Evaluation of Flood Information Tables in Flood Risk Communication

Michaela Sy, Dipl.-Geogr. Maria Hagemeier-Klose, Dr. Klaus Wagner
EU-LIFE-Project FloodScan
Chair of Forest and Environmental Policy – Technische Universität München

The Project FloodScan: Task Information and Communication

Research focus:
Optimize the information of the general public, especially the population in areas at risk, about flood risks via **communication and information tools**

→ **Basic objective: Evaluation of existing, further developed and new information tools used in flood risk communication from recipients‘ perspective**

Evaluation of Flood Information Tables in the Flood Plains of three Bavarian Communities

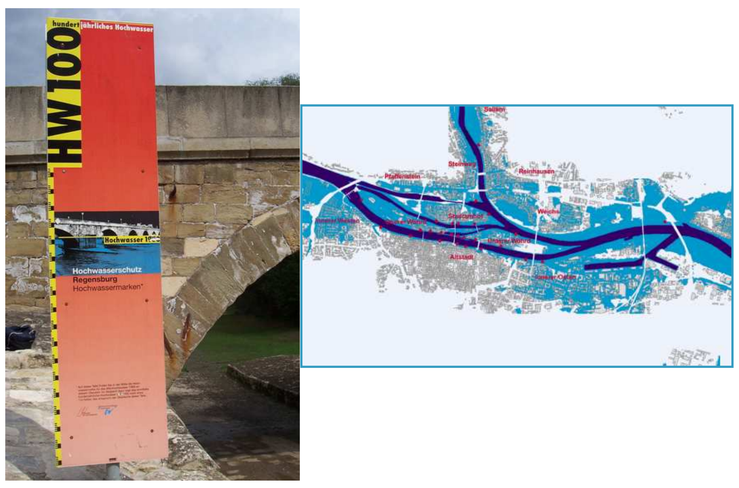
Initiator‘s objectives:

- Strengthen people‘s flood **risk awareness**
- People develop a **spatial imagination** of the local flood plain and possible flood extents
- People know about the „**100-year flood**“ and realise, that it can be higher than past flood events
- People accept the technical flood **protection measures**
- People get inspired to **further inform** themselves about the local flood risk situation

Are these objectives fulfilled?

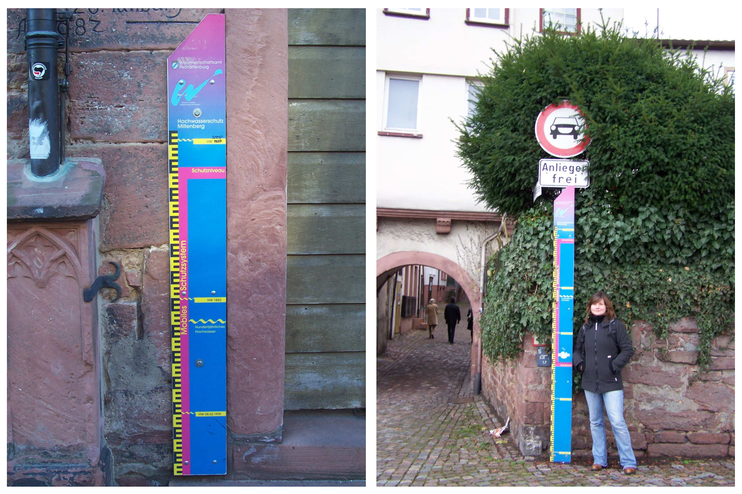
Evaluation methods:

- Semi-standardized **questionaire**, predominantly applying open questions (N = 193: 136 residents, 57 visitors)
- **Mental maps** to analyse resident‘s spatial perception of the flood plain (N = 118)



„The Blue Plan“: Flood information tables at 28 sites within the designated flood plain of the rivers Danube and Regen in Regensburg

„The Blue Band“: More than 100 Flood information tables in the designated flood plain of the river Mangfall in Rosenheim

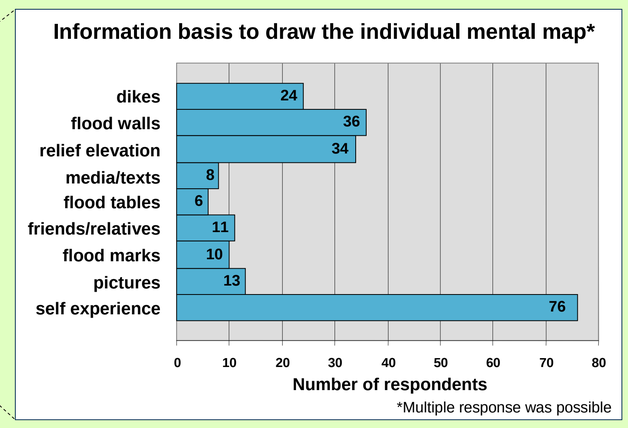


Historic center of Miltenberg: Flood information tables in the designated flood plain of the river Main

Evaluation from Recipients‘ Perspective

Spatial imagination of the local flood plain and flood extent

- 118 of 129 respondents generally think, that the water could rise
- Flood plain is almost exclusively **underestimated** or misjudged
- Imagination mainly based on: previous **flood experiences**, **relief elevation**, flood **protection measures**
- **Only few** respondents attributed their mental maps to the **flood information tables**

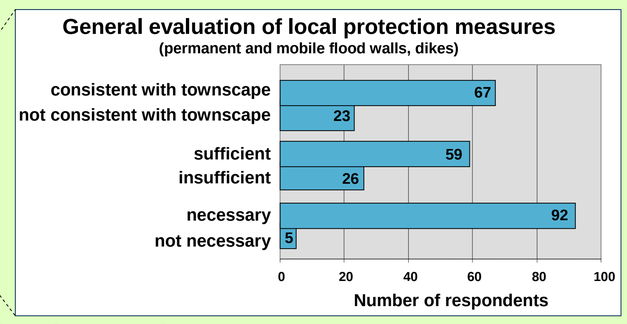


100-year flood:

- 112 of 193 respondents know about the term, 16 defined it correctly, 88 chosed the correct of two possible definitions
- The major part (116) **confirmed**: The tables show that the **water can be higher than past events**
- The major part (125) **did not doubt** that the water could rise up to **this extent**

Flood protection measures:

- 99 of 136 respondents are aware of flood protection measures, **mostly technical** ones
- According to **necessity, sufficiency, fitting character**: Known flood protection measures are **widely accepted**



Risk awareness:

- 120 of 193 respondents are aware of the tables, but they **hardly influence** peoples’ risk awareness
- Respondent’s reasons: **residents know** about the risk; tables are **little-noticed by residents**; predominantly interesting for **tourists**

Further information:

- Flood information tables **hardly inspire** the viewers to search for further information about the local flood risk situation

Conclusion and Requirements for future Implementation

→ Initiator‘s objectives only **partly fulfilled**

→ According to recipients a **revised concept** requires e.g.:
→ striking design, but still consistent with historical values, like historical flood marks
→ more information displayed on the tables
→ less technical terms

supported by the
EU-LIFE-Program

Chair of Forest and Environmental Policy
Technische Universität München
Am Hochanger 13
D-85354 Freising
www.wup.wi.tum.de
hagemeier@forst.wzw.tum.de
wagner@forst.tu-muenchen.de