Record rainfall, swelling rivers: Households' behavior and expectations in the wake of the 2021 European floods

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Abstract. The Dutch approach to water management is traditionally geared towards "hard" infrastructural measures, such as the construction of dykes and levees, and less towards "soft" measures. In the context of flood protection, the latter can either imply the conservation and restoration of floodplains or insurance against (riverine) floods or extreme rainfall.

However, climate change presents a significant challenge to the traditional water management approach. For instance, the "Room for the river" project was started in 2007 to increase the capacity of rivers in anticipation of higher water discharges associated with climate change. Moreover, the recent floods in Limburg and North Brabant in July 2021, widely reported by the media as "linked" to climate change, have caused hundreds of millions of euros in damages and forced political decisions related to responsibility and compensation.

To date, insurers have reported over 13,000 claims from individuals and businesses. The government has also officially promised to compensate losses which were "not insurable, not preventable, and not recoverable", thus emphasizing (at least to some extent) private responsibility.

Did experiencing these events influence individuals' risk perception, insurance decisions, and expectations about future government compensation? To answer this question, I use a difference-in-difference design that combines spatially explicit data on flooded and evacuated areas with data on insurance take-up. I also plan to run a survey in the affected areas to complement my findings with evidence on the underlying mechanisms. Are individuals (in)correctly informed about their true risk exposure? Do they expect catastrophic floods to become more frequent, possibly because of climate change? Are they over-reliant on future government compensation?

Assessing whether and why individuals take different economic decisions in the wake of natural disasters complements the huge literature broadly concerned with assessing how agents learn from infrequent events, and contributes to the understanding of individual decision-making under climate change.

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