

Spatial planning and natural hazards: The experience of the CLISP project

ALPSTAR Initial Conference,
28th October 2011
Chambéry

CLISP Climate Change Adaptation by Spatial Planning in the Alpine Space

clisp
Climate Change Adaptation by
Spatial Planning in the Alpine Space



Objectives

- Improve knowledge and awareness on vulnerability of spatial development to climate change impacts
- Analyse current spatial planning systems
- Promote risk governance and management on regional and local level
- Raise awareness of decision makers, planning authorities and stakeholders

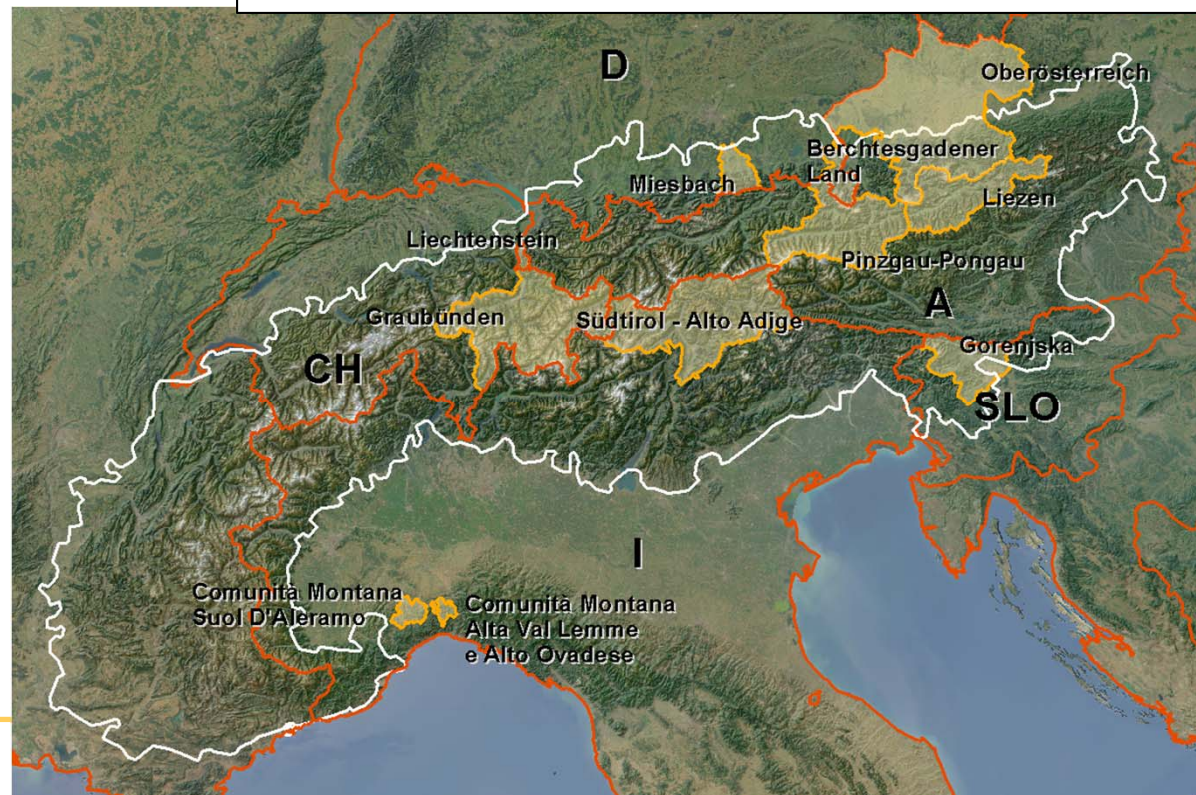
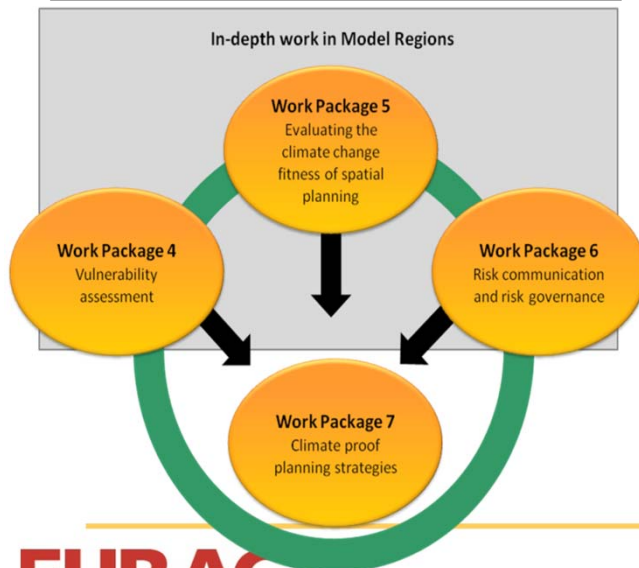
- Implementation of developed methodology
- Policy support for model regions

Duration: 01.09.2008 - 31.08.2011

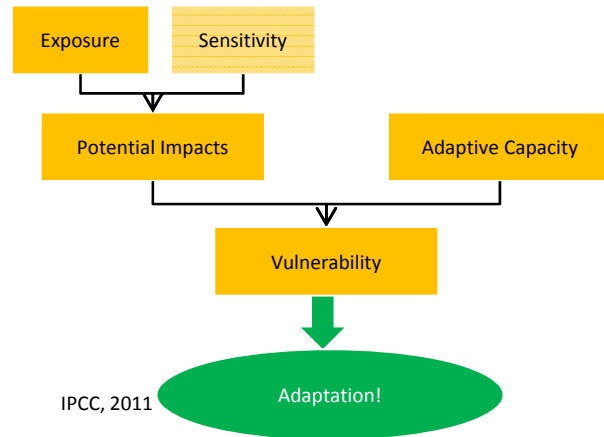
Budget: total 2.5 Mio. €;

Project Participants: 14

Model Regions: 10

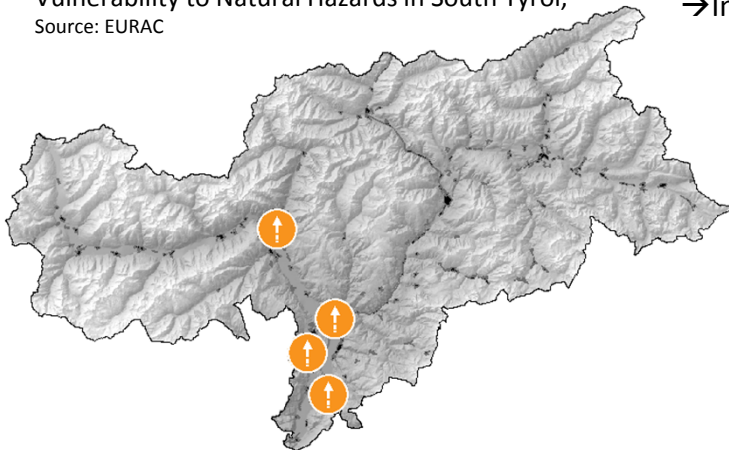


Climate Change and Natural Hazards



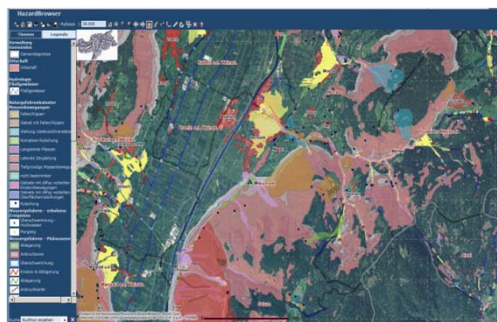
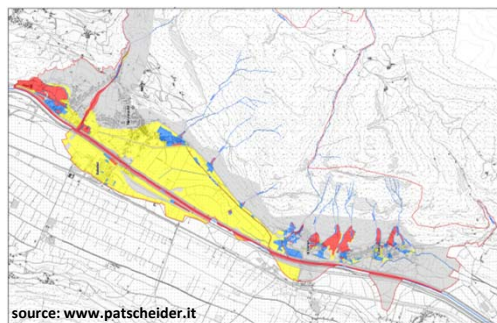
- Natural hazards directly or indirectly influenced by weather extremes
- Climate change scenarios show a large range of results and a high uncertainty (in particular for precipitation and extreme events)
→ Action needed even under uncertainty
- Natural hazards and related impacts will occur more frequently and more severely, but firstly in the same areas where they occur today
- The risk of damage on buildings or infrastructure by natural hazards might increase in future due to an expansion of settlements into hazards zones

Vulnerability to Natural Hazards in South Tyrol,
Source: EURAC



→ Integral risk management most effective adaptation measure

- Monitoring
- Protection measures
- Risk communication/ risk culture
- Legal binding hazard maps (considering all type of hazards)
- Cross sectoral collaboration



Hazard Zone Plan in South Tyrol

- Analysis of existing spatial planning instrument
- Strengths, weaknesses and potential for climate change adaptation
- Analysis of literature and legal framework
- Structured qualitative interviews with municipalities in Model region (decision makers and experts)
- In 2008 the Provincial Government mandated the implementation of HZP in municipal territories: within a period of three years, the municipalities had to devise their own HZP
- The timely discrepancy between implementing the HZP and the insecure long term effects of CC is the reason why CC is not directly considered in legally binding instruments. Nevertheless the guidelines of the HZP themselves consider very much approaches to deal with CC adaptation indirectly



- Face-to-face interviews with experts and local and regional authorities
- Workshops with representatives from local authorities
- Workshop with children
- Often technical measures are already well implemented
- Laws, strategies and management do not address climate change directly
- Measures not undertaken in response to climate change but they contribute indirectly to adaptation
- Need of communication and coordination within different institutions and departments to deal with climate change

Recommendations:

- Take a close look on the status quo of your system and learn from history
- Improve the communication of residual risks
- Improve public preparedness and personal responsibility by encouraging participation in emergency planning

→ *Time horizon for most stakeholders: << 20 years but weak Climate Change signal within this time frame.*

→ *Missing climate impact assessments and climate scenarios for the regional and local scale are often mentioned as barriers to implement climate adaptation.*

→ *Coordination and communication between and within institutions to face climate change is crucial. Need of interdisciplinary department/working groups.*

→ *Lack in political will or awareness to climate change*

- *Climate change is in most cases just an additional pressure, consider also the other ones like land-use change, demographic change or expansion of settlements*
- *When planning for natural hazards risk consider all the environmental risks within a defined area*
- *Involve stakeholders at all levels and respect them as experts. They are the ones who know their system best and the ones who have to adapt to climate change in the end.*
- *Dealing with climate change needs cross sectoral strategies and measures at different levels*
- *Climate adaptation needs to be addressed explicitly in spatial planning laws, policies, instruments and procedures.*
- *Plan and implement appropriate adaptation measures in time and be ready to act under uncertainty*
- *Climate change awareness is one of the most relevant prerequisites for realizing adaptation options. Especially the regional level seems to be crucial for implementing adaptation actions*



Contact



Thank you for your attention!

For further information about the project please visit
www.clisp.eu

Contact: lydia.pedoth@eurac.edu
