

**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

## Agriculture

WHY?

The agricultural sector is directly dependent on weather conditions like precipitation and sunshine. Therefore this sector is adversely affected by climate change. Changing circumstances make plants more vulnerable to pests and diseases or can lead to considerable crop losses. A sustainable strategy to adapt to climate change in order to ensure food production in the alpine region is necessary.

### Promote the cultivation of resistant species

- Cultivate water saving and heat resistant plants
- Strengthen crop rotation and broaden crop selection change of crop spectra

### Strengthen sustainable soil structure and the protection of soil fertility/stability

- Check the location suitability based on climate change and develop suggestions for proper crop
- Consider integrative landscape planning to promote soil security and better agroecology

### Enhance the adaptation of sustainable fertilizers and plant protection

- Promote environmentally friendly and sustainable use of pesticides
- Optimize adaptation strategies for new diseases and pest

HOW?





## FROM WASTE TO PROTECTION

The Wiener Neustadt Public Works Department runs a municipal farm with some 340 hectares of land. Since the fields are all located in a groundwater protection zone, the use of mineral fertilisers is largely avoided. Instead the PWD uses compost produced from organic waste in its own waste treatment plant. A ton of this organic fertiliser costs the local authority about 4 euros. In addition to the benefits in terms of ground water protection, the result is healthier crops with an enhanced capacity to adapt to changes in temperature. [Further information \(de\)](#)



## WATER SAVING CROPS

From 2006-2009, scientists experimented with water efficient and drought-resistant crops in the Rhône-Alpes region. The “Chambre d’agriculture de la drome” facilitated the planting of meslin in the plain and mountain region. The objective was to diversify fodder resources to secure food supplies for animal herds. The pilot project found that meslin is a good grain to plant during times with less water and it increases the autonomy of farmers to avoid having to export grains in the winter and during drought periods. [Further information \(fr\)](#)

## 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.c3alps.eu](http://www.c3alps.eu)

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**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.