

Flood risk and climate change in the Rotterdam area, The Netherlands: enhancing citizen's climate risk perceptions and prevention responses despite skepticism

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Abstract

Effective communication about climate change and related risks is complicated by the polarization between “climate alarmists” and “skeptics.” This paper provides insights for the design of climate risk communication strategies by examining how the interplay between climate change and flood risk communication affects citizens' risk perceptions and responses. The study is situated in a delta area with substantial geographic variations in the occurrence and potential impact of flood risk, which has led to initiatives to make the area more “climate proof.” We developed a research model that examines individual differences in processing information about climate change related flood risk, based on the postulate that individuals often make an implicit trade-off between motivation to know “what is real” and motivation to maintain prior beliefs. A field experiment, embedded in a survey (n = 1887), sought to test out how the participants responded to risk frames in which a story on flood was either or not combined with climate change information. The results show that it was possible to increase the participants' local climate risk perception in combination with increased motivation for flood damage prevention, despite a certain level of climate change skepticism. A general implication of our study is that relevant and diagnostic information about local climate-related flood risks can stimulate citizens' need to know “what's real” and their willingness to take responsibility for preparedness.

Keywords: Climate change, Communication, Flood risk, Prevention, Risk perception, Skepticism

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