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MEETING COMMUNITIES
WHERE COMMUNITIES MEET:
BORGHAREN AND ITTEREN, MAASTRICHT,
THE NETHERLANDS

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2011



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Borgharen and Itteren

Maastricht

The Netherlands

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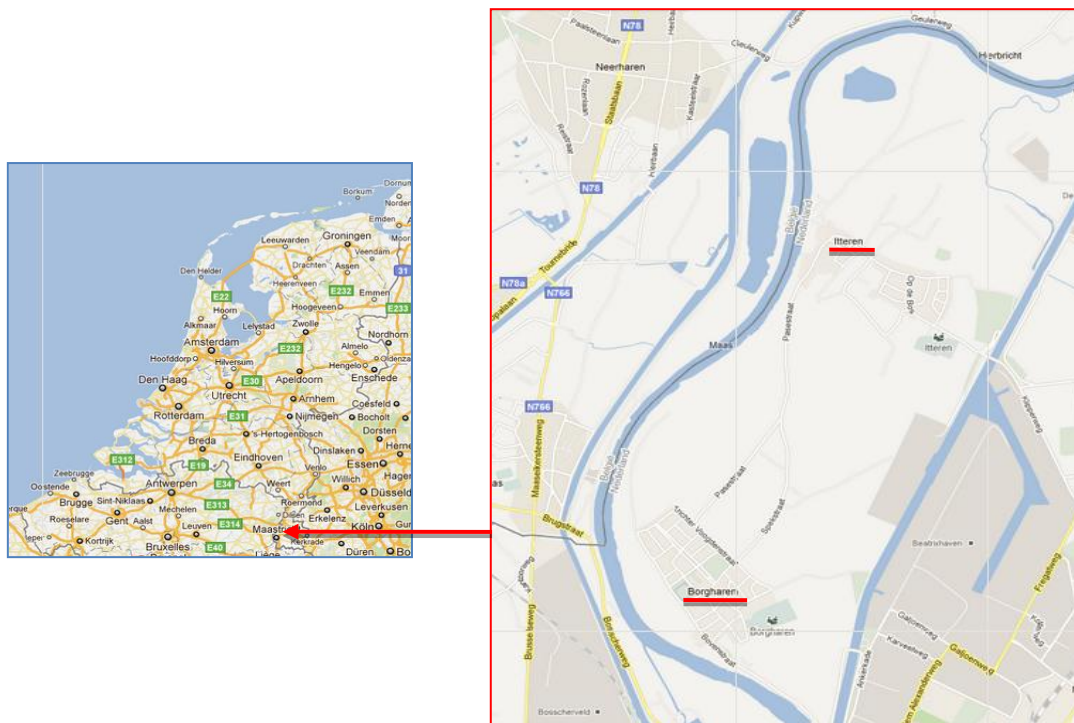
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Introduction

This report focuses on the field trip carried out on May 23rd, 2011 to the parish (village) councils of Borgharen and Itteren in the Netherlands. Itteren and Borgharen are located in the Southern province of Zuid-Limburg. In 1978 they were incorporated into the internationally renowned city of Maastricht as districts. Both Itteren and Borgharen are small villages with a population of approximately 980 and 1810 respectively.

Figure 1- *Itteren and Borgharen*



While Borgharen and Itteren flood more frequently than other parts of the Netherlands, it is not as frequent as in the past and due to the newly built embankments, the frequency will most likely decrease even more. Although the Meuse floods are flashfloods in nature, coming down from the Ardennes with a steep gradient, the lead time is generally enough for joint efforts to put valuables upstairs and to move cars out of the way. An Itteren councilor said that even when the streets are flooded, it is no big deal if you can still wade through the water. The newly

engineered protective system may change that, though, as the possibility of a ‘bathtub effect’ arises. The last serious high-water situation was in January, 2011, when a few dozen special needs individuals were evacuated. Notably, new residents who had no experience with floods were not specifically told about the flood. Outrage about the floods is therefore likely to have come from new inhabitants, while long-established residents are used to collaborating to move their belongings to the higher floors of their homes. Perhaps symbolically, the road between Borgharen and Itteren is the first to flood when the river reaches 45.1 m above sea level, isolating the parishes.

The study of these two communities is particularly interesting considering their geographic location, flood management history and cultural differences. Even though Itteren and Borgharen are in close proximity to each other (only 3 km apart), they are very different in outlook and historical development. The rivalry between the two villages used to be such that a boy from one village could not date a girl from the other without risking to be beaten up. While such antagonism has disappeared, the villages still firmly guard their separate identities. The purpose of our field trip was to deepen our understanding of these two hamlets that are so near but so far in term of flood culture. In particular, the report aims to both disseminate the knowledge collected during this field trip and to formulate research questions in order to understand challenges and opportunities related to flood risk management

Data were collected through participant observation, document analysis, focus groups and in-depth interviews.

Flood risk management policies and organizational structure

The Dutch disaster management system resulted in deep changes by the end of the cold War. In fact, after the dismantling of the Dutch Civil Defense, the ability of civilians to deal with natural disasters was weakened. The new approach to safety and security saw mayors and local fire brigades responsible for, respectively, strategic and operative flood response. Since flooding is not frequent¹, the fire brigade and other emergency services do not focus their preparatory activities on improving their flood response. This is also due to ways in which funds are allocated. Considering resources as scarce, prioritizing interventions means focusing more on probability than on possibility. Thus, it is fair to say, that the local emergency services in the Netherlands are generally not very well prepared to deal with flooding.

Unlike the rest of the Netherlands, the Southern part of the province of Zuid-Limburg is only protected by limited embankments, lying in a valley with gentle slopes and above sea level. Since the big flood of 1926, only minor flooding of the river Meuse has affected the area. Nevertheless, in 1993 and 1995 the province was affected by high-water events causing considerable damage. As a result, the Limburg provincial authorities demanded to the national government the same level of protection as the rest of the Netherlands. This led to an emergency program of embankment, established between 1995 and 2001. In turn, this led to the creation of so-called ‘bathtubs’ turning flood risk from a high incidence, low-consequence event into a low-incidence, high-consequence event (Wesselink, Warner and Kok 2011).

In response to the weak formal flood response in 1993 and 1995 the citizens of Borgharen decided to informally reinstate the finely grained Civil Defense structure. ‘Block heads’ keep abreast of who is ill and physically impaired. In particular, in 1993, citizens of Borgharen put sandbags in the middle of the street to keep the flood out causing the raising of the water level in already flooded properties. The parish council mediated and in the end the barrier was removed. Since then, smaller high-water events were experienced in 2001 and 2003.

Membership of social organizations in the communities in this region is high – there is a plethora of choirs, brass bands, ‘carnival associations’, rifling organizations, etcetera. The local authority (municipality) has reached out to parish councils to lend support in times of flood, and provides training. Each parish has its own crisis center. However, the council does little more than communicating with citizens, to avoid liability issues, unless a major disaster overrules this.

¹ The average discharge of the Meuse is 230 MCM, though this can reach a peak of 3000 MCM.

Urban planning, socio-economic and demographic characteristics (Exogenous dimensions)

According to representatives of both the Borgharen and Itteren parish councils, the population in both villages is quite homogeneous with little presence of outsiders. In 2010, the percentage of immigrants in Borgharen was 15%, and in Itteren 11%; however, most of these are from western countries, with only 2% from non-western countries in Borgharen, and 1% in Itteren (Hinssen 2010). The parishes are among the neighborhoods with the (relatively) lowest number of immigrants in Maastricht.

Aside from this, the two little communities have deep and well-rooted differences. Language, historical settlement and background make geographical proximity not relevant at all, when the two communities are called to deal with floods. In terms of language, both villages, even though are so near, have their own dialect. This might also be related to different time and reasons of settlement. Borgharen, due to its industrial background, is mainly made up of working class people, and consequently more urban. According to one of our respondents from Borgharen, there were ample opportunities in the Netherlands during the 1970s to purchase a first house. This led Maastricht's working class to move to the nearby and affordable Borgharen. Maastricht can be reached by bicycle from Borgharen in 15 minutes. When people moved from Maastricht to Borgharen they were led to believe it was a safe place.

Itteren is more rural and is characterized by a presence of farmers. These differences reinforce the identities of both the communities, as people in Itteren define themselves in opposition to those in Borgharen. In Itteren, differently from Borgharen, most inhabitants have a long history with the area. People have either inhabited the village for several generations or have come to Itteren because they prefer more rural surroundings.

This distinction is fundamental as it might have influenced not only differences in architecture and atmosphere, but also different ways of thinking of the relationship between water, land, society and nature. In particular, Itteren's population seems to approach water as an ineluctable part of their daily existence and therefore something with which to live rather than fight. Floods are subsequently not perceived as a threat but rather as a social moment during which the community comes together to support each other. The councils of both parishes indicate that the flood binds people together, even people who have not talked to each other for 25 years. In Itteren, the vast majority of houses have their first floor as high as or higher than the

highest flood levels reached before the house was built. Also, when walking through the town, one notices a continuous reminding of the water threat, as for instance, flexible flood walls, signs indicating past flood levels, and a work of public art (see picture 3): a boat at the height of the highest flood, which would float should the water ever reach that level again.

Picture 1- *Buildings in Itteren*



Source: Courtesy of Karen Engel

On the other hand, Borgharen's architecture does not reflect the reality of a flood plain. Close to the water we found 1- and 2- story buildings dating back to the 1970s (see Picture 2). In talking to residents, it became apparent that being in a flood-prone area and suffering increasing flood damages does not impact the kind of architecture and people's decision to leave or stay. This might be due to the perception of an increased safety related to the implementation of a system of dykes and ongoing engineering works aimed to keep the water out.

Picture 2- *Buildings in Borgharen*



Source: Courtesy of Karen Engel

Picture 3- *Itteren*



Source: Courtesy of Karen Engel

Multilevel governance, culture and identity

A primary challenge for flood response in Borgharen and Itteren concerns coordination at the international, national and local levels.

The international level is characterized by problems related to weather forecast and communication regarding the Belgian and French parts of the Meuse. It seems that the release of information from these countries is not quick enough for the local communities to attain a timely warning and (re)act pro-actively. There have also been positive examples of international cooperation, such as for instance the cooperation, mainly in evacuation, between the Dutch emergency services and the German civil defense, *Technisches Hilfswerk*, during the 1995 flood.

At local and regional level, cooperation, coordination and communication have been problematic as highlighted by the management of the most recent high-water situations. For instance, as stated by interviewees, during the last high-water situation the communities of Itteren and Borgharen learnt of the approaching high water levels through the media, while the rest of the region had been alarmed and the regional crisis system had already been activated. This event is paradoxical, when considering that the directly affected people were made aware of their risk only after those who were not at risk.

At local level, different ways to support the response have been put in place by both Borgharen and Itteren. Borgharen, as reported by interviewees, has an informal organization to respond to floods. The Borgharen parish council sees itself as both supporting the Maastricht Municipality's flood policy and as a watchdog. Itteren does not have such an active council, and is more removed from the Maastricht Local Authority. According to council representatives, Itteren has chosen not to organize their community flood response and are aloof and critical towards the Local Authority. Whenever there is a flood situation, the Itteren community reacts in a joint fashion. To not inhibit the community from spontaneously helping each other, the council has decided not to form an (informal) organizational structure. Even though, Itteren's parish council does seem to be both properly embedded in the community and to have a lot of local knowledge. The combination of these above mentioned elements makes Itteren's community critical of authorities and professionals that are outsiders to the community. It is noticeable that Itteren's council includes a retired civil engineer, who helps them phrase and support their protests against the currently ongoing river defense works. These 'Maaswerken' river works, aiming to increase the discharge capacity and navigability of the Meuse and develop the natural

environment, seriously affect the surroundings of Itteren. Large parts of the farmlands around the village are dug out, in order to extract gravel, and create space for the river. Besides the major impact on the surroundings of Itteren, the council also worries about the new nature they were promised in return for the farmland: according to their calculations, based on their own data, the area ('Itterse weerd') will be permanently flooded, contrary to the promise of the 'Maaswerken' (in charge of implementation of the Meuse river works in that area) that the area would dry up a few months a year. Additionally, they noted that the small dams that were planned to prevent the drying out of areas on the Belgian side of the river will inhibit the flow of the river, creating a sort of large pond. These issues make the Itteren council very critical towards the whole project to widen the Meuse.² After two years of debate, the 'Maaswerken' has recently acknowledged that their calculations were flawed, and presented a new plan for the 'Itterse weerd', creating a large island that, each year, will be dry and accessible for a few months.³

Figure 4- *Public works plans before and after the intervention of the community*



Sources: (map on the left) <http://www.ittereninbeeld.nl/fotos/1393>, picture taken on July 1, 2005; (map on the right) <http://www.itteren.nl/node/339>, posted by Han Hamakers on October 23, 2011

² <http://www.ittereninbeeld.nl/upload/bijlages/beloofde-land-altijd-nat.pdf>

³ <http://www.itteren.nl/node/339>

In order to have a better understanding of the works in Itteren, figure 4 respectively shows the overall Meuse works in the Itteren area (left picture) and a detailed description of the area for which the new plan was developed (right picture). Itteren lies at the bottom left of the left picture.

In the picture on the left, the area marked with dark green, the 'Itterse weerd', is where the gravel will be excavated resulting in more space for the river. On the right, adjustments to the previous plan are showed in detail. The colors mark the depth of excavation (indicated by numbers), with red/orange the deepest parts, and blue/green the higher parts. The main changes to the original plan are a deeper excavation of the part marked in red, and less gravel extraction in the blue/green parts, where an island is created. The use of yellow indicates the creation of a slope, spanning from the lower Meuse area to the higher 'weerd'.

Differences in community organization in response to flooding, the lack or the presence of links to the government, in turn also affect a prompt response of these two communities. In fact, in Borgharen, no matter how fast information spreads, if there is no formal activation of the disaster response system on the part of the government, Borgharen's local council will not actively respond. This is due to the fact that a timely response where there is no official 'emergency situation', even if beneficial for the affected communities, shifts liability from government to the council that can be held liable for possible damage and other adverse effects of their actions.

Yet, the community noted the importance of local knowledge when dealing with a formal response. Apparently the representative of the Maastricht municipality, who was sent to activate the local crisis management center, did not know the community, the region or the threat these communities face.

During the last flood, leaflets were distributed by the municipality after midnight to warn people of the nearing flood. This was rather ineffective since most people were sound asleep at the time, and if they were awake, they were not expecting mail. Also, hardly anyone will check their mailbox first thing Saturday morning. According to the Borgharen council representatives, sending out a megaphone on a car with a comprehensive message would have been more effective than only slipping neighbors. They noted that on an earlier occasion, a local organization using a megaphone-car effectively notified the entire village in a very short period of time of the news that an upcoming carnival party was cancelled due to the flood warning.

In addition to the ineffective warning process, the information that was disseminated was apparently not in line with local knowledge. Contrary to municipal policy (*Es de Moas oetkump* brochure, 2005) the leaflets did not refer to flood heights. The brochure ‘Es de Moas oetkump’ details what kind of protective action is needed as the flood waters reach different levels. Because these water levels were not mentioned in the warning leaflet, people did not know what to do. They were unable to interpret the warning. This was a missed opportunity; citizens in the past knew how to interpret the information, had they been given the correct information. However, as learned later from the Maastricht manager, the reference flood peak levels are no longer valid due to the ongoing flood-defense building interventions. According to a Borgharen councilor, others generally do not heed the warning anyway. This is because people have learned to live with flooding. In Borgharen, during the last flood of January 8, 2011, 20-25 people with special needs have been evacuated, as the Meuse rose faster than expected and the ‘GRIP 4’ (a kind of ‘code red’ denoting a supra-municipal emergency investing authorities with special powers) crisis code was declared⁴ while all the other people sheltered in place. The perception of the parish council leader is that 99% of people did not evacuate. An important finding is the definition of ‘evacuees’. Both in the community of Borgharen and Itteren evacuees are only those with special needs, evacuated by the institutional response system. According to an elderly Borgharen evacuee, the vulnerable were properly evacuated and treated, such that she would be happy to be re-evacuated anytime – it was like a holiday.

Conclusions and further research

While Borgharen and Itteren are close to each other and face similar flood risk, they are very different in both the way they organize themselves and the way they interact and live with the water and flooding. Understanding the specifics of the different flood cultures and the effectiveness of their response to flooding could lead to interesting findings that could help explain differences in flood safety and management.

Considering the different composition of the population in Borgharen and Itteren and their different attitudes towards water, it could be very interesting to find out whether the desire and subsequent pressure towards an engineered flood protection system came from the

⁴ <http://www.limburger.nl/article/20110108/REGIONIEUWS01/101070312/1001>

community of Borgharen or from Itteren. It would also be interesting to understand the arguments and reasons for wanting such a system. Our current hypothesis is that the Borgharen community is more inclined to use technology and central organization to keep the threat of nature, i.e. flooding, under control. Borgharen is more of an industrial community and might therefore be characterized by the vision that man can master nature through technology. Itteren on the other hand seems more in tune with nature and view flooding as part of their culture, past and future. They are not inclined to fight or control the water, but rather ensure they can live with it.

While international coordination, communication and dissemination of information between European countries concerned with the same river has improved, it seems that it still forms a weak link in the flood response system. International coordination and communication could be an element of high vulnerability for the bordering communities and for those who are traversed by the same river. Floods do not take into account administrative borders.

Coordination, especially at local level shows a huge fracture between community, municipality and safety regions. These various entities lack reciprocal knowledge and this inhibits an effective response. This might be caused by an apparent and ongoing conflict of legitimacy among these societal components. In particular, identity and its relation to flood management might be a big player in this. In light of this, for the implementation of an effective flood management, recognizing these communitarian characteristics is very important. Here, liability also plays an important role, creating problem of accountability and legitimacy.

In addition, another interesting area to be investigated is the refusal on the part of Itteren citizens to have a formal communitarian organization. As explained by these same people, the fear is that the introduction of a formal organization might result in a weakening of community resilience. Is this really so? Does organization impede an informal community response or is it possible to have both organization and informal community action? Will the lack of regular flooding due to technological measures weaken Itteren's resilience to flooding?

Should private personal data become available in case of a disaster? This is a very common issue in the U.S. In the Netherlands the issue goes back primarily to WWII, and the mass deportation of Jews, thanks to the efficiency of the Dutch bureaucracy. The fear of people knowing where vulnerable people live remains strong. However, divulging private personal data might be necessary for an effective response to come about.

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