



LANDCARE EUROPE

Captures Carbon

– Supporting Natural Climate Protection in
Agricultural Landscapes
Corinna Friedrich, DVL

Supported by:



on the basis of a decision
by the German Bundestag



LANDCARE EUROPE e.V.

Founding event: 07.06.23, Brussels

Members:

- Deutscher Verband für Landschaftspflege e.V. (DVL), Germany
- Agri-Cultura-Natura Transylvaniae Association (ACNT), Romania
- Baltic Environmental Forum (BEF), Lithuania
- BoerenNatuur, The Netherlands
- Brodsko ekološko društvo - BED, Croatia
- Boerennatuur Vlaanderen, Belgium
- Fédération des Conservatoires d'espaces naturels (FCEN), France
- Legambiente Lombardia, Italy
- Sonairte, Ireland
- Naturschutzsyndikat SICONA, Luxembourg
- Perinnemaisemayhdistys ry. (Pemy), Finland

Friends

- Deutscher Fachverband für Agroforst (DeFaF) Germany
- LPV Freising, Germany



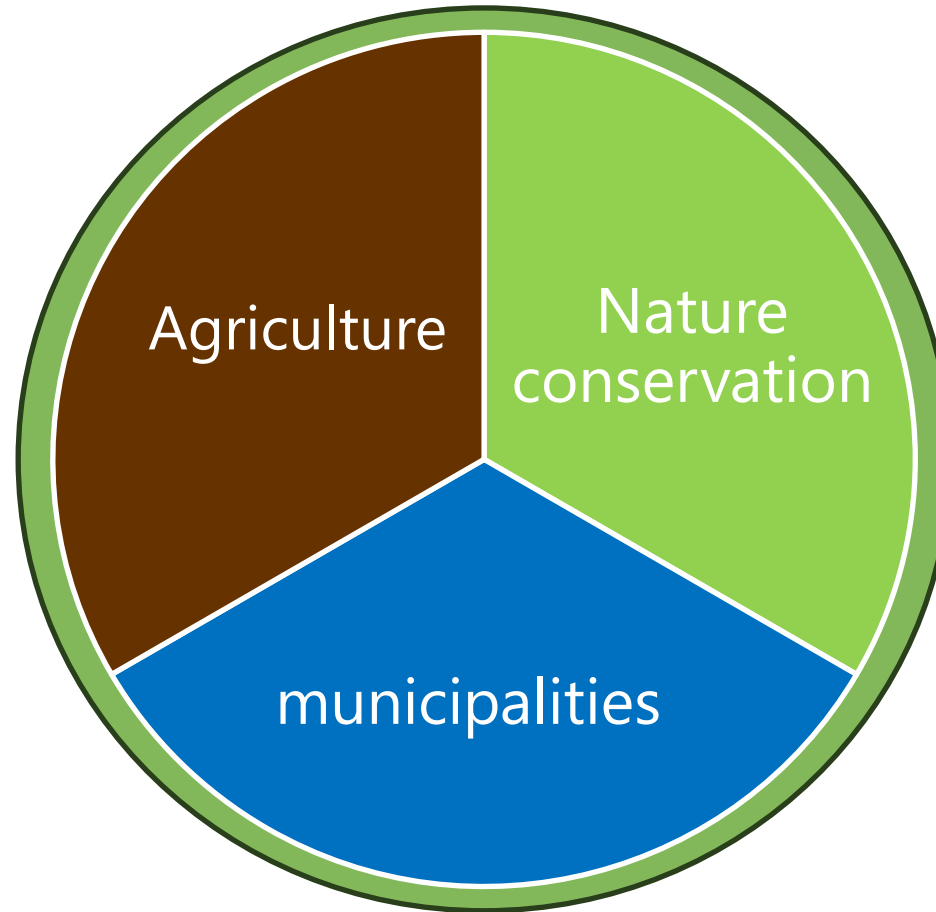
Goals of Landcare Europe e.V.

- 1) **Knowledge exchange** between regions and countries, especially in the areas of agriculture, nature conservation, administration, politics, research and tourism
- 2) **Political and practical implementation of EU strategies**, e.g. the Common Agricultural Policy (CAP), the Water Framework Directive (WFD) or the "Farm to Fork" strategy
- 3) Support the **foundation of new Landcare organizations** and umbrella associations in the Member States



How Landcare Associations (LCA) operate

- Cooperatively
- Voluntarily
- Independently
- Regionally
- Interdisciplinary



The farmers we work with...

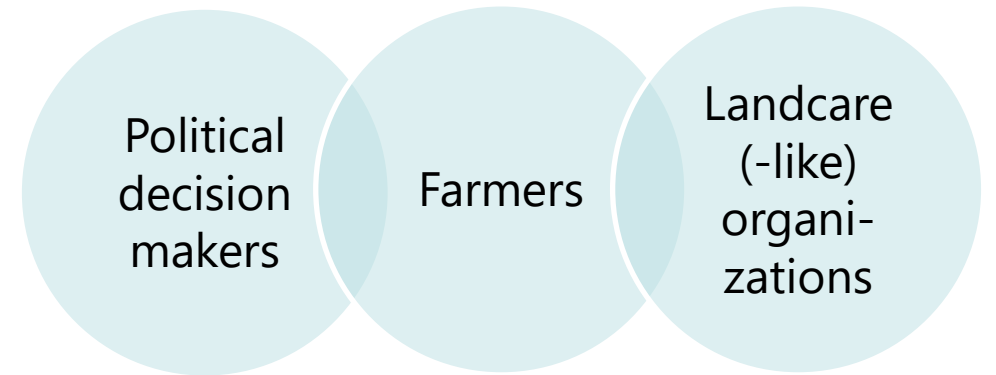
- ... > 100,000 in Europe
- ... cultivate grasslands, arable land, wetlands and special crops
- ... in a conventional or non-conventional manner
- ... on farms stretching from <1 ha to >3,000 ha
- ... on private, public and communal land
- ... from family to agri-businesses



What is our project goal?

EUKI Project: LANDCARE EUROPE Captures Carbon – Supporting Natural Climate Protection in Agricultural Landscapes (11/2023 – 3/2026)

- **Knowledge** on the political and practical implementation of **natural carbon sinks** in agricultural landscapes has improved in Europe amongst **political decision makers, multipliers and practitioners**.



Emissions from agriculture

- EU-28 agriculture: total, 490.6 million tonnes of CO₂eq (12.4% of total EU emissions)
- 434.9 from methane, nitrous oxide and carbon dioxide from livestock, nitrogen fertilisation and others
- 55.7 million tonnes carbon dioxide from agricultural organic soils and the conversion of permanent grassland to arable land, minus the sink effect of mineral soils.
- sink function of mineral soils: 50 million tonnes of CO₂.
- The largest source of CO₂ is the use of peat soils.

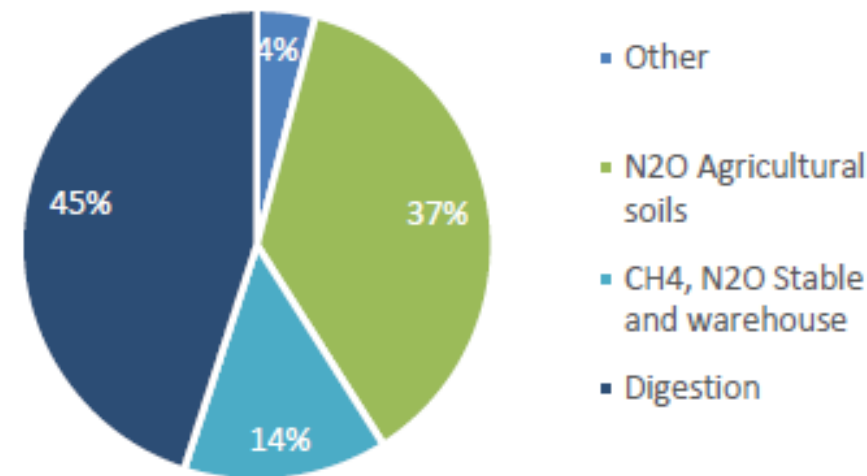


Figure 1 Source: UNFCCC Inventory Submission 2020

Source: “Improving the contribution of the Common Agricultural Policy to climate change mitigation” - Germanwatch - Quantification of greenhouse gas emission reduction potentials of the CAP; conditionality (GAEC standards) for direct payments and possible eco-schemes

Highest saving potentials

- the **reduction of nitrogen inputs** including the reduction of nitrogen surpluses
- the **land commitment of livestock**, in particular grassland commitment for ruminants
- the **management of organic soils** used for agricultural purposes
- the **expansion of uncultivated land and agroforestry systems**.

Table 3: Overview of the mitigation effects of the CAP

Measures	Reduction (million tonnes of CO ₂ eq.)
GAEC standards	-0,3 bis -28,9
Eco-Schemes	-72,1
TOTAL	-72,4 to -101,0
Overall reduction compared to 2018 (490,6 million tonnes of CO ₂ eq.)	-14,8% to -20,6%

Source: Own calculations based on UNFCCC 2020 and Eurostat Database 2020

Workshops

Country	Time	Topic
Croatia	11.-13.06.24	Extensively managed grasslands as natural carbon sinks and requirements for CAP measures Focus paper
Czechia	30.09 – 02.10.24	Soils as natural carbon sinks – Practical implementation of water and soil management and requirements for CAP measures Focus paper
Romania	16.-18.06.25	Traditional & modern agroforestry systems as natural carbon sinks and requirements for CAP measures
Lithuania	10.-11.09.25	Peatlands as natural carbon sinks In cooperation with EUKI project „Buildiung the European Peatland Alliance” and „Eurosite Annual meeting”



© Landcare Europe



© Landcare Europe

Sign up till June 31st 25: <https://www.landcare-europe.org/events>

LANDCARE EUROPE Captures Carbon



Focus Paper on Agroforestry Systems

What are agroforestry systems?

What are agroforestry systems?

- **Agroforestry systems** are *"land use systems in which trees are grown in combination with agriculture on the same land"* (Article 23 of Regulation (EU) No. 1305/2013)
- **Agroforestry practices** include all forms of association of trees and crops (silvoarable systems) and/or animals (silvopastoral systems), on a parcel of agricultural land, whether in the interior of the parcel or on its edges (hedges) (EURAf).



© Tobias Hoppe, Bioland

What are agroforestry systems?

Traditional agroforestry systems on farmland include (grazed) orchards, wood pastures, hedgerow systems, dehesas/montados...

Modern agroforestry systems are systemically designed in lines or patterns on arable land or grassland in the way that the wooden structures are integrated in the agricultural production with minimum limitations for machinery and create ecological, social and/or economic benefits.

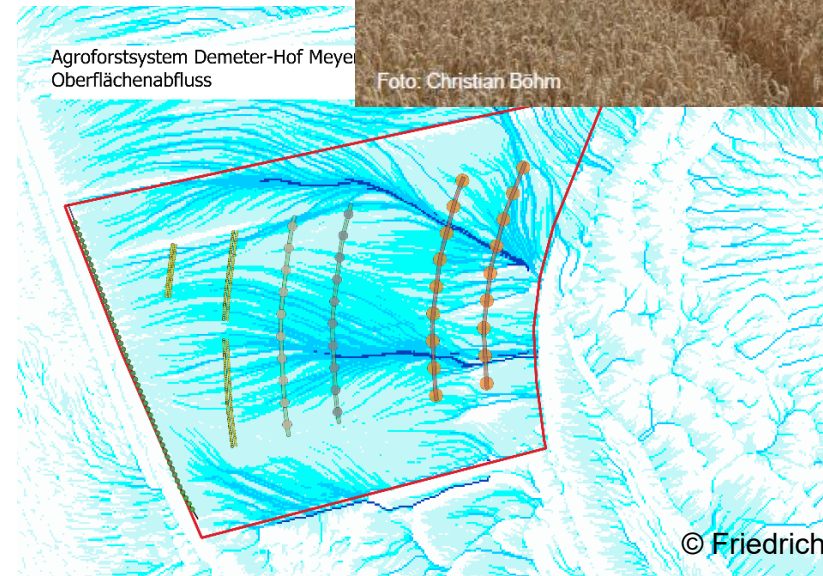


© Tobias Hoppe, Bioland

Benefits for the climate and other public goods

Further (ecosystem) services

- **windbreaks effect**, up to -94% reduction of wind erosion (Böhm et al., 2014)
- **Reducing water erosion** (mechanical barrier)
- **Water protection** through filtering effect (water quality) and better **water retention** under wooden strips (less evaporation), higher humidity due to more transpiration



Further (ecosystem) services

- **Animal welfare** (shade for grazing animals, fodder hedges)
- Improved **soil** structure through roots, soil rest and humus accumulation



Further (ecosystem) services

- diverse landscapes
- higher biodiversity
- supporting bird populations (no open land species!)
- connection of habitats



Challenges...

- **Legal security** (agriculture, nature conservation and forestry legislation)
- high **investment costs**
- Special **knowledge, skills and machinery** are needed
- **long term planning** required
- Agroforestry systems on **leased land**
- **potential conflicts with nature conservation** (monocultures, invasive tree species, sensitive areas, bird species of the open land)



Goals

- **Step 1: Secure legal status of agroforestry systems on farmed land long-term**
- **Step 2: Introduce Eco-scheme on agroforestry**
- **Step 3: Agri-Environmental and Climate Measures for agroforestry systems**
- **Step 4: Initial funding, value chains, research**
- **Step 5: Offer advice on agroforestry systems**

Looking forward to the exchange...

Corinna Friedrich

Deutscher Verband für Landschaftspflege (DVL) e.V.

Promenade 9

91522 Ansbach

Tel. 0981/1800 99-11

E-mail: c.friedrich@dvl.org

www.dvl.org

www.landcare-europe.org



Panel discussion

Panel discussion

“What needs to be done, to promote agroforestry systems in Europe, that help to mitigate climate change?”

Moderator: Szilvia Bencze, Agri-Cultura-Natura Transylvaniae Association

- » Tamás Szedlák, former DG AGRI
- » Traci Birge, University of Helsinki
- » Werner Thumann, LPV Neumarkt i.d. Oberpfalz, Germany
- » Linda Magyar, CEEweb for Biodiversity

Working groups

Working groups

Necessary regulatory framework and CAP measures

- Group 1: Recommendations for the CAP, *Traci Birge, University of Helsinki, Corinna Friedrich, DVL*

Practical implementation of agroforestry systems

- Group 2: What are key success factors for implementing successful projects to foster agroforestry with several farmers/stakeholders? *Iris Benes, BED / Gergely Rodics ACNT*
- Group 3: How can Landcare (-like) organisations support the spread of agroforestry systems agriculture? *Sylvie Rockel, Landcare Europe*