



Factors influencing flood losses in private households

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The increase in flood losses can only be counteracted with effective flood risk management. Decisions on flood protection measures or on other preventive and precautionary measures should be based on comprehensive flood risk analyses which include an estimation of the consequences of possible flood events. However, little is known about the factors that might influence the extent of flood losses and thus the vulnerability of private households. Most flood loss models concentrate on the water level as overall dominant parameter.

To enhance the data base and the knowledge about flood losses, approx. 1700 private households affected by the severe flood event of the river Elbe and its tributaries in August 2002 were interviewed. Besides flood losses to buildings and household contents several aspects that might influence the amount of damage were addressed during the computer aided telephone interviews. Such factors include characteristics of the hydrological impact, presence of contamination, available lead time and undertaken emergency measures, building characteristics, long-term precautionary measures, flood experience and socio-economic variables of the affected households.

The presentation will highlight the influence of different factors on the amount of flood losses in private households. Besides the water level, contamination by oil causes a significant increase in damage while long-term precautionary measures like flood-adapted building use and flood-adapted interior decoration can limit losses.

Special attention has to be given to flow velocity. This parameter is difficult to determine by interviews. The chosen approaches to estimate flow velocities will be presented and their influence on flood damage will be discussed. Finally, the possibilities to improve current flood loss estimation models will be addressed.