



FLOPROS: A global database of flood protection standards

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Flood risk is increasing due denser population and socioeconomic activity in flood-prone areas, and to ongoing changes in climate. As emphasized in the Sendai Framework for Disaster Risk Reduction, we need to improve understanding of risk for developing risk-informed policies in disaster risk reduction (priority 3).

While (Sub)Global flood risk models provide applicable risk information, the accuracy of their results is greatly limited by the lack of information on standards of protection to flood currently in place. Studies therefore either neglect this aspect or apply crude assumptions. Here we present a first global database of FLOod PROtection Standards, FLOPROS, that includes information at different spatial scales. It comprises three layers of information, combining them into one consistent database: 1) the Design layer contains empirical information about the actual standard of protection in place; 2) the Policy layer contains intended protection standards from normative documents; 3) the Model layer uses a validated numerical approach to calculate protection standards for the areas otherwise not covered. FLOPROS can be used by entities conducting risk assessment across scales to produce more reliable results, and also to monitor progress in flood protection standards, as required by the Sendai Framework. We invite the risk community to participate in strategies to further extend and increase resolution and accuracy of this first version of FLOPROS. As the database should be continually updated to reflect new interventions, we invite researchers and practitioners to contribute information.