Organic: safeguarding climate and nature

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IFOAM ORGANICS EUROPE

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Climate change's impact on food production

Climate change and its consequences threaten agricultural systems and our food production. Farmers are already facing big challenges as a result. At the same time, 11% of EU's greenhouse gas (GHG) emissions come from agriculture. Time to steer the wheel around is limited. But, changing the way we produce food can make a big difference – both in mitigating climate change and helping farmers to adapt and become more resilient.

The Intergovernmental Panel on Climate Change (IPCC)'s 2022 report on mitigation states that **agriculture and other land use can help removing and storing carbon**; however, they cannot compensate for delayed emissions reductions in other sectors.[1]

The biodiversity and climate crises are intrinsically linked and looking at them from a single and narrow perspective will fail to bring solutions offering multiple benefits. Preserving biodiversity and intact ecosystems are necessary to:

- Succeed in climate protection and adaptation, and
- Ensure nature's continued contribution to people such as clean water and healthy soils.[2]

Organic farming has high potential reducing GHG emissions and increasing soil carbon sequestration – while also sustaining healthy soils and protecting biodiversity and ecosystem functions.

Why we need a system approach to solve a complex issue

Organic practices, designed to benefit our entire ecosystem

Protecting ecosystems and enhancing environmental benefits is at the heart of organic farming. Many organic practices contribute to soil health and water quality, enhance biodiversity, reduce greenhouse gas (GHG) emissions, increase resilience and enhance carbon stocks in soils.

Being a frontrunner in climate and ecosystem protection has always been an integral part of the organic movement, being aware that working with nature and in line with natural cycles is essential for a sustainable agriculture production in the long run. The principles of health, ecology, fairness, and care are at the heart of organic and show the contribution and vision of organic agriculture.

These efforts are recognised internationally. Organic farming is **the only sustainable agricultural model recognised by a robust certification method enshrined in European Union regulation since 1991**.[3] The entire organic supply chain is already part of the solution to the climate and biodiversity crisis.

Organic is a dynamic and innovative sector. Organic farmers, processers, and retailers are innovative and constantly seeking to improve the benefits for climate, the environment and society. Agricultural practices are evolving, research is advancing, and new possibilities and innovations are arising. The sector is actively improving its impact on climate and biodiversity and is developing and taking up new solutions to reduce GHG emissions and increase carbon sinks.

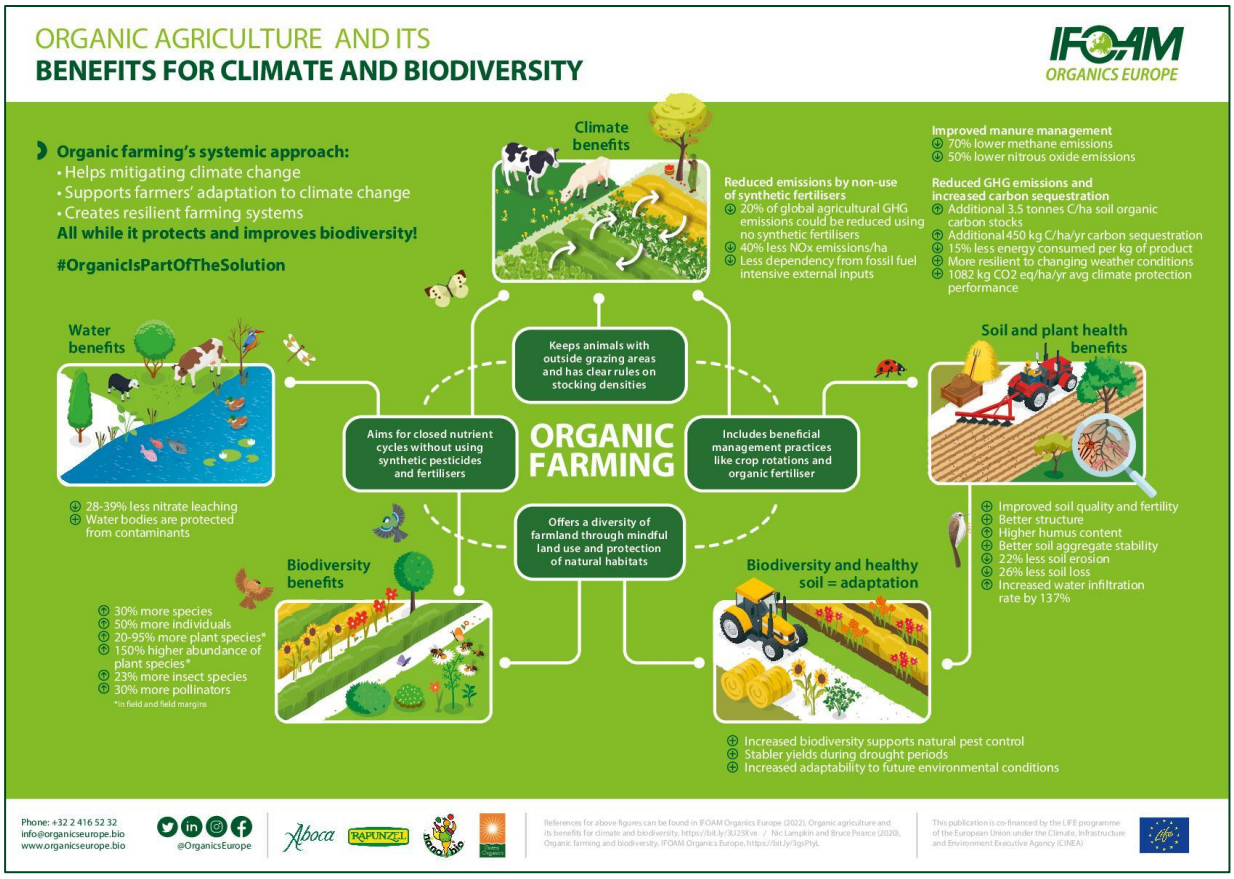
A system approach delivers for climate and biodiversity

Organic farming takes a systemic approach. This maximises benefits for climate mitigation and adaptation, improves ecosystem resilience and enhances biodiversity.

- Instead of being dependent on synthetic fertilisers or pesticide inputs, organic farming relies on establishing **closed nutrient cycles**. This reduces GHG emissions from input production and application.

[1] IPCC, 2022. Summary for Policymakers. In: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.
[2] Pörtner et al, 2021. IPBES-IPCC co-sponsored workshop report on biodiversity and climate change; IPBES and IPCC.
[3] Regulation (EU) 2018/848 on organic production and labelling of organic products.

- Organic agriculture has a higher energy efficiency and uses **less energy per hectare**.
- Organic **sequesters and stores more carbon**. Through common practices, such as crop rotations or extensive livestock grazing, **soil quality and fertility is improved** and higher soil organic carbon stocks and sequestration rates are achieved.
- Organic farms host on average **30% more biodiversity**. It supports increased numbers and diversity of pollinators.
- Healthy soils under organic farming **reduce erosion and nitrate leaching** alike, which preserves water bodies from contamination.
- Organic improves **resilience and adaptability** to adverse climate conditions such as extreme weather events and other environmental stressors.
- The diet of organic food consumers is healthier, richer in plant-based food and has lower environmental impacts.



Infographic: [Organic agriculture's many benefits to the climate and biodiversity]

The recipe for a climate-resilient food system

Many practices and processes have to improve to shift to sustainable food systems that drastically reduce food and farming's environmental and climate impact.

Organic already greatly contributes to a food system that is more resilient to the challenges ahead. Practices in organic farming and processes along the organic supply chain are constantly evolving. However, also in organic food and farming, there are challenges that need to be tackled and solutions which need to be upscaled.

Among the challenges facing organic are the following.

For crop and livestock farming:

- Improve soil management to foster carbon sequestration.
- Establish agroforestry and introduce hedges and landscape elements to store carbon.
- Support sustainable breeding to improve resilience and climate adaptation.
- Establish the use of dual-purpose animals.
- Foster nature and ecosystem protection through improved pasture and grazing management.
- Strengthen local fodder cultivation and optimize feeding.
- Improve manure management.

Along the food supply chain and consumers:

- Improve the transportation of products.
- Use more sustainable material and inputs, for example for packaging.
- Use renewable energy along the whole food supply chain.
- Reduce food waste along the supply chain.
- Shifting to sustainable diets.
- Transparency across the supply chain.
- Ensure the reflection of the true cost of food production.

The organic movement's commitment to climate action

Most organic actors use practices that improve their impact further than what is defined in the organic regulation, which mainly relates to aspects that can be regulated and controlled, such as the use of certain inputs. In the future, the organic movement is committed to address challenges that are yet to tackle, work on solutions to be taken up broadly and continue to improve. Organic actors are actively seeking to enhance their positive contribution for climate and biodiversity protection. They are innovative in developing and deploying new solutions to reduce GHG emissions, increase carbon sinks and protect biodiversity at the same time. The organic movement will continue to advocate a holistic approach to sustainability and climate action, viewing biodiversity protection and ecosystem restoration as an essential component of the solution.

Best practices along the organic supply chain

The UK organic brand Yeo Valley has started a project to measure the soil carbon stocks on their supplier farms to understand the current soil carbon stock and soil health.

After understanding the current conditions of each field on the farms, a mentoring programme is being developed to improve soil health and increase soil carbon sequestration. New management approaches that are being tested include mob grazing, diverse cropping, compost and agroforestry.

The RefNat4LIFE project unites several organic umbrella organisations. They collaborate with other project partners to significantly reduce emissions in small food retail, accelerate the transition to natural refrigerants and promote the uptake of climate-friendly cooling alternatives. The project provides information on energy-efficient, climate friendly cooling and heating technologies using natural refrigerants to the small food retail sector and the contracting and servicing sector. A tool allows store owners to quantify their store's emissions and identify potential savings and a product finder supports finding sustainable solutions. The developed online platform furthermore provides a directory of training courses addressing sustainable cooling and material in Europe.

Harnessing organic' full potential for climate action – Policy recommendations and research needs

The right policy framework is essential to support actors throughout the organic supply chain to maximize their impact on climate mitigation, adaptation, and ecosystem protection.

Key aspects encompass:

- **Assess the entire farm's climate impact** – this allows for a more comprehensive understanding and would support identifying priorities and areas for improvement.
- Establish adequate **advisory services** that can support farmers in reducing emissions and increasing carbon sequestration. It can provide guidance on sustainable farming practices which reduce all negative impacts from agriculture in a systemic way.
- Consider the positive and negative externalities of the agri-food system together and **do not focus on single aspects**. The **climate and biodiversity crises are complex and strongly interlinked**. Solely focussing on carbon sequestration and greenhouse gas emissions neglects other environmental impacts of the land use sector such as nitrate leaching into groundwater, air pollution, soil health or biodiversity.
- Ensure policies like the Common Agricultural Policy (CAP) and methodologies for climate impact assessments are in line with the **targets of the European Green Deal and the Farm to Fork Strategy.**
- **Strengthen support for sustainable farming practices** that provide public goods and transition towards agroecology by prioritising organic farming under schemes targeted at climate mitigation, adaptation and other environmental objectives.
- **Support the transition towards sustainable diets.** Sustainable public procurement can be a strategic lever to a sustainable and systemic change.
- Prioritise research that helps better understand and measure the **contribution of organic farming** to provide sound evidence for policymaking.

IFOAM Organics Europe is the European umbrella organisation for organic food and farming. With almost 200 members in 34 European countries, our work spans the entire organic food chain and beyond: from farmers and processors organisations, retailers, certifiers, consultants, traders, and researchers to environmental and consumer advocacy bodies.

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