CREDIBLE
EU carbon farming

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Policy brief

Ensuring carbon farming delivers sustainability benefits

Recommendations for carbon farming certification methodologies

Project CREDIBLE: “Building momentum and trust to achieve credible soil carbon farming in the EU”.

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Key messages

- Carbon farming practices do not just affect the climate, they also impact other sustainability outcomes, including biodiversity, soil health, and water. **Carbon farming certification must support broad sustainability objectives**.
- In this brief, we propose how the EU's regulation establishing a Carbon Removal and Carbon Farming Certification Framework (CRCF) can **ensure that carbon farming also delivers sustainability outcomes in the case of carbon farming on mineral soils**.
    - **To meet minimum sustainability requirements, farmers should complete a "farm environment plan**," which should be supported by a farm advisor, be low cost for farmers, and support adoption of sustainable farming practices – without requiring it. A negative list of excluded high-risk actions could avoid carbon farming actions that pose high risks to sustainability.
    - **To incentivise co-benefits beyond minimum requirements, the CRCF should support market price premiums** by creating a "CRCF Sustainability+" label, based on farmer self-assessment of sustainability indicators, supported by random third-party audits. Alternatively, the CRCF should encourage voluntary quantification of sustainability impacts, though there is a current lack of consistent and low-cost approaches.
- **We also identify six principles to guide how sustainability can be achieved through carbon farming certification**, including calling for a **holistic approach**, ensuring **accessibility** for farmers, **pragmatism**, providing **incentives** to reward sustainability, and **consistency** and **integrity** to facilitate market demand.

CREDIBLE is an EU-funded Horizon project that aims to build trust for the implementation of carbon farming by supporting the development of a consensus on methodologies that enhance soil's capacity as carbon sink at European level. With 11 Focus Groups, it engages experts and stakeholders in discussing key issues on soil carbon sequestration, quantification, data and policy.

Focus Group 2.1 "Minimum requirements to ensure carbon farming delivers sustainability benefits" features participants from carbon farming certification schemes, farmer associations, soil scientists, and policy experts. We aim to support the EU Expert Group on Carbon Removals by providing recommendations on how the objective of sustainability can be operationalised for carbon farming within the EU Regulation establishing a Certification framework for permanent carbon removals, carbon farming and carbon storage. In addition to six online workshops, our recommendations reflect an in-person workshop with wider stakeholders at the 2023 EU Carbon Farming Summit. **Focus Group Members are listed on page 10.**

Introduction

Carbon farming increases the amount of organic carbon stored in soils and biomass, mitigating climate change. Carbon farming practices don't just affect the climate, they may also impact other sustainability outcomes, including biodiversity, soil health, and water use and quality. **The promotion of carbon farming poses an opportunity – and a risk – for meeting other sustainability objectives, alongside climate change mitigation.**

In 2024, the European Union established a certification framework for permanent carbon removals, carbon farming and carbon storage in products (the **CRCF**).[1] It supports the upscaling of carbon farming (and other carbon removals) by establishing a voluntary framework for carbon removal activities, including monitoring and verification processes and minimum quality standards.

In this policy brief, we recommend how the CRCF can maximise the positive impact of carbon farming on biodiversity, adaptation, water and other sustainability outcomes - and avoid negatively affecting these crucial objectives.[2] Our recommendations are targeted at the specific context of carbon farming on mineral soils. These recommendations reflect Focus Group member discussions and views.

Sustainability in the CRCF certification methodologies

The CRCF's key tool for ensuring high quality carbon farming removals is the **certification methodologies**, which are currently being developed by the Commission with input from a group of experts. These certification methodologies will establish standards for quantifying mitigation impacts, demonstrating additionality, ensuring long-term storage or liability for removals, and meeting sustainability requirements.

The CRCF considers the following sustainability objectives:

a) climate change **mitigation** beyond the net carbon removal benefit and net soil emission reduction benefit,
b) climate change **adaptation**,
c) sustainable use and protection of **water** and marine resources,
d) **pollution prevention** and control,
e) transition to a **circular economy**, including the efficient use of sustainably sourced bio-based materials, and

[1]REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a Union certification framework for permanent carbon removals, carbon farming and carbon storage in products: Item9-Provisionalagreement-CFCR_2022-0394COD_EN.pdf

[2] While we recognize the relevance of methodology design, quantification of soil organic carbon, monitoring, reporting, and verification (MRV), etc., it is important to note that these issues are not within the scope of our discussions about sustainability

f) protection and restoration of **biodiversity** and ecosystems including soil health, as well as avoidance of land degradation (mandatory for carbon farming).[3]

The CRCF sets two sustainability requirements, which should be addressed by the certification methodologies:

- **Minimum sustainability requirements** (Article 7.1): Carbon farming activities must generate co-benefits related to (f) protection and restoration of biodiversity and must do no significant harm to other sustainability objectives.
- **Co-benefits beyond minimum sustainability requirements** (Article 7.3): Certification methodologies should include elements to incentivise as much as possible the generation of co-benefits that go beyond minimum requirements, especially related to protection of biodiversity and ecosystems.

Principles for ensuring sustainability

The focus group identified the following principles to guide how sustainability can be achieved through carbon farming certification[4]:

1. **Holistic approach:** Carbon farming should incentivise a holistic and context-specific approach to farm management that promotes sustainable outcomes and avoids unintended negative sustainability impacts**,** whilst prioritising climate mitigation.
2. **Accessibility**: Participation costs for farmers must be minimised to ensure that it is financially attractive for farmers to implement sustainable measures. Financial support should be provided to early adopters of carbon farming practices, e.g. for advisory services and MRV, or in the form of offtake agreements.
3. **Pragmatism:** A pragmatic approach should be taken to ensuring sustainability through carbon farming certification to reduce the barriers to farmer participation and promote farmer uptake, e.g. integrating existing management and monitoring systems.
4. **Incentives:** Farmers should be rewarded for the sustainability impacts of carbon farming, which will be enabled by robust monitoring of impacts.
5. **Consistency:** Carbon farming certification approaches to sustainability should be consistent and comparable to facilitate market demand.
6. **Integrity:** Certification must deliver buyers robust sustainability impact information, using metrics and indicators that are valuable to them. The CRCF must also manage buyer claims, to ensure they align with the sustainability impacts delivered.

[3] We propose that criteria (f) should be interpreted to mean “protection and restoration of biodiversity and ecosystems,” with “soil health” and “avoidance of land degradation” as additional but not sufficient examples of how this could be met. That is, simply avoiding land degradation should not be considered sufficient to achieve this objective – biodiversity and ecosystems must also be protected and restored.
[4] Our principles focus on sustainability outcomes (i.e. beyond climate mitigation). Out of scope for this brief but crucial is the overall environmental integrity of the CRCF, which demands robust rules for quantification, additionality, double-counting/claiming and permanence, as well as regulation of buyers’ environmental claims.

Operationalising sustainability in the CRCF Certification Methodologies

Based on Focus Group discussions, we have developed a proposal for how the CRCF certification methodologies can ensure sustainability, in line with the principles identified.

We propose a differentiated approach to meet the minimum sustainability requirements (Article 7.2) of generating some biodiversity co-benefits and doing no significant harm to other sustainability objectives, and incentivising co-benefits beyond minimum requirements (Article 7.3). Our proposal has been developed for the specific context of carbon farming on mineral soils.[5] The overall approach is illustrated in Figure 1.

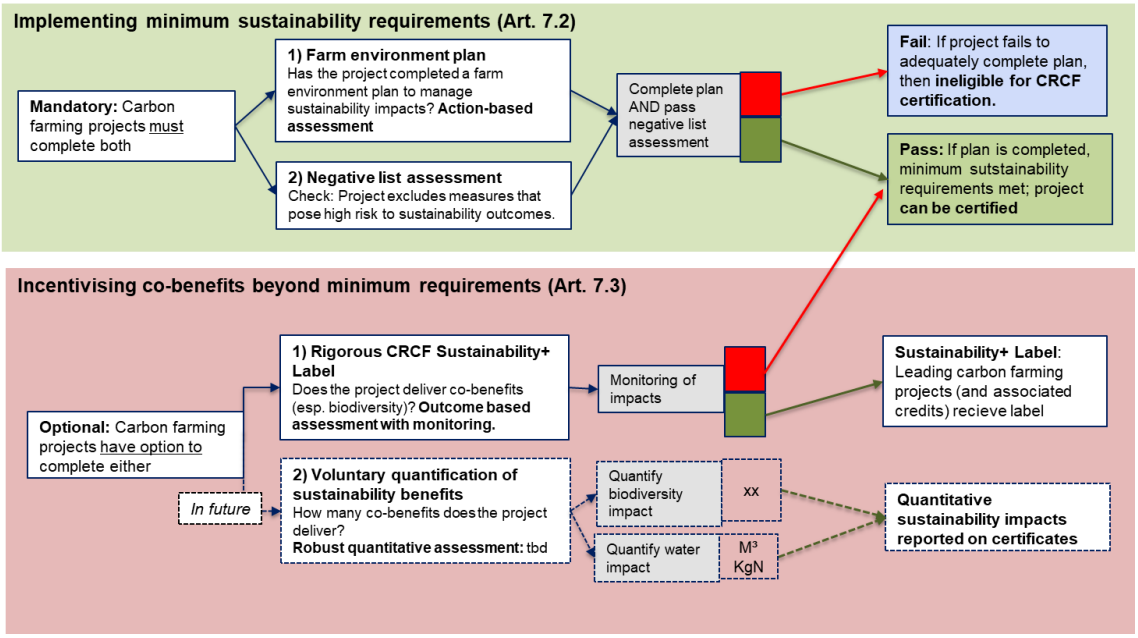

Figure 1. Operationalising sustainability in CRCF Certification Methodologies: visual overview

Implementing minimum sustainability requirements

To meet the minimum sustainability requirements, we propose all carbon farming projects must complete two mandatory steps: 1) a farm environment plan and 2) a negative list assessment.

Minimum sustainability requirement 1: Complete farm environment plan

Carbon farming projects would be required to complete a farm-environment plan. This should be completed as part of the project design document at validation and assessed when the project is verified. The **content** of the farm environment plan should

[5] This approach could be adapted to other carbon farming activities and their certification methodologies, e.g. peatland rewetting, agro-forestry.

relate to the CRCF sustainability objectives (i.e. mitigation, adaptation, water, circular economy, pollution prevention, biodiversity). It could be quantitative (e.g. based on a digital farm management tool that estimates sustainability outcomes arising from carbon farming actions). It could, alternatively, be qualitative: a structured series of steps, questions, and requirements, whose aim is not to quantify sustainability impacts but gather data and provide a frame for increased farmer understanding of sustainability impacts. The **process** should involve a farm advisor and farmer collaborating, drawing on farmer knowledge of the farm and local context and farm advisor sustainability expertise, to complete the plan, interpret results, identify potential improvement strategies and how they could be implemented, and relevant monitoring indicators.

The cost of this step for farmers must be minimised to avoid this requirement being a barrier to farmer participation. To this end, it should be aligned with the CRCF's quantification of mitigation and draw on existing data to the extent possible. Given the public benefit of a farm environment plan for farmers, its creation should be publicly subsidised (e.g. under CAP). To encourage first movers, offtake agreements and other upfront financing should be offered.

The farm environment plan assessment would be **action-based, and not conditional on monitoring of impacts**: the minimum sustainability requirements would be assumed to be met if the carbon farming project completed the farm environment plan and kept it updated over the life of the carbon farming project, justified by a theory of change that increasing farmer knowledge will increase the sustainability of their actions.

	Justification	Potential issues
Farm environment plan	**+ Increasing farmer knowledge** of sustainability impacts will increase likelihood that they implement sustainable carbon farming measures. **+ Holistic and farmer-centred**: considers unique local context and farmer expertise.	**- No monitoring** of sustainability outcomes (as action-based) **- Costly for farmer and administrator**: Must be co-financed by CAP and must generate high value for the farmer. **- Insufficient farm advisory services Europe-wide?**

Minimum sustainability requirement 2: Pass negative list assessment

As an additional safeguard, the CRCF should identify a "negative" list of carbon farming measures that pose an especially high risk to one or more sustainability objectives. A potential example could be increased residues from legumes on the field, which in some contexts increases nutrient leaching. Carbon farming projects would be required to demonstrate that they do not implement any of the practices included in the negative list. The negative list should evolve over time based on the ongoing monitoring and assessment of carbon farming practices. This step would ensure that should any carbon farming activities proven to have significant negative impacts on sustainability

objectives in many contexts can be excluded from certification, avoiding the funding of unsustainable business models.

	Justification	Potential issues
Negative list assessment	**+ Low-cost mechanism** to avoid most high-risk measures	**-** Given context-specificity of sustainability impacts, **challenging to create meaningful "negative" list**

Other approaches to implementing minimum requirements considered and rejected: The Focus Group also considered an "activity eligibility assessment". This approach would have required the Commission to assess all potential carbon farming measures, and categorise them into no-risk, medium-risk, high-risk of failing the minimum sustainability requirements. This would involve upfront setup costs but would have low costs for farmers, as they could just avoid implementing high risk measures. A differentiated approach to sustainability requirements was supported (e.g. lower requirements for low-risk measures or smaller actors). However, the overall approach was rejected, as the measure-by-measure approach fails to consider whole-farm impacts, and because carbon farming's context specificity makes very difficult to generalise sustainability risks across the EU, and because it insufficiently supports farmers.

Incentivising co-benefits beyond minimum requirements

The CRCF regulation calls for incentivising co-benefits beyond minimum requirements. We propose that the CRCF differentiate those carbon farming projects that generate additional benefits for biodiversity and ecosystem services to provide options for buyers who would like to reward these additional efforts (in the form of price premiums) To enable this, the certification process and resulting credits must demonstrate sustainability benefits in a manner that is valuable to buyers. We propose that this is achieved through two voluntary steps: 1) a sustainability label (the CRCF Sustainability+ Label) and 2) the voluntary quantification of sustainability benefits.

Incentivising co-benefits beyond minimum requirements 1: Sustainability+ label

Carbon farming projects that generate benefits for sustainability should be able to apply for a "**CRCF Sustainability+" label**. This would be voluntary. **The label would be outcome-based**, i.e. based upon project monitoring of indicators linked to sustainability criteria. This label would be awarded to projects and appended to the certificates and publicised in registries and marketplaces, acting as a qualitative indicator of the additional sustainability benefits associated with projects generating the certificates, supporting increased demand and prices premiums.

Farmers would monitor sustainability outcomes based upon self-assessment. Any farmer who reports improvement in two or more indicators would be eligible for the label. Assessment and reporting should be aligned with the quantification of mitigation impacts, to reduce farmer transaction costs, and be subject to random auditing by third-party verifiers.

Monitoring must focus on sustainability objective (f) biodiversity. Sustainability indicators should be monitorable at low cost, be good proxies for sustainability objectives, and be affected by farmer actions. The selected indicators must be recognised by buyers, we therefore propose that indicators are selected from the Regen10 Outcomes Framework.[6]

Given the current lack of sufficient incentives for biodiversity or nature outcomes, the CRCF should act now and promote the development of robust sustainability requirements. Should mature methodologies and markets for sustainability impacts be developed outside of the CRCF (e.g. biodiversity or water quality credit markets), the CRCF revision should consider the extent to which certification methodologies should set ambitious sustainability requirements versus how the CRCF could facilitate farmers earning multiple credits for generating multiple benefits (e.g. mitigation, biodiversity, water quality).

	Justification	Potential issues
Sustainability+ label	**+ Low cost** **+ Generates incentive for farmers** to monitor biodiversity indicators and take action to increase hem.	**- Focuses only on biodiversity outcomes** **- Some indicators challenging to self-assess**, e.g. number of wild native species would require farm advisor support. **- Self-assessment may be insufficiently trustworthy** to generate market price premiums and may also pose risks for farmers, if a later audit disagrees.

Incentivising co-benefits beyond minimum requirements 2: Voluntary quantification

The next revision of the certification methodology (by 2029) should feature voluntary quantification of sustainability impacts and allow carbon farming projects to report these on their carbon farming certificates. This will enable those

[6] E.g. Health of farm biodiversity (# of wild native species on the farm - bird count and pollinator count; # of crop species), farm habitat health (# indicator species for habitat quality, % Area of natural, productive and restored habitats; % edge-of-field in native species; area of restored/ created habitats ha). Note not all Regen10 indicators are appropriate, as some are not linked to farmer actions (e.g. “quality of land for farming”, which is a land characteristic). See https://regen10.org/outcomes-based-framework/

who deliver more biodiversity benefits to demonstrate this to buyers and attract larger price premiums.

We call on the Commission to support the identification and/or development of approaches for the voluntary quantification of sustainability impacts. This recognises the current challenge of identifying a consistently agreed, low-cost sustainability quantification approach. The approach should quantify sustainability impacts in a manner that is valuable to buyers, considering e.g. requirements of the Corporate Sustainability Reporting Directive, Science Based Targets Network, Taskforce on Nature-related Financial Disclosures, Corporate Sustainability Due Diligence Directive and other drivers of corporate demand. The priority sustainability objectives for quantification should be (f) biodiversity and (c) sustainable use of water and marine resources.

In line with a pragmatic focus of the CRCF on climate mitigation, some Focus Group members called for partnering with approved sustainability standards external to the CRCF. They could apply their own methodologies to measure additional sustainability benefits, with results reported on CRCF certificates to support premium prices for sustainable carbon farming projects.

	Justification	Potential issues
Voluntary quantification	**+ Result-based,** incentivising projects to deliver extra sustainability benefits through higher price premium	**- No short-term impact,** as not included in initial version of certification methodology - **High MRV requirements**, potentially costly for farmers

Other approaches to incentivising co-benefits beyond minimum requirements considered and rejected: The Focus Group also considered whether all carbon farming projects should receive a Sustainability+ label just for passing minimum requirements (reflecting minimum requirement that carbon farming projects generate co-benefits for biodiversity). However, this was rejected, as it represents an insufficiently ambitious definition of sustainability impacts, would not incentivise projects to go beyond minimum standards, and therefore unlikely to be valued by the market (generating no price premium).

The Focus Group considered framing sustainability benefits within the framework of the Sustainable Development Goals framework but concluded that this was too general to operationalise action at farm level.

Annex

Focus Group members

Name	Affiliation	Role	Country	
Hugh McDonald	Ecologic Institute	Lead	Germany	CREDIBLE partners
Julia Pazmino Murillo	Ecologic Institute	Co-lead	Germany	
Aaron Scheid	Ecologic Institute	Co-lead	Germany	
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Ricardo Beck	SAE Innova	Member	Spain	
Julia Grimault	I4CE	Member	France	
Mathieu Mal	EEB	Member	Belgium	
Juan Sagarna	COOP ES	Member	Spain	
Hui Xu	ILVO	Member	Netherlands	
Scarlett Benson	SBTN/Systemiq/FOLU	Member	UK	External Partners
Claire Chenu	INRAE	Member	France	
Ivo Degn	Climate Farmers	Member	Germany	
Maguelonne Joubin	Direction Générale de l'Energie et du Clim	Member	France	
Jens Leifeld	Agroscope	Member	Switzerland	
Wesley Snell	ETIFOR	Member	Italy	
Chris Ajemian	Verra	Observer	USA	
Owen Hewlett	Gold Standard	Observer	UK	
Nanna Victoria Kryger	DG CLIMA	Observer	Belgium	

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