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THE AUSTRIAN STRATEGY FOR ADAPTATION TO CLIMATE CHANGE (FOCUS WATER RESSOURCES AND WATER MANAGEMENT)

Alpine Convention

Brescia, 10.10.2013



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Division Water management in residential areas

Federal Ministry of Agriculture, Forestry,

Environment and Water Management

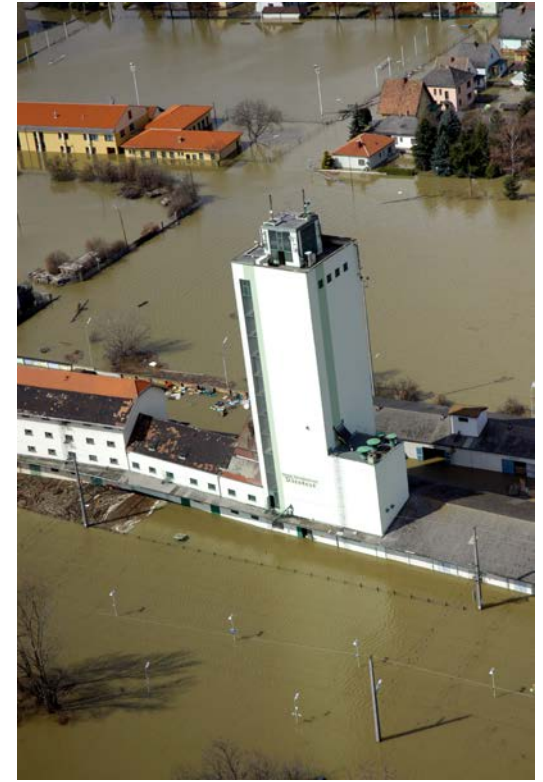


Two main pillars in Austrian climate policy

- climate protection



- climate adaptation





Objectives of Austrian climate adaptation strategy

- **Avoid the adverse effects of climate change** on the environment, society, and the economy and to fully utilize any opportunities that may arise.
- The **adaptation measures** should **strengthen natural, social, and technological** adaptive capacities.
- Take **advantage** of possible **opportunities**





Structure of Austrian climate adaptation strategy

- Context
 - Strategic framework
 - Gives answers to fundamental questions
- Adaptation strategy
 - Recommendations for measurements in 14 areas of action





Adaptation strategy areas of action

- Agriculture
- Forestry
- **Water Resources and Water Management**
- Tourism
- Energy – Focus on the Electricity Industry
- Construction and Housing
- Protection from Natural Hazards
- Disaster Risk Management
- Health
- Ecosystems/Biodiversity
- Transportation Infrastructure and Selected Aspects of Mobility
- Spatial Planning
- Business/Industry/Trade
- Cities – Urban Green and Open Spaces.





Objectives of the Austrian water sector in relation to climate change:

- Sustainable **protection of water resources** as livelihoods and habitat
- **Secure drinking water supply** for the Austrian population (quality and quantity)
- **Safe** waste water treatment
- **Protection** of the population against natural hazards

in a changing climate.





Study: Impacts and resulting recommendations for action at the water sector

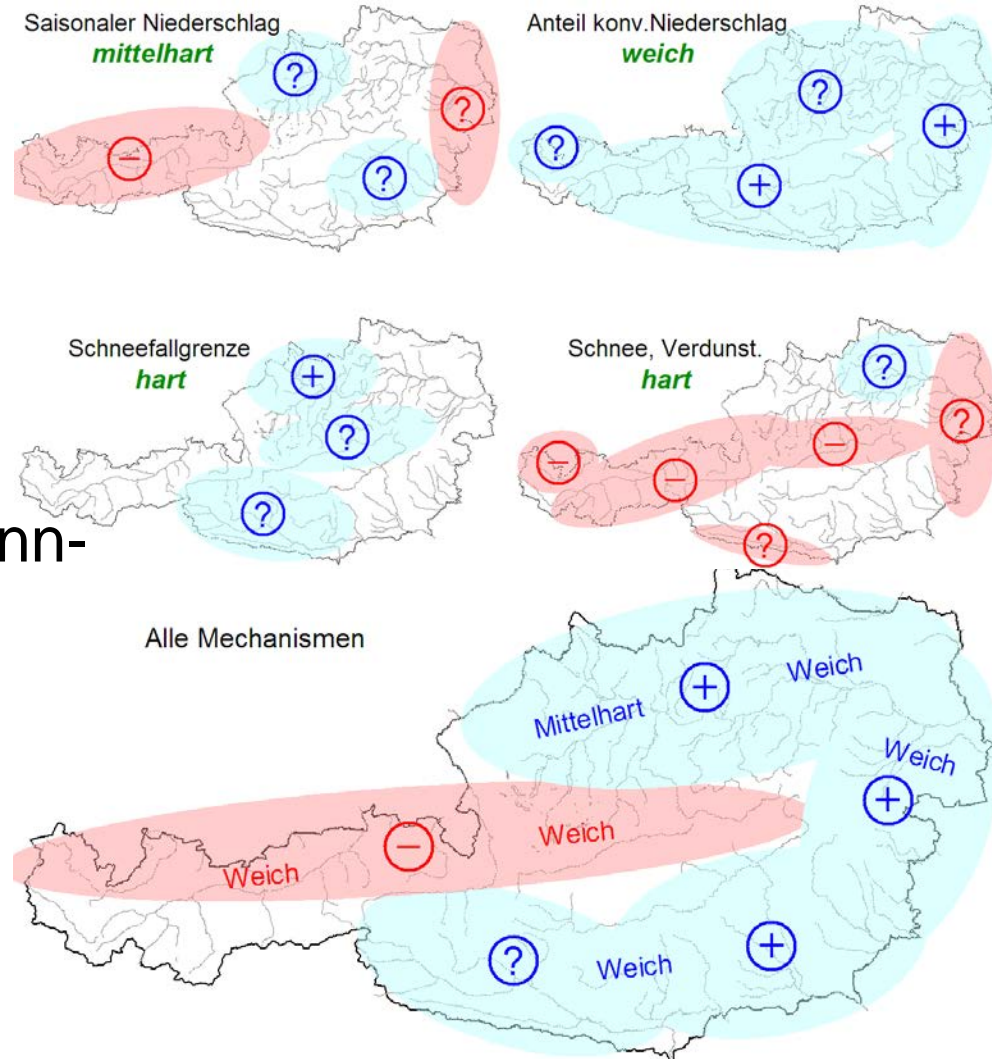
- Results are implemented in the Austrian strategy for adaptation to climate change
- Results were confirmed in the APCC study (published end 2013)
- 10 areas of action for the water sector
 - **Floods**
 - Surface water
 - Low water run off
 - **Water temperature**
 - Permafrost and glacial potential
 - Ground water (water availability)
 - Lakes
 - hydropower
 - Quality of water bodies
 - **Use and water demand**

Results: Floods



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- Uncertainties in small areas
- No addition to rated values due to climate change
- Review of design values in Inn- and Mühlviertel

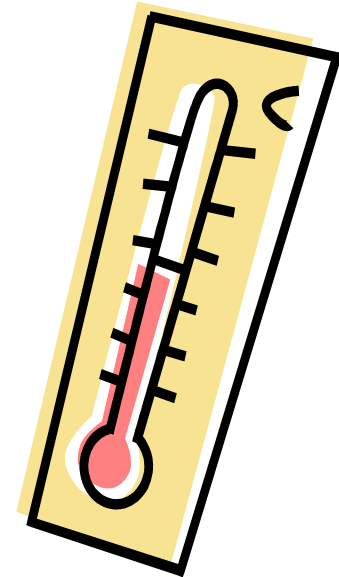


Results: Water temperatures



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- Temperature **increase 0,8° C** till 2050
- Correlate an **increase of 100 m sea level** and therefore a shift of ecological habitats
- Consideration of thermal discharge in water bodies



Results: Use and water demand



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- **No large scale shortage** of raw water for **water supply**
- **Vulnerability** can **increase** in unfavorable areas
- **Second pillar, networks of water facilities** in critical areas
- In cases of conflicts **precautionary prioritization** of water use



Summary



- The **impact** of climate change on the Austrian water sector is **not very significant**
- Regarding to floods the **natural variability** is **larger** than the **shift** due to **climate change**
- Due to high availability of water resources **large scale water shortage** for water supply is **unlikely**
- In **unfavorable areas** there are possibilities of **local water shortage** for water supply



Outlook



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- In relation to other European regions **Austria** is regarding to **water** in a **convenient situation**
- Austria takes care of **possible shifts** due to climate change and **implements** these facts in the **adaptation strategy**
- **Consideration** of climate change in the **next** (2nd and 3rd) **River Basin management plans** (National Water management plans) and also **flood risk management plans**
- Forcing **flood protection** (financial losses due to flood 2013 lower than 2002)

Outlook



- To keep and expand **monitoring** in water management
- Better **documentation** of **water consumption** and the **availability** of **water resources**
- Forcing of **networking** and **second pillar** in drinking water supply
- Consideration of **thermal and treated waste water discharge** in water bodies



Next steps in the Austrian Strategy for adaptation to climate change



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- Evaluating of climate change adaptation measures
- Finding criteria for each area of action (end 2013)
- Data collection (February 2014)
- National implementation report (end 2014)
- Evaluating financial costs of adaptation measures (mid 2015)
- Updating Austrian strategy for adaptation to climate change (end 2015)

Thanks for Your attention!



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THE AUSTRIAN STRATEGY FOR ADAPTATION TO CLIMATE CHANGE

Part 1 – Context



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Die österreichische Strategie zur Anpassung an den Klima- wandel

Teil 2 – AKTIONSPPLAN
Handlungsempfehlungen für die Umsetzung

Vom Ministerrat am 23. Oktober 2012 beschlossen



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Anpassungsstrategien an den Klimawandel für Österreichs Wasserwirtschaft

Stärke der Zentralanstalt für Meteorologie und Geodynamik und der
Technischen Universität Wien
in Zusammenarbeit mit den Ländern

