

# Biodiversity and resilience

22 June 2022  
#EUGreenDeal

The EU is now taking major steps to bring more nature into farming and into our lives. This will ensure that we strengthen our food security in the long-term. Working with nature is the most effective and cheapest way to solve urgent problems with respect to climate change, food security, and human health.

## Climate change



**Impacts** – nature lessens the impact of natural disasters such as floods, droughts and heat waves.

- Restoring flood plains of rivers can reduce economic damage and the exposure of the population to flooding by up to **70 %**.
- Trees cool the land surface temperature of cities in Europe by up to **12°C**.



**Mitigation** – nature restoration is a key nature-based solution to help us limit global warming to 1.5°C.

- Reviving ecosystems can provide **more than a third** of the total climate mitigation measures needed by 2030.
- Peatlands store nearly **30%** of global soil carbon. Restoring drained peatlands could save up to **25%** of Europe's agricultural greenhouse gas emissions.

## Food security



**Soil degradation** – Severely eroded croplands are estimated to contribute to a loss in agricultural productivity of **EUR 50 billion** per year in the EU.

- Erosion alone is causing losses of almost **3 million tonnes** of wheat and **0.6 million tonnes** of maize per year in the EU.
- Soil conservation practices such as no-tillage and cover crops reduced soil loss by around **9.5%** in the EU from 2000-2016.



### Pollinating insects

Around **4** out of **5** wild flowers and crops need animal pollination. **75%** of global food production depends on animal pollination.

Almost **EUR 5 billion** of the EU's annual agricultural output is directly attributed to insect pollinators.

At EU level, the absence of insect pollination alone would mean a **25%** to **32%** reduction of the total production of crops and a loss of **EUR 5 billion** in agricultural value.

### Agro-ecology

Sustainable agricultural practices often result in **higher yields, more nutritious food,** and **stronger resilience** against climate and socio-economic shocks.

Simple, landscape features like **flower strips and hedgerows** immediately result in **more pollinators**, higher levels of pollination and fewer pests.

Restoration through agroforestry alone has the potential to increase global food security for **1.3 billion** people.



### Oceans

Around **80%** of properly enforced marine protected areas have been observed to have a positive spillover effect in the surrounding fisheries.

Restoring the populations of marine fish to deliver a maximum sustainable yield could increase global fisheries production by **16.5 million tonnes**, an annual value of **EUR 30 billion**.

## Health

### Preventing zoonotic diseases

**75%** of all emerging infectious diseases in humans cross from animals.

When we cut down forests and destroy ecosystems, we **destroy the natural barriers** that normally protect us from pathogens, leaving us **exposed and at greater risk**.

Protecting nature to prevent pandemics costs just **1%** of fighting them.\*

### Reducing pollution

Healthy ecosystems help significantly reduce pollution, **filtering** both **water** and **air**.

Roughly **25%** of the global burden of disease can be attributed to avoidable environmental factors. This includes **7 million** people dying per year as a result of air pollution, and **11 million** from unhealthy diets.

### Source of medicines

Some **70%** of cancer drugs are either natural products or synthetic products inspired by nature.

Around **60 000** species – plants, animals, fungi and microbes – are used for their medicinal, nutritional and aromatic properties.

### Wellbeing

Spending time in nature improves **mental health**, lowers stress levels, prevalence of diseases, as well as levels of allergies.

\* Source: Science Advances Journal : <https://www.science.org/doi/10.1126/sciadv.abl4183>

