Social Capacity Building for Natural Hazards
Toward more resilient societies

Christian Kuhlicke (London/Leipzig) & Annett Steinführer (Braunschweig)
Disasters are the result of lacking capacities

»Not every windstorm, earth tremor, or rush of water is a catastrophe. A catastrophe is known by its work; that is to say, by the occurrence of disaster. So long as a ship rides out the storm, as long as the city resists the earth-shocks, so long as the levees hold, there is no disaster. It is the collapse of the cultural protection that constitutes the disaster proper«

Carr 1932
Introduction

- "Coordination action" = Documentation of the state of the art of social scientific research on natural hazards

- 6/2009–5/2012; 8 partners from 6 European countries

- National ISDR Platforms are Advisory Board
Introduction

Working structure of Caphaz-Net

Up-scaling & generalizing

• 6 thematic WPs
• 3 interactive workshops
⇒ State of the art
⇒ Gaps in research

Down-scaling & contextualizing

⇒ Elaborate strategies and recommendations

• 3 regional hazard related WPs
• 3 interactive workshops
⇒ Practices
⇒ Policies

Christian Kuhlicke & Annett Steinführer
Different capacities need to be developed

1 Knowledge Capacities
- e.g. knowledge about hazards and risks

2 Motivational Capacities
- e.g. building sense of responsibility

3 Network Capacities
- e.g. (re-)establish trustful relationships

4 Economic Capacities
- e.g. availability of financial resources

5 Institutional Capacities
- e.g. fair governance

6 Procedural Capacities
- e.g. ability to put capacities into practice
Multi-actor process

- The example of Saxony (Germany)

1. Government of the Free State of Saxony (Ministries)
2. State Office for the Environment, Agriculture and Geology (LfULG)
3. State Dam Administration of the Free State of Saxony (LTV)
4. Regional Planning Authorities
5. State Directories
6. Districts
7. Municipalities (mayors and councils)
8. Fire brigades, THW, Red Cross (mostly volunteers)
9. NGOs and lobby groups
10. Technical/scientific organisations
11. Consultancy/Planning companies
12. Insurance
13. Organized citizens
14. Citizens
Bottom-up and top-down approaches are needed

Thematic work packages
- Social capacity building
- Risk governance
- Risk perception
- Social vulnerability
- Risk communication
- Risk education

Top-down / Interventionist approach

Local / Regional Private sectors

Bottom-up / participatory approach

Regional Hazard Workshops
- Droughts (South)
- Alpine Hazards
- Floods (Central)

National / European Public Sector & Institutions
First findings
Risk perception studies
(Wachinger et al. submitted)

Informational factors
Source and level of information, media coverage, involvement of experts in risk management, trust in individual providing information

Personal factors
Age, gender, educational level, profession, personal knowledge, personal disaster experience, trust in authorities, trust in experts, confidence in different risk reduction measures, involvement in cleaning up after a disaster, feelings associated with previously experienced floods, world views, degree of control, and religiousness

Context factors
Economic factors, vulnerability indices, home ownership, family status, country, area of living, closeness to the waterfront, size of community, age of the youngest child
First findings

Bottom-up / participatory capacity building

- Insights from the literature: Participatory processes have a...

  Positive influence on risk awareness, and possibly behaviour & engagement
  Increase trust in governing organisations and improve relationships
  Achieve wider acceptance and improve mutual understanding

  Stimulate self-help of communities & increases agency
  Integration of local knowledge, experiences and perceptions

Risk perception
Risk communication
Social capacity building
Social vulnerability

Procedural
Institutional
Economic
Networking
Motivation
Knowledge
Bottom-up / participatory capacity building

- Insights from the regional hazard workshops ...

- Participation is practice in many European countries, but mostly taking place at the level of projects (e.g. building a dike)

- Idea of a “hazard facilitator” is gaining relevance in some countries

- Importance of the voluntary emergency sector for building trust and networking

First findings
Top-down / interventionist capacity building

- Insights from the literature: Interventionist approaches …
  - Provide a general frame stimulating a development that would not occur without its existence
  - Formulate and provide information about measures, evaluation procedures etc.

First findings

Social capacity building
Social vulnerability
Risk communication

Procedural
Institutional
Economic
Networking
Motivation
Knowledge
Recommendations:

(1) Pros and Cons of bottom-up and top-down approaches

(2) How to do it?
⇒ Specific steps and good examples from risk communication & risk education studies, from vulnerability assessments and from regional hazard experiences

(3) Utilizing existing practices and policies
⇒ Which existing and developing practices, instruments and policies in DRR and CCA appear as particularly relevant for social capacity building
www.caphaz-net.org

- Christian Kuhlicke, Annett Steinführer, Jochen Luther (UFZ Leipzig & vTI Braunschweig)
- Gordon Walker, Rebecca Whittle (Universität Lancaster)
- Gisela Wachinger, Ortwin Renn (DIALOGIK Stuttgart)
- Sue Tapsell, Simon McCarthy, Hazel Faulkner (Flood Hazard Research Centre)
- Blaž Komac, Matija Zorn (Slowenische Akademie der Wissenschaften Ljubljana)
- Corina Höppner, Matthias Buchecker, Michael Bründl (WSL Birmensdorf & SLF Davos)
- Louis Lemkow, Meera Supramaniam, Marina Di Masso Tarditti (ICTA Barcelona)
- Chiara Bianchizza, Luigi Pellizzoni, Anna Scolobig (ISIG Gorizia)

Kontakt: caphaz-net@ufz.de
The CATALYST Project

Capacity development for natural hazards risk reduction and adaptation

- EU FP7, coordinating action
- Project goal: **to bring risk management knowledge to bear on economic development issues and to make NH/DRR a critical component of the sustainability agenda.**
- Approach: **creation of diverse opportunities for researchers and stakeholders to identify and share knowledge about best practices related to natural hazard and disaster risk reduction.**
- Duration: **Oct 2011 – Sept 2013**
- Project Web Site: [www.catalyst-project.eu](http://www.catalyst-project.eu) (online in Oct. 2011)

- seeconsult GmbH (coordinator)
- UNU -Institute for Environment and Human Security
- Helmholtz Centre for Environmental Research
- Alterra – Wageningen University
- Fondazione Eni Enrico Mattei (FEEM)
- National Geologic Survey of Denmark and Greenland
- Academy of Sciences for the Developing World
Disasters are the result of lacking capacities

»Not every windstorm, earth tremor, or rush of water is a catastrophe. A catastrophe is known by its work; that is to say, by the occurrence of disaster. So long as a ship rides out the storm, as long as the city resists the earth-shocks, so long as the levees hold, there is no disaster. It is the collapse of the cultural protection that constitutes the disaster proper« (Carr 1932).

»Taking the Naturalness out of ‘Natural’ Disaster (O’Keefe et al. 1976)