

Global Climate Targets and the role of Carbon Farming in the agrifood sector



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Global Climate Targets: the Paris Agreement

1.5°C

Paris Agreement Target
(above pre-industrial levels)

Achieve “Net Zero” emissions
by the end of the century

**More ambitious
target in Europe**

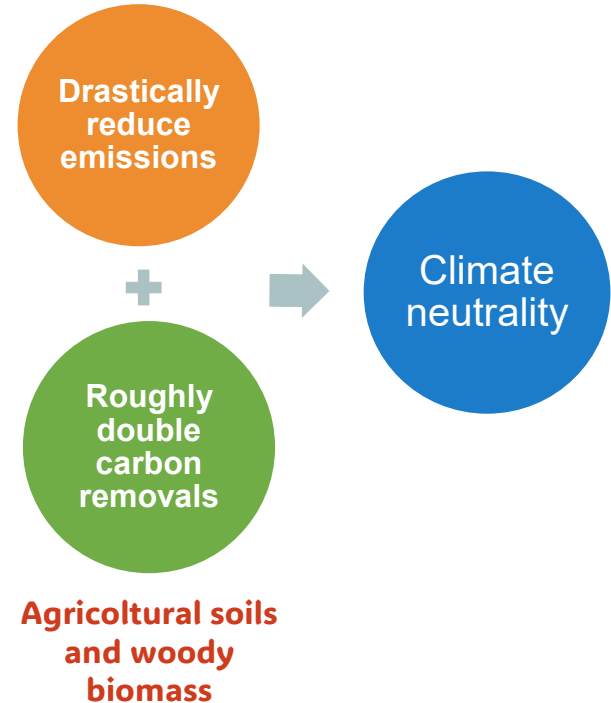
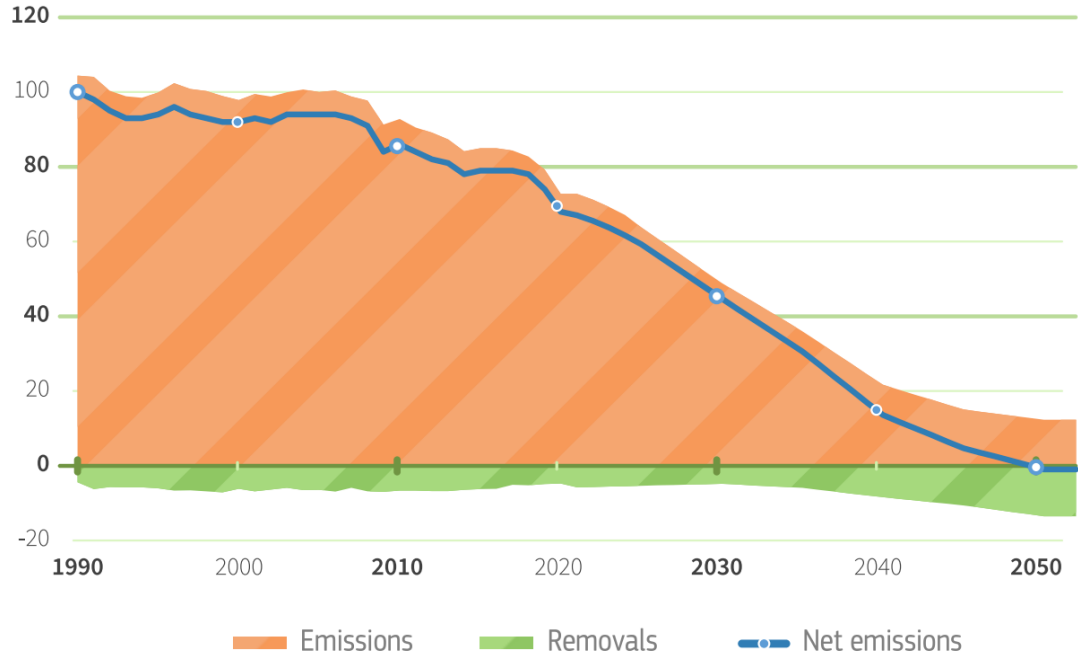
55%

EU 2030 Net GHG Reduction
(vs 1990 baseline)

2050

EU Climate Neutrality
Target Year

The Paris Agreement climate targets: *Why carbon removals?*

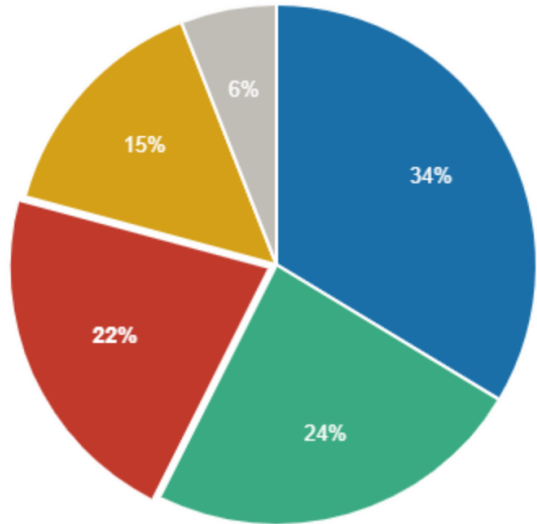


Agriculture's Climate Challenge

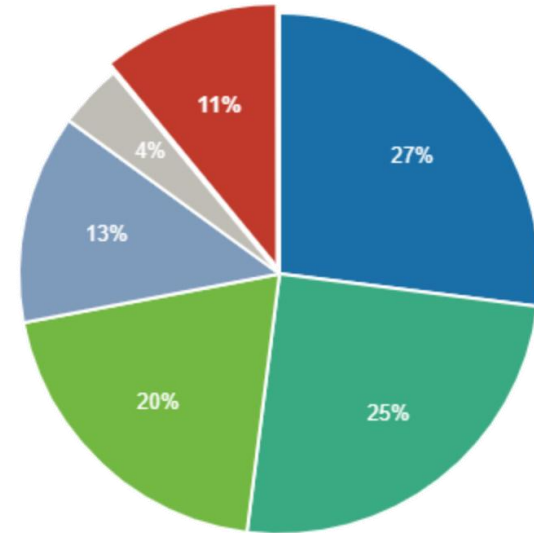
**Agriculture = 22% of Global GHG emissions
(mainly due to tropical deforestation)**

Agriculture = 11% of EU GHG emissions

■ Energy 34% ■ Industry 24% ■ Transport 15% ■ Buildings 6% ■ **AFOLU 22% ★**



■ Energy 27% ■ Transport 25% ■ Industry 20% ■ Buildings 13% ■ Waste 4% ■ **Agriculture 11% ★**



What is Carbon Farming?

Carbon farming refers to **agricultural and land management practices** that remove CO₂ from the atmosphere or reduce GHG emissions, with **farmers rewarded** through **carbon credits**.



Soil Carbon Sequestration

Cover crops, no-till farming, stable organic matter addition to soil (via organic amendment or pruning residues)



Agroforestry

Integrating trees into farmland to capture carbon



Reduction of N fertilizers

Reducing synthetic nitrogen use



Wetland & Peatland Restoration

Rewetting drained peatlands to halt CO₂ release



Regulation UE 2024/3012

Carbon Removal and Carbon Farming Certification Framework Regulation CRCF

Different types of carbon removal activities



CARBON FARMING

E.g. Af-/re-forestation, improved forest management, agroforestry, sustainable management in orchards, soil carbon sequestration, peatland restoration



PERMANENT STORAGE

E.g. Bioenergy with Carbon Capture and Storage (BECCS), Direct Air Carbon Capture and Storage (DACCS)



CARBON STORAGE IN PRODUCTS

E.g. Use of wood-based materials in construction, long-lasting Carbon Capture and Utilisation (CCU)

QU.A.L.I.TY criteria for all carbon removals



QUANTIFICATION

Carbon removal activities are measured accurately and deliver unambiguous benefits for the climate



ADDITIONALITY

Carbon removal activities go beyond market practices and what is legally required



LONG-TERM STORAGE

Certificates clearly account for the duration of carbon storage and distinguish permanent storage from temporary storage



SUSTAINABILITY

Carbon removal activities do not harm the environment or even benefit other environmental objectives such as biodiversity

How does it work?

1



EU develops methodologies & recognises certification schemes

Private or Public initiatives

2



Farmers
Operators join an EU-recognised certification scheme

3



Third-party verification of the activity

4



The activity is periodically certified

5



Certified carbon removals are recorded in registries

Carbon Credits
(1 ton CO₂)
to be sold in voluntary carbon markets



Carbon credits in Italian plum orchards

Cooperativa Modenese Essiccazione Frutta Montere



- Carbon removals in the woody biomass
- Carbon removals in sustainably managed soil (cover crops & pruning residues)

	kg CO ₂ /tree/year	t CO ₂ /ha/yr
Woody biomass	4,03	1,41
Soil		6,75

Opportunities & Way Forward



New Revenue Streams

Farmers earn carbon credits via voluntary & compliance markets



Soil Health & Yields

Improved soil organic matter boosts long-term productivity



Supply Chain Decarbonisation

Food companies meet Scope 3 targets through farm-level action



CAP Integration

Eco-schemes provide direct payments for verified carbon practices



MRV & Digital Tools

Satellite & AI monitoring enables scalable carbon verification



Rural Development

Carbon farming supports economic resilience in rural areas

Carbon farming is not just a climate tool — it is a pathway to a more resilient, profitable and sustainable European agrifood system.