

How much is Europe thinking about Flood Risk Management?

- Some thoughts from Germany -

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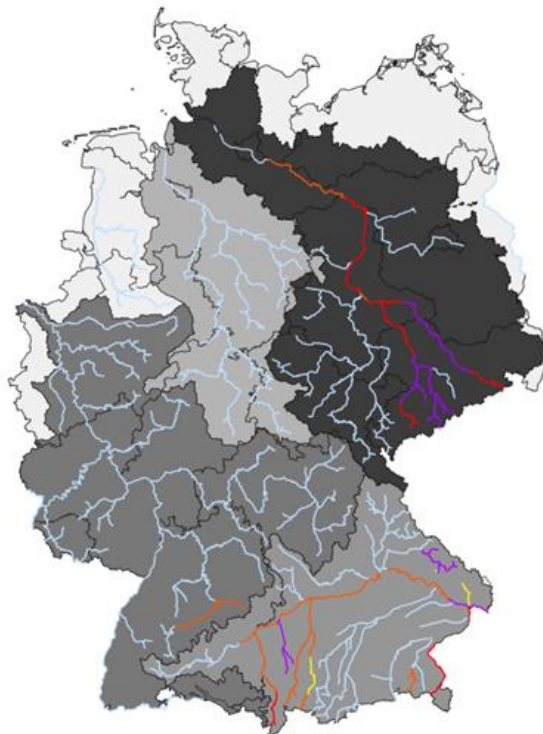
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... ,Nothing like this': Hazard processes

August 2002

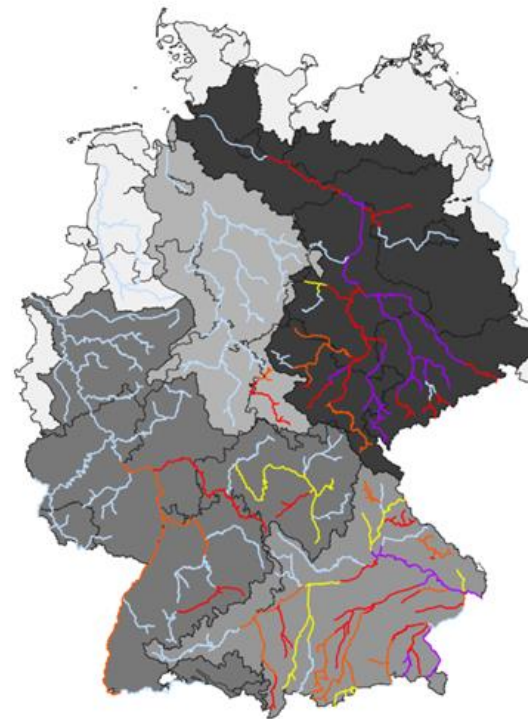
Record-breaking
24-hour rainfall: 312 mm



S=35, L=19%

June 2013

Record-breaking
Soil saturation in May 2013



S=75, L=45%

Major river network

Federal state border

return period [a]

5 < Qp <= 10

10 < Qp <= 50

50 < Qp <= 100

Qp > 100

Danube

Elbe

Rhine

Weser

S: Severity index nach Uhlemann, Thieken, Merz (2010) – HESS 14: 1277–1295.

Source: CEDIM Forensic Disaster Analysis Group; revised in February 2014, pers. com. K. Schröter (GFZ)

... ,Nothing like this': Challenging situations and impacts

August 2002



June 2013



Impact indicator

August 2002

June 2013

Fatalities

21

8

Financial losses

11600 million €

8158 million €

Governmental compensation fund

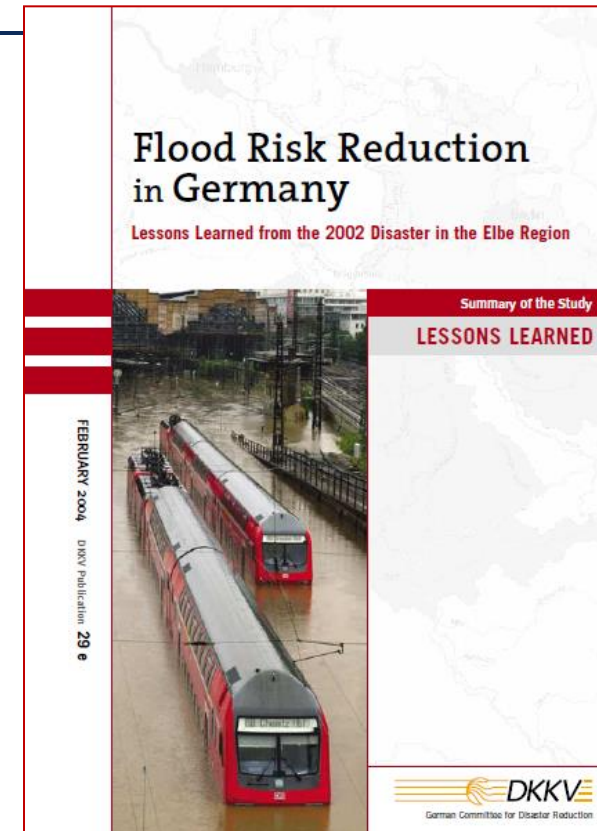
8000 million €

8000 million €

Flood event analyses

Flood in August 2002: ‚Focus event‘

- Comprehensive event analyses
- Identification of deficits
- Recommendations
- New regulations and directives
 - Omnibus Flood Protection Act (*Artikelgesetz Hochwasserschutz*)
 - EU Floods Directive
- Investments and improvements at all levels



Flood in June 2013

- Event analyses
- National flood protection programme



Successes and future challenges

Some improvements from 2002 to 2013

- Flood hazard and risk mapping
- Efforts in risk communication
- Strengthening of flood prevention by land use regulations
- Improved warning and response
- Reinforced technical protection
- More coordination and communication

→ **More efficiency**

Some challenges

- Are there enough retention areas and is there enough maintenance of floodplains?
- How to deal with new technologies and social media?
- Is there a (transparent) shift of risk due to prioritisation of measures? How to deal with it?
- What about intangible and long-term effects?
- How to better link reconstruction and risk reduction?
- Are maps and warning information comprehensible?

→ **New ways and perspectives?**