

# Science for Environment Policy

## Flooding: what influences householders to protect their homes?

**Householders** who believe that climate change increases flood risk are up to 12% more likely to protect their homes against flooding than those who do not hold this belief, finds recent research from Germany. The national survey also found that previous experience of flood damage increased the likelihood of households introducing flood protection measures.

**Floods damage homes**, businesses, possessions and infrastructure, causing substantial economic losses and even loss of lives. For example, the 2002 floods of the river Elbe in Germany caused 21 fatalities and estimated economic damages of over €11 billion.

Such devastation could increase under the effects of [climate change](#). Many European governments have therefore improved their flood protection over the last 50 years by constructing earthworks, such as levees and other defences. However, engineered measures alone cannot avoid the risk of flooding. It is also essential that the members of the public protect their homes as part of modern flood risk management.

The study conducted a nationwide survey to examine private flood mitigation measures among German households. From a survey of 6404 households the researchers selected 5851 who use a ground floor, basement or both — i.e. those most susceptible to flood damage.

The householders were asked if they had experienced flood damage in the past, if they expect climate change to increase the likelihood of future flood damage, whether they believed their insurance covered them against flood damage or if they expected financial help from the government following a flood.

They were also asked whether they used measures, such as water barriers at basement openings and water resistant paints, and if they moved valuable possessions to higher floors.

The results revealed that homeowners who had suffered from financial or health damage in the past from flooding were 21% more likely to implement their own flood mitigation measures.

Homeowners were up to 12% more likely to implement flood mitigation measures if they expected climate change to increase flood risk over the coming decades. The study's authors state that this 'private climate change adaptation' has not been reported in other research. The survey also found that only 5.1% and 6.0% of respondents from the general population did not expect future climate change in Germany or an increase in floods or inundations in Germany, respectively, suggesting that many German households are concerned about the effects of climate change.

Around one third of respondents expected financial support from authorities in the event of flood damage, although there is no official regulation for such payments in Germany. The authors found that this expectation correlated with lower flood mitigation efforts among particular types of householders, including tenants with high education levels and high 'risk aversion', a finding the authors highlight as counterintuitive.

The number of people in the general population claiming to be insured for either home or contents against flood damage was higher than expected at around 60% and 41%, respectively. This differs from the total of 33% suggested by the German Insurance Association. Perceived insurance coverage did not reduce a household's likelihood of using flood mitigation measures, however.



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