Floods and Political Trust

The influence of floods on citizens' trust perception to political institutions in the Dutch province Limburg

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Abstract

This qualitative study aimed to understand the possible effects of floods on citizens' trust to political institutions in Limburg. The objectives were 1) to investigate the possible influence of floods on political trust at the local and regional levels, and 2) to explain how trust is influenced at different phases of the disaster management cycle. To do so, eight in-depth interviews were conducted with Limburg citizens, which were then analysed through thematic analysis, according to the disaster management cycle. The study provides several recommendations to political institutions to maintain or create a positive trust perception towards political institutions among citizens.

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Introduction

Flood risk in the Netherlands has significantly increased over the years, mainly due to climate change. Often, climate change increases the frequency, intensity, and severity of floods, possibly causing displacement of people, and damages to nature and infrastructure (IPCC, 2022). On a smaller scale, flood risk in the Netherlands is increased by land subsidence and decreased water drainage possibilities due to the urbanisation of former natural areas (de Kruif, 2012; Yang, Ni, Tian, & Niyogi, 2021).

A disaster risk management plan needs to be in place to effectively handle the effects of a natural hazard and the disaster it may cause. This is often the responsibility of the local and national political institutions. However, an efficient flood protection system is not only based on a collaboration between the local political institutions responsible for it, but also between the institutions and the citizens in the area. Political trust has been shown to be a crucial factor in the efficacy of such plans. If citizens trust the institutions, they are more likely to follow instructions which may lead to improved disaster response (Bronfman, Cisternas, López-Vázquez, & Cifuentes, 2016; Terpstra, 2011; Wachinger, Renn, Begg, & Kuhlicke, 2013). Therefore, creating and sustaining political trust in an area prone to natural hazards is crucial to minimize harm and damages during and after a disaster.

The detrimental effects of floods in the Netherlands could be seen in Limburg during June 2021, when exceptionally heavy rainfall in the Netherlands and countries upstream of the Maas river caused an excess of water in the river basin, leading it to spill over into the surrounding floodplains, and ultimately into populated areas. The flood left houses damaged and sometimes inhabitable. Furthermore, it damaged vehicles, farmlands, streets, and critical infrastructure such as the electricity network, leading to millions in damage claims (Instituut voor Veiligheids-en Crisismanagement, 2022; Task Force Finding Hoogwater, 2021). More context on Limburg and the July 2021 flood can be found in Appendix A.

Although it has been found that trust in water managers in the Netherlands in March 2020 was high, the effects of the 2021 flood in Limburg have not yet been extensively studied (Voogd, de Vries, & Beunen, 2021). With the probability of extreme weather events increasing in the Netherlands, more research needs to be conducted on the level of political trust and climate-related disasters (Instituut voor Veiligheids- en Crisismanagement, 2022). Therefore, this research aims to explain the possible influence of floods on citizens' trust to political institutions in Limburg. This can lead to a better understanding of how political trust may be affected by floods, which can help political institutions create and sustain a higher level of political trust, which can ultimately lead to an improved and safer disaster response.

This paper aims to better understand the effects that floods may have on citizens' trust to political institutions. To do so, first, a literature review has been conducted. Thereafter, the results of the interviews have been described. The following discussion section interprets the findings and explains their implication. The limitations to this research are described and recommendations for further research are provided, after which the paper is concluded.

Aims and objectives

The main aim of this research is to investigate the influence of floods on citizens' trust perception to political institutions in Limburg. The objectives are 1) to investigate the possible influence of floods on political trust at the local and regional levels, and 2) to explain how trust is influenced at different phases of the disaster management cycle.

Methodology

This qualitative study consists of a literature review, including academic articles and policy documents, and several semi-structured interviews. Eight inhabitants of Limburg were interviewed to achieve a better understanding of the possible effects of floods on their trust regarding political institutions.

Literature

This research is based on primary and secondary data. Secondary data was used in the literature review and context section to provide a background and define the academic niche. The literature review consists of a mix of academic articles and grey literature. The additional grey literature was included because reports by Dutch government institutions and research institutions can provide valuable information not provided in academic articles. Furthermore, news media articles were used to gain insight into the course of the flood and opinions on the flood reflected in media. Criteria for the additional non-academic literature were that they were published by recognised institutions such as governments or research institutes.

Articles used for this paper have been found through SmartCat, Google Scholar, and snowballing the references of prior read papers. Additional grey literature was found on Rijkswaterstaat.nl, klimaatadaptatienederland.nl, and cot.nl by searching keywords in Google. Keywords used to find the literature are: floods, political trust, trust, water management, Limburg, natural hazards, and disaster risk management.

Procedure

Primary data was collected by conducting several one-on-one, in-depth interviews. These interviews are semi-structured, based on an interview guide, which can be found in appendix B. This allows the researcher to ask the main questions, while leaving space for an open discussion with the participant.

All interviews took place online, using the Google Meet platform. The interviews lasted for approximately thirty minutes. All interviews were recorded and transcribed. Names of the participants were replaced with codes to ensure the privacy of the participants. To further protect their identities, other defining characteristics such as location were not mentioned in this research. Prior to the interviews, all participants signed an informed consent form which can be found in appendix C.

Participants

The group of participants in this research have been chosen by convenience sampling and partly through snowball sampling. The criteria for the participants are that they were able and willing to participate, and that they were present in the province of Limburg during the 2021 floods. Attention was paid to people's gender, occupation, ethnicity, age, and socio-economic status to ensure that a diverse group of people was interviewed. Four characteristics of the participants have been shown in Table 1.

Table 1 - Participant Characteristics

Participant Code	Gender	Region in Limburg	Age	Occupation
P1	Male	North	22	Works in export and sea cargo logistics
P2	Female	North	46	Primary caregiver of her severely handicapped daughter
P3	Male	South	25	Student
P4	Female	North	49	Works in a publishing house
P5	Male	North	51	Logistics manager
P6	Male	North		Manager of public spaces at a municipality
P7	Male	North	82	Retired
P8	Female	Central	20	Student

Ethical considerations

The privacy of participants was ensured throughout the interview process. All participants signed a consent form to ensure the consensual use of the information they provided. Both in the consent form and at the start of the interview an explanation of the research was provided. Lastly, participants were reminded that they could withdraw their consent at any time.

Data analysis

The primary data were analysed through thematic analysis as described by Braun & Clarke (2006). This approach was used to prevent possible bias if themes would have been created before the interviews were conducted. This thematic analysis was performed by categorising and coding key themes in the interview transcriptions. For the coding, the software Atlas.ti was used. The four main themes are prevention, preparedness, response, and recovery. To further describe the findings, eight subthemes were devised, which divided the main themes into personal and institutional action.

<div align="center">**Literature review**</div>

Understanding trust

General trust

Though the definition of trust is often challenged, it is becoming increasingly common for researchers to quote Rousseau et al, or Mayer et al (PytlikZillig & Kimbrough, 2015). Trust is defined in this paper as Mayer's definition of trust: '[the] willingness of a party to be vulnerable to the action of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party' (Mayer, Davis, & David Schoorman, 1995). Especially in the case of protection against natural hazards, vulnerability plays a large role. Citizens trust in the institutions to protect their being and possessions, vulnerable to the damages that a disaster caused by a natural hazard can cause.

Furthermore, Mayer's definition shows that trust is both relational and often specific to a certain domain. It exists between two parties, who have a certain expectation for the other to perform an action. 'That is, A trusts B to do X. Trust always has an object or target (B), which could be a person, group, or institution, and a domain of action (X) where trust is given or withheld.' (Citrin & Stoker, 2018). Trust is crucial for the action to take place, which is of great importance during a flood. If an institution that is mis- or distrusted calls for evacuation, people will be less inclined to follow their order, possibly causing more harm to well-being that could have otherwise been prevented.

The lack of trust knows the distinction between mistrust and distrust. The former entails uncertainty about whether to trust a party and an absence of trust, the latter means a certain and constant feeling of knowing that the other party is not trustworthy, or the opposite of trust (Citrin & Stoker, 2018; Cook & Gronke, 2015).

Political trust

Trust is established as a willingness to be vulnerable to another party to do a certain action; for one party to believe that the other party will act in their interest. For political trust, these interests are political interests, for example including 'goals of good policy, peace, and sound economic stewardship' (Keele, 2007). On a small scale, this can be trust between a voter and a politician, however, the target being trusted could also be a political party or institution.

Trust in the political context is often said to be equal to confidence in political institutions, and the concepts are often used interchangeably. However, as Hardin (2006) argues, these two concepts are similar and do have some overlap, but are not the same. Those who distrust the government can still have a high level of confidence in it, and vice versa. In this paper, political trust is seen as separate from confidence in political institutions, and will be used as such.

Causes for trust and distrust

History and prior performance

One of the leading factors in trustworthiness is history and prior performance. Knowledge about past behaviour is a major reason for how trustworthy people believe others are, and the same concept is true for political trust. For example, voters may adapt their trust to how well a politician or institution keeps to their promises. Perceived positive performance can lead to an increased level of trust, whilst perceived poor performance may lead to a decrease in trust, since it signifies possible future unsatisfactory results (Keele, 2007).

Dissatisfaction with policies is an example of diminishing trust caused by prior performance. Hetherington (2006) showed that in the UK, the new implementation of redistributive policies caused mistrust among citizens. The connection between policy dissatisfaction and trust was shown again by Ahmed & Braithwaite (2005), who showed that a decrease in education funding caused citizens to mistrust other government initiatives and take their frustrations out on other parts of the government system. The performance of an implemented policy can cause a further change in the level of trust among citizens. If a country is suffering economic hardship, for example, changes in unemployment and inflation, political trust tends to decrease (Stevenson & Wolfers, 2011; Van Erkel & Van Der Meer, 2016).

Representation

Another cause of mistrust in democracies is a lack of representation. In a representative democracy, the voter's perception of how much they are represented by their state's government, institutions, and politicians is correlated to their level of trust in said actors. This representation is often sought in race or ethnicity, but has also been shown in gender and location (Bovens & Wille, 2013; Mangum, 2016; Ulbig, 2007; Williams, 2000). This was recently again underpinned in a study by Gabriel and Masch (2018), who showed that French voters held stronger feelings of mis- and distrust than German voters, and argued that this gap could be explained by the French voter's perception of worse quality representation.

Further causes

Inequality is another cause that may lead to a change in one's level of trust. Lipps and Schraff showed that inequalities within and across regions in Europe were leading factors in people's political trust perception (Lipps & Schraff, 2021). This may be explained by people feeling that they are being treated unfairly and therefore feel that an institution is failing to provide for them, causing them to mistrust the entire system.

A further causal factor can be the legitimacy of the political entities. If citizens are convinced that the institutions act legitimately and fairly, they are more prone to accept any negative outcomes of the system. However, when they do not have this feeling of legitimacy, they might lose trust sooner (Citrin & Stoker, 2018; Tyler & Jackson, 2013).

Lastly, the knowledge people have about political institutions might affect how much they trust them. More knowledge of the role and workings of an institution can lead to an increased level of trust. Although the correlation is more difficult to prove regarding specific institutions, it has been shown that overall, 'knowledge results in the development of more stable institutional trust attitudes' (Pytlikzillig et al., 2017). Thus, to maintain or create a strong positive trust perception among citizens, it is important for political institutions to inform them well about their structure and actions.

Consequences of changing political trust

Participation

The effects of political trust on political participation have long been discussed in academic literature, however, there has been no resulting comprehensive outcome. Some scholars have argued that decreasing political trust causes a corresponding decrease in institutionalised political participation, based on certain research that seems to support the theory that growing inequality and increased political trust lead to more political alienation and a decrease in institutionalised participation (Ejrnaes, 2016). However, it is widely accepted that decreased

institutionalised participation coincides with an increase in non-institutionalised political participation (Gabriel, 2017; Hooghe & Marien, 2013; Kaase, 2007; Li, 2008).

Compliance
Although the literature on the relation between political trust and compliance is limited, a growing number of studies is coming out with similar findings: people with a low level of political trust are less likely to be compliant with laws and policies put in place by the government and institutions (Hough, Jackson, Bradford, Myhill, & Quinton, 2010; Lalot, Heering, Rullo, Travaglino, & Abrams, 2020; Marien & Hooghe, 2011). Political institutions may attempt to limit this lack of compliance by increasing their powers in law enforcement, however, this is a symptomatic solution, superficially suppressing the effect of the problem, instead of addressing its root cause. To prevent this symptomatic solution, it is important to increase citizens' trust perception.

Further consequences
Besides participation and compliance, voting behaviour and preferences for policies have also been found to be influenced by changing political trust (Citrin & Stoker, 2018). These consequences show that a decline in political trust can have strong negative consequences for the strength of government, and may even cause political instability when ongoing for a long time. To prevent further decreases in political trust among citizens, this paper aims to achieve a better understanding of citizens' trust perceptions and provide recommendations to political institutions to prevent these decreases.

Political trust and climate-related disasters
Defining a disaster
A disaster happens at the intersection of a hazard, and vulnerability. Hazards such as floods, earthquakes, and droughts, are natural and in some cases caused by climate change. These hazards, however, do not always cause disasters. For a disaster to take place, the hazard has to affect a vulnerable population, and cause significant disruption (Khan & Khan, 2008).

The importance of trust
When discussing disasters caused by natural hazards, political trust is of great importance. In many cases, institutions are in charge to prevent natural hazards from becoming disasters, and are supposed to ensure the safety and well-being of citizens during and after a disaster. Institutions, however, rely on cooperation with citizens to reach their wanted outcome. Trust is one of the factors deciding how citizens perceive these institutions and their intentions, and thus, political trust needs to be maintained at a high level to reach the necessary collective outcome.

A study on trust and risk preparedness in Chile showed that prior negative experiences resulted in decreased trust in institutions. This shows that in the context of climate-related disasters, prior experiences also affect levels of political trust (Bronfman et al., 2016). Because trust is one of the main factors impacting whether people take preparedness measures, a negative previous experience may cause severe damages and a recurrent lack of public preparedness.

A case study from Thailand also shows that people who have experienced disasters have a stronger sense of community feeling with those around them (Cassar, Healy, & von Kessler, 2017). This concept builds on Rebecca Solnit's concept of 'a paradise built in hell', the theory that people who experienced a disaster caused by a natural hazard show more altruistic

behaviour and get closer relationships with those with shared experiences (Solnit, 2010). These changing relationships can cause changing political trust, because of shared community trust perception.

The importance of trust has been shown in many cases of disasters, and is especially apparent in public preparedness plans and their execution. Citizens' trust in institutions causes them to be more compliant in taking part in risk plans, causing a more streamlined response during a disaster (Bronfman et al., 2016; Cisterna, Acuña-Duarte, & Salazar, 2022; Terpstra, 2011; Wachinger et al., 2013). Furthermore, it has been found that people tend to take more individual precautions if their trust in the response of institutions is lower (Wachinger et al., 2013).

A high level of political trust, however, is not always beneficial for a comprehensive response in case of a disaster. Wachinger et al (2013) found that 'high levels of trust can be counterproductive in regards to encouraging individuals to take preparedness actions'. They explain this 'Risk Perception Paradox' by highlighting that individuals who have a high level of trust in institutions to prevent and solve a disaster might not feel inclined to take action themselves. However, they do conclude by arguing that trust in institutions is necessary to effectively handle a crisis.

The disaster risk management cycle
This research is based on the contemporary disaster management cycle as outlined by Sawalha (2020). This approach builds on the traditional disaster management cycle and aims to cope better with the uniqueness of different disaster situations through promoting creative, modern, and collaborative action. Although not widely accepted, the paper shows the need for a more detailed approach to disaster management. The cycle consists of four phases, as shown in Figure 1: Prevention, Preparedness, Response, and Recovery. Below, the aims of the four phases are explained and examples of application to a flood disaster are provided, based on Tingsanchali (2012).
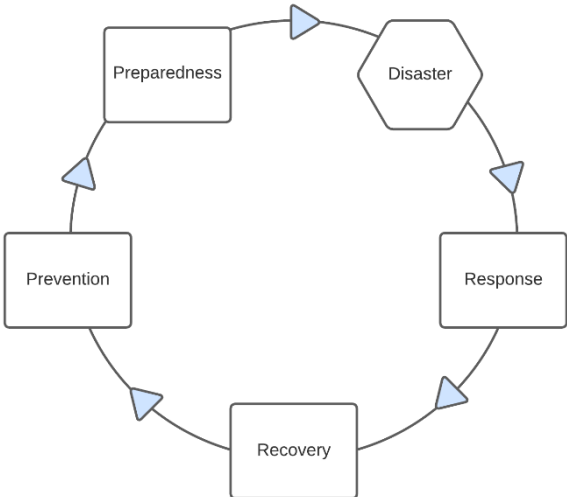

Figure 1 - Disaster Management Cycle

Prevention is often seen as the first stage of a disaster and is also often called mitigation. The aim of this step is mainly to minimise the effects of a possible future disaster. An example of prevention during a flood is building dikes to protect citizens and houses from rising water levels.

The next step is preparedness. This phase is about planning how to respond to a disaster. An example of flood preparedness is creating an early warning system.

When a disaster has struck, the next phase is response. Its aim is to prevent compound disasters and to provide immediate relief to protect people and assets. This phase is often short-term. Examples of flood response action are evacuation and first aid assistance.

The last phase in the cycle is recovery, also sometimes named rehabilitation or reconstruction. This phase focuses on the recovery of society to its pre-disaster state, and the implication of improvements to further protect people and assets. This paper includes all phases of the disaster management cycle.

Results

The results of this study are divided into four themes, which are the standard four phases of the risk disaster management cycle: preparedness, prevention, response, and recovery. To further detail these themes, there are eight subthemes. All main themes and subthemes are shown in relation to each other in Figure 2. In the following sections, the results of this study will be explained using the disaster management cycle framework.
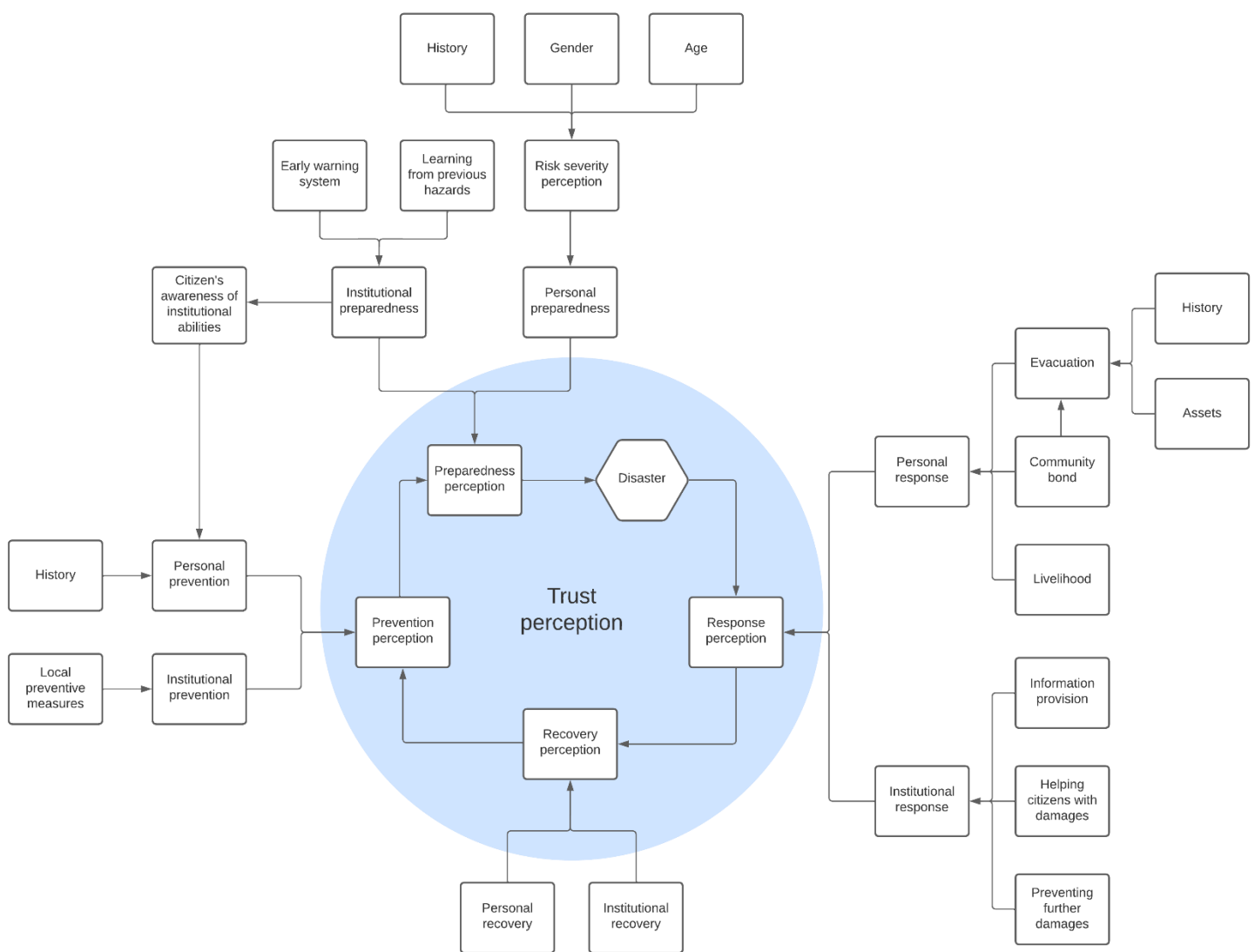

Figure 2 - Model on the Disaster Risk Management Cycle and Trust Perception

Prevention

Personal prevention

To protect themselves, their possessions, and their livelihood against the incoming water, all participants that were at risk of their area flooding, took personal preventive measures. These measures included '*arranging pumps, helping with the installation* (p6)', and '*clearing out basements* (p8)'.

Furthermore, one participant explained that their father had built a dike around their house after the 1995 flood. This should protect their house more since the '*...the area is excluded from that [safe keeping by political institutions]. So the waterboards simply say: yeah for us, we don't have to do anything according to the law, so we will not do anything* (p6)'. This is an example of extensive personal prevention, partially due to little institutional prevention.

Here lies a connection between the institutional and personal prevention. When citizens are aware of the actions and abilities of the political institutions, they explained that they adjust their personal prevention to this. For example, knowing that there would be no political institution to help them, one participant resorted to more extensive personal prevention measures to ensure their safety. On the other hand, when the political institutions carry out more prevention measures, they might feel that they do not have to take as many personal preventive measures as they would otherwise do.

Institutional prevention

Institutional prevention includes any type of prevention of floods and high water in the Limburg area, by any political institution. This for example includes the water boards, a municipality, or Rijkswaterstaat.

Local preventive measures

The main form of institutional prevention the participants commented on is local preventive measures. This includes dikes, the Room for the River project, and other water management projects in their area. Many participants explained that they had a high level of trust in these projects.

The level of trust in the local preventive measures, however, seemed to be influenced by their history of floodings, and more specifically their experience during the July 2021 flood. A participant who saw that the dikes stopped the water and therefore saved their house from flooding commented: '*...we have now seen how important those dikes are and that they are really high enough and strong enough* (p4)'. On the other hand, participants who experienced a (partial) failure of a dike in their area expressed discontent and a decreased level of trust regarding the local preventive measures. '*...they put down those dikes, but they were not high enough, they say, and now something has to be added. And it cost tons of money back then. [...] I have little trust in them [the local preventive measures]*' (p7).

Preparedness

Personal preparedness

    Risk Severity Perception.

When participants explained how they experienced the July 2021 flood, there was a great difference in responses. Some expressed great worry and explained that they were stressed and thought that the floods would have a great negative impact on them. Contrastingly, some

participants explained that they did not see the flood as threatening and had a more unconcerned stance regarding the hazard.

History.

The main factor affecting citizens' risk severity perception was the number of times before they had experienced a flood or high water. Those who had experienced floods before often gave examples of how things went at that time and based their preparedness, prevention, and response on their knowledge from previous disasters. One participant noted that '*I have lived here for 51 years, and high water, that's just part of it*'(p5).

Because they had experience with high water, they knew better what to expect than people who had not previously experienced floods. Overall, this lowered their risk severity perception. One participant even commented that he partially perceived the floods in a positive way. '*Yeah for me that's part of it, look for me, apart from the extremes, it is always something fun [laughter].*' (p6).

Gender

One characteristic of the participants that seemed to play into this factor is gender. Overall, women's risk severity perception was higher than men's. Two participants in a focus group explained their perceptions as follows:

> '*look, to be honest we don't really know any better. If I speak from my experience, based on the past, every winter… The high water being in the summer is a unique situation. We had that in 1980 in the summer, and now last year. […] It was always in the winter, when the snow would melt and would come from the Ardennes to here. And yeah, the Maas would overflow its banks. Yeah, what else can really say about it?*' (p5).

> '*It was really thrilling, we really thought so at that time, because we are so close to the dikes, we are not at the Maas, but the water will come to that side of the dike as well. So if it goes over, it was scary whether the dike would hold. At first that was totally unclear. […] It [the water] can go in all of a sudden then, so we really were not chill that weekend.*' (p4).

These two participants were in the same situation, however, experienced the situation differently. This finding was shown with other participants as well, in which almost always, women seemed to perceive higher risk severity than men.

Age

Age also played into exposure and therefore into risk severity perception. Older participants that lived in Limburg for a longer time and had therefore experienced floods and high water more often, had a lower risk severity perception than those who had not experienced these floods.

However, age did not only have a direct effect on exposure. Younger participants (ages 25 and under) overall had a lower risk perception than older participants (ages 25 and older), regardless of whether they had experienced floods before. This shows that age affects risk severity perception no matter their exposure to floods. When asking one student about his perception of the disaster he explained that this '*it is maybe less a topic of concern among students*' (p3).

Institutional preparedness
Early warning system
Because participants in this study came from different regions, cities, and villages across Limburg, they experienced different types of early warning systems. One participant mentioned that someone from the municipality came door to door to deliver an information letter, in which was explained what would likely happen in their area. The person who delivered the letter, however, verbally delivered different information than was provided in the letter, causing unrest and worry.

The participants who commented on the institutional preparedness mostly mentioned the local institutions. Overall, they expressed content about how and in what way they were informed about the oncoming water. '*We are actually well informed by the municipality I think, about what the plan is and what the expectations are, things like that.*' (p5).

Learning from previous disasters
Participants who had more often been exposed to high water and floods in Limburg often compared their experiences from July 2021 to the previous floods. Some of these participants called from better scripts, so if another flood were to happen, it would be more clear to the political institutions and the citizens what would happen.

> '*[…] it was better in the past, for example after '95 there was a lot of focus on it, and I think there were also better scripts than now. […] And those scripts were known among the people, among citizens beforehand. […] that has decreased over the last years. Now there is a situation all of a sudden where there is high water. And you see that some people do not know what will exactly happen. Where there were in the past, in '95, specific places where people could go and get sandbags, you can see that that is not arranged now, and so at a moment's notice, people do not know what to do.*'(p6).

To prevent perceived mishaps as described by this participant, several participants expressed that they hoped the political institutions would learn from their behaviour during the July 2021 and previous floods. Where some participants thought the institutions learnt from their past behaviour: '*But I think they have all learned from this.*' (p4), other participants expressed their scepticism: '*...did they not learn that from the past? […] They must have learned their lessons from '88, '93, and '95 with that high water. And regarding that nothing has improved here in my opinion.*' (p7).

Response
Out of all four categories, participants in the interviews commented most on the response part of the disaster risk management cycle, both on their personal and institutional response. In this section, the response perception theme and its following subthemes will be explained.

Personal response
All participants that lived in an area with the possibility of flooding took responsive action during the high water in the Maas and the consequential flood in certain areas. This personal response in most cases took place in the form of '*…arrange and install a lot of pumps and build extra emergency dikes*'(p6), '*lay sandbags*' (p1), and '*...emptied her cellar […] so all the furniture has been taken up to the attic*' (p8).

Although most participants expected to have to take personal action, some participants expressed their discontent and confusion about their personal responsibilities during the

response phase of the disaster. '*No, I indeed thought: why should we now arrange this ourselves? [...] the atmosphere was good, but yes, you think: yes, why are we doing everything here?*' (p1). Another participant shared: '*You call, we really needed big bags here because otherwise the sidewalk would come up. That was very strange, yes, that we had to call for that ourselves, that really was very weird.*' (p2).

Even participants who knew they would not be helped, expressed that they would like to receive help from the institutions if it were possible.

> '*they have now focused on the areas indicated in the law, they have left the rest behind. And then I think: yes, maybe it's time to take another look at that: yes, you know, what can we do with houses that are located in those areas that are not protected? Can we still offer them something? [...] I hope. But yeah, I'm afraid it is a vain hope.*' (p6).

Evacuation.
Out of the eight total participants, seven were urged to evacuate their houses and area. From these seven participants, only one interviewee chose to leave. This shows the non-compliance of many citizens to evacuate, even when urged to do so by political institutions. Interviewed citizens explained that they had several reasons not to comply with calls for evacuation, three of which are explained in the following sections.

History.
When asked to explain why they chose to stay, many participants based their answers on history, explaining how the different steps of the disaster management cycle went in previous years. '*We just always stay. Also knowing what the water does, we grew up with it, and I know the dangers.*' (p6). Another participant shared: '*...I have lived here in this village all my life, but in '95 and in '93, then the water level was actually even higher than now, and people didn't have to evacuate.*' (p7).

Assets.
The main driver for personal response seems, from the interviews, to be the protection of people's assets. Participants knew that there would be no help to save their houses from the flood offered by political institutions if the water reach them, and therefore chose to stay to protect their assets. '*We then got a letter from the municipality as well, an evacuation letter saying that we should all leave our houses. But when you leave, you know for sure that you won't be able to save anything.*' (p4).

Community.
In the response phase, many participants commented on their support for and solidarity with their community. Neighbours, friends, and family came to help each other where and when necessary, which many participants perceived positively. Participants reasonably expect to offer and receive help to and from their community, and explained that they partially based their personal response on the expectation of help coming from within their community.

Within their personal response, their evacuation compliance was also partially based on their community. Most participants explained that the atmosphere in their village was not one of evacuation. Knowing that other people in their area would stay as well, made some participants less inclined to leave. '*we have a GP living here in the village, a vet, we had enough food [laughter]. Yes, we didn't feel a lot of urgency [to leave].*' (p4). One participant, however, explained that seeing their neighbours leave was a sign for them to evacuate as well. '*...other*

neighbours, they were going first, and they were also like: no we are going. […] So I was like, no, let's go.' (p2).

Community Bond.

When discussing the response during the disaster, all participants commented on the bond they had with their family, friends, or other people living in their area. These responses have been coded under the subtheme community bond.

Participants shared that people from their villages would come together to help each other during the flood to overcome damages and prevent any further harm. '*…the solidarity in such a village is very great, so to speak, that helps*' (p5). The increased community bond during this time was reported to not only make the situation less bad, some participants even explained that it made the days during the disaster quite enjoyable as soon as the direct danger had passed.

> '*When the danger had passed for us, I must say that we had a good time. […] that was also a very nice weekend, all together on that island, because spontaneous barbecues were held, the weather was nice, and no cars passed, so that was very nice.*' (p4).

Especially in the context of the ongoing covid-19 pandemic, one participant explained their glee upon seeing the other people in their village together again. '*Because of corona it was fun actually. Because I hadn't seen them all in so long. But yes, it does give a very great sense of togetherness in the village. That's nice.*' (p8).

Institutional response

The interviewees' perception of the institutional response was centred around three topics: information provision, helping citizens with damages, and preventing further damages. In this section, these three topics will be explained further.

Information Provision.

During the disaster, political institutions kept providing citizens with information. Two participants commented specifically on the information provision during the response period. One of the interviewees mentioned an inflow of information through a person working at the municipality, and the other mentioned a recommendation that the crisis consultations could have provided more information during the crisis.

Helping Citizens With Damages.

To help citizens during the disaster with damages that the natural hazard caused, emergency services were deployed. Soldiers, police, and firemen were mentioned to be helping in the interviews. The organisation of their deployment was not always positively perceived.

> '*…for example, rescuers who came, here there was a rescue brigade, a whole team […] And they came to my house like this: can we go to the toilet at your place? And yes of course you can, but actually that is too crazy that the municipality didn't think: Okay, there will be aid workers, then we need toilets, or there has to be food and drinks.*' (p2).

Preventing Further Damages.

To prevent further damages, different institutions kept a close eye on how the high water was developing and how local preventive measures such as dikes were keeping up. '*And the dike watch, I think he did one round three times a day, and another round each time, also at night, so that was closely monitored.*' (p4). In the case of this participant, these efforts were greatly

appreciated. However, some participants did not express as much contentment when they saw people from political institutions in the area.

> '*And other institutions, yeah, in the province, or even in our municipality there is one person higherup in the administration who is also from [place of residence]. Yeah, we saw him once and that it when it was good enough to come again. Then it was already sure that the water would lower again. And then he came to check on us, and then I think, just run along.*' (p1).

This quote not only shows the discontent of this participant regarding political officials, but also their perception regarding representation. The participant shared that they did not feel that they, or their community/village, were adequately represented within the political institutions.

In other areas, however, the responsibility of checking on the dikes was put on citizens directly. When asked whether they noticed the presence of emergency services and people from political institutions, one participant answered:

> '*Little, I think. [...] I also thought that arranging everything, and even keeping an eye on the barrier, the fact that that went without saying, that the citizens would do that themselves. I actually thought that was very strange. [...] And we did do it, but the fact that it was so taken for granted, I found that very weird.*' (p2).

Participants shared that some dikes were reinforced by people from political institutions and emergency services. '*...that was more to stop the water, so with water bags and such, the fire brigade I think, and what else was there? The army later came to help as well.*' (p8).

Another part of the prevention of further damages is '*...crisis consultations taking place at that time, in which the water board, Rijkswaterstaat, the municipality, and the security regions all talk to each other...*' (p6). Only one participant mentioned these meetings, and in the same sentence, shared that '*...they naturally have more accurate forecasts. And that would be nice if it was shared more specifically with people there*' (p6). This connects again to the previously explained information provision, that in the perception of many interviewees, was lacking.

Recovery
In contrast to the response, interviewees commented little on their attitudes towards the recovery phase. In this section, participants' perceptions regarding personal and institutional recovery will be further explained.

Personal recovery
In the recovery phase of the disaster, participants that experienced direct damage to their house or belongings focused their efforts on recovering and repairing their items, the recovery of assets and restoring their livelihoods. Many people commented on their community bond; how they were helped by others, and how they helped others where they could. Some exceptionally heavily affected villages received more widespread help. '*Close to [a nearby village] those people, I think there has been a fundraiser for that.*' (p1).

Institutional recovery
All except one interviewees that commented on institutional recovery expressed that they were content with the actions of the state with regards to damage claims. Since some Limburg citizens cannot get insurance against floods and high water due to the likelihood of these natural hazards, they were happy to see that the government had declared the flood of July 2021 a

national disaster, meaning that they would be able to receive money from the national disaster fund. One participant shared that '*...if the state doesn't declare it to be a disaster, you'll be screwed. You can go bankrupt if you have to. So in that sense, I think they [the government] did well in declaring this a disaster. I appreciate it.*' (p8).

The one participant that expressed discontent with the recovery still claimed to appreciate the damage claims, however, was negative about the speed with which they were handled. '*...they [the government] said: we'll pay your costs. That's what they say. But what's in it for me if I have to live frugally for a year without having any pleasure of living? It's useless to me. That insecurity for those people in that time. They will really not be content before that is finished.*' (p7).

Discussion

In the results section, the outcomes of the interviews have been put forward. In the following section, the results are interpreted and their implications are explained, with the aim of answering the overarching research question: what is the influence of floods on citizens' trust to political institutions in Limburg. It furthermore aims to describe the influence of floods on political trust at the local and regional levels, and explain how trust is influenced at different phases of the disaster management cycle. Thereafter, potential improvements regarding institutional actions and political trust have been proposed. Lastly, the limitations of this study will be described and recommendations for further research will be made.

Interpretation and implications

Prevention

Preventing a natural hazard from turning into a disaster was deemed crucial by the participants in this study, with institutional prevention being one of the two most commented on themes during the interviews. Reported institutional prevention of flood damages mainly consisted of local preventive measures. Participants who saw that these preventive measures worked, reported an increase in trust perception, however, on the other hand, participants who experienced failures of preventive measures to protect them, reported a decrease in trust and confidence regarding these measures. The construction and further development of local preventive measures can therefore be a useful tool, not only to protect more citizens from possible future floods, but also to increase their trust perception regarding political institutions.

Increasing the efforts in and communication about institutional prevention may also decrease the need for personal prevention. However, attention needs to be paid to the possibility of the Risk Perception Paradox. According to Wachinger et al. (2013), citizens may not feel inclined to take personal prevention measures when they feel sufficiently protected by the institutions, and ultimately take too few personal prevention measures, therefore not limiting the total damage of a possible future flood.

Preparedness

When discussing personal preparedness, risk severity perception seemed to be the largest influence on how participants explained their own preparedness. The main factors influencing risk severity perception are history, exposure, age, and gender. Because these factors influence the risk severity perception, they also influence personal preparedness.

The perception of institutional preparedness among participants differed, since they mainly discussed the actions of their local institutions, such as municipalities. Many were content with the way they were informed by their institutions. However, because the preparedness approach differed greatly based on location, there was little cohesion between the perception of participants from different regions within Limburg.

The perception of citizens on whether institutions learnt from previous disasters was reported to strongly influence their trust perception towards political institutions. Although it cannot be said that no improvements were made at all, many participants mentioned that they did not experience improvements based on previous exposure.

Building on the study by Bronfman et al. (2016) on disaster preparedness, citizens' perception of preparedness, both personal and institutional, can influence their compliance during risk, in turn influencing the efficiency of a disaster response plan. To increase preparedness and therefore provide better support to citizens in the context of a disaster, several steps can be taken.

Regarding personal preparedness, taking into account the characteristics, history, and exposure of the different citizens and understanding how they affect risk severity perception can help institutions to create and execute a more tailored preparedness plan. To further improve on preparedness, a more comprehensive regional strategy for an early warning system can improve the effectiveness of institutional information provision. This should not undermine the need for locally applicable information, however, it does have the power to limit misinformation among citizens. Lastly, more clearly communicating and showing improvements made to increase preparedness may lead to a better perception of preparedness, and may therefore increase trust.

When improving the citizen's perception of institutional preparedness, again, attention needs to be paid to the Risk Perception Paradox. Wachinger et al.'s (2013) found that high levels of trust to be counterproductive to citizens' motivation to take preparedness actions. For political institutions, increasing their preparedness should not come at the cost of decreasing personal preparedness. This could be done by explaining the need for both institutional and personal preparedness to citizens.

Response
Out of the four main themes in this research, participants commented mostly on response perception. Their personal response focused mainly on their protection of assets and evacuation. All participants expected to have to take some personal action. However, their expectations regarding the extent of their response action varied. Those who did not expect having to take much personal action described feelings of annoyance or confusion, and described a decrease in their trust in the political institutions. Participants who expected having to take more personal action during the response period detailed a more neutral stance, and did not describe an increased negative perception of political institutions.

Here, it could be seen that the change in trust was not mostly based on the amount of work the participants had to do without institutional assistance, but rather on the disparity between their expectations and the work they had to do. To prevent the negative perceptions during possible future high water and flooding events, the expectations of the participants have to be managed. Here, clear communication in the preparedness part of the disaster management cycle is crucial.

This also connects back to citizens' understanding of institutional abilities, since citizens base their response actions on the information they have.

Evacuation was deemed important by participants since all but one participant mentioned evacuation in their interviews. Their evacuation compliance was based on three main factors: history, assets, and community. When trying to understand why these factors are important to citizens in the context of evacuation, compliance is of great importance, since it might influence their choice of whether or not to evacuate, even in a possibly critical flood situation. To increase the efficacy of disaster management plans in the future and prevent further damages to assets or well-being, the reasoning for citizens' evacuation compliance needs to be taken into account.

All participants mentioned their increased community bond. This confirms prior findings by Cassar et al. (2017) and Solnit (2010), who found that people that experienced a disaster caused by a natural hazard formed closer relationships with people in their communities.

Participants with self-reported low trust in political institutions explained that they felt a disconnect between themselves and the political institutions. They saw little collaboration between citizens and institutions and felt their actions as being separate from the institutional response. The reported feeling of disconnect is further underpinned by the lack of representation mentioned by some participants, since this is a known cause of political mistrust (Bovens & Wille, 2013; Mangum, 2016; Ulbig, 2007; Williams, 2000). This disconnect fits into a feeling of distance, disconnect, and mistrust between citizens and political institutions. Harbouring this feeling can cause a growing narrative of 'us vs. them' rhetoric, causing decreasing trust among citizens.

Regarding the institutional response, respondents mostly commented on the prevention of further damages, but also described actions on information provision and institutions helping citizens with damages.

The two participants that commented on institutional information provision during the response phase of the disaster expressed contrasting views. One participant received information through an acquaintance who works at their municipality, and the second participant worked at a municipality themselves. This shows that there were no participants that did not have a direct link to the municipality that received information during the flood disaster of July 2021.

The prevention of further damages was the most discussed subtheme within the institutional response. The prevention was achieved mostly through close inspection and reinforcement of local preventive measures, by both institutional officials and citizens. In some cases, the institutional efforts were greatly appreciated by citizens, however, interviewees commented on these actions as wholly separate from the actions that they and the people in their community were taking.

One of the reasons for a decrease in positive institutional response perception seems to be the disconnect between political institutions and citizens. Two respondents mentioned their discontent towards institutional officials coming to see the state of dikes in their respective villages. They explained that they did not appreciate the perceived dichotomy between the people in their community, which were working hard to keep themselves and the village safe, and the institutional officials who came by to check how things were going and leaving again.

Interviewees explained the personal and institutional actions taken in the response phase as important, however, also as totally separate from the personal action they and other community members were taking. This shows the disconnect between political institutions, which, again, feeds into the 'us vs. them' narrative.

Recovery
Throughout the interviews, recovery was the main theme that participants commented on least. Personal recovery seemed to come naturally, and they did not mention the expectation of local institutional assistance. Interviewees reported that their personal recovery was focused on the repair and replacement of their belongings and mentioned helping and getting help from people in their community, which included neighbours, friends, and family.

Although participants did not expect local institutions to assist in recovery, they did comment on the national government with regard to damage claims. The inability of some people to insure themselves against flood damages, caused several participants to be unsure about their financial situation. Without the national government's official declaration of the floods being a disaster, citizens would have to pay for the damages themselves, possibly causing them severe financial strain and even bankruptcy. Because citizens are strongly dependent on the national disaster fund, the official declaration of a national disaster is of crucial importance. Because funds were promised to be paid, some participants reported that they were happy with the national government recovery plan. This shows the possibility of increased trust perception

However, the speed with which the funds are paid to those affected also needs to be taken into consideration. Participants explained that even if people knew they would get the money, having to wait for it for over a year would not solve their problems. Having to pay for the initial damages, even when knowing that these would be refunded, could still lead to financial strain and distress. As mentioned by respondents, citizens being in such desperate situations because of perceived limited or discursive national government recovery action, are likely to cause a decrease in trust perception regarding institutional recovery, as well as political institutions as a whole. Therefore, to prevent a decrease in political trust, swift national action is of great importance in the aftermath of a disaster, and may even cause an increase in political trust perception among citizens.

Limitations
Before recommendations for further research are provided, this section outlines the limitations of this research study. The main limitation of this study is that its qualitative research design and its consequent small sample size make that the outcomes of this research are not generalisable. Increasing the sample size fell outside the scope of this study. The findings, however, do tie in well with the current literature and support existing theories on disaster management, as shown in the discussion.

Although attention has been paid to age, gender, and occupation in choosing participants for this study, other characteristics have been limitedly represented in this study. For example, all participants are from the same ethnic background and are of Dutch nationality.

Future research
Based on the limitations of this paper, the first recommendation for future research is to repeat a similar study among more participants, with a sample group that is more representative of the population of Limburg. Among other characteristics, participants' ethnic, racial, and

immigration background needs to be taken into account to come to a better understanding of the possible influence of the characteristics on political institutional trust perception.

Furthermore, the further development of the model shown in this research could be achieved through an in-depth study of the possible differences in locations. This study only interviews one participant that lived in a city, with the other seven living in villages. This possibly gives a one-sided view of rural Limburg, and thus, more research can be done to overcome this limitation. Lastly, this study focuses on the province of Limburg. Further research on a national scale could point out whether the findings of this study hold on a larger scale.

Conclusion

This qualitative research has investigated the influence of floods on citizens' trust perception to political institutions in Limburg. The July 2021 flood disaster has been used as a case study. Furthermore, the research has aimed to understand citizens' trust perception of political institutions at different stages of the disaster management cycle, as outlined by Sawalha (2020).

In the prevention phase, further institutional prevention efforts may, furthermore, decrease the need for personal prevention measures. Improving communication can lead to more realistic expectations for citizens, limiting changes in trust perception, and overcoming the possibility of the Risk Perception Paradox. Combining increased institutional prevention with better communication and expectation management can lead to a more stable and possibly increasingly positive trust perception.

Regarding preparedness, risk severity perception was the main driver for personal preparedness, for which three drivers were highlighted: history, age, and gender. Understanding these factors can inform a more tailored preparedness plan, in accordance with Sawalha's argument in favour of acknowledging and acting per the uniqueness of a disaster. More clear communication about improved institutional preparedness plans can further manage citizens' perception of preparedness, which can further increase trust.

In the response phase, the discrepancy between expectations and the actual situation showed once more. If participants' expectations greatly differed from the response action they actually had to take, they reported a decrease in trust in political institutions, both specifically regarding response measures, and their trust in general. Three motivations for evacuation compliance were highlighted: history, assets, and community. These causes for evacuation compliance have to be taken into consideration to create a more effective disaster management plan, in an effort to better protect the well-being and assets of citizens in Limburg. This needs to be done in collaboration with local communities to establish a stronger bond between institutional and personal response and close the reported gap between political institutions and local communities.

During the final recovery phase, expectations on a local level were reported to be managed properly. On the national level, a swifter recovery regarding disaster fund payments would limit financial strain and stress, which could reportedly limit a decrease, and cause a possible increase in trust perception in political institutions.

Concluding, political institutions should aim to:

- work together with citizens to close the existing disconnect between political institutions and local communities;
- manage citizens' expectations at every step of the disaster management cycle;
- and provide citizens with the necessary tools, both informational and physical, to safely and effectively protect themselves from flood disasters.

Taking these steps will aid in maintaining or creating positive perceptions among citizens regarding political institutions, and can thus lead to improved disaster management plans, better protecting the well-being of citizens.

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Appendix A

Context

Limburg

Limburg is a province in the southeast of the Netherlands bordering Belgium and Germany. It is home to over 1.1 million people living across 2200 square kilometres of land (Centraal Bureau voor de Statistiek, 2022). 63 square kilometres of this area are covered in water, as the province is part of the Maas river basin. Over half of the land in Limburg is used for farming, including plant-based and animal agriculture (Centraal Bureau voor de Statistiek, 2018).

The river Maas springs in France before passing through Belgium and the Netherlands. It stretches through Limburg, entering in the south and flowing northwards, passing cities including Maastricht, Roermond, and Venlo. Its tributaries are spread throughout Limburg and all drain into the main Maas river. The water level is highly dependent on rain and meltwater of glaciers, an increased amount of which has caused severe floodings in 1993 and 1995 (Rijkswaterstaat, 2022).

To protect Limburg's land and citizens, government projects such as Ruimte voor de Rivier (Room for the River) and the Maaswerken (the Maasprojects) were set into action, aiming to better ensure the safety of citizens. The Maas got equipped with more and lower floodplains, the river got dug out deeper, different floodgates were built, and several dikes were built or improved (de Boer, 2018; Ministerie van Infrastructuur en Milieu, Rijkswaterstaat Zuid-Nederland, & Programma Maaswerken, 2019; Rijkswaterstaat, 2022).

Responsibility division of political institutions

Preventing harm caused by floods is one of the responsibilities of Rijkswaterstaat, the executive agency of the Dutch Ministry of Infrastructure and Water Management. This national organisation manages larger bodies of water such as rivers and the North Sea. On a regional scale, there are twenty-one water boards in the Netherlands, largely responsible for regional waters. In the event of a flood, collaboration between the regional and national institutions is crucial for an efficient disaster response.

The 2021 flood

Surrounding countries

On the 13th and 14th of July 2021, heavy rainfall was measured in Europe, including in the Netherlands, Belgium and Germany. This caused a rise in the water level of the Maas and Rhine rivers, causing the Maas and Rhine and their respective tributaries and rainwater buffers to overflow. This led to a large flooding crisis, affecting all three countries.

In Germany, southwest provinces Rhineland-Palatinate and North Rhine-Westphalia were greatly affected. The flooding of the Rhine caused severe damage to houses, nature, and farmlands. Over 180 people lost their lives and over 800 people were seriously injured. Infrastructures including electricity and drinking water were affected and had to be closed down for multiple days, leaving citizens without access to either (Bundesministerium des Innern and für Heimat & Bundesministerium der Finanzen, 2022). Research by the German insurance

company GDV assessed the damage of the flood and its effects to lead up to over seven billion euros in damage claims (GDV, 2021)

In Belgium, the damage claims totalled to 350 million euro in damages to houses, farms, and infrastructure (Boeckx & Van Steenberngen, 2021; Kreienkamp et al., 2021). Both Wallonia and Flanders were heavily affected. Over 41.000 households lost access to electricity, and at least 42 people passed away because of the floods (Task Force Finding Hoogwater, 2021).

Other European countries including Italy, Croatia, Luxembourg, and Britain were also affected by the high amount of rainfall and floods.

The Netherlands
In the Netherlands, increased rainfall came at a time of rising covid-cases. Stricter regulations were a reason for many Dutch people to spend their summer holiday in their own country. Campsites across the country were fully booked, as was the case in Limburg.

Heavy rainfall in the Netherlands started in Friesland and Overijssel on the 12th of July, leading the Royal Dutch Meteorological Institute (KNMI) to give out *code yellow*. The rainfall continued southwards, with over 150 millimetres of rain falling over Limburg in a 48-hour period between the 13th and 14th of July, when respectively code orange and red, the most severe warning, were given out. Putting this in perspective, this amount of precipitation is more than twice the amount of rainfall normally measured in a month. The simultaneous rainfall in other European countries caused the fallen rainwater to accumulate in the Maas river.

The fast and extreme water level rise of the Maas led to the flooding of its tributaries and rainwater buffers, inundating surrounding areas. Campsites along the Maas are evacuated and on the 14th of July, soldiers are deployed by the Ministry of Defence to aid in the evacuation of citizens and prevention of further damages. In certain areas along the Maas, water damage left hundreds of households without electricity, putting pressure on the emergency services to ensure the safety of citizens in these households.

On the 15 of July, the river discharge in the Geul, a river flowing into the Maas, reaches 100m/s, which is thirty times the regular discharge in the river. This river flows through Valkenburg, the second-largest city in Limburg, which is greatly affected by the flood. Multiple bridges collapse or are on the verge of collapsing and several roads are blocked due to safety hazards. In the Valkenburg aan de Geul municipality, an emergency decree was adopted, partially to prevent people from coming to the area without reason.

From the 17th of July onwards attention is shifted from emergency aid to long-term help and inspection of dikes and other water buffers. The possibility of dikes breaking leads to reinforcement and further evacuations (Instituut voor Veiligheids- en Crisismanagement, 2022).

Ultimately, around 50.000 people had been evacuated from Limburg, most of them without help from emergency services. It is estimated that 2500 houses, 5000 citizens, and 600 businesses are in the flooded area, accumulating damage claims ranging from 350 to 600 million euros (Task Force Finding Hoogwater, 2021).

Extreme weather events

Due to climate change and the resulting change in weather patterns, the likelihood of extreme weather events has increased over the last years and is expected to further in the coming years (IPCC, 2022). In the Netherlands specifically, flood risk is increased by land subsidence and decreased water drainage possibilities due to the urbanisation of former natural areas (de Kruif, 2012; Yang et al., 2021).

Floods such as the July 2021 flood can cause severe damage to people, possessions, nature, and infrastructure, and with the increased chance of them taking place, political trust in the involved institutions is more important than before. Therefore, there needs to be a better understanding of the effect of floods on political trust in Limburg to ultimately create more effective risk prevention and management.

Appendix B

<u>*Interview guide*</u>

Introduction

- Explain the background and goal of the research
- Explain how much time the interview will approximately take

Background

- Can you tell me something about yourself? For example age, living situation, and occupation
- For how long have you lived in Limburg?

Disaster

- Were your house or belongings directly influenced by the flood? If so, what happened?
- Can you explain what the effects of the flood were for you? For example on your belongings, your health, or your children?
- Did you get help from official emergency services? If so, what help did you receive?
    - What did you think of the help you received?
    - How did their presence make you feel?
- Did you help others deal with damages or help prevent further damages? For example, place sandbags to reinforce dikes, or help others empty their houses or cellars?
    - If so, what help did you provide?
    - Were 'officials' present to help? For example, deployed soldiers or people working at Rijkswaterstaat?
        - If so, how did their presence make you feel?
- What are your expectations of the government or local institutions' tasks during an emergency?

Trust

- Do you feel that the flood influenced how much you trust local and/or national politics?
- Could you explain what your level of trust was before and after the flood?
    - Why did it increase or decrease?
    - Why do you think it did not change?
- Do you think that some organisations should have acted differently during or after the flood?
- How do you think political institutions could create or maintain a high level of trust?

Other

- Is there anything else you would still like to share?
- Conclusion

Appendix C

Linde Lokin

Bsc. Global Responsibility

Naam: _____ and *Leadership*

Datum Interview: _____ *l.t.v.lokin@student.rug.nl*

Onderzoekstitel:
De invloed van overstromingen op politiek vertrouwen in Limburg.

Beschrijving van het onderzoek:
Het doel van dit onderzoek is om te begrijpen of de overstroming van de Maas in Juli 2021 invloed heeft gehad op het politiek vertrouwen in Limburg. Dit wordt gedaan om te kijken hoe overheidsinstanties een hoog level van vertrouwen kunnen creëren of onderhouden en zo beter kunnen helpen bij mogelijke toekomstige crises. Het is een kwalitatief onderzoek waarbij verschillende mensen worden geïnterviewd om zo een beter beeld te krijgen van de redenen waarom het vertrouwen van mensen zou kunnen veranderen door overstromingen.

INTERVIEW TOESTEMMINGSFORMULIER

- ✓ Ik begrijp dat mijn deelname aan dit onderzoek vrijwillig is.
- ✓ Ik begrijp dat ik geen compensatie zal ontvangen voor mijn deelname aan dit interview.
- ✓ Ik begrijp dat ik het recht heb om op ieder gewenst moment vragen niet te beantwoorden of het interview te beëindigen.
- ✓ Ik begrijp dat alle informatie afkomstig uit dit interview naar waarheid zal worden verwerkt en gebruikt.
- ✓ Ik heb een online kopie van dit toestemmingsformulier ontvangen.
- ✓ Ik begrijp dat er anonieme citaten uit dit interview in het gepubliceerde onderzoek kunnen staan.
- ✓ Ik heb deze uitleg gelezen en begrepen.

Door dit document te ondertekenen, ga ik akkoord met de bovenstaande voorwaarden.

Handtekening Deelnemer: Handtekening Onderzoeker:

_____   _____

Datum: Datum:

_____   _____