



## **Application of the MOVE framework for local and sub-national scale levels on flood hazards – Contributions to the vulnerability and scale debate**

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In the context of the EC funded project MOVE ([www.move-fp7.eu](http://www.move-fp7.eu)) a conceptual framework has been developed which bridges concepts for risk assessment used in different scholarly debates in the domains of hazards and climate change. This framework on one hand recognises the scale levels of vulnerability, but also integrates different dimensions into the vulnerability domains of susceptibility, exposure and lack of resilience.

The Austrian case study focussed on flood hazard in the Salzach catchment. The central objective of the research undertaken was to spatially model and visualise vulnerability for the social, environmental, economic and physical dimension. The approach has been applied for the catchment and local/village scale, rendering homogenous spatial regions of vulnerability believed to be suitable for communication to policy and decision makers. The methodology allows for the spatial and disaggregated representation of vulnerability independent from administrative units as spatial vulnerability units. Next to that, different domains and indicators can be decomposed. A set of different indicators has been developed and spatially integrated through expert consultations. As a result spatially homogenous regions have been modelled applying a multi-resolution segmentation approach to represent the different levels of vulnerability.

Next to the various conceptual discussions in vulnerability science, a debate on the 'scale issue' is evolving. Within our presentation we specifically highlight established concepts in geography and ecology where scale and scaling issues have been already addressed (such as the hierarchy of scale concept) and relate those to the results obtained from the modelling of vulnerability on the catchment and local/village scale. Limitations in indicator development and data availability as well as the requirements for the different scale levels will be discussed. Most importantly the relevance for different policy scales will be assessed and linked to the legal framework in Austria. Additionally the dichotomy between the policy view of information (as compact as possible) and the expert view (as detailed as possible) will be evaluated in the context of the case studies.