



Usefulness and limitations of global flood risk models

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Global flood risk models are now a reality. Initially, their development was driven by a demand from users for first-order global assessments to identify risk hotspots. Relentless upward trends in flood damage over the last decade have enhanced interest in such assessments. The adoption of the Sendai Framework for Disaster Risk Reduction and the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts have made these efforts even more essential.

As a result, global flood risk models are being used more and more in practice, by an increasingly large number of practitioners and decision-makers. However, they clearly have their limits compared to local models. To address these issues, a team of scientists and practitioners recently came together at the Global Flood Partnership meeting to critically assess the question ‘What can(’t) we do with global flood risk models?’. The results of this dialogue (Ward et al., 2013) will be presented, opening a discussion on similar broader initiatives at the science-policy interface in other natural hazards.

In this contribution, examples are provided of successful applications of global flood risk models in practice (for example together with the World Bank, Red Cross, and UNISDR), and limitations and gaps between user ‘wish-lists’ and model capabilities are discussed. Finally, a research agenda is presented for addressing these limitations and reducing the gaps.

Ward et al., 2015. Nature Climate Change, doi:10.1038/nclimate2742