

# Experience From the 2021 Floods in the Netherlands

## Household Survey Results on Impacts and Responses

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### ABSTRACT

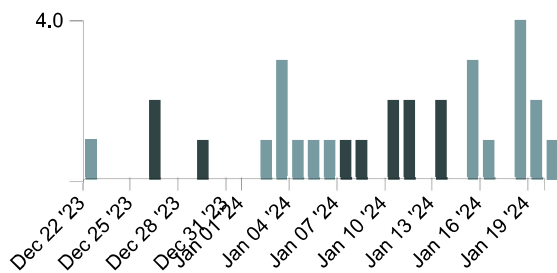
This study gives unique insights into residents' experiences of the 2021 floods in the Netherlands. Survey data was collected from 1,513 respondents who lived in flooded areas or faced a flood threat. We present an overview of survey results about the flood hazard and impacts experienced, evacuation responses, flood damage mitigation measures undertaken, compensation progress, risk perceptions, and stress. The results confirm the flood's substantial impacts: flood inundation levels varied from several centimeters to more than two meters. Inundation depths and median damages were considerably higher along the Geul River than the Meuse River. For all flooded households, median damages reported are €25,000 for homes, €17,000 for home contents, €8,000 for floors, and €2,500 for cleaning costs. Various flood damage mitigation measures were taken; placing sandbags, moving property to higher locations, and installing water pumps were quoted most frequently (30%-35%). High risk perception influences behavior, as respondents who were aware of flood risks beforehand were 23% up to twice as likely to take flood risk reduction measures as those who were not aware. Moving property to higher areas provided the greatest decrease in damage by almost halving economic losses. Placing sandbags or flood

shields was generally ineffective (in approximately two-third of all cases), likely due to overtopping by high flood water levels. Our survey results show that of those who received warnings, approximately 75% actually evacuated. However, our survey results indicate the existence of people who were flooded but did not receive a warning. Among the respondents who were not told to evacuate, the fraction of people who evacuated was considerably lower: ~20%. Additionally, the majority (75%) of respondents experienced high or very high stress during and after the flood, which is most likely related to the destructive flood impacts and to the slow and uncertain compensation experienced by many respondents.

### Metrics

PDF views

113



daily (first 30) | monthly

 PAPER 9 - PDF

 REVIEW 9 - PDF

 QUESTIONNAIRE DATA

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