



Implementing Flood Risks in Regional and Urban Plans in the light of the upcoming European Flood Directive - A Czech-German Study

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In the past, reduction of impacts on urban areas was predominately addressed by applying regulative restrictions of spatial planning instruments on the regional and urban level in many European Member States. These restrictions relate to urban land uses in the part of floodplains which are flooded under design conditions such as 100-year floods. Extreme events which happened more frequent in the last decades of the 20th century showed significant shortcomings of this approach. Inundations significantly exceeded the specified zones of the hazards and a complete protection of the really flooded areas appeared to be neither feasible nor sustainable.

The current movement towards a risk-based approach requires a more detailed consideration of the possibilities and limitations of such formal planning instruments regarding their contribution to risk management. Beside hazards also flood vulnerabilities have to be included in a differentiated zoning. Furthermore, extreme events need to be considered in addition to the more frequent once. This is one binding item of the upcoming European Flood Directive. The draft regulation furthermore asks for the dealing with foreseeable future changes of flood risks in the long-term including climate change and societal changes. Accordingly, risks do not only consist of a spatial but also of a temporal dynamic.

Against this background the contribution firstly provides a comparison of the scientific determination of flood risk on the one hand and the existing planning categories on the other hand. As a result significant textual and spatial differences are evident which can be seen as an important source of uncertainty for the transfer from techni-

cal knowledge to planning.

Secondly, a case study with empirical investigations on the current state of the art on implementing the technical knowledge in spatial planning instruments is introduced. This study has been carried out in regions and municipalities of Germany and the Czech Republic within the transnational Elbe river basin. On the basis of various parameters referring to the design levels referring the hazard, vulnerability (e.g. kind and degree of damages), planning procedure etc. it can be shown to what extent information are transferred in the planning instruments and which methods are applied.

Thirdly, recommendations are derived for the further development of the interface between the technical knowledge and spatial planning. This will also cover an outlook to the supplementary function of informal planning instruments.