

Adaptation to Flood Risks through Legal Rulemaking

Developing the Law of Flood Control in Germany and the EU

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Overview

- I. Introduction
- IV. Preventive Flood Control: the role of vulnerability assessment and dealing with uncertainty
- VI. Some reflections about good regulating in the field of reducing flood risks
- VIII. Germany: The Federal Act to Improve Preventive Flood Control (APFC), 2005
- X. EU: The European Flood Risks Directive (FRD), 2007
- VI. Summary

II. Preventive Flood Control: the role of vulnerability assessment - dealing with uncertainty

- **Generating knowledge about vulnerability**
 - probabilistic analyses of flood events
 - natural water retention
 - land use in flood plains (human settlements; economic assets)
 - available technical protection measures to avoid damages
 - assessment of flood risk

II. Preventive Flood Control: the role of vulnerability assessment - dealing with uncertainty

- Vulnerability assessment: need for awareness about uncertainties

dealing with uncertainties is important

→ impacts of climate change

→ increasing likelihood of extreme weather events

III. Some reflections about good regulating in the field of reducing flood risks

- **Appointments of the government in the field of flood control**
 - generate risk information
 - distribution of risk information: communication and awareness raising
 - coordination of measures for reducing vulnerability
 - decision about measures if decisions on the levels of the private sector and the local public sector are not appropriate (externe effects; failure in risk perception, etc.)

III. Some reflections about good regulating in the field of reducing flood risks

Good Regulating

- Decisions on the level of the river basin as far as possible
- Important regulation themes
 - (1) obligation for designation of flood plains according state of the art standards
 - (2) legal conditions for land use planning and land use projects in designated flood plains

III. Some reflections about good regulating in the field of reducing flood risks

(3) Authorizing the competent bodies to interventions

into property rights: conditions and rules about financial compensation

(4) linking land use planning, river basin management

and management of flood control (coordination)

IV. Germany: The Federal Act to Improve Preventive Flood Control (APFC), 2005

Important Rulings

Section 31 b (2) Federal Water Act

„Waters or water segments where more than minor flood damage has occurred or is expected to occur shall be determined by *Land* law. *Land* law shall also make provisions to inform the general public about these waters and to adjust the designation of waters pursuant to sentence 1 to new findings. As a minimum, those areas where statistically a flood event is expected to occur once every hundred years (design flood) shall be designated as flood plains for the waters defined in sentence 1 no later than by 10 May 2012.“

IV. Germany: The Federal Act to Improve Preventive Flood Control (APFC), 2005

Section 31 b (4) Federal Water Act:

„ With the exception of land-use plans for harbours and shipyards, no new development sites must be designated by land-use plans pursuant to (2) sentences 3 and 4. The competent authority may allow the designation of new development sites as an exception, provided that

1. alternatives for human settlement development do not exist or cannot be created

(...)

5. flood retention is not affected and at the same time the loss of retention space is compensated for with respect to capacity and

functionality (...)

IV. Instruments for managing flood control

	APFC	Regional land-use planning (Raumordnung)	River Basin Management
Instruments	Designation of flood plains Bans and restrictions for critical land use in designated flood plains	Designation of „priority zones“ and „reservation zones“ for flood retention	Management plans and programmes on the river basin level

IV. Germany: The Federal Act to Improve Preventive Flood Control (APFC), 2005

Interim Result:

Strengths: obligation to designate flood plains; bans and restrictions for some critical activities in designated flood plains

weaknesses:

- obligation not sufficient for the management of extreme events;
- no links between land-use planning and river basin management;
- no special rules for intervention and financial compensation

V. The European Flood Risks Directive, 2007

- Member States of the EU are obliged to prepare
 - a preliminary flood risk assessment → Dec. 2011
 - flood hazard maps → Dec. 2013
 - flood risk maps → Dec. 2013
 - flood risk management plans → Dec. 2015

V. The European Flood Risks Directive, 2007

FRD: mainly a procedural approach

- Member states decide about their objectives for the management of flood risks (Art. 7 FRD)

But

- Member states are obliged to make vulnerability assessments and to take into account floods with a low probability or extreme event scenarios (Art. 6 (3) FRD)

VI. Summary

- German APFC is an important step forward to an effective prevention
- Weaknesses in dealing with uncertainty: „design flood“
- EU-Directive improves the vulnerability assessment:
obligation to take into account floods with a low probability, or extreme event scenarios („risk approach“)