

Überschwemmungsgebiet
Tiroler Achen Fkm 18,2 - 12,8

— Überschwemmungsgrenze HQ 100

überschwemmte Flächen

Problems for changing the risk prevention strategy

Persistent attitudes of different stakeholders

Dr. Klaus Wagner

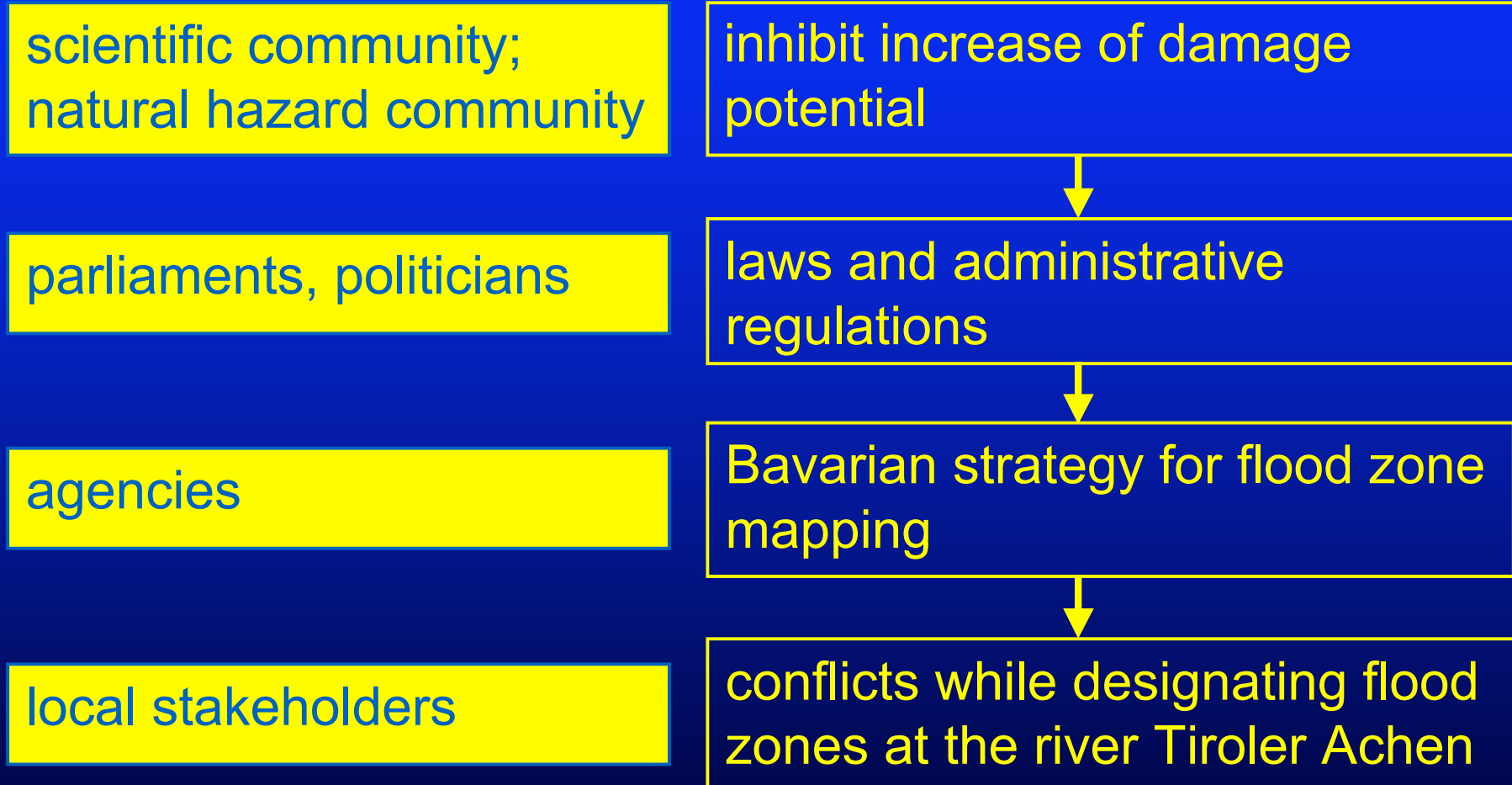
Steps for the Innovation within a Risk Prevention Strategy



Tendencies in Natural Hazard Management

- increasing responsibility of the state (since 19th century)
 - large course corrections
 - founding of national agencies
 - national laws
- increasing environmental concerns (since 1970s)
- increasing role of precautionary measures in relation to technical protection (since 1980s)
- from a security to a risk approach (present time)

Case Study: Flood Zones in Bavaria



Amendments of Laws

German Federal Water Act (WHG)	Bavarian Water Act (BayWG)	administrative regulations

Amendments of Laws

German Federal Water Act (WHG)	Bavarian Water Act (BayWG)	administrative regulations
1957: area for water run off during floods		
1996: area for water retention	floods on the Rhine 1993 and 1995	
2005: inhibit increase of damage potential	Elbe flood 2002	



Amendments of Laws

German Federal Water Act (WHG)	Bavarian Water Act (BayWG)	administrative regulations
1957: area for water run off during floods	1907: new buildings are forbidden	
1996: area for water retention	1998: new buildings and plantations are forbidden	
2005: inhibit increase of damage potential		

Amendments of Laws

German Federal Water Act (WHG)	Bavarian Water Act (BayWG)	administrative regulations
1957: area for water run off during floods	1907: new buildings are forbidden	designation process and plan layout
1996: area for water retention	1998: new buildings and plantations are forbidden	none
2005: inhibit increase of damage potential		

Conclusion I

- disasters are necessary for amendments
- amendments are highly controversial
- in Bavaria: increasing uncertainty

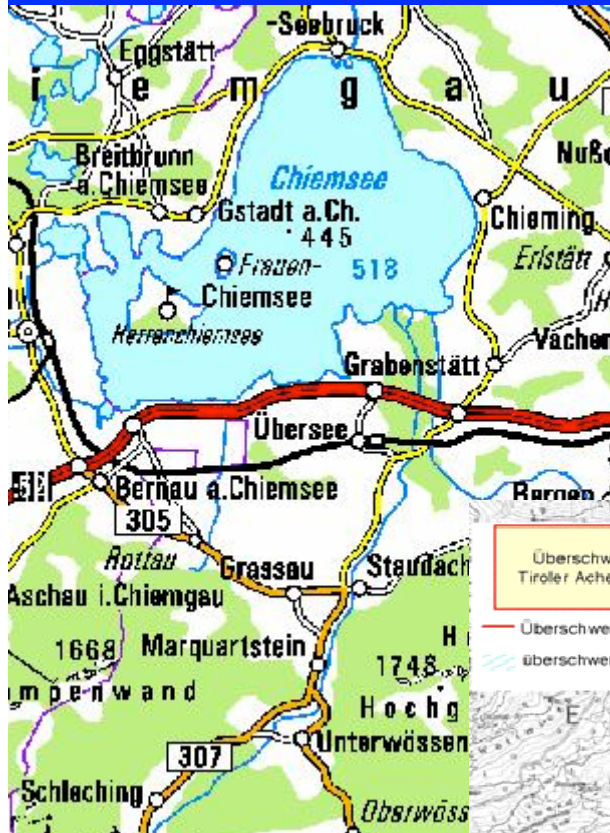
Implementation in Bavaria

- declaration of flood zones only at 30% of the length of the bigger rivers until 1997
- since 1997 program for flood zone mapping with a standardized hydrological modelling procedure

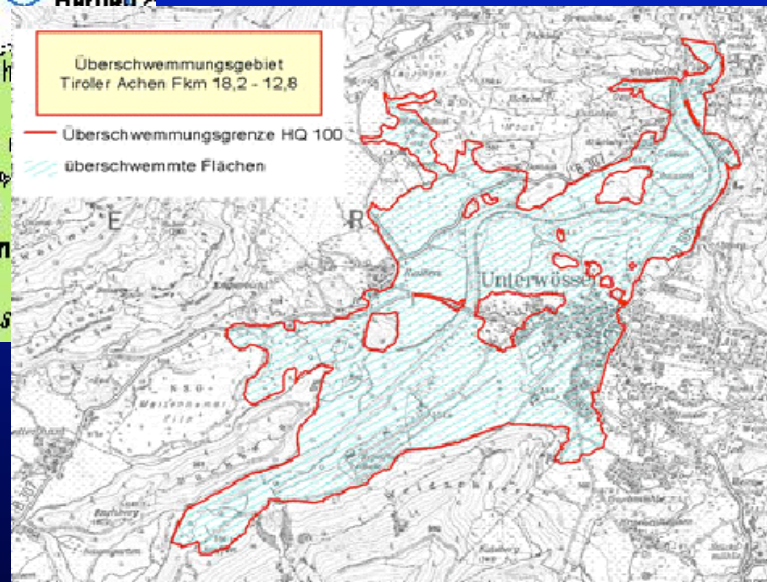
Conclusion II

- big time gap between formulation of the political program and the implementation of the program
- disasters help to implement the program

Conflicts on the Local Level



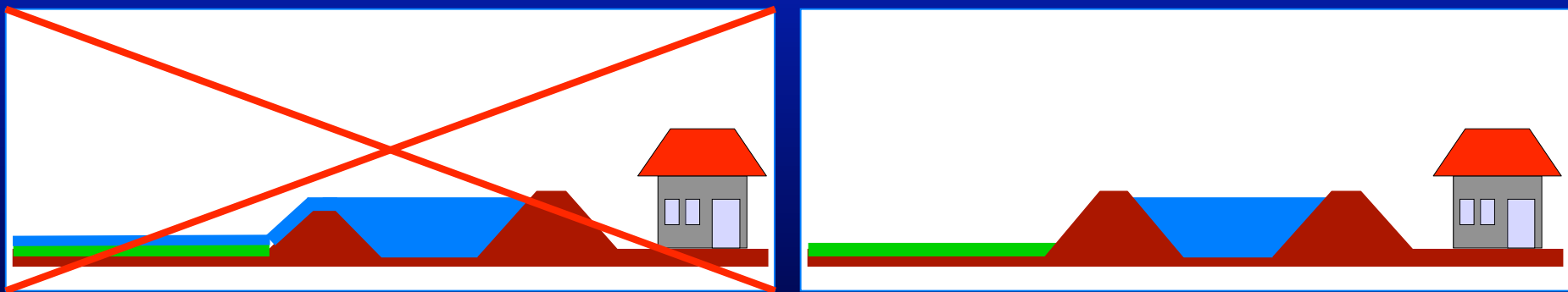
- 100-year flood zone is very large
– broader than 4 km
- major conflict issue: What is a plantation?



- Solution:
Ordinary
agriculture is
permitted within
the flood zone

Root Causes for the Conflict

- value conflict
 - property rights – common welfare
 - short term – long term
- No acceptance of the new hazard management strategy





Conclusion III

scientific community;
natural hazard community

parliaments, politicians

agencies

local stakeholders

rethinking the strategy,
development of innovations

formulation of a political
program

implementation of the strategy
(secure funding resources)

local actions according to the
new strategy

