 3 **High res. data (e.g. model)**	Not applicable	Modelled data combined with LUC matrix (not necessarily spatially dis-aggregated)	Geo-information at high-resolution, detailed time series, country-specific disaggregated data based on inventories and/or models
Tier 2 **Country specific values**	National area statistics, combined with country-specific values – typical 1st improvement	Annual LUC stats, combined with country-specific values	Geo-information, time series, country specific values – good coverage, detailed analysis
Tier 1 **IPCC default values**	National area statistics, combined with IPCC default values – basic entry level	Annual (or annualised) LUC stats presented as national matrix – applied using default IPCC values	Geo-information, time series, default values – weak, but better than App 1 and 2
	Approach 1 **National statistics**	**Approach 2** **Land Use Change matrix**	**Approach 3** **Geo-tracked**

Improved Coverage and Representation

Impact Assessment (2016)

The state of play

Tier methods

	FL	CL	GL	WL	SL	OL
AGB	T3 / T1, T2	T1 / T1, T2	T1 / T1, T2	T1 / T1, T2	T1 / T1, T2	T1 / T1, T2
BGB	T2 / T1	T2 / T1	T2 / T1	T1	T1	T1
DW	T3 / T2	T1 / T1	T1/ T2	T1	T1	T1
LITTER	T1 / T2	T1 / T1	T1 / T2	T1	T1	T1
SOIL	T1 / T2	T1 / T2	T1 / T2	T1 / T2	T1 / T1	T1 / T2
HWP	T1	N.A.	N.A.	N.A.	N.A.	N.A.

Issues

Data gaps on „remaining“ lands

- Carbon stock changes in AGB (all categories, except FL)
- Carbon stock changes in LITTER (all relevant categories)
- Carbon stock changes in mineral soil (all categories)
- Harvested wood products (afforested/deforested land)

Issues

Data gaps on „converted“ lands

- Carbon stocks in AGB (WL, SL, OL)
- Carbon stocks in LITTER (CL, WL)
- Carbon stocks in mineral soil (SL, WL, OL)

Issues

Data gaps on agricultural land

- Data on management systems (land use, tillage, input)
- Consistency and annual trends of activity data
- Underestimated emissions

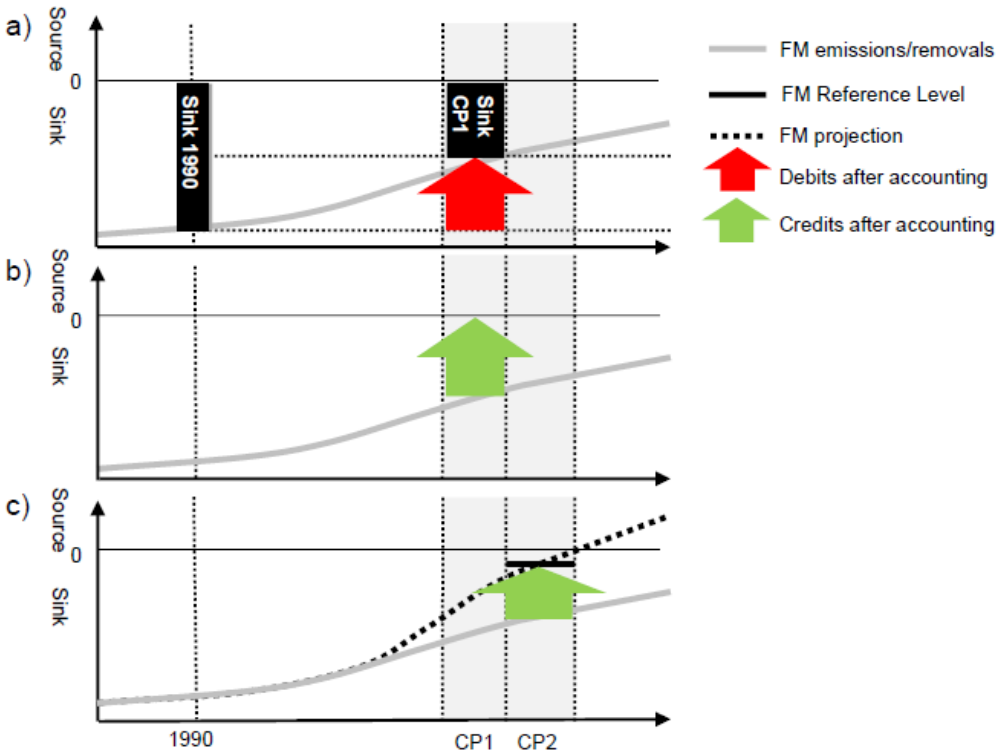
Issues

FRL and accounting rules

Net-Net

Gross-Net

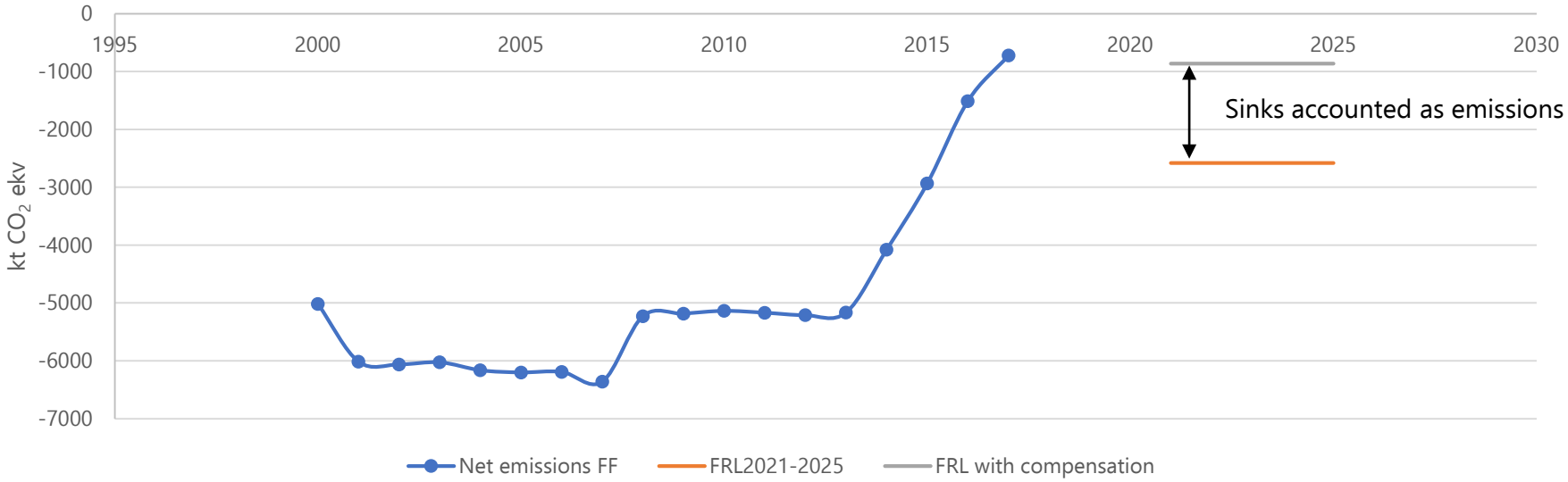
FRL



Öko-Institut e.V. (2015)

Future accounting

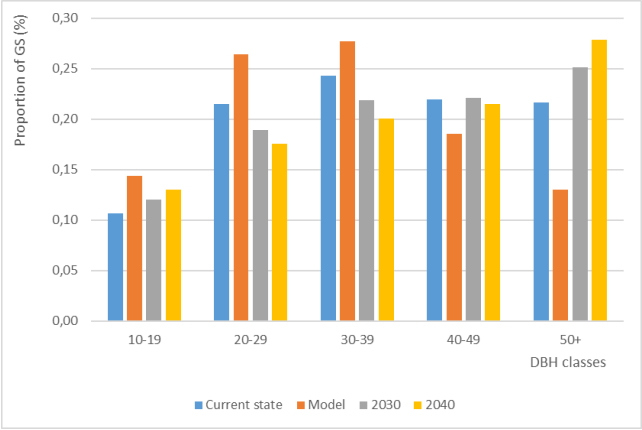
Proposed FRL of Slovenia



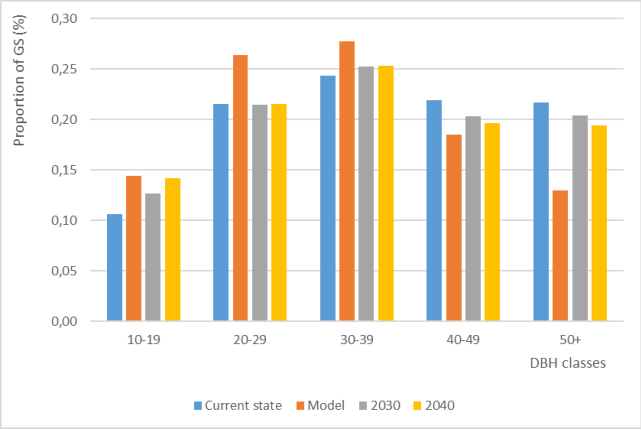
Future prospects

Simulation of growing stock development

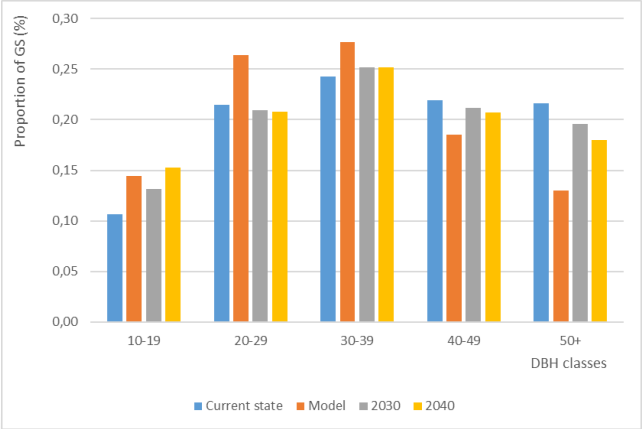
5 million m3 scenario



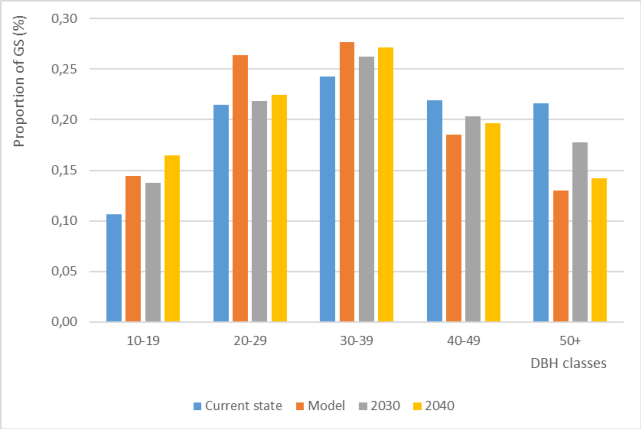
7 million m3 scenario



8 million m3 scenario



9 million m3 scenario



Key challenges

Climate policy implications

- LULUCF Regulation:
  - brings demands for the LULUCF inventory (e.g. spatially-explicit land data, data on CM and GM)
  - incentivizes institutional arrangements and capacities
  - raises several questions (e.g. climate goals vs. goals of SFM, changes in FM and agricultural practices ...)

Key challenges

Short and mid term priorities

- Short term:
  - To resolve issues from the FRL technical assessment
  - Time to formalise the NFI?
  - To improve and prepare the LULUCF inventory for the 2021-2030 accounting
- Mid-term:
  - To adapt forest policy to encourage private forest owners for active forest management
  - To evaluate and upgrade CAP measures, relevant for the LULUCF

Key challenges

LIFE IP CARE4CLIMATE (LIFE 17 IPC/SI/000007)

- Supports the LULUCF through following activities:
  - Establishment of the „uniform“ LULUCF monitoring system
  - Strategic plan for key measures and demonstration of selected measures
  - Building professional and governance capacities
  - Raising information and public awareness on CCM

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THANK YOU

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