

## 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 [m<sup>3</sup>]

### 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>