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# The Impact of Displacement in the 2013/2014 Southern England Winter Floods

### **Resilient Communities or "Re-traumatisation** by bureaucracy"?

he winter floods in the United Kingdom were some of the worst on record, with an estimated 7,800 homes flooded (UK Government, 2014). According to the Association of British Insurers, the winter floods will cost the United Kingdom insurance industry £1.1 billion (ABI, 2014). The South of England, experiencing record-breaking rainfall, was particularly severely hit, both inland, from surface run-off and river overflow, as well as in coastal regions from storm surges. Therefore, although flooding took place throughout the country,

this case study will focus on displacement in Southern England, in the counties of Somerset and Cornwall in particular. The interplay of administrative bodies at different regional levels has been particularly important. Whilst flood response is organised at a regional-local (county) level, national political and local community forces have been highly influential in shaping both direct response as well as policy impacts.



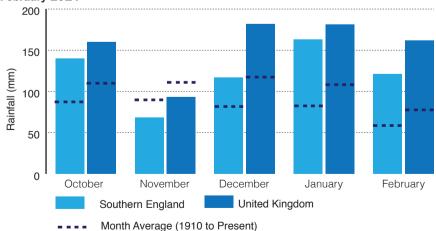
Photo 1. Flooding on the Somerset Levels (taken by P.Hipwell, Feb 2014)

As a developed country, the United Kingdom is seen, almost automatically, to be high on resistance and low on vulnerability. The relationship between income and vulnerability is not linear, however, and "rich" people can be vulnerable too. The widespread winter flooding in the United Kingdom has seriously thrown into question the preconception that those in developed countries are able to cope. Within the United Kingdom there is a lack of understanding of the impact on individuals and communities of displacement on various timescales. There are little discussed but nonetheless important problems with insurance, and a strong reliance on social capital and communities when displacement occurs. Flood groups and community level action groups (such as FLAG, the Flooding on the Levels Action Group) are increasingly being formed.

This paper addresses flood-related displacement on three different timescales: the process of leaving and short-term displacement (via evacuation or rescue), moving out and implications for daily life ("mid-term" displacement), and the long-term impacts of displacement on both communities and individuals. Support mechanisms available for those displaced by flooding will be discussed, as well as planning policy and issues surrounding insurance, both of which will affect the longer-term trends of flood-related displacement. Six interviews were conducted for the study, a full list of which can be found in the bibliography. As nearly all interviewees noted the lack of research and dialogue on flood-related displacement in the United Kingdom, it is hoped that this paper can go some way towards addressing this research gap.

#### **1. THE ENVIRONMENTAL CONTEXT**

Figure 1 below shows rainfall values for Southern England from October 2013 to February 2014, the period of the winter flooding. As floods take time to recede, some areas were still underwater into March and early April 2014. Rainfall for October and December was above average, as shown, leading to saturated ground and, subsequently, groundwater flooding. Rainfall for January was the highest on record (since 1910) and in February rainfall almost reached the maximum value dating back to 1923. For the United Kingdom in general, Figure 2 shows the extent of the winter rainfall. In the Government's words, *"the winter of 2013 to 2014 was the wettest on record"* (UK Government website, 2014).



**Figure 1.** Southern England and United Kingdom Rainfall Data for October 2013 to February 2014

<sup>(</sup>Data source: Met Office, 2014)

The United Kingdom's Centre for Ecology and Hydrology noted that all four types of flooding occurred: tidal, pluvial (flash), fluvial (from river overflow) and ground-water (runoff from saturated land) (Met Office & CEH report, 2014). This demonstrates the extent of the flooding in a wide variety of different geographical contexts and landscapes. While the type of flooding strongly influences the type and nature of displacement, for example pluvial flooding will often lead to sudden evacuations and rescue, it is rarely the determining factor.<sup>1</sup>

#### **1.1. Focus: Southern England**

This paper focuses on Somerset and Cornwall, in the South-west of England. The local institutional specificities of these two counties affect how displacement caused by flooding is managed and approached.

#### **Somerset Levels**

The case of the Somerset Levels was highly mediatised, making it a major political issue at the national level in the context of spending cuts for flood defences and maintenance. Somerset has a relatively fragmented regional organisation, containing District and Borough Councils as well as an overarching County Council, which has received some criticism. In the United Kingdom, County Councils have overall responsibility for flood response (and to some extent risk) management.

Although most residents were aware of the flood risk days in advance, incomplete analysis of this risk and inappropriate responses led to many newsworthy and dramatic evacuations, including of livestock of the many farms. The rural and dispersed population means that information about displacement is generally poor and flood response has proven itself to be bottom-up driven.

#### Cornwall

300 properties were affected in Cornwall during the winter floods through tidal and surface water flooding in the context of severe storms.<sup>2</sup> There is no official data regarding the number of people displaced from these properties. Martyn Alvey, Community Flood Resilience Manager at Cornwall County Council, works hand in hand with the community-level "Cornwall Community Flood Forum" (CCFF) aiming to increase resilience of communities in Cornwall to flooding. Since the 2007 flooding, Cornwall has worked heavily on community resilience, and is participating in Defra's pathfinder scheme in order to further share best practices nationally.

The relative success story of Cornwall is due in part to its unitary authority, which avoids some of the challenges related to fragmented responsibilities experienced by other counties. Local scale characteristics are also very important in reducing the likelihood of large-scale displacement caused by flooding; in Cornwall the settlements are relatively dispersed and there is high availability of accommodation in winter months (due to the importance of summer tourism), these factors attenuate the challenges of flood-related displacement.

#### **1.2. Displacement Data**

There is almost no data on the numbers of people displaced by flooding in the United Kingdom, either through evacuations, rescue or longer-term displacement. Government Figure ures, aforementioned 7,800 homes flooded (UK Government, 2014), pertain to the homes themselves. The press and media frequently cite Figure

<sup>1.</sup> Discussed in more detail in Chapter 2.1 of this paper.

<sup>2.</sup> Martyn Alvey, Community Flood Resilience Manager, 08/04/14.

ures about evacuations,<sup>3</sup> although it is unclear where these numbers come from. The most likely hypothesis is that they are estimations from on-the-ground sources or emergency services in the case of rescue. Government data seems to be very approximate. Displacement, therefore, whilst being the most extreme and long-term impact of flooding, is receiving little more than initial, spontaneous, "blue light" attention. There is almost no follow-up despite intense attention given to communities over short periods of time. The implications of such media attention for policy response seem to be significant and will be discussed further later in this paper.

As mentioned, County Councils collect data about the numbers of properties flooded, and in Cornwall regarding "near misses" (where the garden or garage has flooded), however no information is collected about the people who have left (or, indeed, remain) and their current location.<sup>4</sup> Furthermore, the council is unaware of some properties that flooded. For the most part these are owners who have chosen to "go under the radar" for insurance purposes. Procedures seem to be different in Somerset, however. In an interview, Gill Slattery, Councillor for North Curry & Stoke St Gregory, indicated that they keep track of who is able to remain in their homes (or not), their current location, as well as if they have house insurance.<sup>5</sup>

Estimates for the number of properties without flood insurance are often "less than 20%".<sup>6</sup> According to government Figure ures, available on their website, over 6,500 visits were made by insurers for over 7,800 properties flooded. These Figure ures would therefore indicate that around 17% of the properties in the winter floods were not insured against flood risk. Information from insurance companies can, however, shed some light on flood displacement.

Nationally, it is estimated that temporary accommodation was arranged (by insurers) for 2,100 households (UK Government, 2014). The vast majority of those who are displaced, however, use their social networks to find alternative accommodation, staying with friends, relatives or neighbours (at least in the short term). Government Figure ures, based on council tax payments, estimate that just over 1,000 households are still hoping to return to their homes. Statistics from floods in 2007, released as part of the Government's "Pitt Review", show that within three months 50% of households had returned and within 6 months 82% had gone back (Pitt Review, 2008). However, there are still people today who have been unable to return to their homes. A quick calculation based on the Government Figure ures cited above suggests that the rate of return for the 2013 winter floods is higher than in 2007, indicating that, at the time of writing (April 2014), 87% of households had already returned 7(UK Government website, 2014). It would however be expected that insurance companies already have this information for all properties whose insurance covers flood risk (i.e. around 83% of households).

#### 2. EVACUATION & RESCUE

Evacuation (before the flood) and rescue (during the flood) are the most immediate, short-term forms of displacement caused by flooding, generally receiving the most attention, both on the part of authorities and the media. During the 2013 winter

<sup>3..</sup> For example "Floods: Hundreds evacuated and thousands more at risk" (BBC News England, 2014).

<sup>4.</sup> Martyn Alvey, op cit

<sup>5.</sup> Gill Slattery, Councillor for North Curry & Stoke St Gregory, 11/04/14

<sup>6.</sup> Martyn Alvey, op cit

<sup>7.</sup> Government Figure ures indicated that 1000 households of the 7800 flooded had not returned home, so 12. 8% of the properties flooded. The rate of return can therefore be estimated at around 87.2%.

floods, there were many media reports about evacuations and rescue missions. On the Somerset Levels, for example, water levels rose so quickly around Moorland that a lack of access led emergency services to announce evacuation orders out of a helicopter<sup>8</sup> (Western Daily Press, 2014). Other evacuations were likened to World War Two, with people coming in their nightclothes and a hotel being used as a "control centre" by police and emergency services (BBC News Devon, 2014). Thousands of homes were evacuated on the river Thames and 350 people were rescued (BBC England, 2014). The evacuations were portrayed as disorderly and panicked. In most cases, however, several days' notice of the impending floods was given, but people were very reluctant to evacuate their homes.





#### 2.1 How do people decide whether to evacuate?

There are many elements that make up the decision whether to stay or evacuate, depending largely on individual circumstances. When asked what drives the decision to stay or go, Heather Shepherd, from the National Flood Forum, came up with a number of factors. The emotional factor would appear to be the biggest reason why people delay evacuation from their homes once a flood has occurred. "People feel safer in their homes", she notes, "home represents a sanctuary, a private space"<sup>9</sup>. Emotional attachment is an important dimension of evacuation, and undoubtedly affects the long-term implications of displacement related to flooding in the United Kingdom, to be discussed further in section 4.

Doubt about the security of an evacuated home is also an issue for homeowners. Despite the fact that crime is actually reduced during a flood, the notion that homes

<sup>8.</sup> The message said: "Flood danger imminent. Please evacuate to [North Petherton]".

<sup>9.</sup> Heather Shepherd, Community and Recovery Support, National Flood Forum, 08/04/14.

become vulnerable to thieves when streets are empty plays an important role in the decision to stay or delay evacuation.<sup>10</sup> This was reflected in the widespread dissatisfaction when the end to the roadblocks was announced in Somerset.<sup>11</sup> Roadblocks are often put in place during extensive flooding. In Somerset when the end of these was widely advertised, however, people were angry. As a large number of homes had

been evacuated and were left unoccupied, it seemed like an advertisement for easy access to empty houses. This reflects the concern that homeowners have for the security of their houses when they are not there. The important role of animals and pets was also mentioned.<sup>12</sup> In Somerset, some were forward thinking in evacuating their animals beforehand but for many this proved impossible. Moreover, as Somerset is a rural area, many people have large animals such as ponies, donkeys, or dogs. The role of animals is especially important for the elderly or vulnerable where a pet is particularly significant. For instance, a couple with mobility problems had 12 large dogs and were very reluctant to evacuate. As such, they were putting their animals'<sup>13</sup> needs before their own; a decision that

was also in part influenced by a poor understanding of the way authorities would

handle the animals. Rather than informing themselves, they believed the fire brigade would deem the animals dangerous and euthanize them. Indeed, thinking that the water "probably won't get any higher"<sup>14</sup> is a key reason that people wait until the last minute and evacuation becomes rescue. "People went into paralysis, they weren't thinking rationally and practically, they were just telling themselves 'it is not happening'".<sup>15</sup> In Somerset many people were not convinced of the severity of the flood and delayed leaving, despite warnings being given days in advance in some areas. One well-publicised case included lorries full of cows that had to be evacuated in very bad conditions, causing the lorries to fall off the road. Though the farmer had been made aware several days earlier of the need to evacuate, his refusal to do so caused an emergency evacuation. Homeowners are far more likely to leave where children are involved though.<sup>16</sup> This is most likely due to the danger for children of being around contaminated water and other flood-related

The nature of the flood can also lead to different types of displacement, as previously mentioned. It is interesting to note, however, that only one of the interviewees referred to this directly.<sup>17</sup> Other factors, such as anxiety, children, or an underestimation of the risk, were generally considered to be of greater importance when there is a decision to be made. A "wash through", for example, is a flood that enters a house for only a few hours. The occupants generally leave while it happens and return when the water recedes. In other types of floods, the water may seep slowly into houses, damaging floors, carpets and furniture. Dehumidifiers are required in these situations, but an individual's decision to leave, or not, will largely depend on individual circumstances, as discussed. Although there are negative health consequences of living in a damp space, moving upstairs is an option. Financial resources and insurance are likely to be significant in these situations. Deep-water floods, however, last several weeks causing long-term destruction. In addition, a lack of sanitation

12. Heather Shepherd and Gill Slattery, op cit.

hazards, such as short-circuits.

- 13. Gill Slattery, op cit.
- 14. Heather Shepherd, op cit.
- 15. Gill Slattery, op cit.
- 16. Heather Shepherd, op cit.
- 17. Gill Slattery, op cit.

<sup>10.</sup> Heather Shepherd, op cit .

<sup>11.</sup> Gill Slattery, op cit.

resulting from deep-water floods makes houses impossible to stay in. As FLAG (Flooding on the Levels Action Group) representative Rebecca Horsington noted, the flooding in Somerset has been relatively prolonged, with floodwaters still receding at the time of the interview, in the beginning of April.

The flood itself can therefore be considered a necessary but not sufficient factor for evacuation: without a flood risk evacuation will not take place, however flooding itself is not sufficient to lead to evacuation. Factors affecting the decision to evacuate include emotional attachment to property and belongings, children, animals and pets, worries about crime and further damage, underestimation of the risk and thinking "it won't get worse", and the nature of the flood itself. Once the decision to leave is made, either through evacuation or rescue, the next consideration is where to go.

#### 2.2 Where do people go?

Every County Council in the United Kingdom has an emergency plan and will set up emergency evacuation centres in the case of a flood. The centres are "somewhere immediate to go to, which is warm, dry and where you can have a cup of tea".<sup>18</sup> However, some evacuation centres are used for all emergency situations rather than floods in particular, which means that they may become inaccessible or flood themselves. Churches consequently play a significant role as they are often built on higher land and therefore tend not to flood. "Churches together" is a group of volunteers that was particularly active during the winter floods. Westfield United Reform Church in Somerset, for example, turned the church into a rest centre for local people evacuated because of the flooding (Churches Together, 2014). These reception centres are an important part of the evacuation response, both officially, where people can get support, grants and advice, and as an unofficial first port of call.

Local authorities also have statutory housing responsibilities. In most cases, accommodation is paid for by insurers when a property is affected by a flood. Indeed one of the first things those displaced by flooding have to do is ring their insurance company, something that Whittle *et al.* (2010) note can itself become traumatic in a time of distress. This winter around 17% of properties were affected by a lack of flood insurance though, which means that accommodation costs for those displaced would not be covered. The majority of those uncovered stay with friends or relatives. County councils step in only for a very small percentage of cases, for example with vulnerable groups who have no alternative.<sup>19</sup> The situation is exacerbated when whole communities are affected.

Neighbours and social capital within local communities are extremely important for initial evacuations and flood response, particularly where access routes are closed or alternative accommodation is unavailable. In Heather Shepherd's own experience, she and her family were taken in by their neighbours (whose house was built on slightly higher land), as they were unable to get out of the village immediately. In Somerset, FLAG evacuates local farm animals and finds alternative lodging on a purely voluntary basis.<sup>20</sup>

Whilst no data exists on the usage of emergency evacuation centres (except sporadically where residents are forced to stay overnight), it is hard to quantify their importance in situations of flood-related displacement. They appear to be a point of reference or a first port of call before finding friends and family to go to, and then

<sup>18.</sup> Martyn Alvey, op cit.

<sup>19.</sup> Martyn Alvey, op cit.

<sup>20.</sup> Rebecca Horsington, Flooding on the Levels Action Group (FLAG) Representative – Volunteer Press Officer and Member, 11/04/14.

potentially longer-term private accommodation paid for by insurers.

#### 2.3 Do people know what to do?

Cornwall County Council found that 40% of people living in high-risk properties did not know who to contact in the event of a flood.<sup>21</sup> Indeed, in many cases it is unclear which agency or individual is responsible for what. The Pitt Review clarified these responsibilities at a national and regional level, however they are still unclear at the household level. Councillor Slattery, however, when asked if residents were aware of the reception centres, felt that generally most were aware of them. For many people, help simply comes to them.

Taunton Deane Borough Council,<sup>22</sup> in Somerset, called and visited every person identified by the police as being affected by the flood.<sup>23</sup> Each village has a flood subcommittee that identified the most vulnerable people in the community in order to help them with evacuation and flood response. At times, however, this led to "inexperienced people giving bad advice".<sup>24</sup> Rather than evacuating everyone, those residents who expressed a desire to stay were helped to sandbag their properties even in inappropriate situations. In addition, Parish Councils are made up of residents and as such have variable skills. This could lead to some people being missed by Parish Council led initiatives.

#### Photo 3. Flooding in Henfield, West Sussex (Taken by J. Brown, Feb 2014)



<sup>21.</sup> Martyn Alvey, op cit.

<sup>22.</sup> Borough Council: an administrative unit of English local government, smaller than that of a County Council. Exact functions vary depending on the local context.

<sup>23.</sup> Gill Slattery, op cit.

<sup>24.</sup> Gill Slattery, op cit.

#### 3. MOVING-OUT – MID-TERM DISPLACEMENT

#### 3.1 Implications for individuals and daily life

The words used by the interviewees when asked to describe the impact of moving out included: "devastating",<sup>25</sup> "confusing when you realise you can't go back",<sup>26</sup> "a huge disruption",<sup>27</sup> and "it has big psychological impact".<sup>28</sup> Displacement caused by flooding clearly has a profound impact on every aspect of people's lives. Interviewees talk about "not knowing if you're coming or going" and the sense of uncertainty about the future. The flooding in Somerset has been relatively prolonged, with water still receding or being pumped out of many places at the beginning of April 2014. Nearly everyone in the community is affected, although as Cllr Slattery noted, to different degrees. The impact of displacement depends to a great extent on individual circumstances and factors such as age. Some believe that although the elderly are more vulnerable physically, they are often better equipped to cope emotionally.<sup>29</sup>

Indeed, the negative health effects are not only limited to the physical aspects of the flood itself. Although there are flood support workers in reception centres, many people find being displaced by flooding difficult to talk about. Many are reluctant to admit that they are stressed and seek out a counsellor. In her flood recovery work, Heather Shepherd, has met people who have suffered nervous breakdowns due to the stress and trauma of flood related displacement. These individuals may have felt they couldn't tell anyone because they felt that "everyone else was dealing with it so well".<sup>30</sup> Pride is also an important factor to take into account, particularly in relation to insurance. Many households may have insurance that does not cover floods, however this is often difficult to admit to.

Flood related displacement has a profound impact on the daily lives of displaced persons. Getting settled and back into a routine is a major hurdle that needs to be overcome. In Heather Shepherd's experience of flood displacement, for example, she was unable to live at home for a year. It was winter at the time of the flood and, as all the family's belonging had been packed away, when summer arrived they were left with no summer clothes. Living in temporary accommodation, such as a caravan, raises many practical issues with distressing implications. Although seemingly simple, for example having no kitchen utensils means repurchasing many items, and the cumulative effects can be significant (financial as well as practical). Even small journeys (such as taking the children to school), and washing clothes can become very complicated. Family pets, mentioned earlier, often require long-term kennels, for example. Although insurance companies usually pay these for, many pet owners naturally choose to opt out of this service.

As mentioned, contacting insurance companies is one of the first actions taken by displaced persons. Insurers will often pay for accommodation however they can require complicated paperwork and approvals, such as for the rent amount. It is often difficult to find accommodation near your residence as any available accommodation is taken quickly, and rent prices sharply increase as a result of the unexpected and abrupt demand. The situation is even more complicated for those who are not covered by flood insurance. Councils have to be careful about setting precedents for

<sup>25.</sup> Somerset Resident, 05/03/14.

<sup>26.</sup> Heather Shepherd, op cit.

<sup>27.</sup> Heather Shepherd, op cit.

<sup>28.</sup> Rebecca Horsington, op cit.

<sup>29.</sup> Heather Shepherd, op cit.

<sup>30.</sup> Heather Shepherd, op cit.

future flood responses.<sup>31</sup> In light of this, those not covered by insurance tend receive support from local charities. One uncertainty, which will be discussed further, is whether a resident will be able to afford flood insurance once a property is determined susceptible to flooding. The cost of the flood risk element of insurance can be very high, one family would have had to pay £2100 per year to have flood risk included in their house insurance as opposed to £700 without.<sup>32</sup>

#### Photo 4. Flooding in Henfield, West Sussex (Taken by J. Brown, Feb 2014)



#### 4. LONGER-TERM DISPLACEMENT

#### 4.1 Impact on communities

Flooding and subsequent displacement can have mixed impacts on communities, leading to both positive and negative long-term consequences.

"Flooding is one of many scenarios that strengthens a sense of community lost over recent years".<sup>33</sup> For Mr Alvey, the winter floods have put "wartime spirit back into the community".<sup>34</sup> This comparison was mentioned numerous times in interviews and articles about the winter floods, referring to the period both during and after the floods as being "like the war years" (Western Daily Press, 2014; BBC, 2014). Perhaps this was due to the sense of community in the face of adversity, and of collective hardship, relating to the way communities pulled together during the world wars. Indeed, there is an increasing awareness that events such as flooding can lead to previously unseen unity within a community. Those who took people in during the flooding (for example neighbours or community groups) may have strengthened links within the community. For FLAG representative Rebecca Horsington, the efforts of volunteers also supported the community and have "given

<sup>31.</sup> Gill Slattery, op cit and Martyn Alvey, op cit.

<sup>32.</sup> Gill Slattery, op cit.

<sup>33.</sup> Martyn Alvey, op cit.

<sup>34.</sup> Martyn Alvey, op cit.

people a lift".<sup>35</sup> Mr Alvey's comment reflects the feeling of many: "the floods this winter have demonstrated the strength of community across the country".<sup>36</sup> Indeed, diverse national and regional associations went to Somerset to assist the recovery effort, such as the Sikh community (represented by Khalsa Aid) and a Muslim youth group.<sup>37</sup>

Whilst short-term displacement can have positive effects, displacement, particularly when it is longer-lasting, can also have negative effects on communities. Interviewees spoke of the distress of not knowing about the state of their neighbours and friends.<sup>38</sup> Ms Horsington described the community as being "scattered" and "fragmented" because of flood-induced displacement, although Ms Shepherd noted the advantage for families of children continuing to meet at school in order to exchange news. It would seem that displacement caused by flooding can strengthen community links whilst making the community more vulnerable as a whole.<sup>39</sup> In light of this, the impact of displacement is likely to vary depending on the proportion of the community actually displaced.

Livelihoods also need to be considered in the context of any analysis on flood displacement, and this has been an issue in Somerset for those left behind. Many pubs that remained open are now struggling to survive, both because of displaced local residents and the decrease in tourism to flooded areas. In addition, in many rural areas people are unable to get to work, as key roads have been flooded, leaving them isolated. More workers are then forced to use the same routes, making journeys longer and more difficult. Cllr Slattery gave the example of a journey that used to take 20 minutes and now takes 2 hours since the floods. This has a knock-on effect for jobs. One local company, Airtech, a relatively large employer in the area, has been paying its employees' extra fuel costs to assist with their out-of-pocket expenses due to the floods.

#### 4.2 Longer-term impacts on individuals

Many of the impacts on individuals discussed in the previous chapter can be long lasting or permanent. There are no concrete Figure ures on the length of time that people are away from their homes. As noted in the introduction, data from the 2007 floods, included in the Pitt Review, reported that 50% of households had returned home within 3 months and 82% had returned within 6 months. However, both Dr Deeming and Ms Shepherd mentioned the example of the Hull, where after the flooding in 2007 and 2008, people have still not returned to their homes. Estimations vary as to the length of time people are away from home, in some cases displacement can last up to 2 years<sup>40</sup> but an average of between 6 to 18 months was suggested.<sup>41</sup> Longer displacements may be due to poor workmanship in home repairs or the time taken to put in resilience measures against future flooding.

There are much better take-up rates for resilience measures by the chronically affected, where there has been a flood at least twice in the same place.<sup>42</sup> However, insurance usually only covers "like for like", replacing or repairing what has been

<sup>35.</sup> Rebecca Horsington, , op cit.

<sup>36.</sup> Martyn Alvey, op cit.

<sup>37.</sup> Gill Slattery, op cit.

<sup>38.</sup> Rebecca Horsington, , op cit., and Heather Shepherd, op cit.

<sup>39.</sup> Heather Shepherd, op cit.

<sup>40.</sup> Dr Hugh Deeming, Senior Research Assistance (Community Resilience Expert), University of Northumbria, 04/03/14.

<sup>41.</sup> Heather Shepherd, op cit.

<sup>42.</sup> Dr Deeming, op cit.

damaged. Flood resilience measures, such as raising plugs, installing flood barriers, or substituting plaster to use a water-resistant version, often require a large amount of additional investment. Following the winter floods the government has made a £5000 grant available but resilience measures can cost as much as £30,000. Without these measures, and even sometimes with them, susceptible properties often re-flood the following year or a few years later. There can be damp patches, causing people to move out while options for drying can be tried. Landlords often prefer not to move tenants out because of the loss of income. Therefore these properties are inadequately dried out. Additionally, living in a damp property can have negative health implications, however the impacts of displacement are such that many choose to remain.

Two interviewees mentioned suicide as the most extreme impact of flood related displacement. Explaining this, Ms Shepherd said that where there are pre-existing issues it's hard to cope. Indeed, since the winter floods "half a dozen farmers are on suicide watch"<sup>43</sup> following the cumulative impacts of the 2012 summer floods in Somerset, followed by the 2013 winter floods. The psychological impact of flooding cannot be underestimated. Some families have lived in in their communities for generations and have profound links to the physical space, for example by having loved ones buried in a local graveyard. For them, leaving can be a highly traumatic. On the contrary, Heather Shepherd met someone in 2005 who was so devastated by the flooding that he moved to the Canary Islands simply to get away. Whatever the response, some people never get over the experience and every rain event can bring back the trauma of having their houses flooded and having to leave.<sup>44</sup>

A comprehensive study by the University of Lancaster, in which Dr Deeming (now at Northumbria University) participated, included interviews with those displaced by flooding, as well as diaries and focus groups, to gauge the long-term impacts of the 2007/2008 Hull Flood event. This study, by Whittle *et al.* (2010), raised the profile of what the authors term 're-traumatisation by bureaucracy', demonstrating that, while the flood and subsequent displacement are often traumatic experiences, the bureaucracy surrounding the displacement can be too. This can vary from the administrative complexities of living in temporary accommodation to having to project manage home repairs. The study also highlights the 'recovery gap' that emerges: "where the legally-defined contingency arrangements provided to the community by its local authority diminish and where the less well-defined services provided by the private sector (e.g. insurance, builders etc.) start" (Whittle et al., 2010). As Dr Deeming said, "the bureaucracy that people have to deal with is very traumatising".<sup>45</sup>

## **4.3.** Moving towards flood risk areas – planning policy, insurance and property values

In light of the widespread flooding of properties, there is a question of what the pattern of new settlements should look like in the United Kingdom. One such question is why properties are still being built on flood plains. In England, County Councils have to ask for Environment Agency approval for developments on flood plains. Since 1996 the Environment Agency have approved the building of "almost 200,000 new homes on flood plains" (Martin, 2014). Thirteen per cent of new developments are built on flood plains (Bawden & Clark, 2014) and demand for housing is continuing to increase. Furthermore, increasing numbers of homes are being built even when the Environment Agency opposed the development (Bawden & Clark, 2014).

<sup>43.</sup> Gill Slattery, op cit.

<sup>44.</sup> Heather Shepherd, op cit.

<sup>45.</sup> Dr Deeming, op cit.

Given the high population density in large parts of the United Kingdom, land for development is scarce. Another key issue in terms of long-term trends in the United Kingdom is legacy. People have been building properties on floodplains for centuries and this trend is unlikely to stop if left solely to economic forces.

There seems to be a mismatch between knowledge and action. Despite the increasing quantity of information published by the Environment Agency, such as detailed flood risk maps, investment is still going into flood prone areas. Local planning authorities have no incentive to discourage development in flood risk areas where this is a large proportion of the land available, not allowing building would affect their tax income.<sup>46</sup> In addition, developers building on floodplains are rarely affected by floods and never by the impacts of displacement so, for them, the economic incentive remains. Economic and social factors are therefore increasing the risk of flood related displacement. At the same time there is little knowledge about the long-term trends of migration related to flooding in the United Kingdom.

One of the key concerns of those displaced by flooding mentioned by the interviewees, was how to maintain the resell value of their properties. There are relatively high levels of home ownership in the United Kingdom. In 2007 the rate of home ownership reached 73.3% and is currently estimated at around 67% (Eurostat, 2014). There is some uncertainty around obligations to divulge flood related information concerning a property. In one case, previous owners were sued for not declaring to the new owner that the property had flooded in the past. In addition, those who have never experienced flooding are sometimes unaware of the huge impact that flood related displacement can have and may not take flood risk seriously.<sup>47</sup> Given the lack of statistical information on flood related displacement, it remains to be seen whether all those who were forced to leave their homes by flooding actually return. This is often a false choice, however. As the value of properties susceptible to flooding decreases, such homeowners are increasingly trapped in flood risk areas.<sup>48</sup>



Photo 5. Pumping on the Somerset Levels (Taken by P. Hipwell, Feb 2014)

<sup>46.</sup> Dr Deeming, op cit.

<sup>47.</sup> Heather Shepherd, op cit.

<sup>48.</sup> Dr Deeming, op cit.

The paradox is that the Government is making it easier to get insurance to live in flood risk areas, further encouraging the trend of development in flood risk areas. In the past there was a gentleman's agreement that as long as the government put sufficient funds into flood defences with less than 1 in 75 year floods, insurance companies would cover homes vulnerable to flood risk.<sup>49</sup> This agreement has now expired and there is a new pooling system called FloodRe, projected to last 20-25 years, which sets the price for the flood risk element of home insurance. It is, however, unaffordable in some areas, and this strategy does not factor in increasing flood risks due to climate change. Flood insurance is an important way of decreasing vulnerability to flood risk, however increasing the availability of insurance is sending the wrong message to councils and property developers.

For Dr Deeming there will inevitably be some residents who will have to leave their properties in the long term, particularly in times of austerity when less public money is available for flood defences, but this is a highly controversial subject. He cited the example on the East Coast of England where some houses, which were part of the Defra's Pathfinder project, were washed into the sea. Years of erosion took place almost overnight. In one situation of 'managed retreat'<sup>50</sup> in Wales, Heather Shepherd described the decision regarding the future of the area as being made without the community. As she pointed out: "when you allow water to encroach on homes, they become worthless".<sup>51</sup> Government compensation seems to be a major taboo. As people have been building on flood plains since the industrial revolution, there is currently no resettlement policy on the table given the major issue of legacy in the United Kingdom.<sup>52</sup>

#### 5. FLOOD POLICY IN THE UNITED KINGDOM – LESSONS LEARNED

#### 5.1. Are the current support mechanisms adequate?

Those interviewed for this case study had widely differing views regarding the adequacy of support mechanisms available for those displaced by flooding. This is not surprising, given the different institutions they are representing, yet there is a growing consensus for the future development of support systems.

"The post-flood recovery process is adequate for Cornwall".<sup>53</sup> For Mr Alvey, Cornwall's Community Flood Resilience Manager, available funds should be directed towards pre-emptive action and work on community resilience prior to a flood, rather than towards post-flood recovery. One key aspect of such resilience work is the formation of flood groups at community level. Cornwall has been a pioneer in developing these groups, such as the Cornwall Community Flood Forum, which brings together different actors to create a platform for supporting those at risk from flooding. During the winter floods, such community groups and associations have proven to be an important part of the support provided for short-term flood displacement. Though their current role in providing support for long to mid-term displacement is limited, it has great potential.

Support mechanisms are adequate in Somerset, according to Cllr Slattery, although she noted that there is an inappropriate understanding as to how quickly authorities and groups can be expected to respond: everywhere in Somerset needed

<sup>49.</sup> Dr Deeming, op cit.

<sup>50.</sup> The policy of not, or no longer, employing hard flood defences to protect an area.

<sup>51.</sup> Heather Shepherd, op cit.

<sup>52.</sup> Dr Deeming, op cit.

<sup>53.</sup> Martyn Alvey, op cit.

sandbags the same day, for example. Volunteers were the main helpers, trying to support many of those affected, but were limited in their practical capabilities. "There are things they [volunteers] can do that the authorities can't and there are things that authorities can do that they [volunteers] can't do as well".<sup>54</sup> Both the limits and potential of volunteers and community groups therefore need to be recognised in any proposed policy measures.

The capacity of local councils is also highly variable. In her role with the National Flood Forum, Heather Shepherd works with many different local councils, some of which she recognized as being very good. She gave the example of Surrey County Council whose approach she summarised as being "hands up we don't understand this but we want to help".55 Somerset Council, on the other hand, has proven to be a little harder to encourage: "we cannot get it to be active".56 Between councils there is a disparity in the way responsibilities are allocated between councils (public) and insurance (private). One council, for example, provided skips in order to quickly clear houses of debris and damaged items, something that insurers would normally provide. Another good example of unknown responsibility is the closure of roads. It is unclear who is responsible and who can give the final word to close a road in when the situation is ambiguous. In some situations communities do it themselves to avoid bow waves from cars driving on flooded roads, which can often cause flooding of houses next to roads. As one newspaper interviewee in Somerset noted, "Our neighbours have been wonderful but we just have not seen the Environment Agency" (Rowe, 2014). This organisational ambiguity exists in all aspects of flood response, including displacement.

Overall, interviewee Heather Shepherd feels that the current support mechanisms for flood related displacements are inadequate. There is clearly a need to share experiences between councils (something that the Defra pathfinder project is attempting to do). In addition, councils seem to be generally better at emergency plans than mid to long-term displacement support. Innovative methods, such as meeting in flooded people's houses have been used to try to bring authorities and communities together in a non-contentious way. The community sets the agenda and venue, with the focus firmly on finding sustainable solutions for the future.<sup>57</sup> People displaced by flooding are often fearful of recurring floods, however at the same time, do not like plans for future pre-emptive action to be made top-down with no consultation. There is therefore a need for people to make a vision for their own community (such as the creation of a community flood group or a neighbourhood action plan), which could also act to mitigate future assignment of blame, an issue mentioned by several of the interviewees. For Ms Shepherd, the solution is to set up a core local group that would communicate with the wider community to identify the key issues at stake when a flood occurs. Furthermore, one of the strategic outcomes of the Pitt Review highlighted the need for collaboration of flood risk management communities, authorities, as well as different government departments. There is clearly room for improvement regarding the support mechanisms for those displaced by flooding, most notably for mid to long-term displacement.

#### **5.2. Defra pathfinder**

In his role as Community Flood Resilience Manager, Mr Alvey is employed by Cornwall County Council as part of a flood resilience pathfinder initiated by Defra

<sup>54.</sup> Gill Slattery, op cit.

<sup>55.</sup> Heather Shepherd, op cit.

<sup>56.</sup> Gill Slattery, op cit.

<sup>57.</sup> Heather Shepherd, op cit.

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(Department of Environment, Food and Rural Affairs). This is a sharing process in which 13 case studies (or 'pathfinders') will be brought together by Collingwood Environmental Planning to share best practices, and ultimately give training to community flood wardens.<sup>58</sup> Policy therefore seems to concentrate on improving resilience to flooding rather than recovery, although work is being done to encourage active community engagement, which will undoubtedly help the post-flood recovery process indirectly. Mr Alvey talked about "helping people to help themselves" and "making themselves more resilient". This reflects the views of other experts interviewed that future policy cannot be purely top-down in nature. It is only through a truly interactive process with local communities that real progress can be made. Part of the pathfinder will involve piloting 'Household Action Plans' for example, bringing resilience action right down to the household level. These may be a way to address the fact that 40% of the most at risk households didn't know what to do or who to contact in the case of a flood.<sup>59</sup> Dr Deeming mentioned local resilience forums where the Environment Agency is directly engaging with communities. This is a long-term process that, as he put it, can be "quite bloody at the start".

It is hoped that Defra's pathfinder project can go some way towards addressing the concern of community engagement, while also possibly overcoming what Dr Deeming calls a glass floor and a glass ceiling. For him the barrier works both ways; both communities and authorities can see what the other is doing but neither can influence the other. It is essential to break down these existing barriers and promote cooperation between communities and authorities.

#### 5.3. Looking forward

The Southern England winter floods are said to be the worst floods in the United Kingdom since 1947 (The Economist, 2014) but, as the interview with Dr Deeming revealed, there weren't many floods in between then and 1998. Professor Stuart Lane has documented this pattern in his theory of flood-rich and flood-poor periods (Durham University, 2008). One consequence of such a 'flood-poor' period is that people simply forgot about flooding as an issue, reducing community resilience to flooding in the United Kingdom. In light of this, one positive result of the flooding over recent years is that this trend is being reversed and communities' awareness of flood hazard is increasing. Indeed other interviewees mentioned the value of the widespread media coverage of the winter flooding in this respect.

Unfortunately, being displaced over the mid to long-term is often not a "sensational and dramatic story" for those who are not living it<sup>60</sup> and flood related displacement rarely receives media attention after evacuation or rescue. As Dr Deeming put it, the "media don't *do* recovery", recovery is not "blue lights and waders".<sup>61</sup> The media does have an important role to play in raising flood awareness more generally however. For Cornwall the dramatic Boscastle flash flood in 2004 was a turning point. Although this was a unique event, it was the worst flood in many had ever seen and was later confirmed to be one of the most extreme floods ever experienced in the United Kingdom. It served as a timely reminder of flood risk in Cornwall, and the United Kingdom more widely. This supports Dr Deeming's theory about the loss of community resilience over the period of relatively fewer floods.

<sup>58.</sup> Community Flood Wardens are volunteers in the local community who help to prepare their community for flooding and are nominated to receive flood risk information and warnings from the Environment Agency. .

<sup>59.</sup> The message said: "Flood danger imminent. Please evacuate to [North Petherton]".

<sup>60.</sup> Heather Shepherd, op cit.

<sup>61.</sup> Dr Deeming, op cit.

Photo 6. Flooding on the Somerset Levels (Taken by P. Hipwell, Feb 2014)



"Strong concentrated media attention means that the government starts throwing money at the area, which means that others tend to lose out and don't get the help and support they need".<sup>62</sup> For the 2013/2014 winter floods the response was strongly focused on hard engineering solutions and pumping on the Somerset Levels. Indeed, of the £10 million pledged for Somerset, half has already been spent on pumping in the biggest-ever mobile pumping project in Europe.<sup>63</sup> The media holds politicians to account in the first instance, however Mr Alvey highlighted the challenge of announcements made by high-level (national) politicians keen to take the opportunity to enhance their political capital. The announcements made by Prime Minister David Cameron are an excellent example: "nothing is more important than dealing with these floods" and "in recovering from these floods money is no object" (Dunt, 2014a). However, "the devil is in the detail"<sup>64</sup> and County Councils rarely see the money promised in these instances.

Almost all interviewees mentioned the extent of the attention; however any attention can have mixed consequences. For FLAG the attention has been "on the whole pretty positive", with the flooding exposing the budget cuts which had led to the lack of maintenance of flood defences. In Cornwall the 2014 Valentine's Day flood in Porthleven raised yet another challenge. Having seen dramatic scenes on the news, sightseers flocked to the affected places, blocking roads for essential services as well as putting themselves in danger. For Somerset, the message went out that the area needed money to recover, particularly for dredging and flood defence reconstruction, but the negative media attention led people to believe that businesses were closed, impacting pubs and tourism related industries.

Finally, equity issues also need to be considered when looking at the impact of displacement, given the contention that, in the United Kingdom, "poor communities

<sup>62.</sup> Heather Shepherd, op cit.

<sup>63.</sup> Gill Slattery, op cit.

<sup>64.</sup> Martyn Alvey, op cit.

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are 3.5 times more likely to be flooded than richer ones" (Dunt, 2014b). More research is needed as to whether such communities suffer from a greater than average lack of flood insurance. These issues of equity also extend to reporting and the winter floods would suggest a reporting difference between the North and South of England. At the beginning of December 400 properties were flooded in a deprived area (Boston in Lincolnshire) with 200 residents in temporary accommodation, according to a BBC news article (BBC England, 2014). There was very little media coverage; perhaps partly due to the death of Nelson Mandela which dominated the headlines, yet far fewer properties being flooded on the Somerset Levels received disproportionate media coverage. At the end of April 2014, only a few months later, the media has almost entirely stopped coverage of the floods, even though water is only now receding in many places. As Dr Deeming noted, although the floods in Hull (Northern England) affected 8,000 people, it has now been dubbed the "forgotten city". It will be interesting to observe if the same occurs for Southern England, a relatively wealthy region compared to the rest of the country.

"Given the overall volume of run-off, the amount of property flooding at the national scale was relatively modest; a tribute to the general effectiveness of flood defences" (Met Office & CEH, 2014). This analysis would indicate that although flooding may increase in the future, the relationship between increased flooding and increased displacement is not necessarily linear. This finding is comforting given the conclusion, within the same report, that the floods were linked to climate change, and that flooding will likely increase in the United Kingdom in the context of climate change. This is important for considerations of displacement impacts, given that the cost of flood insurance will likely increase, even if the government continues to ensure its availability. Interestingly, however, the majority of the interviewees did not see climate change as an issue for future flooding; rather, they saw it as an opportunity for national politicians to shift blame away from themselves. This mind-set, which seems generally pervasive, will undoubtedly influence property investment decisions in the future.

#### 6. CONCLUSION

Overall, policy has moved from reactionary to attempts to improve community resilience and limit future displacement by flooding through the reduction of both risk and vulnerability. A stalemate has been reached, however, with regards to longerterm solutions. The relatively high population density in the United Kingdom and continuing demand for housing, in a country with high rates of home ownership, means that the economic forces will continue to lead to construction on flood plains. Displacement as a result of floods will therefore continue to be an issue.

Whilst the focus on community resilience to floods will help reduce impacts overall, it is important that response mechanisms also be put in place to help people affected by the mid to long-term impacts of displacement. The greatest impact on displaced people is psychological given the huge implications for everyday life and the fast-paced busy style of modern living in the United Kingdom. Councils have shown themselves to be generally well prepared for emergency situations, but less so for the impacts of displacement beyond evacuation and rescue. Councils should actively maintain contact with those displaced by flooding up to a year following their reinstatement to ensure people are able to cope. The first step in this process would be to make sure that data is collected routinely by all councils as to the households who have been displaced and where they are. The lack of accurate data relating to flood displacement is somewhat surprising given that this is the biggest natural hazard the United Kingdom faces and the fact that the structures and institutions already exist to collect this data. When framing this case study the question: "resilient communities or 're-traumatisation by bureaucracy'" was asked. In fact, this study has perhaps shown that one doesn't exclude the other. Community resilience is increasing as United Kingdom flood policy seeks to implement resilience measures to enable better preparation prior to flood events and hence reduce the impact of displacement by flooding when it happens. Yet the longer-term challenges linked to flood-related displacement, symbolised by the concept of "re-traumatisation by bureaucracy", are on-going and will not disappear without a concerted effort on the side of authorities to ensure that mechanisms are in place to ensure long-term support of those displaced. ◆ EUROPE

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