# Exploring requirements for carbon farming to deliver on sustainability

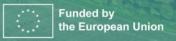
- Focus Group 2.1 -

7<sup>th</sup> March 2024

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Appropriate naturebased Carbon Dioxide Removal solutions

Robust quantification and MRV to acceptable costs

Additionality and leakage effects to be addressed

The most important economic resource of a carbon dioxide removal certificate is trust in the future!

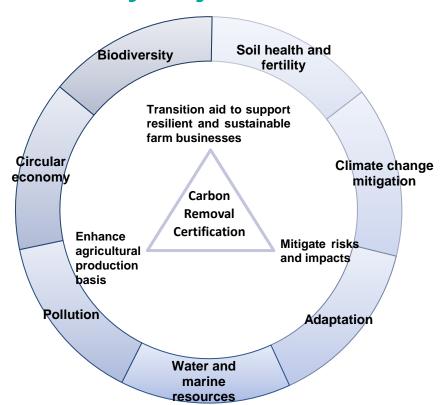
Resilient and sustainable farm business model while sustaining food production

Enhancing the production basis of farms

Compliance with environmental and social objectives of the European Union



#### **Sustainability objectives**



## Carbon Removal Certification as a tool:

- To support and finance the transition of the agricultural sector towards resilient and sustainable farm business models
- Enhance the agricultural production basis
- Mitigate risks and impacts
- Delivering a wide range of sustainability objectives

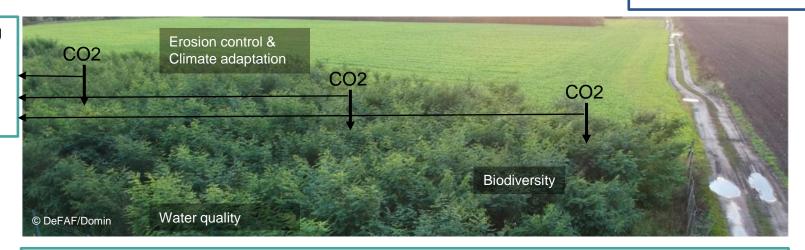


## **Agroforestry systems**

Agroforestry system Southern Brandenburg 7 ha 9 different wood strips

Carbon Farming Credit

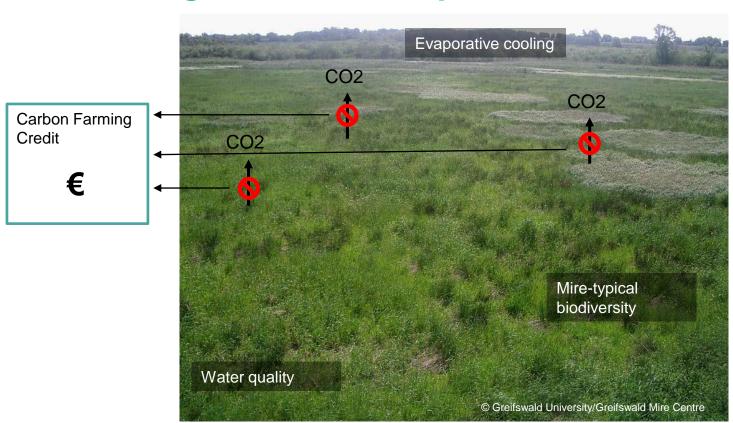




- Not accounting and rewarding ecosystem services a missed opportunity
- The isolation of climate services carries the risk of reducing the value of climate-friendly agricultural measure while neglecting or even damaging other ecosystem services



### Rewetting of wetlands & peatlands



Polder Randow-Rustow Rewetted 1999 Partly mown/grazed



#### **Quantification of ecosystem services**

Ecosystem services are highly dependent on the agricultural practice

Methodologies to quantify ecosystem services based on agricultural practices

- 1 Quantifying ecosystem services of rewetted peatlands the MoorFutures
- 2 methodologies

2

- 4 Tanneberger, F. 1,2, Berghöfer, A.2, Brust, K.3, Hammerich, J. 4,5 Holsten, B.7, Joosten, H.1,
- 5 Michaelis, D.<sup>1</sup>, Moritz, F.<sup>1</sup>, Reichelt, F.<sup>6</sup>, Schäfer, A.<sup>1,6</sup>, Scheid, A.<sup>8</sup>, Trepel, M.<sup>7</sup>, Wahren, A.<sup>3</sup>
- 6 & Couwenberg, J.1,6

Tanneberger et al. (in revision) Ecological Indicators

Rewetted polder Kieve (NE-Germany)

Standard and premium approach

ESS	Baseline pa	After 5 years
Greenhouse gas Emission Site Type (GEST)	1,306 t CO <sub>2</sub> e	543 t CO₂e pa
Nitrogen Emission Site Types (NEST)	1,088 kg N	309 kg N pa
Evapotranspiration Energy Site Types (EEST)	6,691 kW	2,250 kW pa
Mire-specific biodiversity	Low	low



## **Hypothesis**

Sustainability standards are essential to correct and create trusted carbon markets raising new funds for the transition of the agricultural sector towards resilient and sustainable business models.

Sustainability standards increase the interest of investors to invest into carbon markets certificates.

Ecosystem services are highly interwoven and need to be recognized, quantified and rewarded.

The isolation of climate services carries the risk of reducing the value of climate-friendly agricultural measure while neglecting or even damaging other ecosystem services.



#### Outcomes of focus group 9

#### **Organization**

- 14 Focus group members
- 2x Focus group meetings
- Draft background note

#### **Focus question**

How should carbon farming certification standards promote sustainability outcomes?

#### **Discussions**

- Sustainability frameworks: What are suitable and existing frameworks on sustainability that the CRCF can make use of?
- Sustainability approaches: What are potential approaches to ensure sustainability outcomes through carbon removal certification?
- Implementation: How to implement theses approaches to ensure trusted carbon markets?
- Sustainability indicators: What are relevant indicators of sustainability?
- Quantification of ecosystem services: How to quantify ecosystem services?



#### Timeline of the next steps





### Thank you





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