

Immobility as a coping strategy?
A case study of the 2015-2016 winter floods,
Northern England
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Image 1. Todmorden Community dealing with after-flood



Source: Tony Greenwood, December 2015

We usually think of flooding as this disastrous sudden event that washes away everything on its path. There is a crisis, households are evacuated, properties get damaged. Eventually water recedes, people can come back to their home and everyone lives happily ever after. This picture is even stronger as we think of England as a developed country with infrastructural, material and financial means to successfully cope with flooding both in emergency management and recovery. This narrative is very soothing but unfortunately also quite far from the reality. Flooding constitutes, and increasingly so with climate change, a long-term issue reinforcing the vulnerability of successively displaced households who have to cope with it on a daily basis.

Scholars usually distinguish between two kinds of contexts for environmental migration: sudden-onset changes encompass natural disasters such as flooding, tsunamis, and hurricanes, whereas slow-onset changes produce incremental and continuous modifications, such as water scarcity or soil degradation, to an environment (Lonergan, 1998). Sudden-onset changes are visible and brutal, and thus get more talked about in the media. Conversely slow-onset changes produce steady effects, desensitising policymakers. How has this binary theoretical framework shaped flood risk governance regarding population displacement in the 2015-2016 winter floods of Northern England? This paper scrutinises displacement patterns in both emergency and recovery to better understand the impacts on the overarching flood risk governance based on the framing of flooding as a punctual, sudden-onset event.

The first section depicts the flood risk governance in the Northern England winter floods, both in emergency management and in recovery. It shows that governance has endowed a norm of immobility, both by adopting the quantitative and qualitative language of immobility in emergency management, and by adopting a technocratic recovery strategy which does not address displacement. The second section focuses on the adequacy of immobility in the context of climate change. It argues that the governance of immobility is based on the understanding of flooding as a punctual, sudden event, a classification which is becoming misleading with climate change. The third and last section dissects the impacts of this inadequate framing on displacement. It looks at the emergency management to show that conceiving flooding as a punctual event led to a messy evacuation managed by informal networks. It finally turns to recovery management to highlight how the governance of immobility has created cumulative vulnerability born by successively displaced and trapped populations.

Taking Immobility As a Norm: Flood Risk Governance in 2015-2016

What does English flood risk governance look like regarding displacement? This section examines how the norm of immobility has infused flood management in 2015-2016, both in the discourse produced to describe the emergency situation, and in the policy measures implemented for the recovery phase.

This paper examines immobility and its impact on successively displaced and trapped populations's cumulative vulnerability by both reviewing grey literature of government reports, agency reports and press articles, and drawing on email and phone interviews with the Met Office, the Yorkshire Office of the Environment Agency (EA), local authorities of Todmorden and Calderdale and flooded households. It draws its theoretical framework from academic literature on environmental migration.

Language Of Immobility At The Heart of Emergency Management

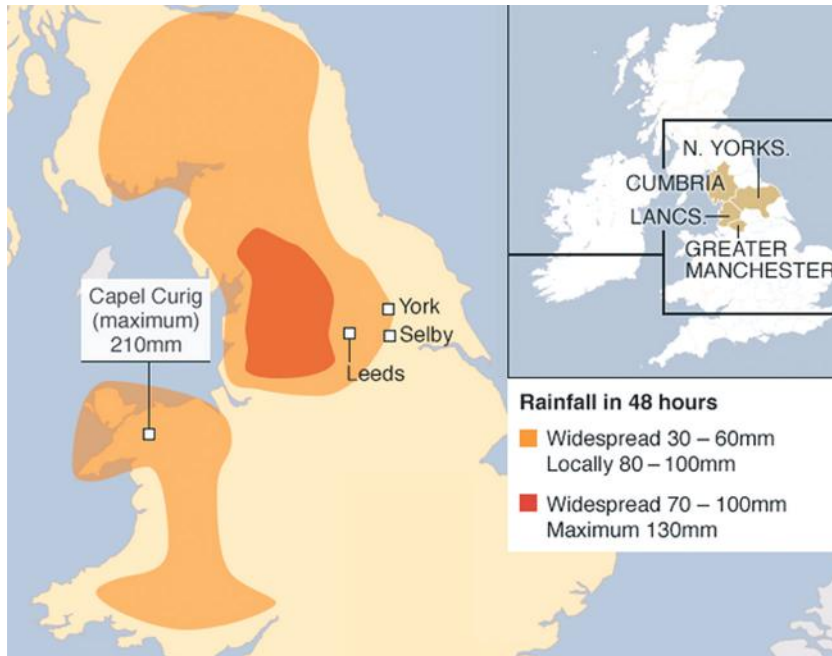
Flooding in Northern England was the result of three successive storms throughout December 2015. These resulted in localised flooding events in the area shown on *Map 1*, making the headlines and the top priority in parliament throughout December 2015 and January 2016. However, the discourse produced, both by the media and by government reports in one of immobility. Displacement is excluded as an outcome of flooding, both quantitatively and qualitatively. On the quantitative side, numbers on displaced individuals are really hard to find. On the qualitative side, the very word "displacement" rarely appears in any official documents.

While the government report *Winter floods 2015-16* provided shortly after the flooding an assessment of the disaster (Priestley, 2016), numbers on displaced populations are hard to find and often imprecise. Official quantitative assessment focuses on damaged properties and losses estimated in financial terms, with very few information on human-beings tied to these property items (House of Commons, 2016). On the contrary, media articles focus on dramatic narrative of individual stories, as they tell the story of this one family being evacuated and still being displaced seven months after the flood, without giving general information on the number of the displaced by the floods (McKie, 2016). However, literature makes clear that each successive storms triggered its own wave of evacuation and displacement.

Storm Desmond, 5 December 2015: The storm hit the county of Cumbria, as more than a month's rain fell in that day and its main rivers all exceeded the highest levels ever recorded. The government reported that 5, 200 homes

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Map 1. English counties hit by flooding



Source: BBC, December 2015

Image 2. Volunteers mapping evacuation



Source: Tony Greenwood, December 2015

had been affected by flooding and one casualty was recorded by the police (Priestley, 2016). It is not clear whether the totality of affected houses were evacuated but it seems that they have, as The Guardian recorded 6000 households being homeless and 3000 just in the city of Appleby (Glover, 2015). Many roads closed across the county, displacing temporarily people who could not get home. The Cumbria police informed that five rescue centres had been open. Accommodation for those left homeless by the flood during clean-up was meant to be provided by insurance companies, local authority or landlords (Taylor, Quinn & Vidal, 2015). In total, approximately 7,000 households were affected.

Storm Eva, 24-26 December 2015: On Boxing Day, residents of West Yorkshire and Lancashire were evacuated from their homes after rivers burst their banks as flooding hit Leeds, Greater Manchester and York. The following day 500 were evacuated from their homes in York when the Foss barrier was raised due to flooding of its electrical controls. Police in West Yorkshire said more than 2,000 homes were affected by flooding in Calderdale. The Department of Environment, Flood and Rural Affairs (DEFRA) stated that 9,000 properties had been flooded. Local councils were “pulling out all the stops” to find accommodation for those forced to leave their homes amid flooding (BBC, 2015). The newspapers talked about “thousands of families facing Christmas out of their homes (Glover, 2015).

Storm Frank, 29 December 2015: The storm brought intense rainfall to West-Northern England, leading to “many homes” being evacuated, with no more precise quantitative information (BBC, 2015). On 27 December, police in York had advised hundreds of people to evacuate their homes. The BBC reported that one person died as a result of these floods.

As this summary shows, there is little information on human impact in Government reports, and media provides only vague estimates of displaced populations. In an interview I conducted, Louise Rice, member of the EA Yorkshire Team, indicated that the Environment Agency did not produce precise numbers, but that local authorities might do. However, Mohammed Amjid, engineer of the Calderdale Council, also declared that exact numbers were not available, in another interview I conducted. In the case of 2015 English floods, the difficulty stems from the necessity of aggregating numbers from three successive floods while considering potential overlaps. It is particularly challenging to understand the evolution of displacement on the medium-term. Black et al. states: “displacement figures refer to the peak of displacement at the height of the emergency phase of a disaster, rather than to any longer-term phenomenon, as systems are rarely in place

Figure 1. Number of new displaced persons by disasters



Source: Internal Displacement Monitoring Centre, 2016

to monitor return, or to calculate numbers still displaced after a number of months or years” (Black, 2013, 34). Several months after the flooding, the Internal Displacement Monitoring Centre published the numbers for displacement caused by disasters in the United Kingdom, displayed in Figure 1. It is uncertain whether the 6,100 new displaced persons have all been displaced by the 2015 flooding. However both peaks, in 2013 and 2015, are consistent with the two major English winter flood events.

The discourse of immobility is not only about numbers, it is also about words. There are cognitive obstacles to a good assessment of displaced people. First, government reports assess human impact with the indicator ‘households affected’ instead of ‘household displaced’, blurring the different categories of migration. This mistake had already been pointed out by the Pitt Review. Second, the attention tends to focus on property instead of human-beings, therefore not taking into account individuals who were temporarily displaced by flooded roads. The word ‘displacement’ is absent from all official reports, as if it had not occurred and flooding remained an unproblematic, temporally bounded event.

Both the media and government reports tend to mix categories, not differentiating between those who were trapped in their flooded houses, those who were evacuated, those who were displaced for a few days, and those who are still displaced now. This fuzziness impedes the production of solid estimates. Black et al. (2013) identifies three outcomes of natural disasters: populations can be displaced (up to three months), migrate (above three months), or be trapped. It is key to disentangle evacuated, displaced and trapped populations from each other, as these categories are often blurred in press articles.

Regarding evacuation, Priestley's governmental report underlines that 16, 000 properties were flooded throughout December, 7, 000 in Storm Desmond and 9, 000 in Storms Eva and Frank. This assessment in terms of properties only allows an approximate guess of how many individuals were evacuated, especially since it is not given that every affected household was evacuated. However, the press underlines "tens of thousands of people" being evacuated throughout December (Carbon Brief, 2016).

Concerning displacement, Black et al. underlines that a smaller proportion of affected people are eventually displaced. Counting the number of displaced individuals is also challenging, as they were not concentrated in rest centres, but also staying with relatives or hotels paid by insurance companies. Empty housing association properties, community centres and army barracks were used as temporary accommodation for families unable to return to their homes. For sanitary reasons, residents of flooded households must technically remain displaced as long as their house has not dried up. The BBC mentioned the three rest centres in Chorley, Salford and Bury run by Red Cross volunteers (2015). The Red Cross underlined its role in dealing with the evacuation and temporary accommodation. A spokeswoman said there were more than fifty people at the centre in Bury. The website *Inside Housing* pointed attention to its hundreds of social housing tenants still living in temporary accommodation as of January 2016, including 430 social households in Greater Manchester alone.

On the short to medium-term, information on what happened to these displaced populations is even more sporadic, and it remains unclear how many are still displaced today. Back in December 2015, The Newspapers *The Sun* had vaguely assessed that the worst affected were "not expected to move back in for a year". *The Guardian* underlined that many households were still unable to return home at the end of December 2015. As of February 2016, it stated that some inhabitants of York were still displaced. A news release of the EA Team of Yorkshire of April 2016 pointed out

that many residents were not back yet in their properties a hundred days after the flooding. Long-term migration is not to exclude: the Pitt Review showed that in May 2008, 4,750 households were still out of their homes as a result of the 2007 floods (2008, xxxix).

Eventually the question of trapped populations remains largely unaddressed. There is no mention of individuals stuck in their flooded house, but it is likely that a significant number of households lacking insurance or relative had no other option than returning to their damp houses after a temporal stay in rest centres. However, there are individual stories of trapped populations. In an interview I conducted, Kathleen Simpson, head of a flooded household, declared that her and her neighbours have had to come back to houses wet and filthy from water which just had receded, as there was no medium-term accommodation provided for displaced persons.

“As a developed country, the United Kingdom is seen, almost automatically, to be high on resistance and low on vulnerability” (Brown, 2014, 192), making a discussion around displacement-induced vulnerability almost impossible. The language created by these numbers and words is one of immobility. Both policymakers and human rights activists (Black et al., 2013) create the narrative of displacement “as a failure of adaptation, a humanitarian catastrophe in the making” (Gemenne, 2011).

A Recovery Strategy Reinforcing the Norm of Immobility

The report *Winter floods 2015-16*, also provides a neat summary of the different funding and policy measures implemented as a response to flooding. These different strategies favour a technocratic approach to the flood, eclipsing any other kind of recovery strategy. Such narrow focus propagates the norm of immobility. Recovery strategy is primarily based on re-enforcing flood defences. The main response by the government to the flooding of December 2015 has been to increase substantially the budget for building new flood defences to GBP £2/3 billion in a six-year program (Priestley, 2016). The funding is meant to both repair the damages of the 2015-16 flooding, as well as building new infrastructure. In an interview I conducted, Louise Rice and Alexandra Wales pointed out to the €115 million commitment to increase flood resilience across the Calder Valley, Leeds and York. Louise Rice stressed that the main tasks of the Environment Agency were to improve flood defences—especially the Leeds and York schemes for the Yorkshire team—and provide information to local authorities.

The parliament has also committed to protect the flood defence maintenance spending in real terms for its duration. Management fund will go

both to a fund for dealing with emergency crises, such as dispatch troops in flooded areas, and for maintenance of the already existing flood defences (Taylor, Goodley, Syal, 2016). Policymakers mainly invest in engineering solutions ensuring populations do not have to move. However, this technocratic focus has proved extremely costly and financially inefficient, according to Helme (2016). The KPMG confirmed this analysis, showing that the costs of flooding are estimated around £5.8 billion. The highest costs concern the defence repair and replacement themselves, estimated at £2 billion. Moreover, Professor Richard Chiverrell underlines that flood defences have not failed, but rather were overwhelmed (2016). He insists on the need to completely shift policies away from keeping on building new flood defences, as long as it is not clear what to prepare flood defences for.. Focus on flood defences prevents them from discussing migration as an adaptive strategy. Considerations to the communities affected by flooding are solely based on a logic of repairing and insuring to insure immobility. The Bellwin Scheme was announced to help the people directly affected by the floods. This includes the access to GBP £200 million to aid recovery from the flooding (DEFRA, 2015). This scheme, inspired by the ones available after the 2013-14 winter floods, target households, but also businesses and farmers. It finances reparations to ensure that people can get back into their homes as soon as possible, according to Elisabeth Truss, Secretary of the Environment. As of January 2016, the government had claimed that first payments had already been made to local authorities. Moreover, the government will match any funding raised by charities for affected communities. The government has also implemented a new insurance policy. From April 2016, there will be more insurers able to offer households flood insurance, as firms will be able to use the Flood Re scheme. Insurers will be able to pass on the flood risk element of eligible home insurance policies to Flood Re, which will charge the insurers a premium for each policy. The goal is to develop a wider variety and a better affordability of insurance policies for households. This policy is controversial because more accessible insurance schemes could act as an incentive to live in areas at risk. While both set of measures provide short-term ways for households to cope with flooding, they do not provide money for migration strategies. To Helme, this short-term “sticking-plasters” approach creates inefficient, and even counterproductive, responses to flooding, especially in terms of land use and land management. They do not take into accounts deep and fast evolutions in demographics and intensity of extreme events (2016).

Debates have hardly dwelled on limits on future development, which could be very efficient in avoiding to increase the area’s vulnerability.

To Peter Helme, limits on future development is one main solution, but Elizabeth Truss has made no real commitment on the subject, remaining very vague whenever asked about development in floodplains. Beyond avoiding incoming migration to flood plains, the option of resettlement is not even raised. The general discourse, both from the media and authorities, has been to try “get displaced people back to their homes as soon as possible” without considering mobility as a positive adaptation strategy.

The Distinction Sudden/Slow Onset: an Inadequate Framing to Grasp Vulnerability

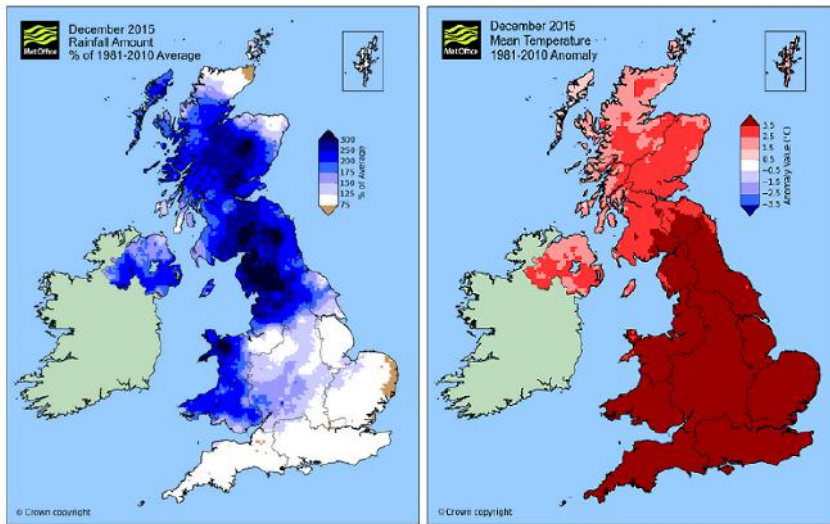
Why is immobility inadequate in the context of the 2015-16 winter floods? This section links flood risk governance based on immobility with the understanding of flooding as a punctual-sudden onset event, in the context of climate change.

A Misleading Flood Risk Governance

England's technocratic response to the 2015-16 flooding is based on the understanding of flood as a temporally bounded event, which consequences are only punctual and short-term. Policy measures do not assume continuity between this flood and the next. This thinking promotes a status quo, in which investment in technology is enough and immobility is a norm. Framing flooding as a sudden-onset event creates the trap of thinking the flood cut from its past and its future. Most people I interviewed point out to the lack of long-term holistic view on floods' consequences. It seems that the suddenness of flooding events forces response policies to act within a very narrow timeframe. Such policies, although organised and rational, focuses on the emergency and crisis. Longer-term measures solely focus on building more flood defences. This approach downplays populations' cumulative vulnerability. But, as Kathleen Simpson, head of a flooded household, underlines, “I don't think people understanding how far-reaching the consequences are”.

It is necessary to look beyond the frame of flooding as a sudden-onset event to re-situate the 2015-16 flooding in its temporal context. Widening the frame of analysis allows to understand flooding not as a punctual event but rather as a series of events upstream and downstream of the flooding itself, shaped by anticipation and response measures. Looking to flooding as a process, environmental but also political and social, rather than a point in time, allows to better grasp populations' vulnerability. Professor Richard

Maps 2. & 3. Rainfall and Temperature anomalies of December 2015, compared to 1981-2010 Averages



Source: Met Office, 7 January 2016

Chiverell, teaching at University of Liverpool, calls for a more integrated understanding of flooding. “Hopefully the events of December 2015 will act as a catalyst for change that results in better landscapes for our environment and more connected approaches to flood risk management—not just bigger flood defences” (2016). Already underlined in the Pitt Review, it is about regeneration rather than normalisation (2008), following Carlisle’s flood slogan “let’s get back to normal... but better”.

A Changing Context With Climate Change

First, floods’ recurrence is increasing. Tony Greenwood, mayor of Todmorden, in the county of Cumbria, underlines that his municipality, before being flooded in December 2015, had already been flooded both in 2012 and 2013. Mohammed Amjid also suggests that the flooding pattern has intensified. The recurrence of the event debunks the concept of flooding as a punctual point in time. It is impossible to attribute specifically the floods of December 2015 to climate change, however the likelihood of such event has increased. Professor Myles Allen stressed that climate change has made the flooding of December 2015 40% more likely (Carrington, 2016).

Climate change also makes flooding more extreme (IPCC, 2013). The 2015 flooding has made the headlines as the “worst on record” (Scott, 2016). The MET Office confirmed that December 2015 was the wettest December month since 1910, as shown in Map 4. The UK mean temperature for December is record breaking at 7.9 °C, which is 4.1 °C above the long-term average, as shown in Map 5 (Met, 2016). The temperatures for December 2015 were closer to those normally experienced during April or May. Tony Greenwood underlines the extreme feature of the flooding of December 2015 by comparing it to the Niagara Falls. He has been affected by flooding repeatedly but “has never seen it so bad”.

In this uncertain context, Mohammed Amjid, engineer of the Calderdale Council, points out to the challenge of a technocratic management. Unprecedented rainfall has outdated the models in place—computed with 100 year flood events, rainfall intensity, ground conditions, river levels, models of extreme events based on historical data extrapolated to predict future flood risk. To the engineer, the solution can only be simultaneously financial, environmental and social. According to the Committee on Climate Change (CCC), advisors to the British government, residual flood risk—the flooding resulting from extreme weather events that cannot be prevented by normal flood defences—is increasing. It states that the number of people in the high risk flooding category will increase by 45,000 by 2050. “Plans and policies, or progress in addressing vulnerabilities, are lacking” and governmental approach to build and protect is becoming insufficient” (Carrington & Wintour, 9 December 2015).

As flooding’s likelihood and intensity are increasing, framing it as a punctual event prevents from grasping its effects on cumulative vulnerability. The sudden/slow onset dichotomy stops working as flooding becomes a transversal change, made of a continuous series of punctuated crises, where vulnerability is played out before and after the actual event.

Theoretical Framework on the Ground: Impacts on Evacuation and Recovery

Flood Without a Past: A Messy Evacuation Led by Informal Networks

Treating floods as sudden-onset events justifies the emergency and unpreparedness of actors to deal with the event. However, its recurrence gives many opportunities to improve resilience through adaptation strategies. The

2015 flooding has a past of technocratic focus leaving aside human resilience. Technocracy has left communities unprepared when technology has failed. Flooding was not a natural disaster but rather a failure to adopt successful adaptation strategies. In a governance of immobility, informal networks had to fill in the gaps to evacuate affected populations. ‘Repair rather than prepare’ is the (reversed) proverb that best describes crisis management in December 2015: in the forecasting phase of the flood, warnings from experts were not taken into account. Several members of the Parliament have raised the issue that the emergency situation could have been avoided, had authorities taken warnings from the experts into account. Both the CCC and the Association of Drainage Authorities had issued clear warnings that the Government needed a new strategy for the increasing number of homes at flood risk (Carrington & Wintour). Kerry McCarthy, shadow Secretary of State for DEFRA, points to the fact that the national flood resilience review—initiated *after* the flood by the Environment Agency—should have been instigated *before*.

Criticisms focus on the discontinuity of funding in flood management, because of cuts in the budget for barrier maintenance and short-term commitments. “Governments are widely regarded as incapable of making credible long-term commitments to future funding” (Helme, 2016, 7). This short-term view leads to huge gaps of funding between each flood: after each event, there is a flow of funding, but it soon dries out and flooding is ‘forgotten’ until next time. But next time is becoming increasingly *sooner*. Weakly committed authorities fail to prioritise flood prevention: emergency acts as a wake-up call, but it is not enough. Mayor Tony Greenwood stresses that, after each flood, lessons are learnt, but they are also quickly forgotten, and authorities have to take up the learning curve again, consuming time and energy. Flooding has to be dealt with on a more continuous basis, not punctually with each flooding.

If prevention and anticipation were downplayed, authorities insist that the emergency evacuation was dealt with successfully. Flooding minister Rory Stewart insisted that the necessity of “think[ing] big and think[ing] early” (in Priestley, 2016, PPP) was decisive in the British government’s strategy. Concerning Storm Eva, the decision led to an immediate “Cobra” meeting with the Environment Agency on 23 December. The military was deployed “immediately”, leading to an additional 600 soldiers in support of the operations. The Environment Agency, emergency services and the Army worked through the night deploying temporary defences, rescue boats and pumps, and evacuating residents. Minister Rory Stewart concludes: “this country has responded very well to the emergency nature of the floods”. However,

newspapers describes evacuation with surprise and panic. Mountain Rescue teams evacuated individuals with little warning, allowed to take nothing else than what they were wearing. Evacuation got hectic in York, due to the decision of raising the Foss Barrier, on the major flood defences of the city. This caused entire streets to be submerged. 200 people had to be rescued by boat in two days (Scott, 2016). The crisis was not inherent. As the crisis happened, volunteers organised in informal networks took a leading role. Through the different interviews, I realised the extent of volunteers' involvement in the evacuation. Tony Greenwood's testimony focused on the informal networks of help and cooperation that developed spontaneously to deal with the evacuation emergency. He describes a "complete lack of organisation" from centralised authorities. Todmorden Town Council is indeed a subordinate authority that has no authority or power in case of flooding. They depend on Calderdale Council's centralised authorities. Tony Greenwood and his coworkers were involved on a voluntary basis. Todmorden had flooded the night before Boxing Day and the Mayor had opened the town hall because people could not get home. Temporarily displaced individuals had to take shelter in the town-hall because their house had been flooded, but also because flooded roads made them unable to access their houses. Nobody was in charge or in control of the evacuation. There was no particular organisation and no one was appointed. The network of help organised spontaneously but got "more and more sophisticated by the hour" says Tony Greenwood. "Nobody knew what we were doing but organically it worked". This description differs from the rational and well-planned organisation I imagined England would have put in place to deal with the flooding. However, the "to-do" attitude of communities was general and people with absolutely no authority came to work together. NGOs arrived to help further on, and for Todmorden, brought 90 camp beds for the displaced individuals. These were put in the Methodist Church. Newspapers also mentions schools being opened as rescue centres (Pidd, 2015). It is only after three days that the army arrived in Todmorden with 50 soldiers to rescue vulnerable people. But the work had already been done by volunteers, and the military got all the information it needed from informal networks.

Tony Greenwood's account insists on the very strong feeling of community triggered by the flooding. This positive externality had already been identified by the previous issue of *The State of Environmental Migration* regarding the Southern England floods, in which interviewees compared the strengthened sense of communities to "the war years" (Brown, 2014, 200). In Todmorden Mayor's experience, people coming to the town hall

Image 3. Rest centres' beds in the Methodist Church, Todmorden



Source: Tony Greenwood, December 2015

were 50% individuals displaced by the flood and 50% coming to participate to the rescue effort. Volunteers got organised in the court room of the town hall, and worked tirelessly for several days. People also came to give money, needed for the logistics of evacuation, for instance sands packs and the preparation of meals, as well as recovery. The involvement was generalised across age groups and geographic locations. Bradford indian restaurants donated meals, supermarkets were very generous in donating food. People from all social backgrounds came to help. The team of volunteer was skilful and versatile. They were making meals in the kitchen, or rescuing neighbours by knocking on all doors. Newspapers also describe other networks of solidarity such as a system of “laundry bags” so volunteers could get the dirty laundry of displaced individuals and wash it in their washing machines (Pidd, 2015). Finally, a Facebook page was developed in Todmorden: “it was way more effective at getting the message out” says Tony Greenwood. It was used to check whether people were safe and to let volunteers know what was needed at the town hall. However, informal networks was not a lasting comprehensive solution to displacement management. Despite volunteers’ incredible work, the emergency of flooding caused problems that a too punctual management exacerbated. First, houses were not only flooded but also destroyed by land-slide or contaminated by filthy water

coming from the sewage. Properties and furniture were therefore permanently damaged. In York for example, houses were submerged in filthy water contaminated with sewage for 48 hours (Scott, 2016). Todmorden also experienced contamination: the Mayor testifies that “people kept arriving all night because they had been flooded out, and their house was full of dirty water”.

Second, the lack of planning left affected populations with little clue of what was happening and what should be done. Flooded households were stuck with no electricity, they had no more battery in their phone so they could not reach adequate contacts. In the case of Todmorden, individuals like Kathleen Simpson went to the town hall because they did not know where else to go. The government did create several web pages to explain to individuals the recovery process. For instance, the webpage *Flood recovery - households and businesses* details the funding procedure and content. But either flooded households were not aware of these resources or they did not know how to fully exploit them. Dealing with insurance was also a main issue: people did not know who to contact, and the insurance paperwork could be very tricky for people to fill. The volunteers became very handy in the midst of all the administrative distress. In Todmorden, a team was dedicated to help flooded households fill the plaid form to ask for financial help. The court room was full of individuals on computers researching information for evacuated individuals, and the team slowly turned itself into a ‘citizen advice bureau’. A psychologist also volunteered to run a psychological care to council distressed persons.

Newspapers insisted on the distress caused by flooding happening on Boxing Day: as people planned to have a lovely time with family, they found themselves in the wet and the cold, having to take shelter in rescue centres and dealing with stressful insurance business. Actually, individuals did not lose their Christmas spirit, which was sustained by the impressive community support. Newspapers talk about “Unruffled Yorkshire spirit” (Pidd, 2015). Tony Greenwood describes displaced people as “stoical”. “No one was hysteric and there were very few tears”. Unfortunately, while the support to flooded households was unanimous during the crisis, the longer-term support necessary from local authorities was insufficient. Kathleen Simpson testifies that “volunteers were very good on the spot, but as soon as the council got in, it went bad. The support was very temporary and some families were just left with the mess, told to deal with it themselves”. This testimony expresses the feeling of having been let down on the long-term, shared by most displaced people. Newspapers still report the bundle of frustration and anger that agitates affected communities.

Image 4. Meals prepared for displaced populations, Todmorden



Source Tony Greenwood, December 2015

The situation is also criticised in Parliament by Kerry McCarthy who says “Rather than a sticking plaster response every time the floods hit, with vague promises and random numbers that are forgotten by spring, we need a long-term, co-ordinated approach. Our priority must be making sure that communities in flood-risk areas across the whole country do not endure another Christmas like this one” (2016). Kathleen Simpson participates to a “flood circle”: far from having recovered, flooded households feel that they do not matter anymore or that they have been forgotten. Members of the circle say that agents phone them every week to know how they are coping, but they have not come to see the damages or done anything about it.

Flood Without a Future: Successive Displacement and Cumulative Vulnerability

The second major trap of seeing flooding as a punctual change, cut from its temporal context, is that it prevents seeing cumulative vulnerability created by flooded households’ successive displacement. As “problems roll on from one flood to the next” (Simpson, 2016), flooding impairs livelihoods on the long-term. Cumulative vulnerability and successive displacement interact within a vicious circle.

Successive displacement

In December 2015, most evacuated households coped 'only' with a short-term and short-distance displacement. But displacement-induced vulnerability acts on the long-term as households are repeatedly flooded.

Displacement in December 2015 was short-term but it has been frequent. Kathleen Simpson has been now displaced three times in three years. She says that, in these three years, she has been able to enjoy a working kitchen for one month only. Tony Greenwood makes a similar statement, acknowledging that most displaced people in Todmorden had got back to their homes, as of April 2016. However displacement "has happened three times now, it can't go on. Some properties have been flooded over and over and over again. It is not sustainable to live in an area that gets flooded so often". The frequency of displacement should therefore be computed in individuals' vulnerability. Beyond the frequency of the event itself, another long-term problem is caused by insurance. People repeatedly hit by floods have seen their insurance policy increase continuously. Most of them can't afford insurance anymore and some have stopped being eligible. Scott comments: "to add insult to injury, some are now likely to be told their insurer has decided not to renew their policy" (2016). This is the case of Kathleen Simpson: after she got flooded for the first time and battled for months to get her insurance working, her claim was rejected and her policy was cancelled. She is now left with no insurance, just like many other living in flood-risk areas. Newspapers talk about some residents who did not have a policy and have become homeless after the floods of December 2015 (Scott, 2016). Not only does the lack of insurance make people very vulnerable on the long-term, but during the event itself, it makes the decision of evacuating harder to take because evacuation then means abandoning the property, losing everything and having no money to rebuild again. People are tied down to their house, they would like to leave but it is impossible. Many people do not have an insurance anymore because the premiums are too high. Mayor Tony Greenwood talks about an extra £3 000 to pay for each household if they live in a flood risk-area, amount that ordinary people cannot afford. There is some help provided to flooded households regarding insurance issues. Community organisations of Calderdale have for instance raised money to help households get over the crisis and pay for the reparations needed for uninsured houses. However, Tony Greenwood concludes: "you get a bit of help, but essentially you are on your own. Insurance will be worse now. Commercial insurance has no reason to make it easy, and people have to be prepared to pay enough". Beyond being displaced frequently by flooding, insurance make people ever more vulnerable by

Image 5. The military arriving after the battle, Todmorden town-hall



Source: Tony Greenwood, December 2015

keeping on increasing with the increased frequency of flooding. A final major issue occurs when individuals lose the paperwork to prove insurance, common problem during the flooding. Individuals who evacuate either do not think about saving the paper at the time or simply do not have the time. Insurance papers are therefore often washed away in the flood along with other important documents, making the administrative battle even more complicated. This time in Todmorden, a professional photographer spontaneously turned up to the town hall with special photographic equipments enhancing water saturated documents, which was of great help for people who could recover the papers in a wet state.

Multidimensional vulnerability

Vulnerability can take several forms. Of course flooding causes physical vulnerability during the event. But there are also longer-term factors to take into account. Zickgraf et al. underlines that cumulative vulnerability is determined by a complex net of interactions between resilience, mobility and environmental degradation (2016, 17-18). First, there is the psychological distress. While spirit remained high during the evacuation, the return to quieter times left displaced people worn-out, and in the deep fear of the next

flood event. Tony Greenwood talks about “an exhausting and depressive business” to have to deal with recovery, months after the flood: “the signs of the floods are still apparent”. In Kathleen Simpson’s own experience, flooding “creates a whole other net of problems. It kind of changed everything”. It is the third time she is affected by the flood, and each time problems roll on to the next flood, making it each time longer to recover, if recovery is at all possible. She feels that her life has gone on a “downward spiral” with flooding. Problems start with flooding in itself, the difficulty to evacuate, the—sometimes irreversible—damages to houses and furniture, and then become problems with insurance policies and taxes, impossibility to cook in a damaged kitchen, inability to work anymore. “You don’t need on top of everything else, it’s just too much, I must admit I felt in despair at the time” she says. Vulnerability slowly extends to financial vulnerability, but also nutritional, and psychological. Todmorden Mayor stresses that flooding has particularly affected the elderly who “do not see their retirement coming, and instead have to keep fighting”. Kathleen Simpson testifies that she feels “physically that [her] life has been severely affected in several possible ways. I’ve never imagined how devastating it was”. She also identifies this feeling among people around her who have been flooded “people’s well-being as felt ill for the last three years”. The physical and psychological long-term impacts of flooding have been studied in a report produced by Milojevic (2015). The report acknowledges wide variations in effect size are, reflecting in part the vast heterogeneity in the population exposed and their ability to respond and adapt, and the support they received in the emergency and recovery phases. While diseases with long latency are less straightforward, evacuations lead to frequent coughs, colds and bronchitis. Temporary displacement, along with insurance and financial issues, is also a source of psychological difficulty, leading to increased stress and anxiety. According to Pitt, the longer the displacement, the more detrimental on mental and physical health (2008, xxxv). This causes a strain on National Health Service and widespread absence from work or school. Vulnerability of individuals have also a economic dimension. Both houses and businesses alike face considerable damages, which translate into massive economic costs for owners. Kathleen Simpson had to throw away her brand new washing machine and fridge, bought after the previous utilities had been destroyed by the 2013 flood. She points out to the fact that costs are not only about reparation and furniture needing replacement. Fuel bills are exorbitant due to the drying out necessary. This means a tremendous increase on the electricity, heat and water bills. Taking only the hot water to wash everything has cost her £90 a week, when her income is £30 a week. All her retirement money and spending have been used to try recover from

the 2012 flood, she had to go into debt to recover from the 2013 flood, debt that has not been repaid yet. She did receive a £700 grant from local authorities, but it is a small amount compared to the long-term expenses. Her car has been damaged by the flood, and she cannot afford to get it fixed, so she is in an even deeper impossibility to move, even going shopping is difficult. This extreme case gives a picture of flooding's permanent effect for people's livelihoods. Moreover, economic prospects seem dull because the region is framed as a risky area, not worth investing in. Owners are losing the value of their property, giving them less chance to escape the area. It has very heavy consequences for businesses which lost a considerable part of their activities, especially in the tourism sector. Goodley and Taylor states that "In the meantime there is a knock-on effect to the problems. In areas that are now OK, there are businesses that need to trade. It is important not to scare people off going to Yorkshire, Carlisle, the Lake District and these areas" (2015). House owners face similar problems. Mayor Tony Greenwood underlines that it is impossible to sell a house when it floods every year, and that your region has made the headlines for the damages it faced. Owners cannot even put a tenant in. Tony Greenwood also raises the issue that a lot of people involved are elderly, who have lived there for a long time. "It's not just your house, it's a community" and moving for older people might also be very complicated to administer. In Todmorden, one disabled person, after having been deeply affected physically by the flooding in their house, and evacuated for three days, could not take it anymore and left. However, moving is simply not an option for most people.

"The problem of the first flood have rolled to the second flood, and the second to the third, and I am still trying to deal with the problems of the first flood" says Kathleen Simpson. For flooded households, flooding is continuous source of worry and vulnerability, far from the sudden and punctual framing. And for most of them, consequences go far in their future. "I can't foresee a time when I can reconnect with normal life".

The "Right To Move", a Remedy to Trapped Populations

The mayor of Todmorden himself states: "if I could move, I would". If cumulative vulnerability is so high, why do people stay? Why do we not witness long-term migration, only successive short-distance short-term displacements after each punctual flooding event? The relation between vulnerability and mobility is not straightforward. Back and Collyer define trapped populations as people who need and want to move but lack the ability to do so, due to policies impeding movement or inability to access

the necessary resources (2014, 52). Resources encompass financial and social capital (Gemene, 2011). The 2015 flood exemplifies a disaster which reduces mobility, although mobility could be a “post-disaster coping strategy” (Black & Collyer, 52). Properties are damaged and have lost a lot of their value, making it impossible for inhabitants to sell them and use the money to resettle somewhere else. “What do I do, walk away and leave the house there? You’re kind of trapped in your own property and you can’t get out” testifies Kathleen Simpson. The long-term vulnerability of flooded households is a considerable factor in trapping populations, resulting in successive displacements. Response measures from local and national authorities have not been efficient at alleviating it, focus on building more flood defences even reinforces it.

The norm of immobility is a major challenge to protection of trapped populations (Black, 2013), which policies need to overcome. This does not entail forcing communities to move, but rather developing a portfolio of adaptation strategies facilitating mobility and ensuring individuals’ “right to move” (Black, 39). I asked interviewees whether they would consider moving if they could. They unanimously answered positively. Kathleen Simpson insists “what else can we do? The government should give the option to sell the house, to get a full fresh start”. She says that flooded households should not be forced but given the choice. “Most people who rented accommodation have moved, a lot of people have moved” but owners are tied down to their house if they do not have the money to buy a second house. They do not have the option of moving. The government could instead give grants for people wanting to move out by relocating funds currently dedicated to supporting insurance. Adaptation strategies include learning to live—and not cope—with the flood through livelihood adjustments such as building more resistant houses, as well as government funded migration. Assisted relocation must encompass financial compensation, incentive mechanisms and concertation with affected populations (Sherbinin et al., 2011, 456). Resettlement is however a controversial issue, and should only be advocated when staying is not possible. There is no silver-bullet solution to flood induced vulnerability (Zickgraf et al., 2016, 19). While mobility needs to be part of the answer, it cannot be the only answer. A portfolio of adaptation strategies must rather be about giving people the choice. While English policies are missing the necessity to address mobility as an adaptation strategy on the national scale, their local focus has the potential to better involve affected populations in the recovery process and develop mobility as one of a wider panel of solutions. The national recovery fund available through the Bellwin scheme is given to local authorities

directly, which then deals with flooded populations, allowing individual vulnerability to be better addressed. Local strategies also aim at reducing cumulative vulnerability by stating that displaced individuals will not have to deal with the burden of paying taxes, as long as they are out of their properties (DEFRA, 2015). Communities remain very helpful and supportive to flooded households by donating money. Launched by Two Ridings Community Foundation on 5 January 2016, the North Yorkshire Flood Appeal raises funds to directly support individuals and families in hardship and vital community organisations and resident groups in the areas affected by Storm Eva. Alexandra Wales outlined localism as an efficient strategy to educate about flood risks and enlighten mobility decisions on evacuation and settlement. She pointed out to fact that the Yorkshire team Agency had set a free flood warning service. Only one fifth of Yorkshire households at risk of flooding currently receive flood warnings. This service has been a success, as 16, 000 additional properties have signed up. The Environment Agency is also undertaking, according to Louise Rice, a huge amount of research, to improve understand of floods and better prepare for the next flooding event. The goal is to build a more robust body of information, and a more resilient network to access this information. The local involvement of citizens during the flooding has made communities more aware that part of their resilience depend on having a strong united community. To Tony Greenwood, it was an emotional experience to see how generous people were. “It was a sad time because of the flooding but also a great time for the town to show what people are like”. Such bonds must be perpetuated and citizens involved in the decision-making process to have a more open debate on what they feel solutions are for the community. At this scale, it will be easier to address the question of mobility and the feeling of being trapped. In Todmorden, the town council is involved in drawing guidelines explaining what to do, based on their experience in December 2015. The community is determined become more resilient, leaving aside engineering solutions to flooding. Localism allows a better involvement of citizens, enabling to understand more precisely their vulnerability to flooding, and draw a panel of adapted solutions. Whether or not mobility will be one of them, this is the decision of the communities, but they will better armed to address problems of trapping policies.

Conclusion

When picturing flooding, Kathleen Simpson states: “I imagined that it gets clean up and got back to normal but it’s not like that”. This paper

has debunked two misleading ideas about English flooding: (1) even as a developed country, England does face displacement induced vulnerability caused by the increased recurrence of flooding; and (2) immobility in England is problematic as it creates a vicious circle of cumulative vulnerability and trapped populations. It has underlined how the framework of sudden-onset change leads to discourses and policies reinforcing immobility by avoiding the word 'displacement' and focusing on engineering solution to floods. England treats immobility as the unproblematic norm, and such a framing prevents to see that facilitating migration could help to build resilience (Sherbini, 2011). "The aim is to move beyond a sedentary perspective, which does not problematise immobility because it is considered to be the norm, not something to be explained or scrutinised" (Jónsson, 2011, 1). Jónsson explains why immobility is seen as a norm and an ideal. Immobility provides a sense of stability and organisation, while mobility evokes adventure and a scary unknown (6). It has also questioned the relevance of the dichotomy in the context of climate change to show that, flooding's slowly increasing recurrence and intensity have long-term far-reaching consequences on affected populations' vulnerability and mobility. Conceptualising flooding as a sudden-onset punctual event has led to an inadequate flood governance based on immobility, and has blinkered policymakers to cumulative vulnerability of successively displaced and trapped populations. It has also linked the governance of immobility with the understanding of flooding as a punctual event in the context of climate change to better understand the impacts on displacement, during both evacuating and recovery. Rather than seeing flooding as a sudden-onset short-term crisis, this paper suggests that policies should adopt a holistic perspective to challenge the norm of immobility and address mobility as an adaptation strategy. Adaptation strategies can take the form of a portfolio of solutions, implementing the right of people to move among other measures. This long-term analysis will prevent "sticking plasters" to be applied (Helme, 2016, 1). Will the winter floods of 2015 mark a turn toward a longer-term commitment? The next months or years will tell us, but England is currently still in the emergency ad hoc phase. It is time to shift radically our understanding of flooding and its consequences on populations' mobility from technological to social, from short-term to long-term, and from narrow-sighted to open-minded problem solving.

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