

# ORGANIC AGRICULTURE AND ITS BENEFITS FOR CLIMATE AND BIODIVERSITY

## Organic farming's systemic approach:

- Helps mitigating climate change
- Supports farmers' adaptation to climate change
- Creates resilient farming systems

**All while it protects and improves biodiversity!**

**#OrganicIsPartOfTheSolution**



**Climate benefits**

### Reduced emissions by non-use of synthetic fertilisers

- ⬇️ 20% of global agricultural GHG emissions could be reduced using no synthetic fertilisers
- ⬇️ 40% less N<sub>2</sub>O emissions/ha
- ⬇️ Less dependency from fossil fuel intensive external inputs

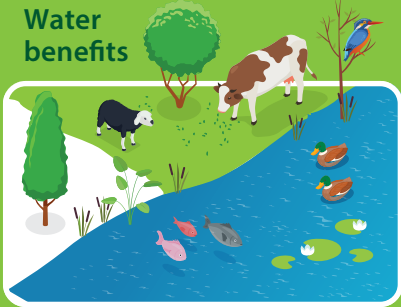
### Improved manure management

- ⬇️ 70% lower methane emissions
- ⬇️ 50% lower nitrous oxide emissions

### Reduced GHG emissions and increased carbon sequestration

- ⬆️ Additional 3.5 tonnes C/ha soil organic carbon stocks
- ⬆️ Additional 450 kg C/ha/yr carbon sequestration
- ⬆️ 15% less energy consumed per kg of product
- ⬆️ More resilient to changing weather conditions
- ⬆️ 1082 kg CO<sub>2</sub> eq/ha/yr avg climate protection performance

**Water benefits**



- ⬇️ 28-39% less nitrate leaching
- ⬆️ Water bodies are protected from contaminants

Aims for closed nutrient cycles without using synthetic pesticides and fertilisers

Keeps animals with outside grazing areas and has clear rules on stocking densities

## ORGANIC FARMING

Includes beneficial management practices like crop rotations and organic fertiliser

**Soil and plant health benefits**



- ⬆️ Improved soil quality and fertility
- ⬆️ Better structure
- ⬆️ Higher humus content
- ⬆️ Better soil aggregate stability
- ⬇️ 22% less soil loss
- ⬇️ 26% lower soil surface water flow
- ⬆️ Increased water infiltration rate by 137%

Offers a diversity of farmland through mindful land use and protection of natural habitats

**Biodiversity benefits**



- ⬆️ 30% more species
- ⬆️ 50% more individuals
- ⬆️ 20-95% more plant species\*
- ⬆️ 150% higher abundance of plant species\*
- ⬆️ 23% more insect species
- ⬆️ 30% more pollinators

\*in field and field margins

**Biodiversity and healthy soil = adaptation**



- ⬆️ Increased biodiversity supports natural pest control
- ⬆️ Stable yields during drought periods
- ⬆️ Increased adaptability to future environmental conditions