The international flood damage database HOWAS 21

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The Flood Damage Database HOWAS 21 (https://doi.org/10.1594/GFZ.SDDB.HOWAS21) contains object-specific flood damage data resulting from fluvial, pluvial and groundwater flooding. The 8329 datasets (as at January 2021) incorporate various variables of flood hazard, exposure, vulnerability and direct tangible damage at properties from several economic sectors. The sectors comprise private households, commercial and industrial sector, agricultural and forested land, public thoroughfare (including roads and transport infrastructure) and watercourses and hydraulic structures. Although it currently almost exclusively contains datasets from Germany, it is still unique in respect to amount of data and detail of contained variables. HOWAS 21 mainly supports forensic flood analysis and the derivation of flood damage models. HOWAS 21 was first developed for Germany in 2007 but has recently been enhanced to an international flood damage database. This presentation shows the recent advancements of HOWAS 21 and highlights exemplary the use of HOWAS 21 flood damage data. HOWAS 21 is available at https://howas21.gfz-potsdam.de/howas21/

The use of HOWAS 21 follows a community-based concept, i.e. institutions that provide a defined amount and quality of data to HOWAS 21 get full access to the entire database. Thus, HOWAS 21 depends on the cooperation and commitment of the (scientific) community. The empirical flood damage database can only continuously grow, and as such increase its value for the whole community, if collected flood damage data are provided to HOWAS 21. Therefore, if flood damage data are or become available, we expressly encourage data owners to include them in HOWAS 21 for their own benefit and for the benefit of the whole community.