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A global, open-source database of flood protection standards

Paolo Scussolini (1,3), Jeroen Aerts (1), Brenden Jongman (1), Laurens Bouwer (2), Hessel Winsemius (2), Hans de Moel (1), and Philip Ward (1)

(1) IVM, Institute for Environmental Studies, Vrije Universiteit Amsterdam, The Netherlands, (2) Deltares, The Netherlands, (3) paolo.scussolini@vu.nl

Accurate flood risk estimation is pivotal in that it enables risk-informed policies in disaster risk reduction, as emphasized in the recent Sendai framework for Disaster Risk Reduction. To improve our understanding of flood risk, models are now capable to provide actionable risk information on the (sub)global scale. Still the accuracy of their results is greatly limited by the lack of information on standards of protection to flood that are actually in place; and researchers thus take large assumptions on the extent of protection. With our work we propose a first global, open-source database of FLOod PROtection Standards, FLOPROS, covering a range of spatial scales. FLOPROS is structured in three layers of information, and merges them into one consistent database: 1) the Design layer contains empirical information about the standard of protection presently 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 areas not covered in the other layers. The FLOPROS database can be used for more accurate risk assessment exercises across scales. As the database should be continually updated to reflect new interventions, we invite researchers and practitioners to contribute information. Further, we look for partners within the risk community to participate in additional strategies to implement the amount and accuracy of information contained in this first version of FLOPROS.