

IMPROVE WATER RETENTION IN AGRICULTURAL AREAS

OBJECTIVE

Reduce water scarcity due to drought.

DESCRIPTION

Storing water in soil decreases the negative impacts of droughts. Several grey measures are available, and include measures based on the use of technology in agriculture, e.g. no-tillage, or cropping systems implemented to reduce water runoff. Runoff, depending on soil characteristics, can be delayed by tillage methods combined with plants having a high root density and lush surface cover.

EXPECTED RESULTS

Increase the natural water retention capacity of an entire landscape, or increase the water storage capacity with man-made structures.

RESULT INDICATORS

Volume of retained water [m³]

INVOLVED ACTORS

Farmers, landowners, local authorities, environmental agencies.

EXPECTED TIMELINE FOR ACTION

- Long term (> 10 years)

BEST PRACTICES

- Italy
- Italy
- UK
- Portugal
- Portugal
- Hungary

CRITICALITIES

This option requires change of traditional agricultural practices and substantial investments. Lack of knowledge, training, e.g. on soil conservation practises, lack of environmental regulations and monitoring also pose a barrier.

SCOPE OF THE ACTION

- Adaptation

TYPE OF PROPOSED ACTIONS

- Grey
- Green

SECTOR OF ACTION

- Agriculture / Forests / Land use
- Biodiversity / Conservation of ecosystems
- Water resource management

CLIMATE IMPACTS

- Drought
- Floods

IMPLEMENTATION SCALE

- Association of municipalities
- Municipality
- Province

SOURCE

<https://climate-adapt.eea.europa.eu/metadata/adaptation-options/improved-water-retention-in-agricultural-areas>