From forecast to action: a focus on end-user information needs during a disaster

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This study focuses on the information needs of decision makers in the preparedness and response phase of a disaster. During a crisis situation, everyone is a decision maker, not just government officials and crisis managers, but also e.g. aid organizations, individual citizens and business owners. To support decision makers in taking timely and well-informed actions to reduce the impact of a disaster, it is our responsibility as forecasters to not only provide timely, relevant and actionable information, but also to help them cope with the enormous information overload that often occurs during a crisis situation.

To enhance our understanding of end-user information needs during a crisis, we collaborated with the Department of Civil Protection in Serbia to learn from their recent experience in two major floods in 2014 and 2016. During a crisis, it is crucial that decision makers can easily filter information and make risk-informed decisions. Lessons learnt from the Serbia case study indicate that (historical) impact scenarios are an effective way to identify forecast-based actions. This will reduce the impact of a disaster significantly. Through a participatory approach, we developed a prototype of an interactive information system which translates hazard forecasts into actionable impact information. Such a system can also be used to build capacity among stakeholders to pro-actively respond to disasters and to trigger actions pre-defined in standard operating procedures or response plans.