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Deconstructing the legal framework for flood protection in Austria: Individual and state responsibilities from a planning perspective

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Background

- exposure of building stock to river flooding
- high flood losses
- ongoing development in areas at risk
- perception of risk and hazard management
 - balanced mix of measures
 - adequate planning



Organisational structure of Austria

- federal republic
- 9 provinces
- 2100 municipalities

- administrative bodies:
 - Austrian Service for Torrent and Avalanche Control (WLV)
 - Federal Water Engineering Administration (BWV)
 - Austrian Ministry for Transport, Innovation and Technology (BMVIT)

- Fragmentation of legal basis → effectiveness of flood management? → can individuals be expected to take action?



Aim of the research

- (1) whether the current Austrian legal framework fosters private flood protection and mitigation for existing buildings*

- (1) whether property rights might be impaired by certain regulations*

- difference: **built-up areas** and **new construction**
 - (1) subsequent measures** on existing building stock
 - (2) building permission**
 - (3) preventative planning**

Responsibilities in flood risk management



- when requirements for public protection cannot be met or state lacks the capacity to do so
→ personal responsibility
- theoretically, responsibility of the 'affected' to take measures at property/building level
- lack of awareness & low willingness
→ legal regulations



Challenges of property rights in flood risk management I

Individual perspectives

- property is inviolable; privilege of arbitrariness
- federal government sets standards for construction
 - permission and restriction
 - duties of action as well as duties of omission
- restrictions result from conflicting land uses
- additional private protection measure → voluntary (absence of building obligations)



Challenges of property rights in flood risk management II

Planning perspectives

- building development in risk areas as exception → few restrictions ≠ reflect reality

Federal government perspectives

- government: legislation and execution of forestry- and water rights as well as torrent control
- no subjective right for protection against natural hazards
- regulatory instruments as coercive measures



(1) Existing building stock

- limited suitability is compensated with additional requirements
- extensions to and modifications of buildings
 - elevation of buildings
 - elevation of the upper ground floor edge
- **Burgenland** and **Vienna**: buildings are to be sealed against water penetration (§15(1–3) bgl d BauVO, §102(1–3) vie BauO)
- **Salzburg**: floor levels 15 cm above flood levels (§19(1–3), §25(2) Z 3 slbg BauTG)



(2) Building process

- suitability of sites is a requirement → building permission granted by authority (building land)
 - most provincial building regulations (BauO) include requirements regarding floor levels towards the outside area (e.g., §67(1) styр BauG)
 - in HQ-100 areas, construction might only be permitted when buildings are inherently equipped with flood-protection measures
- difference between provinces
 - indication of information which can be requested by the authority
 - specification of building equipment and measures against water penetration
 - building bans
- **Upper Austria:** Flood-based design of physical structures is specifically demanded (ua BauTG)



(3) Zoning of land

- keep natural hazard areas free of development due unfavourable natural conditions
- **Lower Austria:** areas in 100-year flood zones prohibited from building
- **Upper Austria:** zoning of building land is not permitted in 30-year and 100-year flood runoff areas
- **differences:**
 - hazard area vs. 100-year flood areas (+ measures)
 - BWV & WLW (hazard zone plans, not legally binding)



(3) Reclassification of land

- reclassification of building-land in inundation areas
 - → reduce hazard potential
- limitation of utilisation in inundation areas

Carinthia: undeveloped areas that are situated in hazard zones of floods, rockfall, avalanches, mudslides and the like are to be reclassified to agricultural land, unless the hazard can be averted with appropriate measures within 10 years.



(3) Building bans

- apply to areas that are not suitable for building
 - because of certain natural conditions (groundwater levels, soil properties, avalanche, flood, mudslide, rockfall, slip hazards and the like) (§3 (1)(b) cth GplG, §15(3)1.-3. la ROG, §28(3)2. slbg ROG, §28(2) Z1 styr ROG, §37(1)(a) tyr ROG, § 21(1) ua ROG, §13(2)(a) vlbG RplG).

Lower Austria: According to §15(3) la ROG, development is prohibited in areas that are at risk of flooding by 100-year floods

Upper Austria §21(1a) ua ROG): zoning not permitted in 30-year flood runoff areas or red zones (Forestry Act of 1975 and the Water Act 1959)



Discussion and conclusion

- avoid increase in damage potential
- 9 different regulations at provincial level
- diverse planning basis regarding flood risk management → board definitions
 - qualitative vs. quantitative definitions
 - coercive measures: conflicts over property rights
- two options to deal with flood hazards
 - measures adapted during planning phase
 - legally binding regulations absent for existing building stock



THANK YOU !

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