

WATER RECYCLING

OBJECTIVE

Contributing to a more sustainable resource utilisation.

DESCRIPTION

Access to adequate supplies of water is central for a sustainable future and climate change is expected to exacerbate water scarcity problems in several European regions. Recycling of water is here considered as an adaptation measure to save resources through the reuse of not-for-drinking water. Domestic water from baths, showers and sinks (grey water) can be re-used for various purposes, including toilet flushing, laundry and garden irrigation. Wastewater can be used also in agriculture for irrigation. Glasshouses and industrial processes can be designed to use water in closed circuits for temperature control.

Wastewater reuse can therefore be a valuable option for water supply in areas where water is limited. Two types of reuse are available: direct and indirect. Direct reuse is treated wastewater that is piped into a water supply system without first being diluted in a natural stream/lake or groundwater. Indirect reuse involves mixing of reclaimed wastewater with another water supply before re-use.

EXPECTED RESULTS

More high-quality water for drinking and less amount of polluted water released to the environment.

RESULT INDICATORS

Volume of recycled water [m³]

INVOLVED ACTORS

Local government, local communities.

EXPECTED TIMELINE FOR ACTION

- Long term (> 10 years)

BEST PRACTICES

- Spain
- Spain
- Netherlands

CRITICALITIES

The implementation of the measure may require modification in legislation; uncertainty of the demand of treated wastewater which can limit the economic sustainability of investments; social tensions because of non-acceptance; possibility of illegal and unhealthy wastewater reuse.

SCOPE OF THE ACTION

- Adaptation

TYPE OF PROPOSED ACTIONS

- Grey

SECTOR OF ACTION

- Agriculture / Forests / Land use
- Water resource management

CLIMATE IMPACTS

- Drought

IMPLEMENTATION SCALE

- Association of municipalities
- Municipality
- Province

SOURCE

<https://climate-adapt.eea.europa.eu/metadata/adaptation-options/water-recycling>