



**An Roinn Talmhaíochta,
Bia agus Mara**
Department of Agriculture,
Food and the Marine

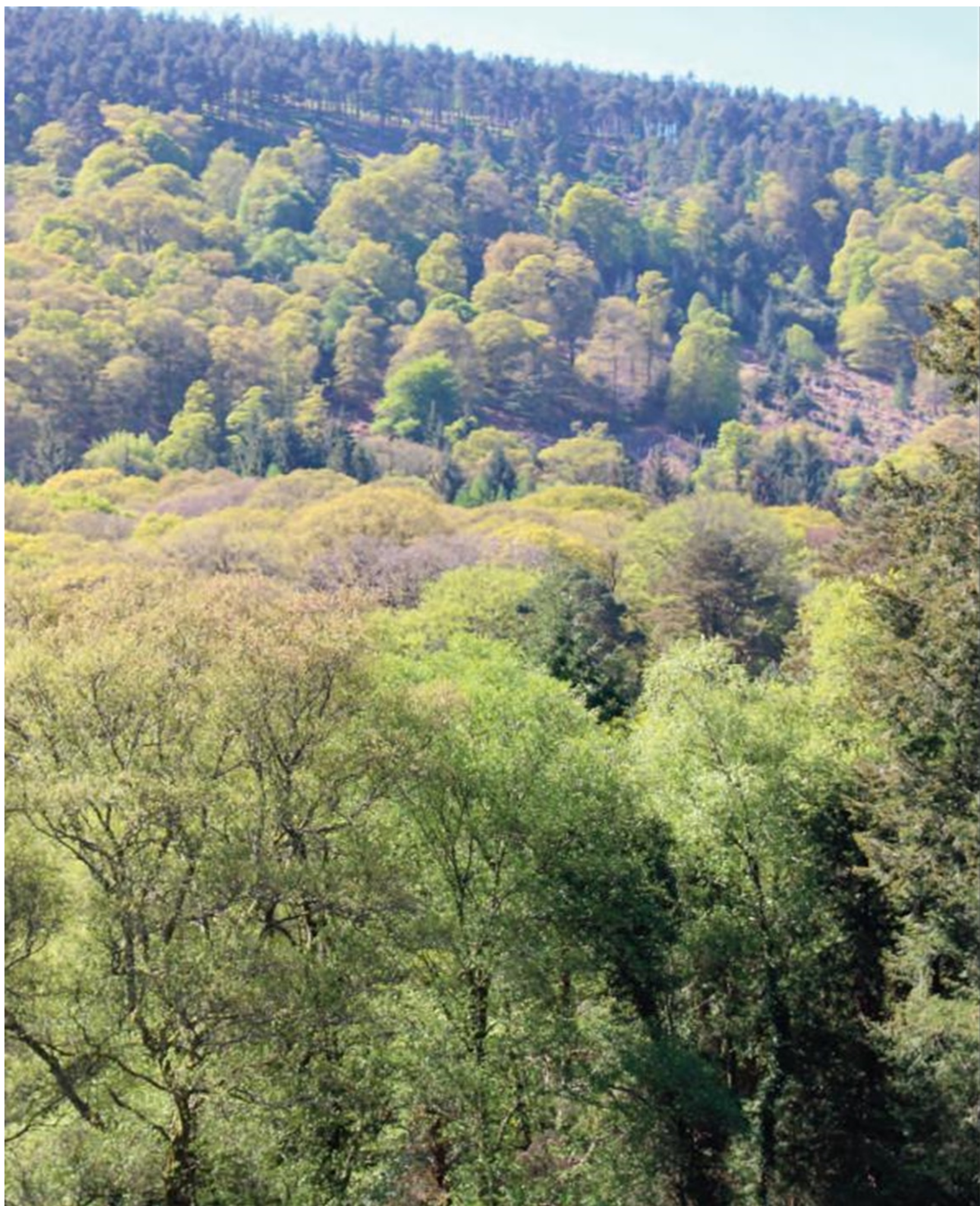
IFA Forestry Conference 2023

Fergus Moore

Head of Division

Forest Sector Development Division

8th June 2023



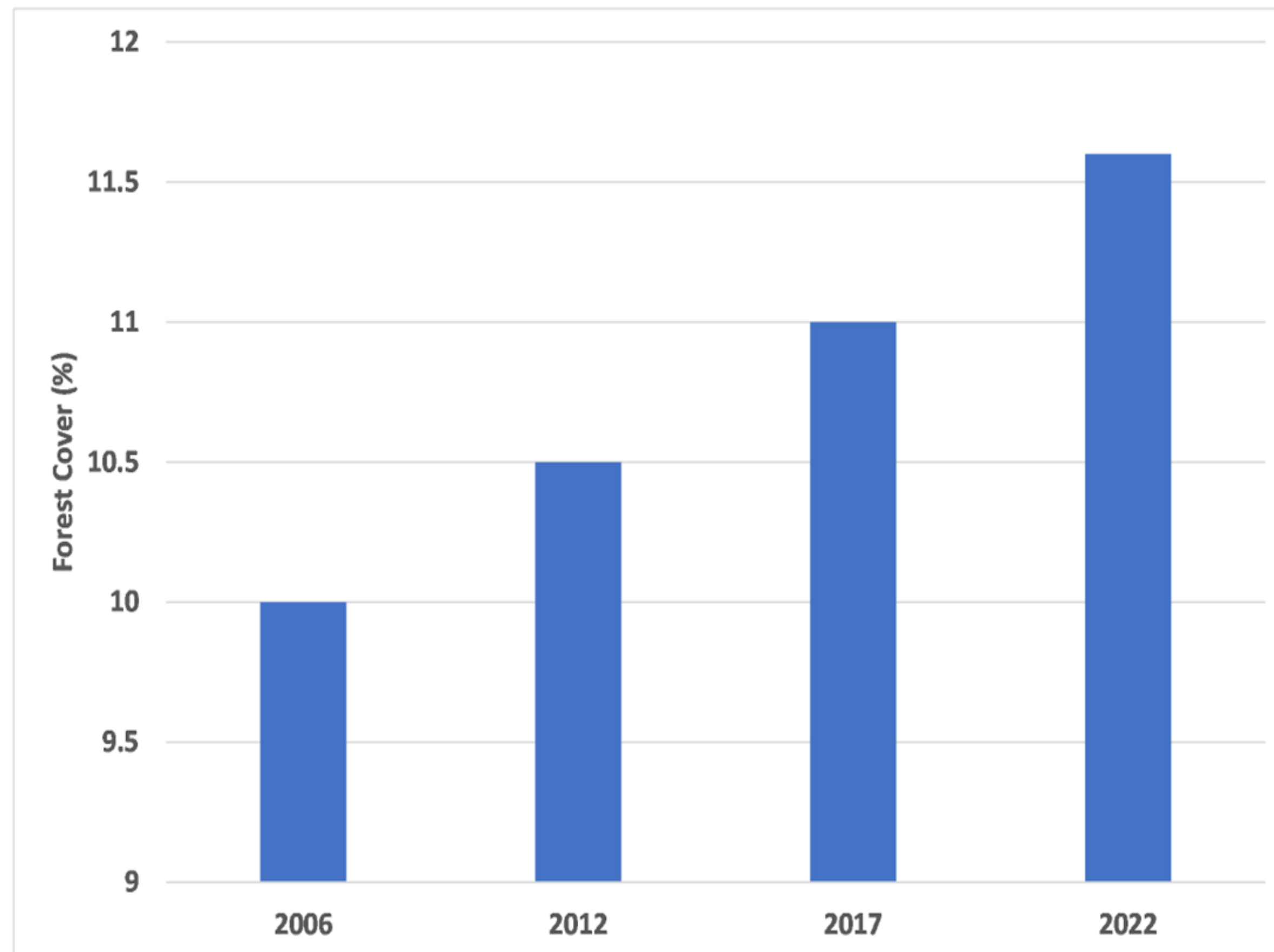
Presentation Overview

- Carbon stocks and stores
- Forestry and Land Use Emissions
- EU Forestry and Carbon

Carbon Stocks and Stores

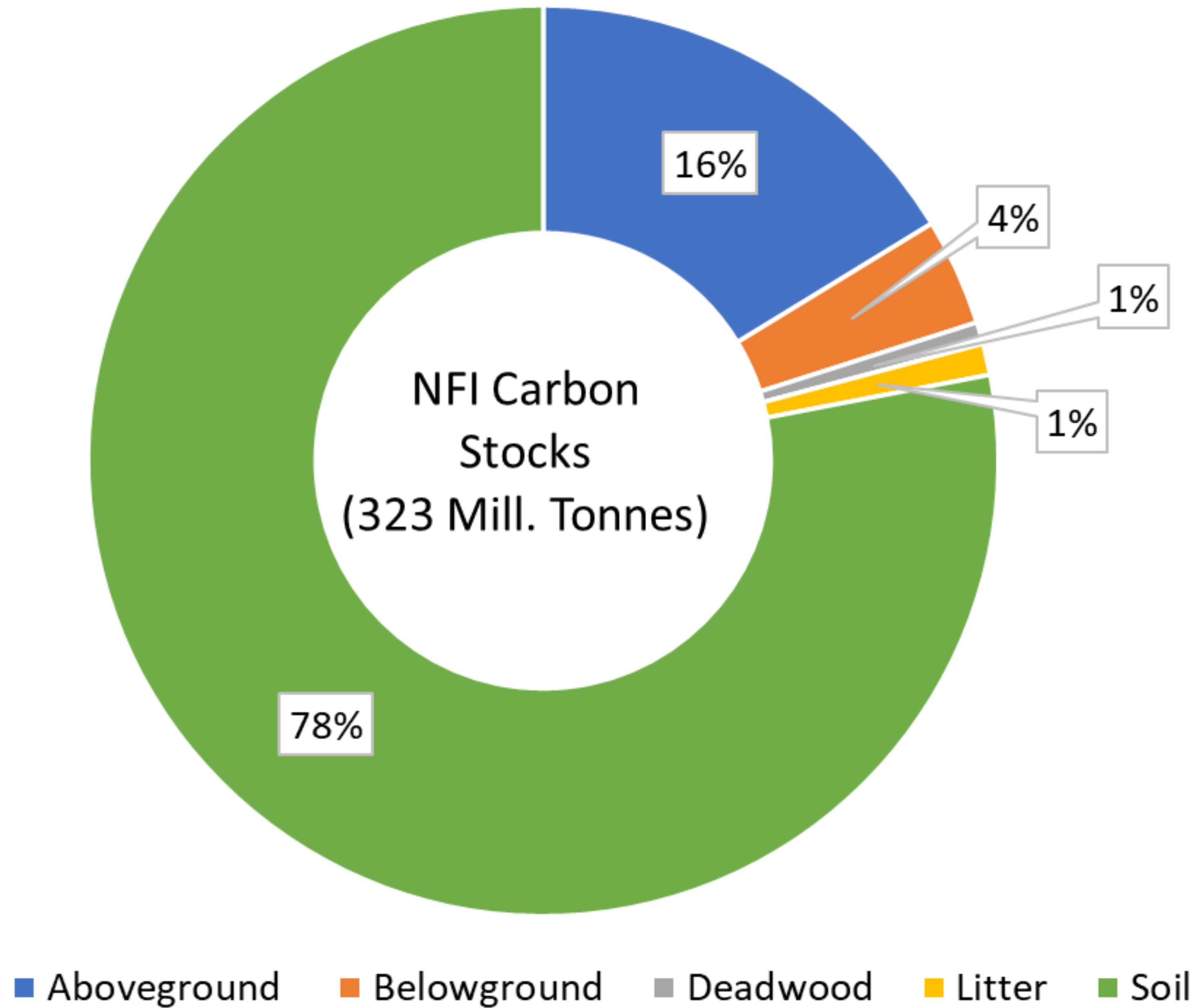
KEY FINDINGS OF IRELAND'S NFI 2022

Development of Forest Cover 2006-2022



1. The national forest estate is still expanding, 11.6% of the total land area
2. The total forest area has increased from 697,842 hectares (ha) in 2006 to 808,848 ha in 2022.
3. Conifer species ~70%: Broadleaves 30% of the stocked forest area
4. Between 2006 and 2022 semi-natural forests are responsible for one-third (33.1%) of the new forest areas captured.

Forest Carbon Stocks



Forestry and Land Use Emissions

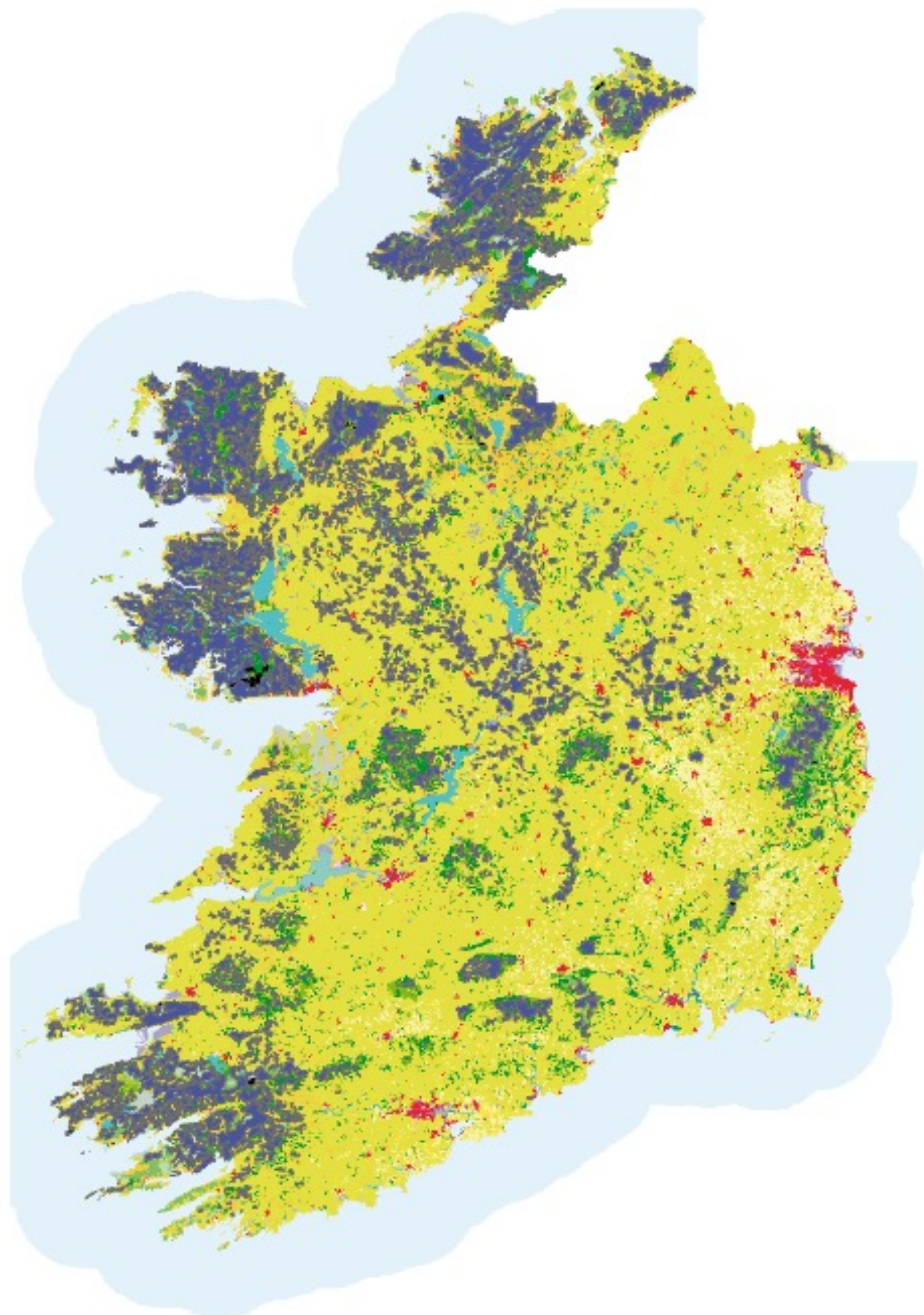


Rialtas na hÉireann
Government of Ireland

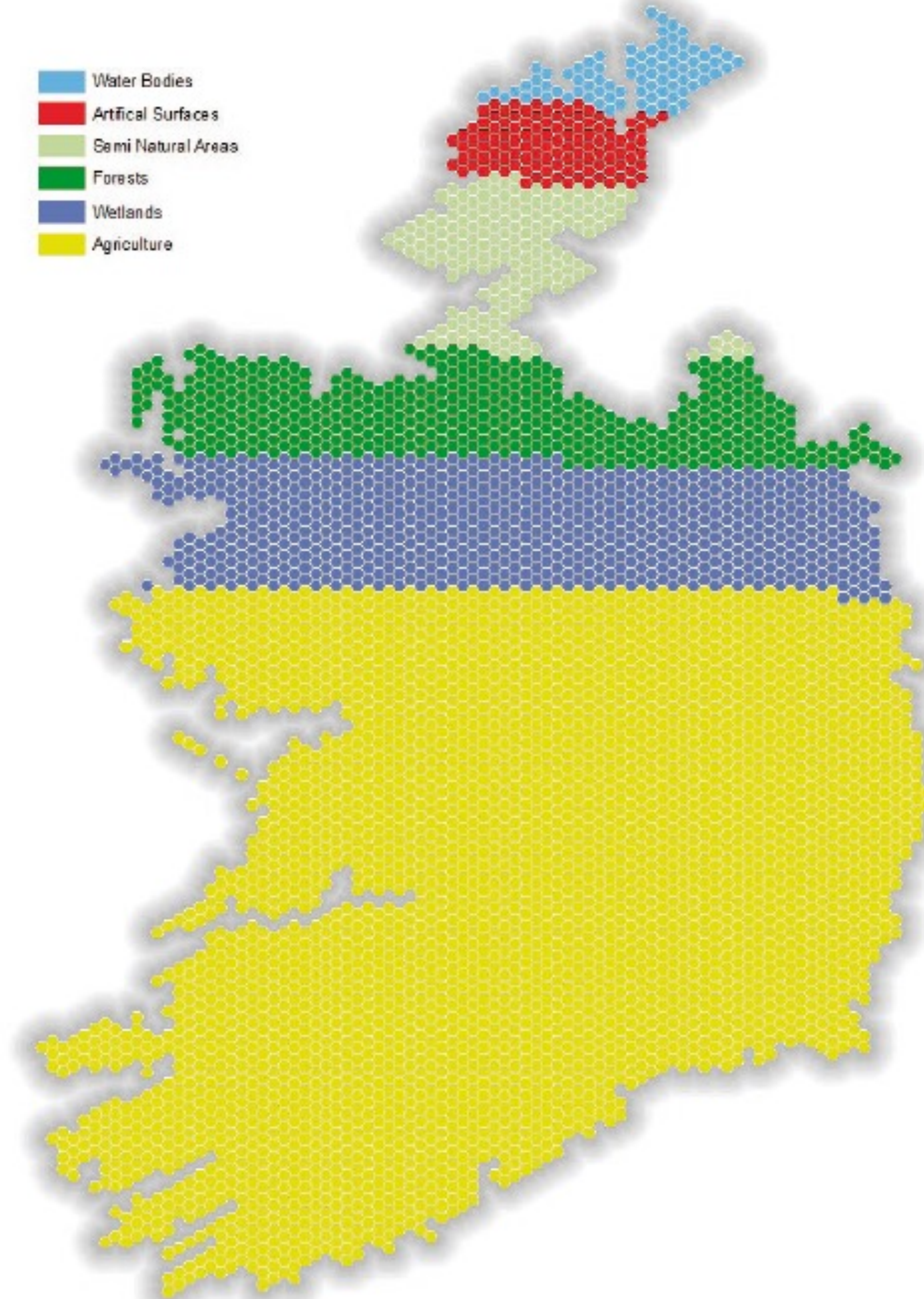


Land Use
Review

Land Use Evidence Review Phase 1 Synthesis Report



- Water Bodies
- Artificial Surfaces
- Semi Natural Areas
- Forests
- Wetlands
- Agriculture



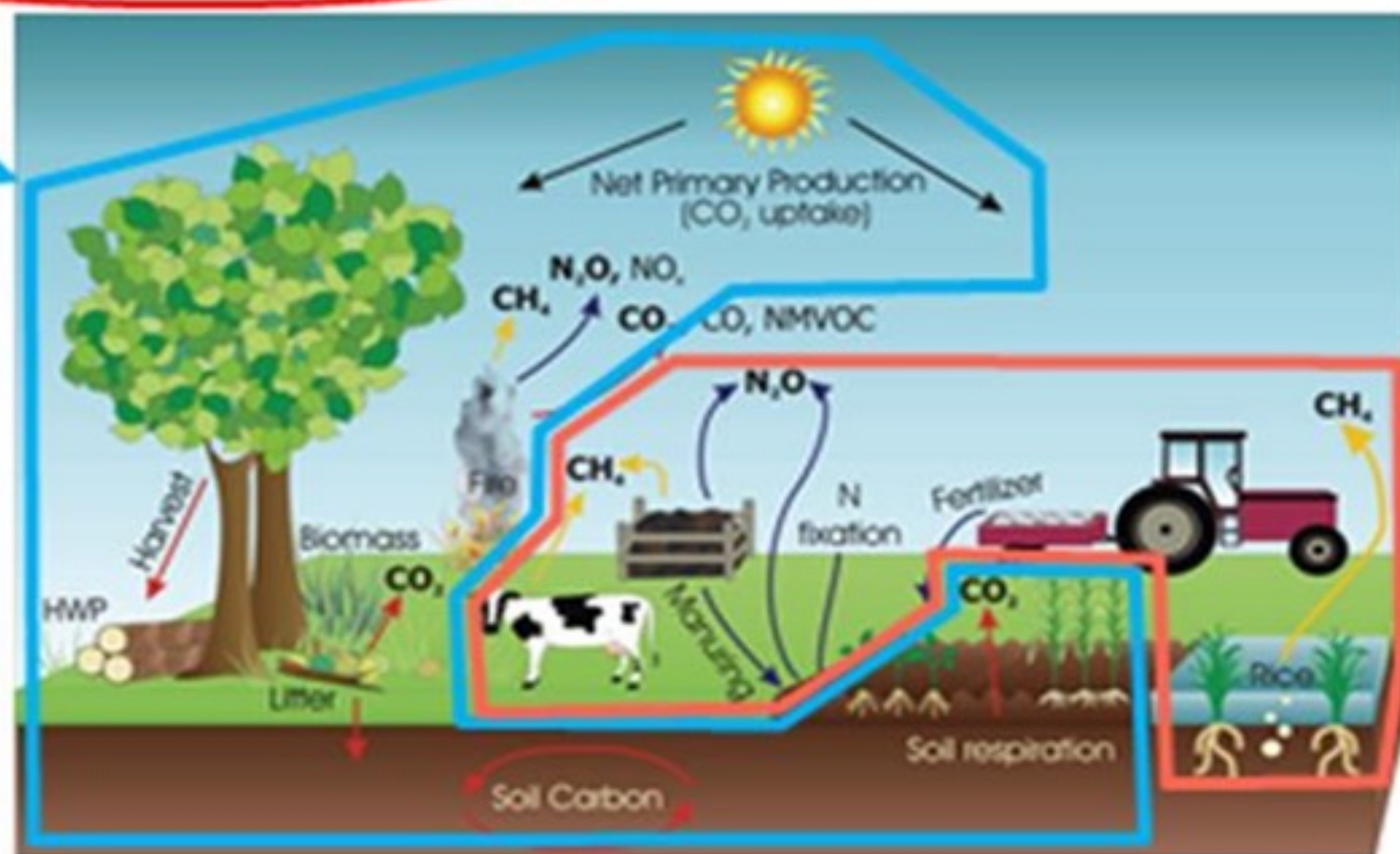
The UNFCCC includes the land use through two sectors:

Land Use, Land Use Change and Forestry (LULUCF): mainly CO_2

AGRICULTURE: *non- CO_2*
(CH_4 , N_2O)

Partly human induced
(linked to global natural carbon cycle)

Uncertainties?
Additionality?
Permanence?
Leakage?

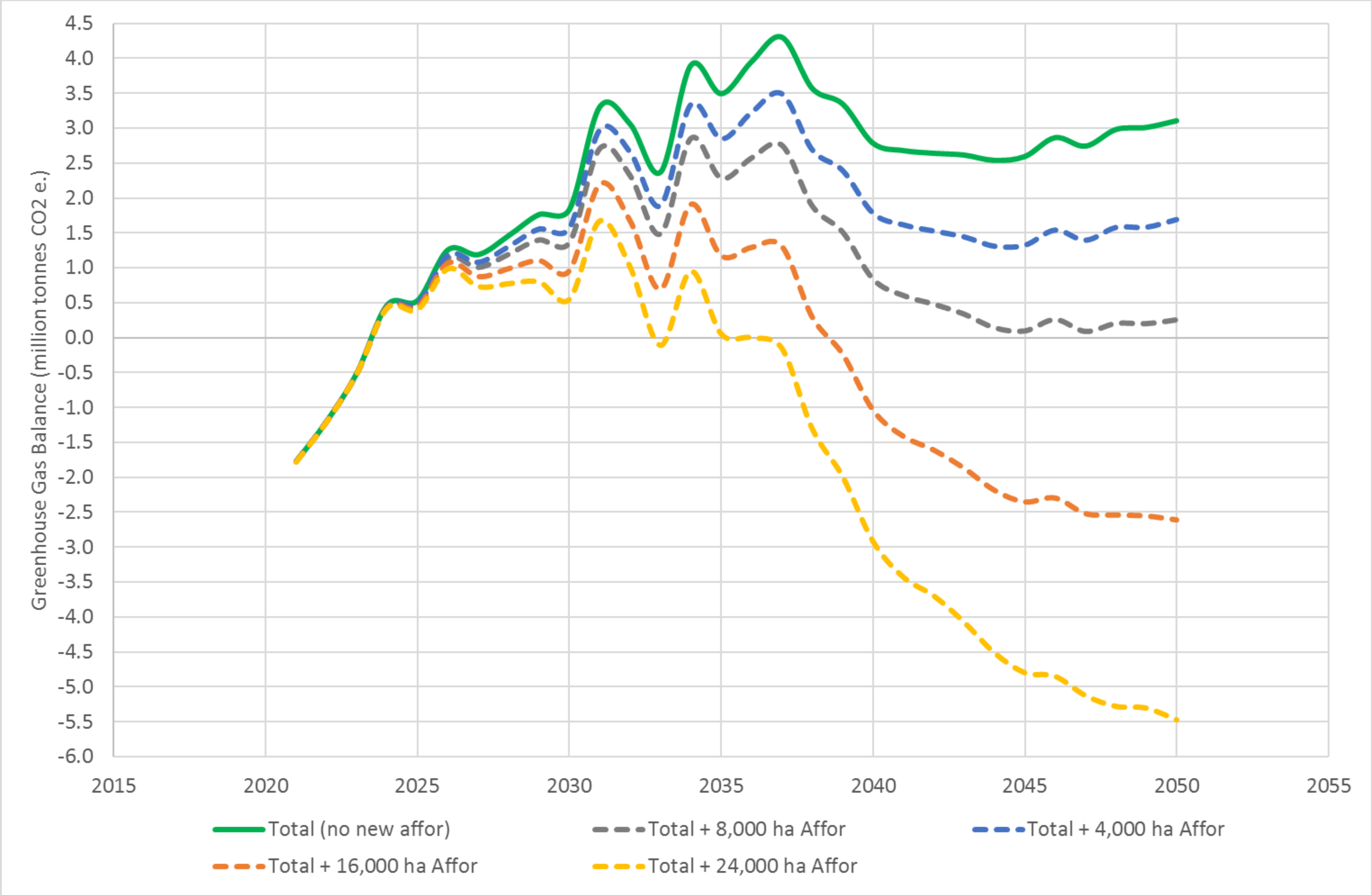


Irelands LULUCF Sector

(Irelands land is a net source of CO2)

Category	2019	2020	2021
Forest land	-1946.29	-2105.45	-434.03
Cropland	-139.53	-110.80	-9.94
Grassland	7034.56	6920.94	7566.37
Wetlands	2573.62	2783.92	2003.45
Harvested Wood Product	-858.19	-818.98	-1609.47
Total LULUCF	6899.28	6943.20	7766.91

Forestry GHG Balance (incl. Affor Projections to 2050)





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- The Climate Change Advisory Council (CCAC) on 25th October 2021 submitted proposed carbon budgets consistent with a **51% reduction in greenhouse gases in 2030** relative to 2018 to the Minister of Environment, Climate and Communications.
- The Climate Action Plan 2023 provides an indicative range of emissions required for each sector to 2030 to meet the overall 51% reduction.
- For agriculture the sectoral target agreed is **25%**
- **No target agreed** for the LULUCF sector

Ireland's Tree Volume and Carbon Calculator

Volume and Carbon outputs

<input type="checkbox"/> Volume - Ground to tip	Edit Delete
<input type="checkbox"/> Volume - Ground to 7cm	Edit Delete
<input type="checkbox"/> Volume - Stump to tip	Edit Delete
<input type="checkbox"/> Volume - Stump to 7cm	Edit Delete
<input type="checkbox"/> Aboveground carbon	
<input type="checkbox"/> Belowground carbon	
<input type="checkbox"/> Total carbon	
Add Clear Export Load	

Volume and Carbon Calculation

Single tree [Single trees \(Batch\)](#) [Stand](#)

Species	Sitka spruce	✓	↕
DBH	40	✓	cm ↕
Tree height	20	✓	m ↕
Upper diameter (Optional)		✓	cm ↕
Upper height (Optional)		✓	m ↕
Stump diameter (Optional)		✓	cm ↕
Stump height (Optional)		✓	m ↕

[Calculate volume](#) [Clear](#)

Volume and Carbon Calculation

Species: Sitka spruce

DBH: 40 cm

Tree height: 20 m

Volume - Ground to tip: 1.005 m³

Volume - Ground to 7cm: 1.002 m³

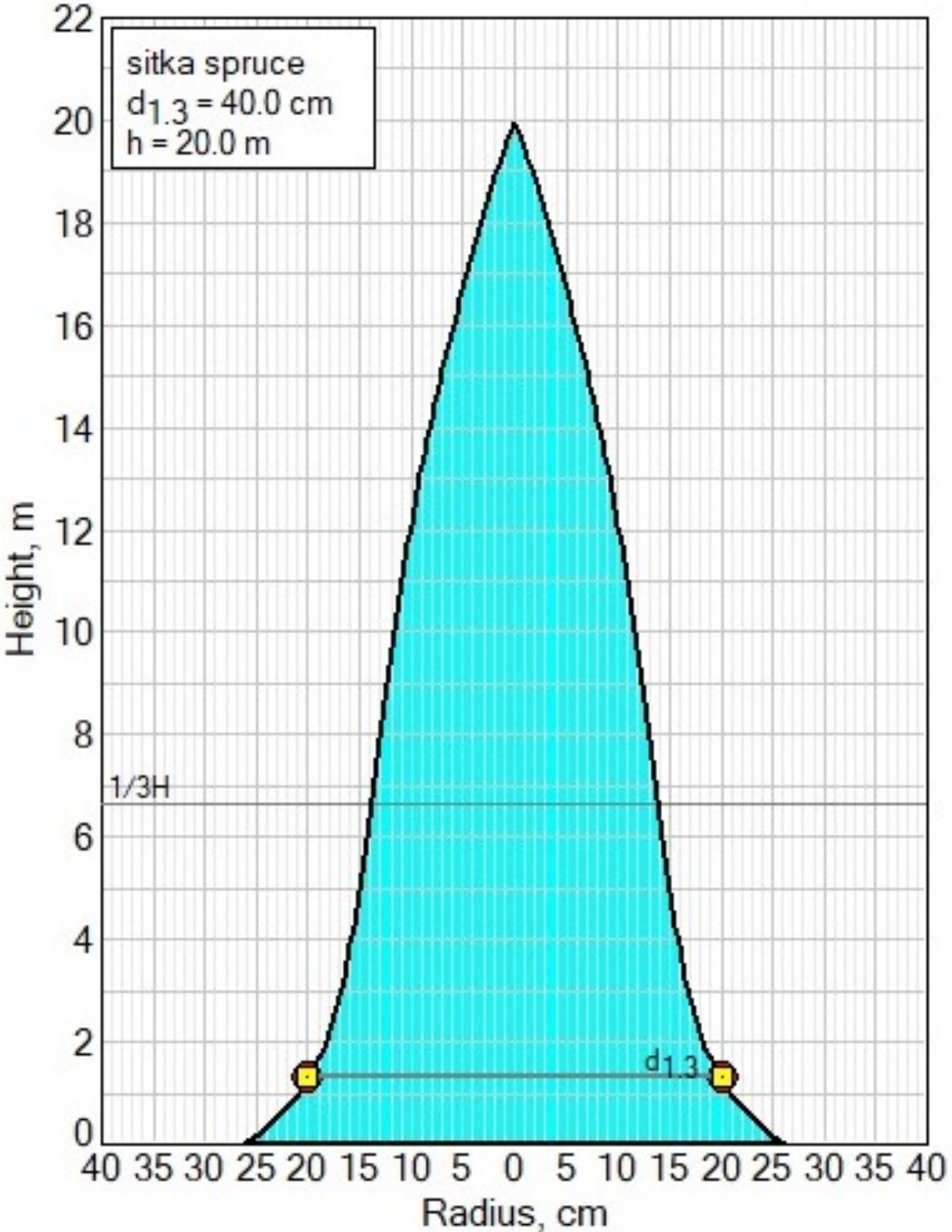
Volume - Stump to tip: 0.965 m³

Volume - Stump to 7cm: 0.962 m³

Aboveground carbon: 1.137 t CO₂-eq

Belowground carbon: 0.308 t CO₂-eq

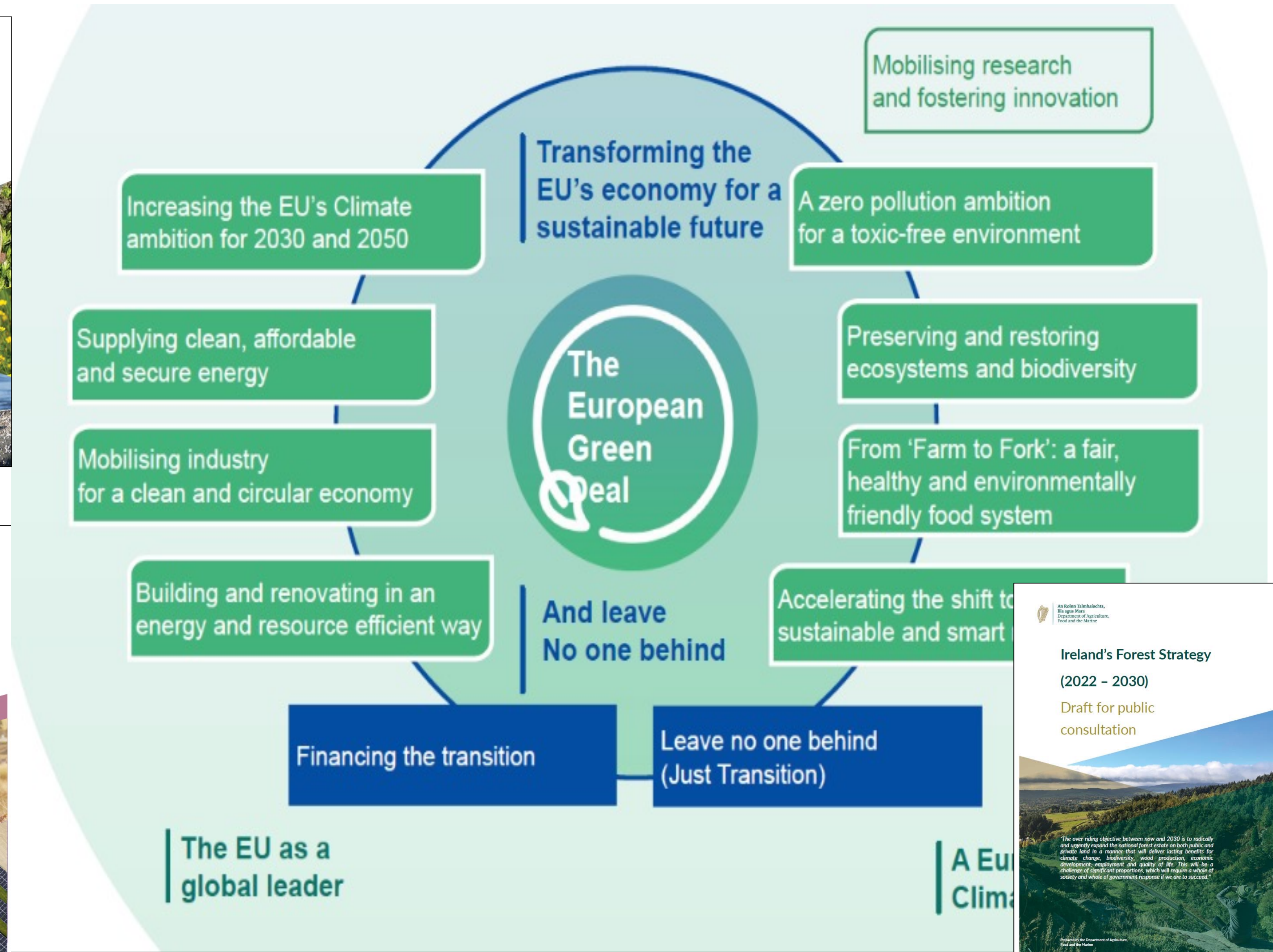
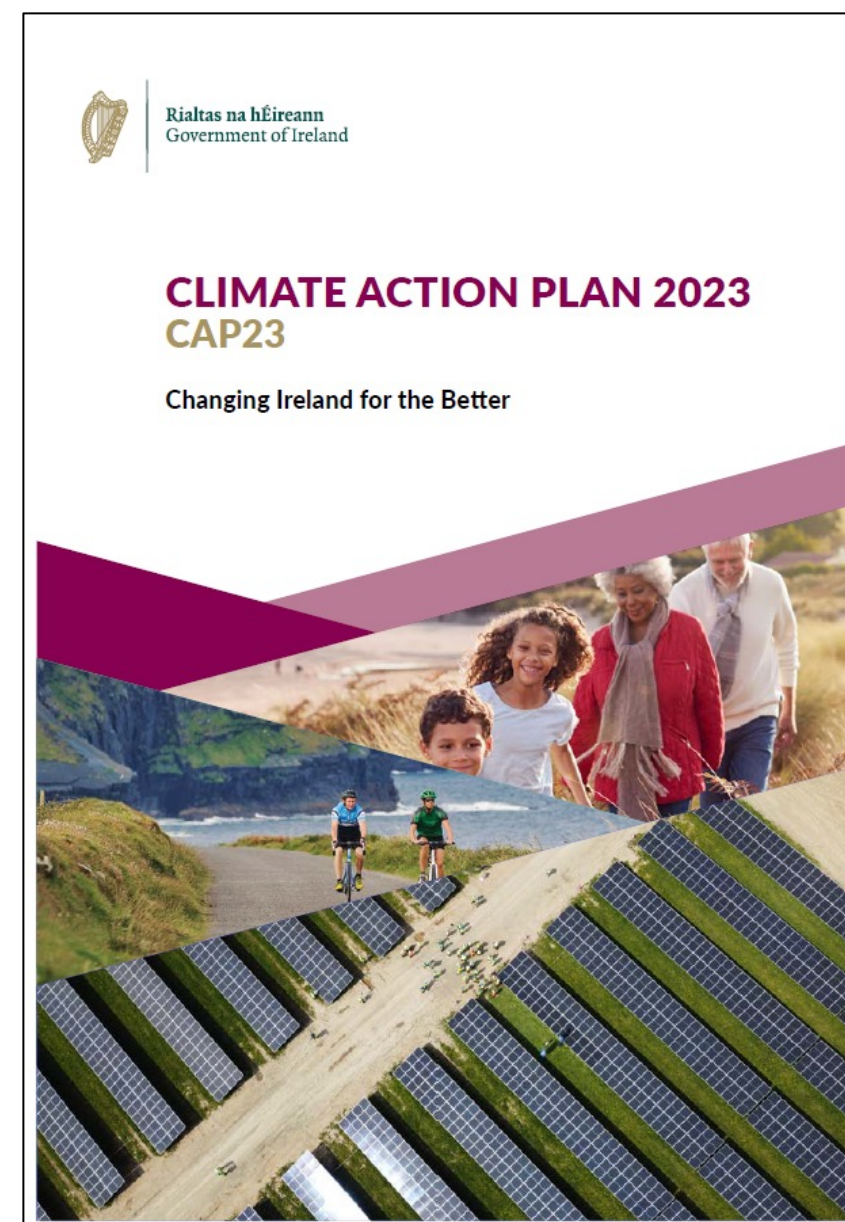
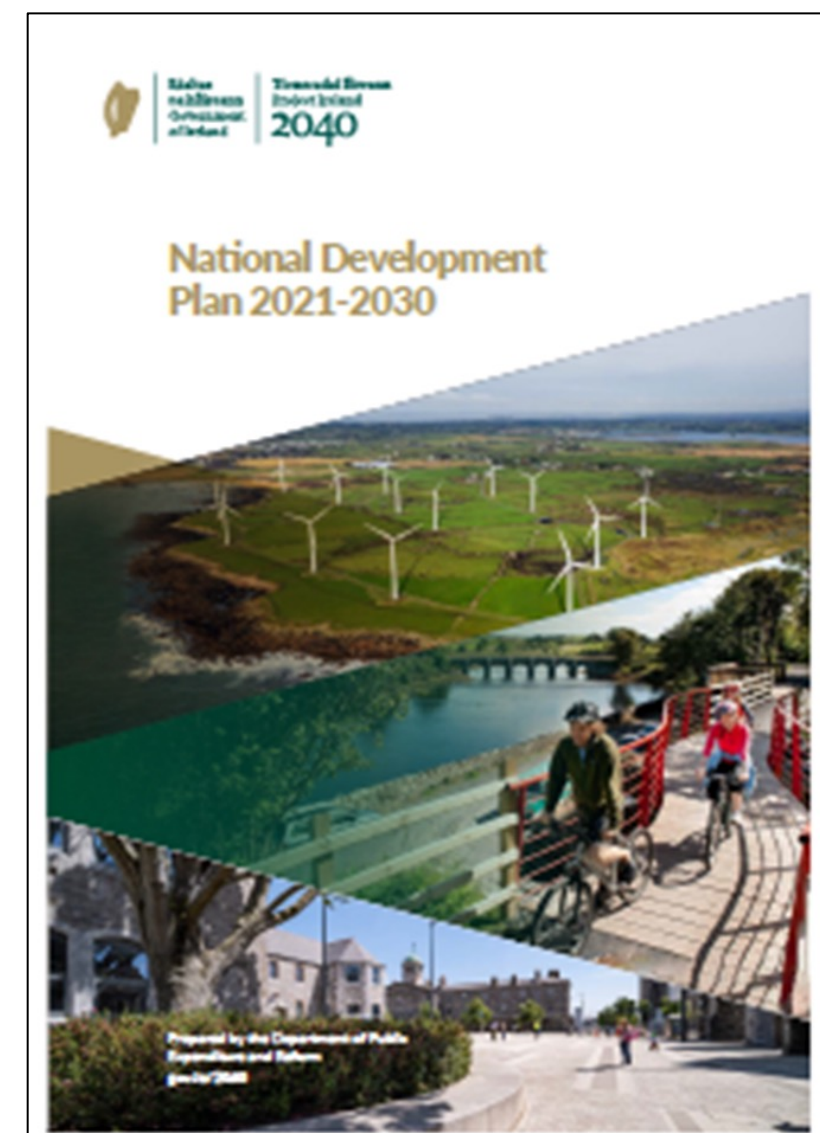
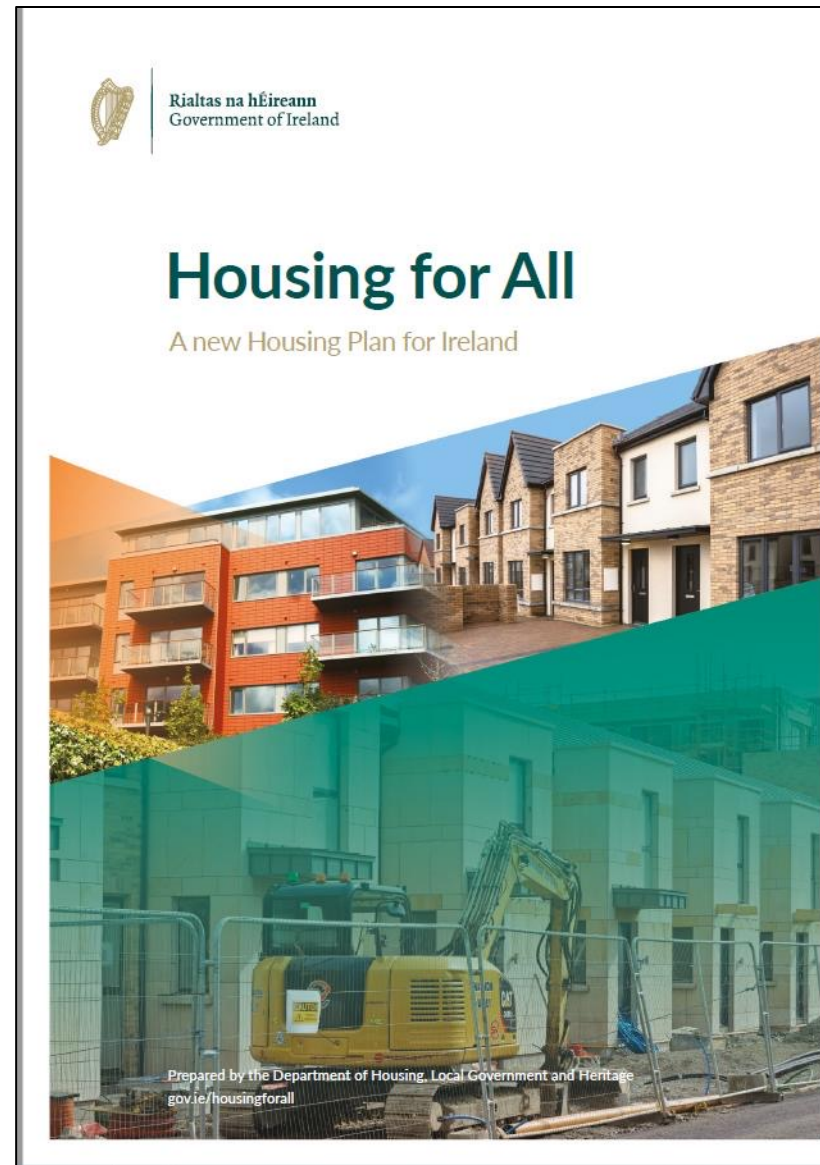
Total carbon: 1.445 t CO₂-eq



 Close

EU Forestry and Carbon

EU and National Context



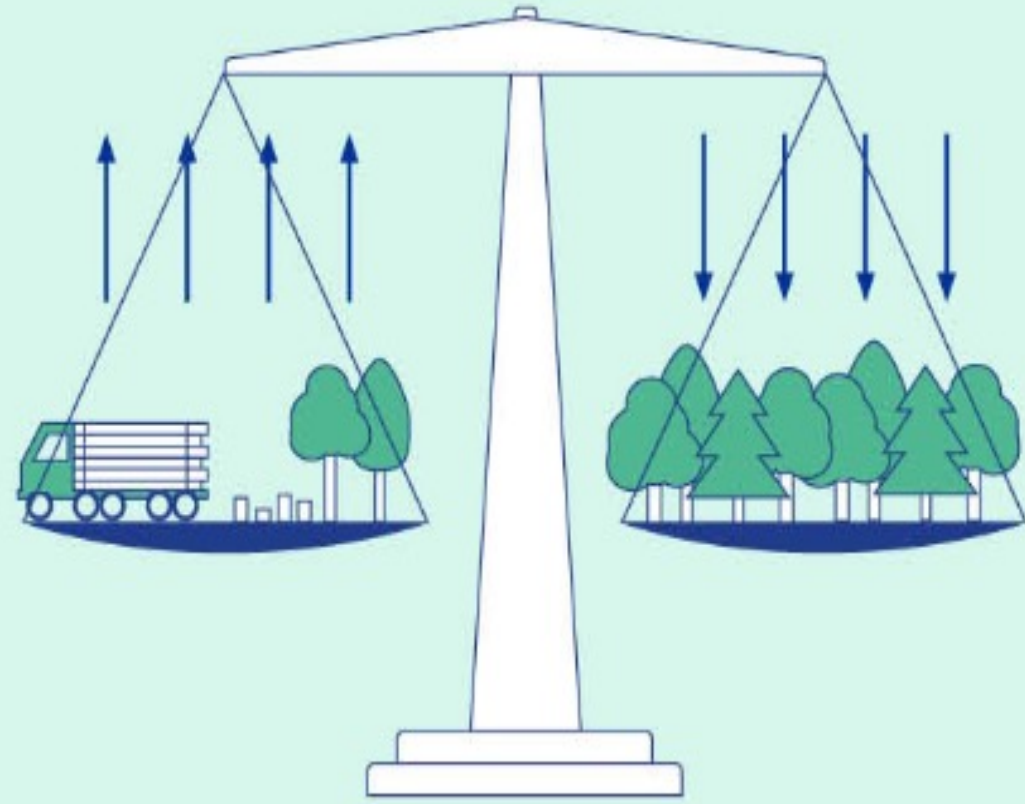


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Revised LULUCF Regulation (adopted by Council March 2023)

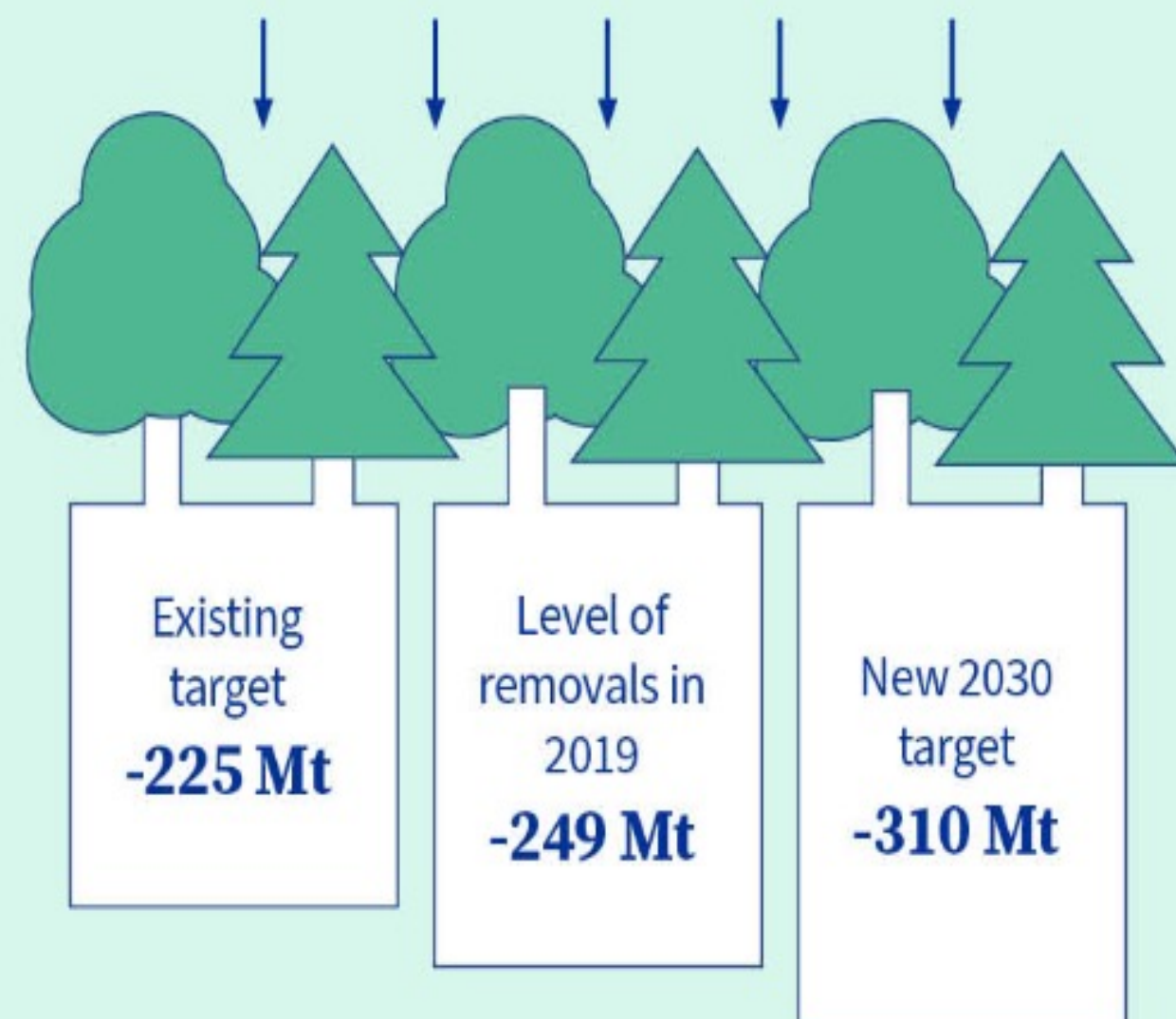
Increased target for carbon removals



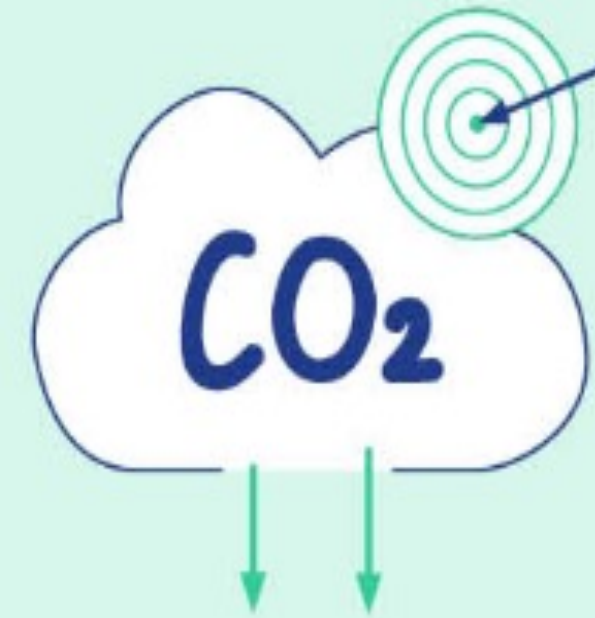
Under the current rules, EU member states must ensure that:

emissions from land use and forestry are **compensated by an equivalent removal of CO₂** within the sector for the period 2021-2030 ('no debit' rule)

The new rules set a more **ambitious EU-level target** for carbon removals by 2030.



National targets



Binding targets for increased net greenhouse gas removals in the LULUCF sector are set **for each member state**. The targets are based on the recent level of removals or emissions and on the potential to further increase removals, taking into account the principles of cost-effectiveness, fairness and environmental integrity.

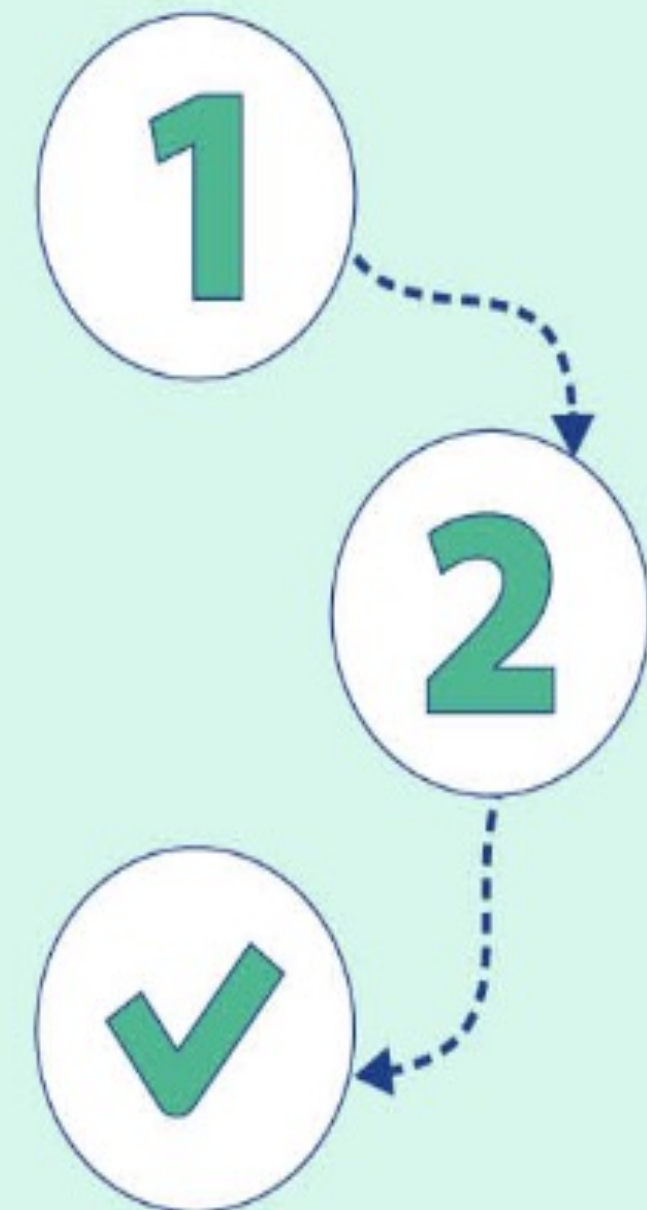
Rules for accounting emissions and removals in the sector are simplified.

Two-phase approach

- **Phase 1 until 2025:** the current system remains largely in place, with the obligation for each member state to balance emissions and removals.
- **Phase 2 from 2026-2030:** a new EU-level target for net removals of 310 Mt, with member states' targets for net removals contributing to the increased ambition.

In addition to national targets, each member state should commit to further net greenhouse gas emissions and removals under 'the budget 2026-2029.'

Member states can continue to be able to use certain **flexibilities** to help comply with their targets, while respecting environmental integrity.



Carbon Farming



- EU certification framework of carbon removals was proposed by the Commission on 30 November 2022
- Important instrument in support of achieving the EU's goal to become the world's first climate-neutral continent by 2050
- Encourage more businesses, land managers, and other stakeholders to contribute to carbon sequestration
- Generate further income by being part of a harmonised and reliable certification framework.

EU Regulatory Framework



Creating a market for capture, use, and storage of CO₂



Carbon farming, such as restoring forests, soils, and management of wetlands and peatlands



Permanent storage, such as bioenergy with carbon capture and storage, or direct air carbon capture and storage



Carbon storage in long-lasting products and materials such as wood-based construction

Type of activity



QUANTIFICATION



ADDITIONALITY



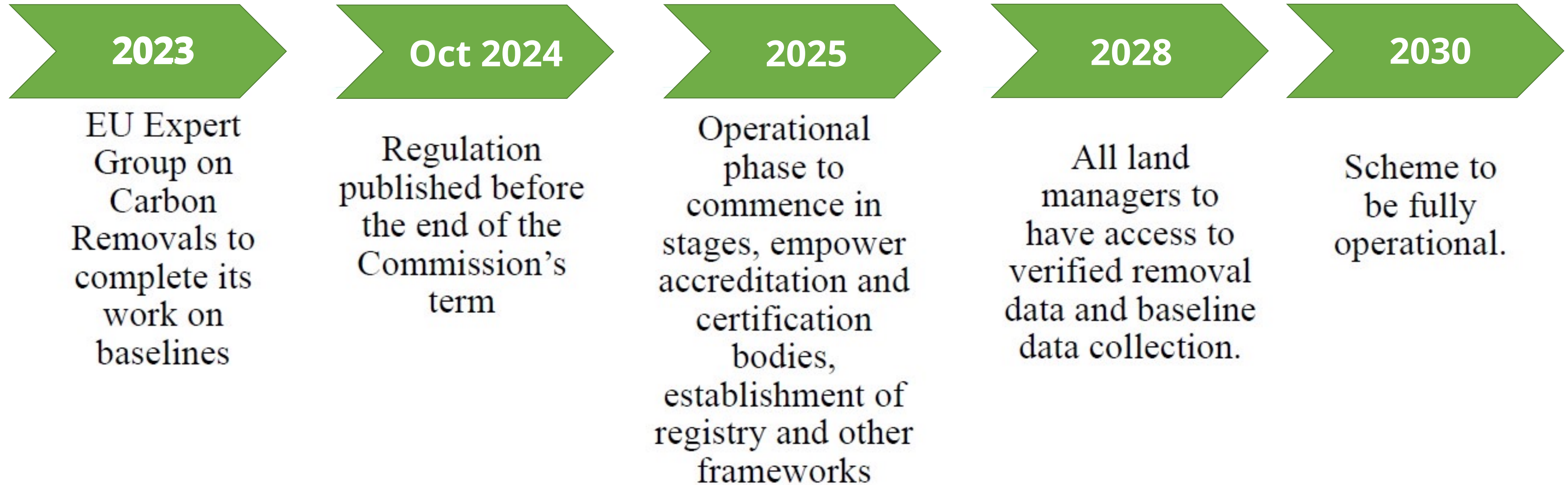
LONG-TERM STORAGE



SUSTAINABILITY

Criteria Proposed

EU Timeline from 2023 - 2030





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Thank you

