

**Background** The Alps are particularly affected by climate change. Temperatures in this region increased at more than twice the global average rate in the last century, and further warming is already unavoidable. Consequences may include thawing of permafrost, melting glaciers and extreme events

such as heavy precipitation and long periods of drought. Climate change will bring major changes to your economy, environment and society. Adverse consequences can be reduced or avoided, and future development potential safeguarded, through adaptation. It's time to take action now!



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General

Energy

Health

Spatial  
Planning

Biodiversity

Natural  
Hazard

Agriculture

**Water**

Forestry

Tourism

## Water Management

### WHY?

Climate change will directly affect water resources in the Alpine arch. This has consequences to the vulnerability of ecosystems, socio-economic activities and human health. The change of water regime due to various reasons like earlier snow melting together with heavy precipitation can lead to floods. On the other hand the demand of the natural resource will increase accordingly, as will competition between the various user groups.

#### **Improve co-operation and water governance in order to manage water conflicts and to implement integrated solutions**

- The parties responsible for the implementation and operation of Early Warning Systems should be clarified.
- Set up awareness-raising measures to avoid resource user conflicts

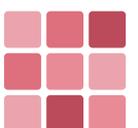
### HOW?

#### **Enhance ecosystem storage capacity, reduce risks of flooding**

- Support the development of activities and land use which are compatible with locally available water resources.
- To adapt appropriately to future climate flood management strategies have to be adapted.

#### **Enhance water efficiency**

- Assess the need for further measures to enhance water efficiency in agriculture, households and buildings.
- Improve the coordination and information concerning the use and need of water





## WATER IN A GOOD DROP

In the Italian wine-growing communities of Faedo and Pilcante, computers keep the vines supplied with just the right amount of water with the help of a geo-information system and sensors to measure the moisture in the soil. Delivering the water in small amounts at frequent intervals enables it to penetrate into the ground and reach the deep roots of the vines. That permits the system to be operated with just the rain water collected in the ponds, which avoids conflict with the regional water authority at times of drought. The introduction of computerised irrigation has led to savings in water consumption of fifty percent and more, and there has also been an improvement in the quality of the vines.

[Further information \(de/en/fr/it/sl\)](#)



## GOOD GIFT FROM ABOVE

Rainwater is suitable for replacing almost half of all water used in the home, so rainwater collection is an efficient way of reducing potable water consumption. In the city of Linz, financial support is available for the installation of private rainwater harvesting systems for watering the garden and flushing toilets as long as certain requirements are met in terms of hygiene and environmental protection. The amount of the subsidy can be as much as 12 percent of the cost of the installation depending on the size of the tank.

[Further information \(de\)](#)

## WHO?

### You can take action now!

#### Together with

- National and regional administration
- Researchers and experts on climate change adaptation
- Civil society organizations such as NGOs
- Entrepreneurs



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**Service** Further measures, tools, practical examples and information on how to adapt to climate change can be found at [www.kip.c3alps.eu](http://www.kip.c3alps.eu)

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#### funding programme



**About C3-Alps** The C3-Alps initiative is conducted by a transnational consortium of 17 partners from all Alpine countries. The partnership combines authorities responsible for climate adaptation policies on national and regional levels and expert institu-

tions that support national and European adaptation strategies. C3-Alps is coordinated by the Environment Agency Austria and is co-funded by the Alpine Space programme, through the European Regional Development Fund – European Territorial Cooperation.