

Copa-Cogeca: The united voice of farmers and their cooperatives in the European Union



SoilMan-Workshop

SCIENCE-POLICY-PRACTISE

How to value ecosystem services provided by soil biota in arable land through the CAP

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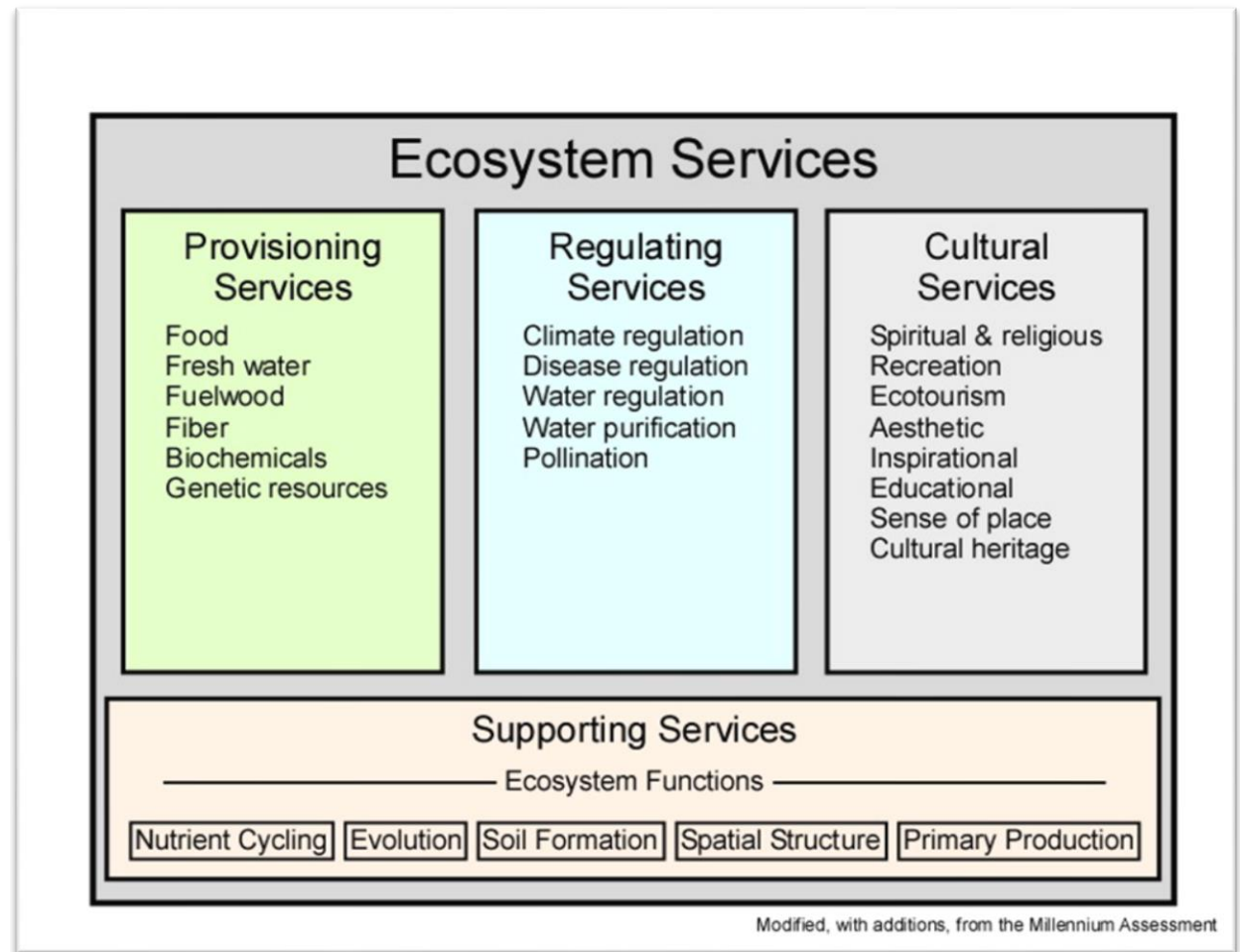
SCIENCE:

Ecosystem services by soil biota welfare



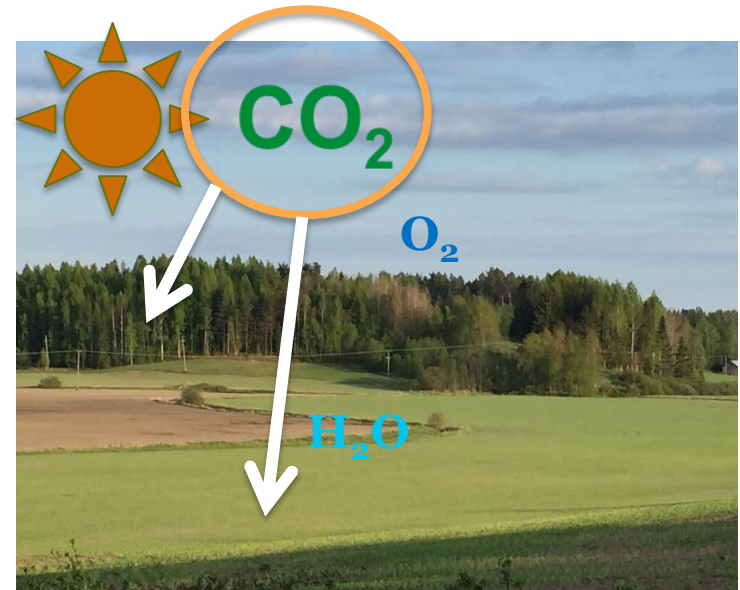
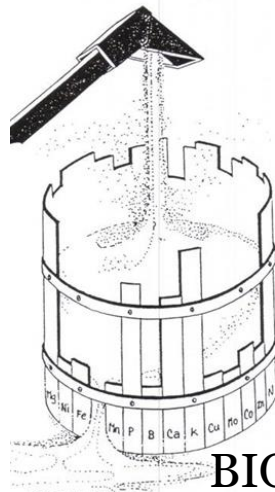
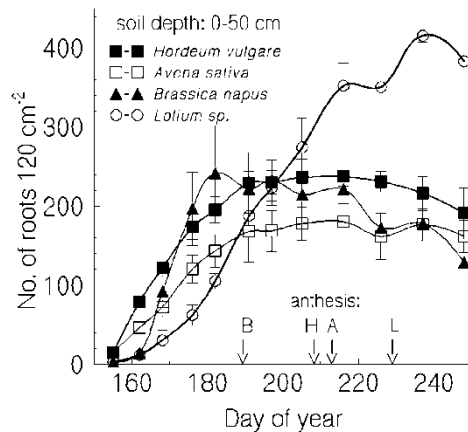
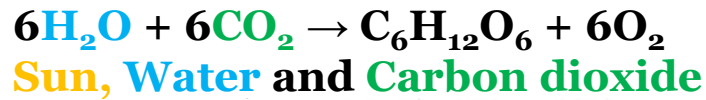
Soil biota welfare:

- Plants, microbes and microfauna depend on
 - Biological
 - Chemical
 - Physical
- processes equally



SCIENCE: Soil biota needs food – organic matter - to capture and decompose

Carbon Capture by **photosynthesis** with all other essential **nutrients**



**By different plant species
and tillage practises**

BIOMASS= Carbohydrates with & Nutrients
BIOMASS= FOOD, FEED & FIBER

POLICY: How to value by CAP?

Encourage to

Cultivation is removals – rather than just emissions

Productivity – yield level and SOM

Crop rotation – different sources of organic matter

- Annuals
- Perennials

Integrated plant protection measures

Carbon capture – Climate Actions

→ Climate mitigation and adaptation go beyond biodiversity:

→ Adverse weather events, temperature rise and poor water/air supply have negative effects for the biodiversity

Many voluntary options to be adapted for a given farm conditions

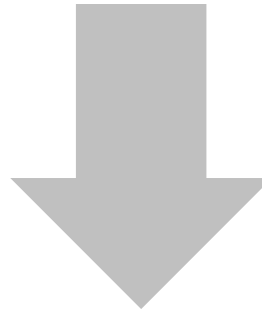
PRACTISE: How to value by CAP

Advisory services – based on **current research**

- Asses land use impacts on GHG emissions and removals, biodiversity, resource use efficiency and resilience
- Characterize primary reasons for underperforming fields

Investments for

- Precision farming
- Minimum tillage
- Physical productivity
- Water management
- Vegetated buffer strips



Land use optimization

When soil fertility is a limiting factor, soil management improvements should be considered to cure

by biological, chemical and physical means

