Integration of disaster reduction into adaptation to climate change

DKKV, Murcia 26.09.09
Adaptation:
Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Disaster Reduction:
The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.
Disaster Risk Management

Preventive measures to reduce the risk of disasters (risk management)
by:
1. Reducing a society's vulnerability
2. Preventing the emergence of new risks

Adaptation to Climate Change

Adaptation by:
1. Assessing impacts and vulnerability;
2. Identifying and prioritising measures;
3. Managing adaptation as a cross-sectoral process (governance)

Reduction of risks induced by climate change
Challenges and Barriers

Different ministries/agencies are responsible for DRR and CCA

Different Spatial scales

Different funding schemes
### Responsible:

<table>
<thead>
<tr>
<th>Embankment incl.</th>
<th>ELBE incl. riverbanks</th>
<th>Embankment incl.</th>
<th>River channel incl.</th>
<th>Embankment incl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation strip</td>
<td>Conservation strip</td>
<td>Conservation strip</td>
<td>Riverbanks</td>
<td>Conservation strip</td>
</tr>
</tbody>
</table>

**Elbe (federal waterway):**
- Normally Federation

**River channel:**
- Normally City

**Free State of Saxony (LTV):**
- Riverbanks at the Elbe
- Riverbanks at the river channel

**MW:**
Areas of work that are linked to Climate Change

- a) Water management
- b) Agriculture and resource management
- c) Social protection
- d) Disaster risk reduction
- e) Poverty reduction
- f) CO2-Reduction
- g) Urban development
- h) General vulnerability reduction

Legend:
- Green: very much
- Yellow: the case
- Brown: Partially
- Red: not considered

Absolute numbers
a) The cross-sectoral and integrative character of current adaptation strategies is...
b) The link between DRR and CCA in current strategies is
c) The link between CCA at different governance levels is...
d) The cooperation between different ministries regarding adaptation is...
e) The synergies between different stakeholders in DRR and CCA is...
f) The cooperation between scientists and practitioners is...
g) The collaboration between different NGOs/development organizations is...
Areas where CCA can be integrated in DRR along the disaster risk cycle

- a) Mitigation
- b) Preparedness
- c) Response
- d) Recovery
- e) Reconstruction
- f) Basic information (risk assessment)
Conclusions

Need for…
- More localized spatial resolution of climate change data
- Better links between short and long-term strategies (multi-temporal scales)
- More coherent funding schemes that enhance the cooperation between DRR and CCA
- More systematic consideration of climate change aspects in different phases of DRR
- Closer link between CCA strategies at different governance levels, sectors and between ministries involved
To Do (for DRR)

- Recognition of change as a chance and window of opportunity (incorporation of CCA into reconstruction and recovery phases)
- Move from damage and needs assessment to vulnerability and adaptation assessment (reconstruction, mitigation)
- Evaluation of existing instruments under the conditions of climate change
- Improvement of dynamic social and economic vulnerability data and indicators as well as of information on different adaptation measures
To Do (for CCA)

- Implementation of funding schemes that encourage cooperation through quality criteria and require both DRR and CCA elements

- Development of urban climate change adaptation strategies that incorporate DRR

- Development of quality/evaluation indicators and recommendations that strengthen cooperation and the integrative character of combined strategies
National:

National Adaptation Plans (UNFCCC)
German Adaptation Strategy (Environmental Agency)
Climate proofing (Ministry of Economic Cooperation and Development)
8. Forum Katastrophenvorsorge

Katastrophenvorsorge im Klimawandel
Universität Karlsruhe (TH)
Eiglerstr. 13, Gebäude 11.40 (TH 11.40)

9. Forum Katastrophenvorsorge
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Bonn Dialogues on Global Environmental Change

Climate Change: Control, Adapt or Flee?

Public Symposium
19th of April 2007, 6 p.m.
Deutsches Wörterbuch (Language: English)
Registration desired

Organized by:

Bonn Dialogues on Global Environmental Change

“Environmentally Induced Migration – Concept or Reality?”

Public Symposium
6 November 2008, 6 p.m.
Haus der Geschichte Bonn
Language: English
Registration desired

Supported by:

UNHCR

Photosource:
Oliver Doun, Marc Stud
Flood Risk Reduction in Germany
Lessons Learned from the 2002 Disaster in the Elbe Region

Summary of the Study

LESSONS LEARNED
Severe Storms over Europe
A Cross-Border Perspective of Disaster Reduction
Anpassungsstrategien an den Klimawandel

Anforderungen an den Bevölkerungsschutz
European Union:

White paper on Adaptation to Climate Change

Disaster Reduction in developing countries

Prevention of man-made and natural disasters in Europe
Consultation: some results
Most severe impacts

[Bar chart showing various categories and their number of responses]
International (United Nations):

Conference of the parties in

Copenhagen Dec. 7 – 18 (COP 15)

Midterm Review of the Hyogo

Framework for Action