



## **Strengthening flood warning systems: the benefits of encouraging social preparedness**

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Flood warning and response have normally been focused on the technical aspects and disregarded the connections and feedbacks between the hydrological and social dimensions. An increasing body of research, however, points at the importance of considering socio-hydrological aspects to improve flood damage mitigation. One of the key factors is the preparedness of the public and first responders during flood situations, which is influenced by many behavioural traits such as perceived benefits, risk awareness, or denial.

In this study, we investigate the impact of social preparedness on the efficiency of flood early warning systems by using the recency of flood experience as a proxy for social preparedness. To this end, we developed a stylised model and a synthetic data-set to perform a hypothetical analysis. The main findings point to the importance of social preparedness for flood loss mitigation, especially when the technical forecasting and warning capabilities are limited. More specifically, efforts to promote and preserve social preparedness may help to reduce disaster-induced losses by almost one half. The findings from this study provide insights into the importance of considering social preparedness in decision-making for disaster risk reduction.