

Carbon Farming – Possibilities and Challenges

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Carbon Farming

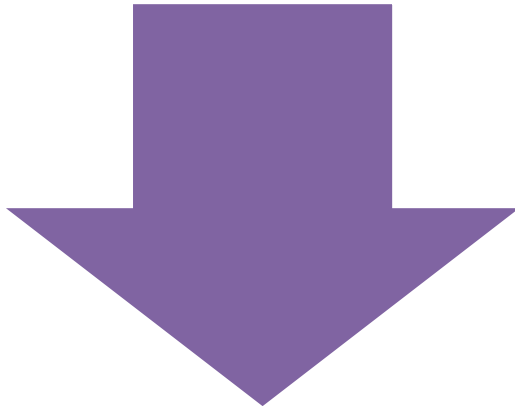
- Nothing new for us farmers
- We have always done it but now it has a name
- From rescuing the Baltic Sea to save the World/EU
- Makes more sense for Us than cutting the use of fertilizers, now we have to invest in better soil conditions → better production possibilities

Climate-neutral production of food and biomass by 2035



Increase net carbon removals by 20%

- Rewetting of drained peatlands
- Afforestation and reforestation
- Soil management
- Agroforestry
- Carbon Storage Products, Harvested Wood Products



Reduce non-CO2 emissions in agriculture by 20%

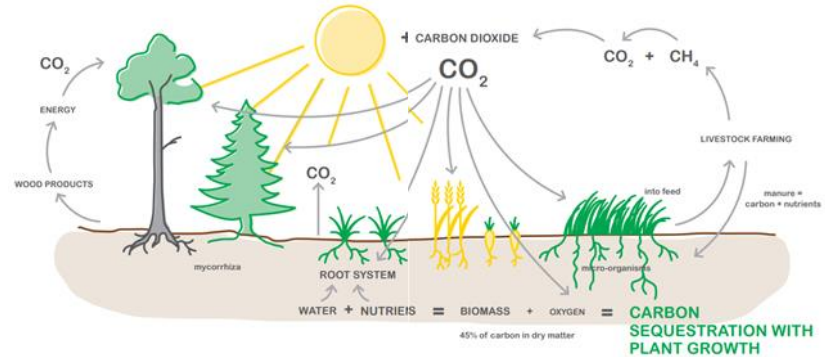
- Precision farming
- Efficient fertiliser use
- Anaerobic digestion
- Feed additives and breeding



Euroopa Maaelu Arengu
Põllumajandusfondi:
Euroopa investeringud
maapirkondadesse

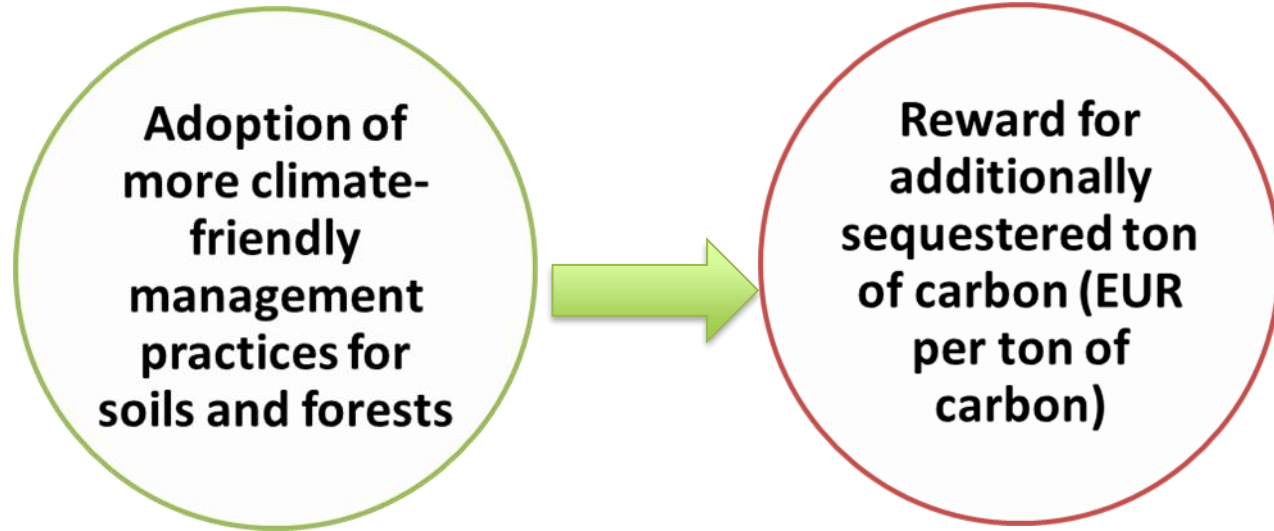
What is Carbon Farming?

- There is no single definition or list of measures
- Principle is simple: Carbon sequestration through photosynthesis of plants
 - Organic matter to soil
 - Health benefits of soil: Nutrient balance, water retention capacity, micro-organisms, diversity
 - Better yields
 - Climate change mitigation and adaptation



Picture: [MTK's Climate Programme 2018](#)

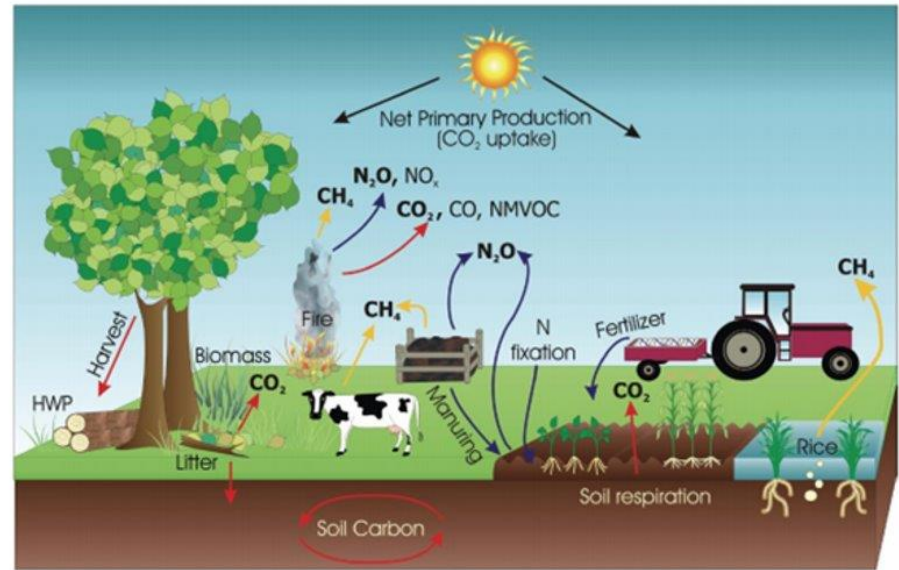
Carbon Farming in a nut shell



Definition of Carbon Farming, Commission: Technical Guidance Handbook

- *...Management of carbon pools, flows and GHG fluxes at farm level, with the purpose of mitigating climate change.*
- *This involves the management of both land and livestock, all pools of carbon in soils, materials and vegetation, plus fluxes of carbon dioxide (CO_2) and methane (CH_4), as well as nitrous oxide (N_2O)...*

Figure 1 The main greenhouse gas emission sources/removals and processes in managed farmland




Source: IPCC (2006)

Source: [Technical Guidance Handbook](#)

Definition of Carbon Farming: [MTK's and SLC's Soil Programme](#)

- *Regarding all cultivation seeking to reduce the loss of soil organic matter or increase soil carbon content is considered as carbon farming*

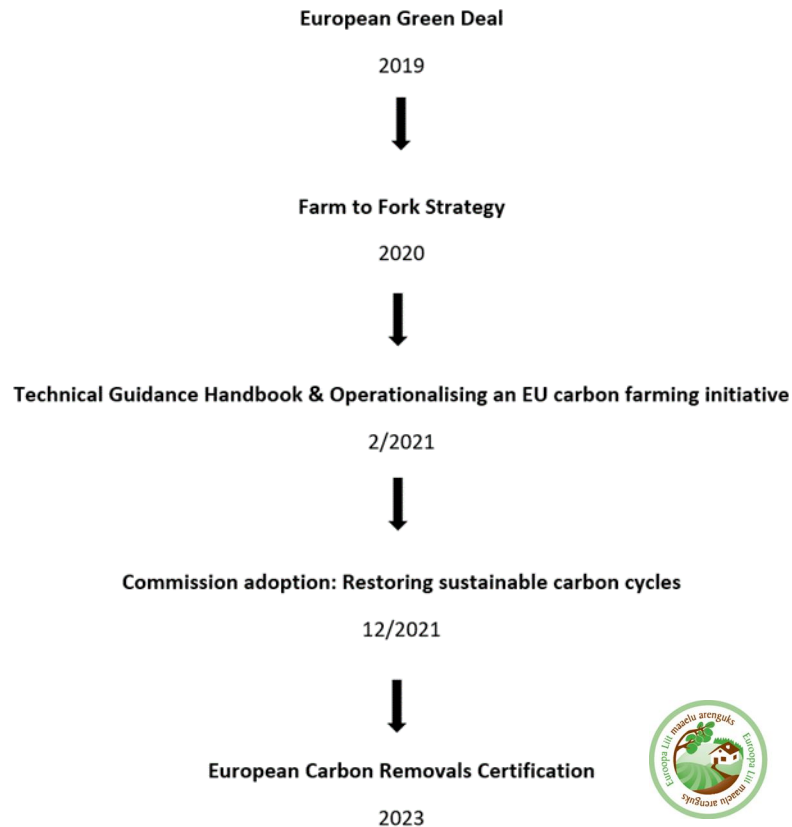


Carbon farming is a new element in the agricultural policy. It refers to the use of measures increasing soil carbon content, i.e. humus content, in agriculture. The measures include agroforestry, rise the groundwater level or reducing tillage in order to slow down the decomposition of organic matter, the restoration of peatland areas into wetland or adding carbon soil improvement materials to the field. The concept can also include the cultivation of different types of mixed crops with deep-rooting plant species. The EU Commission has divided the topic into themes, which include carbon farming for peatlands, agro-forestry and regenerative cultivation.^{15, 16}

Source: [MTK's and SLC's Soil Programme 2021](#)

Carbon Farming in the EU

- Emphasis on agroforestry (definition?) and in organic soils (restoration, rewetting, paludiculture)
 - more also other measures that foster food production are needed
- Still lack of knowledge related to national soil type and tillage measures factors



MTK position paper: Fit for 55% package, Carbon Farming Initiative CFI

- All cultivation activities that aim to increase the soil's carbon content or reduce the loss of soil carbon must be seen as carbon farming.
- The cultivation methods that safeguard food production has to be included and should be equally developed.
- Before the new legislation on carbon farming, research must ensure the carbon sequestration potential of fields and update soil emission factors.
- Emissions of agricultural gases in the effort sharing sector and CO2 emissions and sequestration in the land use sector must be taken into account in the guidance of the carbon farming measures.

Source: [MTK position paper: Fit for 55% \(in Finnish\) 22.9.2021](#)

Restoring sustainable carbon cycles

Summary of Commission's initiative:

Carbon removals from forests, agricultural practices or engineered solutions will play a crucial role in achieving climate neutrality by 2050 as they will balance emissions from agriculture, aviation or specific industries that are the most difficult to eliminate.

The initiative aims to support the development of sustainable carbon removal solutions. It will propose an action plan to promote carbon farming and develop a regulatory framework for the certification of carbon removals.

Save the World with EU in the driver's seat !

Source: [Commission's initiative – Restoring sustainable carbon cycles](#)

Restoring sustainable carbon cycles:

(MTK's feedback 7.10.2021)

Financing models

- The goal should be to form a new single market for carbon removals from forests, agricultural practices or engineered solutions.
 - This means that the role of the public funding should stay only in the capacity building measures and even there the funding should not distort the competition between for example different market platforms/certificates/project concepts/supply sources.
- For agriculture and forestry, the market needs to be a clear possibility to **earn extra income** and not an obligatory target-based initiative.
- The initiative should not hinder the sustainable forestry's other valuable contributions to sustainable development such as for example wood supply to the markets or agriculture's fundamental role to provide healthy and nutritious food to people.

Restoring sustainable carbon cycles:

(MTK's feedback 7.10.2021)

Certificates and market-based services

- Public authorities in the EU level or national level don't need to establish any market platforms, new certificates or GHG-calculation standards. There are already in place many alternatives for such market services, for example ISO-standards, Gold Standard and Verra VCS program.
- The quality of these services is getting better all the time with the pressure of market competition.
- These services need a bit of adaptation to local conditions and to be better in line with subsidiarity principle to gain local social acceptance among landowners.
- What is needed, is that the role of these new market-based models and their additional contribution in the form of credits are recognized in the climate framework, the volume is registered, and mutual end-to-end rules are established for single market.

Restoring sustainable carbon cycles:

(MTK's feedback 7.10.2021)

Avoidance of double counting

- The cross-compliance with LULUCF/AFOLU-bookkeeping should be robust in order to avoid double counting.
- Important is that voluntary carbon market measures are registered and their contribution to climate efforts are noted.
 - EU could show an example how to:
 1. Establish a single market for voluntary carbon market measures,
 2. How to bookkeep the registries in the way that double accounting is avoided end-to-end.
 3. How landowners' & customers' efforts/contribution is recognized in a robust and transparent way.
- EU level answers are much needed if the goal is to have an EU wide single market.

EU Commission

Private revenues and public support

Carbon markets

Common Agricultural Policy

Horizon Europe, LIFE, cohesion funds

State aid

Transparent rules for high-quality carbon credits

Common standards

Monitoring, reporting and verification

Advisory services

Long-term perspective for regulated EU carbon markets



Food for thought

- Baltic sea region needs a common carbon trading market → marketplace
- Big enough market to get liquidity → towards EU wide market mechanism
- Farmers and farmer organizations to take a leading role in the development so that the primary production will be taken in account during the development.
- More research around the carbon sequestration is needed → jointly
- Common calculation methods adapted to each country specific conditions but still comparable → to be chosen / developed and agreed on (standardisation)
- Will carbon credits be a way to compensate ex. The transport of grains from the Baltic Sea region ?
- Can/ when will the farming sector get (side) income through carbon credit trading ?
- Will Carbon Farming be the “License to Farm” in the future ?

Thank you!

