Practice Abstract 01

# Organic Climate Farming defined

## Problem

Agriculture is directly affected by shifts in climate, for example, through changing growing conditions or extreme weather events resulting in droughts and floods. Agriculture also contributes to GHG emissions, accounting for around 10% of emissions in the EU.

## Solution

Agriculture can also provide solutions to help mitigate and adapt to climate change. This is often achieved through nature-based solutions that not only reduce emissions or store carbon through sequestration (climate change mitigation), but also provide additional co-benefits such as improved soil resilience, water storage capacity and biodiversity (climate change adaptation).

Organic climate farming is an agricultural approach that integrates organic farming's nature-based and circular principles with climate-conscious practices. This combination provides innovative and impactful solutions to the challenges posed by climate change.

**Applicability box**

**Theme**

Climate change; Sustainable communities; Biodiversity and nature conservation

**Context**

European farmers, organic and others

**Economic aspects**

Potential for increased profitability through premium prices for organic products and compensation for implentation of practices, cost savings from reduced input use (e.g., fertilizers and pesticides), initial investment costs for transitioning to organic practices, market access and consumer demand for organic products.

## Benefits

The principles of organic farming promote a healthy planet, integrating ecological systems and natural cycles in its work. This approach promotes healthy and fertile soils, biodiversity and ecosystem services, and provides other co-benefits, leading to resilient farming systems. Taking a climate perspective, organic farming increases climate resilience and supports wider climate change mitigation activities. This section highlights several research-backed benefits of organic agriculture in addressing climate change:

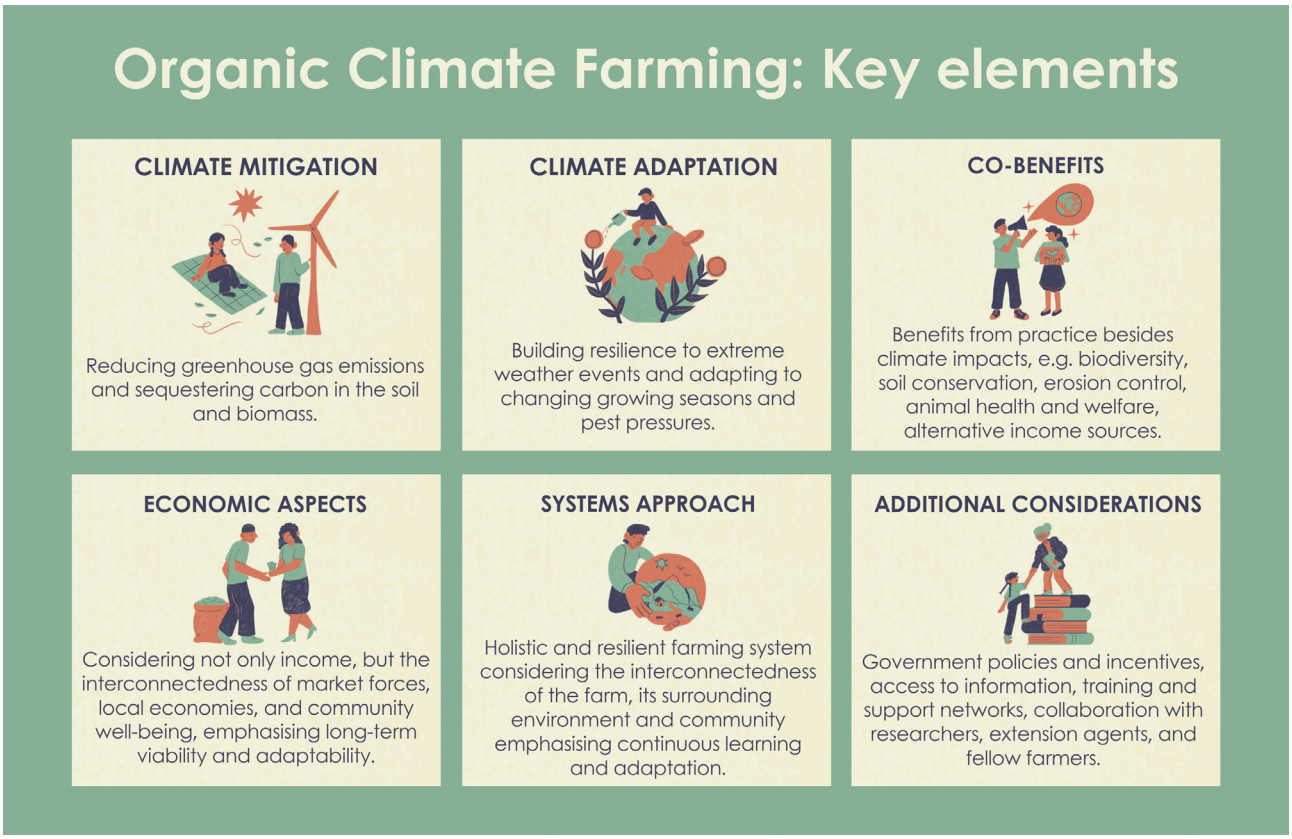
- Emissions and sequestration: 15% less energy consumed per kg of produce, 40% less nitrous oxide ($N_20$) emissions/ha, additional 3.5 tonnes C/ha soil organic carbon stocks;
- Water benefits: 28–39% less nitrate leaching, water bodies are protected from contaminants;
- Biodiversity benefits: 20–95% more plant species, 150% higher abundance of plant species, 30% more pollinators;
- Soil and plant health: improved soil quality and fertility, higher humus content, better soil aggregate stability, 22% less soil loss, 137% increase in water filtration rate;
- Yield benefits: stabler yields during drought periods; and
- Manure management: 70% lower methane emissions, 50% lower $N_20$ emissions. [1]

Organic climate farming practices specifically support these benefits and actively seek to enhance the positive contribution for climate protection and beyond.

[1] All of the statistics listed above come from IFOAM EU graphic: organicseurope.bio

## Practical recommendations

There are many organic climate farming practices that can be employed to mitigate and adapt to the challenges imposed by climate change. Within the project, knowledge on these practices will be made available - stay tuned. Graphic 1 highlights the six main elements of Organic Climate Farming.




Graphic 1: Key elements of Organic Climate Farming.

### Further information

- Video: Transforming agriculture to combat climate change (EN): youtube.com
- Factsheet: Organic agriculture countering climate change (EN, PT, FR, AR, RU, ZH): ifoam.bio
- Factsheet: Soil and Climate (EN, DE, FR, HU): organic-farmknowledge.org
- Report: Organic agriculture and its benefits for climate and biodiversity (EN): organiceurope.bio
- Organic farming, climate change mitigation and beyond: read.organicseurope.bio
- The Organic Farm Knowledge platform offers much more practical information, have a look: organic-farmknowledge.org

### About this practice abstract and OrganicClimateNET

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This practice abstract was elaborated in the OrganicClimateNET project's framework, based on the EIP AGRI practice abstract format. 

**OrganicClimateNET:** The project is running from February 2024 to January 2028. The overall goal of OrganicClimateNET – A pilot network for organic climate farming – is to act as a model for the European organic sector to enable farmers to integrate climate farming, thereby enhancing their capacity to mitigate and adapt to climate change.

**Project website:** organicclimatenet.eu

Social media:

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