



Cross-country transferability of flood damage models for residential buildings

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The estimation of flood damage is an important component for risk-oriented flood design, risk mapping, financial appraisals and comparative risk analyses. However, existing damage models are hardly validated and inherent to substantial uncertainty. Many damage models are currently transferred in space and time, e.g. from region to region or from one flood event to another. Though, it is still unknown to what extent and under which conditions this transfer is possible and reliable. Model validations in different countries could provide valuable insights into the transferability of damage models.

Therefore, the German flood damage model FLEMOps has been applied and validated in Austria and an Austrian flood damage model has been applied and validated in Germany. The Austrian municipality of Gleisdorf and the German city of Eilenburg are analysed as test cases. Flood damage data collected after the flood in 2005 in Tyrol, Austria and Bavaria, Germany are used for validation purposes.

Results of model validations and comparisons in both countries as well as model sensitivities with respect to flood and resistance characteristics are discussed.