

Designing Floods Risk Messages to Motivate Adaptive Behaviors

IAN DAWSON¹, LEEN GAMMOH² and KONSTANTINOS KATSIKOPOULOS¹

¹Centre for Risk Research, University of Southampton, Highfield, Southampton, UK.

E-mail: i.g.dawson@soton.ac.uk and k.katsikopoulos@soton.ac.uk

²American University of Madaba, Jordan.

E-mail: lag1u16@southamptonalumni.ac.uk

Effective risk communication is a vital part of natural hazard preparedness and risk management. Previous studies show that when individuals are faced with a forthcoming natural hazard (e.g., flood), the content and presentation of warning messages within risk communication systems can either strengthen or weaken the receivers' intention to perform the desired preparatory behaviors. Furthermore, evidence suggests that existing risk communication approaches have often been ineffective at cultivating disaster risk awareness or motivating adaptive behaviors. Relatedly, there has been a lack of research on how variations in the content of action guidance (detailed v. vague) and the framing (negative v. positive) of warning messages influence the recipient's intention to prepare for natural hazards, particularly for floods in developing countries. To address this knowledge gap, we conducted a study with Jordanian participants ($N = 378$) that measured the influence of perceived risk, level of message detail, and message framing on the willingness to prepare for a flood. The results revealed a significant increase in the participant's intention to prepare for a flood when the warning message (i) included detailed (cf. vague) guidance on flood preparation actions and (ii) described the outcome of preparation actions in a negative (cf. positive) frame. Moreover, it was identified that participants' risk perceptions increased when the messages were detailed (cf. vague), and that there was a positive relationship between the perceived risk of a flood and the willingness to prepare for it. The results of this study enable us to provide disaster risk management authorities (e.g., Jordanian General Directorate of Civil Defense [GDCD]) with important insights into how flood risk communications could become more effective in influencing the willingness of citizens to prepare against future floods.

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