Disaster Recovery Case Studies
UK Floods 2007

In cooperation with
Centre for Risk Studies
UNIVERSITY OF CAMBRIDGE Judge Business School
2007: The UK Floods

Introductory Commentary
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The important role of (re)insurance in the speed of physical and economic recovery after a major disaster, especially when there is little to no coverage due to unavailability, insufficient capacity or lack of take up (predominantly because of economic reasons), has not really been studied in detail. The (re)insurance industry tends to focus on the potential for future events and events in the immediate past. However, there is a need for a deeper understanding of the aftermath of disasters over a longer time frame, as well as an understanding of the impact that insurance penetration has on the pace of economic recovery.

Working with Cambridge Centre for Risk Studies at the University of Cambridge Judge Business School (CCRS) we have been examining more than 100 catastrophes across the world over a three-year timeline to compare and contrast outcomes and establish conclusions and recommendations. Our original plan was to have one consolidated report released in 2020 but the case studies (this one covers 2007 UK Floods) produced by CCRS were so interesting and of such quality we thought it would be beneficial to share these as they became available. CCRS will still issue a consolidated report in April 2020. We intend to make available publicly all of the detailed work in an open source database and also to establish a template to study future catastrophes in a structured way.

Our aim is for this work to be used as a tool by policymakers and governments worldwide when evaluating disaster preparedness and seeking to fully understand, from the lessons learned by others, the impact of displacement of populations; increasing personal debt levels; change in economic mix of industry; political upheaval and overall time to recover, among other things.

We also want to explain the marginal increased cost in relation to the value of rebuilding with resilience - what we call “building back better” - over and above the cost of replacement. The (re)insurance industry needs to provide extra limit and contractual stipulations for “building back better” to minimize the impact of future disasters.

Intuitively, we know the speed and scale of protection the (re)insurance industry provides dramatically reduces the recovery time for communities which have suffered through extreme catastrophes. However, we believe that it is imperative that this be demonstrated in more detail with evidence and placed in front of the right people to effect change – particularly governments.

We are starting to see good progress in terms of the increased role of governments in closing the gap between economic loss and insured loss – since we started these papers we have seen the FEMA program in the US placed in the market for the first time; Flood Re in the UK become fully operational and most recently the California Wildfire Fund established by the State of California and managed by the California Earthquake Authority (CEA), at least initially.

We are encouraged by this and will continue to support these initiatives with reinsurance and by sharing our findings from studies such as these.

The views, findings and opinions in this case study are those of the researchers at CCRS and not necessarily those of AXA XL. Notwithstanding this, we are proud to be associated with this project and are sure that by gaining a greater level of understanding, we will all entirety develop more catastrophe reinsurance solutions and, more importantly, show the world the true value and social benefit of (re)insurance.

AXA XL is the Property & Casualty and Specialty division of AXA Group: providing products and services through four business groups: AXA XL Insurance, AXA XL Reinsurance, AXA XL Art & Lifestyle and AXA XL Risk Consulting.

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or
Abstract

In the late spring and early summer of 2007, the United Kingdom experienced record rainfall to produce extreme and extensive flooding across the nation. Three distinct flood events occurred between 13th–15th June in Scotland, East Yorkshire, and the Midlands; on 24th and 25th June in Yorkshire and the Midlands; and on 20th July in the south Midlands and South Wales. The prominence of flash flooding in urbanised areas, rather than river flooding, was notable. This case study examines the impacts of the floods in the UK – a high-income economy with relatively high non-life insurance penetration - and the subsequent socioeconomic recovery. Particular attention is given to South Yorkshire, which was among the worst affected regions and so was the location of supportive fieldwork conducted in 2019. The total economic loss was approximately £4 billion of which £3.2 billion related to impacts on residential and commercial properties. The UK is rare in a global context in that flood insurance penetration is high, and insured losses were reported to be about £3 billion, illustrating the significance of the insurance industry in financing the recovery effort. Managing the disaster on a national scale was complex, and immediate response efforts, coordinated by the central government, the Environment Agency, and emergency services, were generally deemed ineffective and insufficiently resourced. While the macroeconomic impact was negligible and economic activity recovered within one year, in part thanks to comprehensive business insurance, the social recovery was slower. Most of the displaced population had returned to their homes within two years, but some localised regions took further years to return to normal.

The extreme magnitude of the event highlighted severe deficiencies in the state of flood risk in the UK, provoking an extensive and radical policy review of flood risk management, the resilience and vulnerability of critical infrastructure, and the response to, and planning and recovery phases of, flood events. The review emphasised the growing risk of flooding in response to human development and climate change, and prompted numerous legislative changes, representing an improvement in the state of resilience to floods. However, despite such improvements, flooding remains a significant and growing risk in the UK, and so requires further concerted efforts to reduce vulnerability and increase resilience. The insurance industry has an important role to play in ‘building back better’, to adequately price the risk and encourage policyholders to engage in precautionary measures.

Section 1: Event Context

Hazard Characteristics

Between May and July 2007, the UK experienced 414 mm of rain, unprecedented in the historical record since 1776 (Figure 1).1 The amount of heavy rain and the length of time it lasted were exceptional, and some areas inundated with a month’s worth of rain in 24 hours. Once the ground became saturated by mid–June, future downpours rapidly resulted in localised river flooding, while urban areas experienced extensive and severe flash flooding where gutters and drains were unable to cope.

Between 13th to 15th June, Yorkshire suffered heavy rain and experienced widespread flooding; flash floods occurred in Hull and the East Riding of Yorkshire where drainage infrastructure was inadequate to cope with the volume of water and systems became overloaded. The River Don burst its banks causing widespread flooding in Sheffield. On 24th to 25th June, heavy rainfall affected Yorkshire, Humberside, Lincolnshire, Derbyshire, and Worcestershire. Parts of the North York Moors and South Pennines experienced four times the average rainfall in June.

The second wave of extreme rain occurred on 20th July, centred on the south Midlands, including Gloucestershire, Herefordshire, Worcestershire, Oxfordshire, Berkshire, and South Wales. Four times the July average rainfall fell locally in the south Midlands.2 Widespread fluvial flooding occurred along the River Severn, and Tewkesbury, located at the convergence of the rivers Avon and Severn, was particularly severely affected. During the flooding, water entered Tewkesbury Abbey for the first time in 247 years. Further localised heavy rain caused flooding in various areas across the UK throughout the early summer. This report will subsequently refer to this period of flooding collectively as the 2007 flood event.

Socioeconomic Context

The UK a highly developed nation and has a market-oriented and service-dominated economy. GDP was growing at a rate of 2.4% in 2007.3 The country is governed as a parliamentary democracy under a constitutional monarchy. The UK government’s Department for Environmental, Food & Rural Affairs (DEFRA) is the principal operating authority with general oversight over flood risk, with a primary focus on main riverways and the sea, and coordinates large scale (regional to national) scale flood events. DEFRA sponsors the Environment Agency, a non-departmental public body with responsibilities relating to flood risk management. Local Authorities manage localised flood risk from smaller watercourses, surface water, groundwater, and coastal erosion. Flood recovery is coordinated by Ministry of Housing, Communities & Local Government (formerly the Department for Communities and Local Government).

Risk Landscape

Flooding is the most significant and expensive disaster risk in the UK, and localised river and urban flooding occurs frequently, particularly during the winter. Flood risk is increasing over time as a result of climate change and human development, as population growth drives extensive building on flood plains despite a comprehensive understanding of the hazard posed. The building of residential

and commercial property on flood plains is increasing the number and value of exposed assets, and so ultimately the cost of flooding has increased in recent decades. In 2005 it was estimated that 2 million properties built along rivers, estuaries and coasts in the UK were at risk of flooding. In the lead up to the 2007 floods there was very low awareness of flood risk in the UK. Few houses had signed up for flood warnings and some households did not realise that they were living in extremely high-risk areas. This meant that the dramatic impact of the flooding was unexpected and unprepared for. In 2009, the Environment Agency warned that investment in flood and coastal risk management must be doubled to over £1 billion per year (plus inflation) by 2035 in order to build and maintain new and existing protection assets, and prevent an increase of 60% in the cost of flooding.\(^4\)

Research Approach
The Cambridge Centre for Risk Studies conducted extensive research into the impacts of the 2007 floods and the characteristics of flood recovery. This research comprised of a desk study and fieldwork in 2019. Expert opinion was gathered using an internet-based survey of 193 people who were involved in the disaster recovery process. The response rate was high at 14% and offers an expert opinion on the recovery process following the 2007 floods.

A form of the survey was also used with residents of Catcliffe, a village located on the River Rother in South Yorkshire, four kilometres from the town of Rotherham and seven kilometres from Sheffield. Catcliffe was severely flooded in 2000 and again in 2007. In 2007, 700 people were evacuated from the village because there were concerns that cracks in the Ulley reservoir would cause the dam to fail. Catcliffe residents therefore offer an important perspective on the impacts of large-scale flood events and the controls on recovery, and provide an insight into the state of risk awareness and understanding. To date, 28 people have responded to the internet survey.

This case study offers important insights into the impact of a large-scale flood event on a community that was on the ‘front line’ of the disaster and offers a representative sample of recovery from a significantly impacted state. Although the case study focuses on a specific community, findings can be understood to be representative of experiences of many people who were significantly impacted by the 2007 flood event, although it is acknowledged that the characteristics of recovery differ across communities depending on a variety of controlling factors.

Physical Impacts
The floods of 2007 caused widespread damage to critical infrastructure and the residential and commercial building stock in the UK. In total, the floods affected 55,000 buildings. This included 48,500 homes, which each cost between £20,000 and £30,000 to repair. Yorkshire and Humberside were the most severely affected regions with 23,479 houses flooded and 3,718 businesses flooded. Nationally, the cost to repair flooded businesses ranged from £75,000 and £112,000.\(^5\) The impacts of the flood on the building stock were spatially disparate, and although some houses were severely affected, others in exposed areas were not. The differing levels of damage highlighted social inequalities as poorer areas generally sustained the highest levels of damage. Our survey of experts suggests that housing was more severely affected than the local economy (Figure 2).

Transportation links were disrupted, leaving 10,000 people stranded in their cars in Gloucester. The M1 motorway around Sheffield was disrupted due to concerns about the stability of a reservoir embankment. There were landslips and flooding on the railway lines, interrupting train connections.
Social Impacts
Over one million people were affected by the floods. 13 people died and hundreds of people were rescued from their homes in South and East Yorkshire, Humberside, and Gloucestershire. 30,000 people were displaced due to the flooding and 62% of flooded households had to move out of their homes while repairs were done. Some people who were affected by the floods are reportedly still suffering from long-term psychological impacts.

Economic Impacts
The total economic costs of the 2007 floods were estimated at approximately £2.12 billion. Of this, residential property flooded assets. Through modelling the flood footprint - a novel method presented in the work that measures the total economic impact directly and indirectly caused to the productive system - in the Yorkshire and Humber region, Mendoza-Tinoco et al. (2017) estimated that the total economic burden of the floods was £2.7 billion, equivalent to approximately 4% of the region’s gross value added (GVA). Of this value, only 43% of the total costs were suggested to have been directly caused by the floods, and 57% came from knock-on effects during the recovery, generated by disrupted labour and capital productivity that exacerbate the initial losses of flooded assets.

Success of Disaster Management
The response to the 2007 floods was a combined effort by multiple organising bodies, including DEFRA and the Environment Agency at a national scale, local authorities, the emergency services, and other non-governmental organisations. The Ministry of Housing, Communities and Local Government coordinated the subsequent recovery. Managing the disaster on a national scale was complex and, in many areas, insufficient. Co-ordination was inadequate and preparation was poor, meaning that many people were left vulnerable to the flood risk and unsupported in the aftermath. Few households had signed up to flood warnings, few understood the division of responsibilities and the response of the water company was defensive. The practical recovery of buildings was far too slow for most and was not well co-ordinated or prioritised by the different agencies involved in building recovery.

In Catcliffe, the focus of our case study, there were mixed feelings about the way that the authorities handled the disaster. The 2007 floods were the most severe in living memory, which meant that preparation was inadequate for an event of this magnitude. However, respondents to our survey felt that the fire brigade and environment agency responded well during the crisis. Those who had been in Sheffield on the night of the floods said that the authorities managed the city centre well and various emergency services communicated effectively with each other.

On the night of the flooding, communication was successful, however a lack of clarity led to problems during the recovery process. Respondents to our survey reported that the recovery of buildings was slow and poorly coordinated. The different agencies involved did not make it clear how work was prioritised and communication from the local authorities was unclear. There were often long delays in finding alternative accommodation and the stress of the process left some people with long-term psychological issues.

Disaster Financing and the Role of Insurance
The Environment Agency estimated that about 63% of the total economic costs were covered by insurance or other forms of compensation, including grant aid to local government. 89% (£1.8 billion) of this compensated sum was accounted for by private insurance, which was therefore the dominant financial source funding recovery. About 75% of the £2.5 billion economic costs incurred by households through damage to property and vehicles, and for temporary accommodation were recovered through insurance. Of the £1 billion in business losses (excluding utilities and transport businesses), 95% were insured, and the £35 million cost of utilities was only 32% refunded by insurance. In some areas, people who did not have flood insurance received money from their local authority, but these payments usually only amounted to a few hundred pounds. The difference between pay-outs was therefore stark. High levels of affluence among many of those affected meant that individuals and communities were able to use their own capital, including savings and loans, to self-finance recovery. The role of funding from NGOs was negligible and there was little funding sourced from beyond the UK to aid in recovery.

The UK is unusual in a global context because flood insurance is widely available and the majority of businesses and households purchase flood insurance. Insurance, along with building control, financial incentives, and tax measures, is recognised as an important instrument in disaster risk reduction and the high level of insurance availability in 2007 meant that the risk of floods to households and businesses was largely transferred. The industry therefore exerted an important control on the speed and quality of disaster recovery.

Section 3: Disaster Management and Resourcing

63% of total economic costs were covered by insurance or other forms of compensation

£1.8b of the compensated sum was accounted for by private insurance

95% of the £1 billion in business losses (excluding utilities and transport) were insured

“In terms of scale, complexity and duration, this is simply the largest peacetime emergency we’ve seen.”

Tim Brain, Chief Constable of Gloucester
Overview

Recovery is defined as a return to normality and an attempt to bring the post-disaster situation to some level of acceptable performance. However, a post-disaster ‘normal’ may not be a return to the same status as before the event, especially if safety and amenity could be improved to enhance resilience and achieve a new normal. Recovery from disaster can therefore be viewed as a process of resilience building, whereby the capacity of a community to spring back after the initial shock of a disaster is increased. Floods can act as catalysts for human adaptation and there is a ‘window of opportunity’ in the early phase of recovery to improve resilience or ‘build back better’. Therefore, although there is a strong imperative to recover quickly and get people back home and business back in operation, a balance must be achieved between speed and enhanced resilience.

Speed of recovery

Following the summer 2007 floods in the UK, the average time taken for regional economies to return to normal was relatively quick (within one year), while the recovery of society - defined by the time taken for displaced people to return home and to resume their normal lives and livelihoods - was somewhat longer. The experts who responded to our online survey reported that it took four years for 90% or more of affected households to return home, compared to three years for businesses and the local economy to return to normal (Figure 3). 12% of the people who were evacuated had to remain away from their homes for six months or more and the housing stock only recovered after 18 months. In contrast, 90% of the people who were displaced by the 2007 floods in Catcliffe reported that they returned to their homes within two years. It took approximately 10 months to move back into their homes, but a further year after that for the area to return to normal.

The economy of the Sheffield-Rotherham area was reported to have recovered comparably quickly, taking eight months to return to normal, and levels of employment returned to pre-flood rates within five months. However, Mendoza-Tinoco et al. (2017) quantitative flood footprint economic analysis suggested that the worst-affected Yorkshire and Humberside region took at least 14 months to return to its pre-disaster situation, achieving economic equilibrium and returning to pre-disaster production levels.

These differences in the reported speed of recovery between experts and residents may result from a difference in perspective. Experts may have been reporting how long they thought it had taken the worst affected families and businesses to recover, while the survey of local residents included people who had only been marginally affected and so had not evacuated.

Section 4: Recovery and Resilience

However, many households that were covered by flood insurance still faced high costs in the wake of the flood. In the UK, flood insurance falls into two broad categories: ‘new for old cover’, in which the insurer pays the value to replace damaged items with new equivalent items; and indemnity cover, where the value of a damaged item is calculated at the time of the loss and that amount is paid out. Further, in Catcliffe, the case study location, some households were faced with costs that were hidden or unaccounted for: One resident spent six months renting an unfurnished property while still making mortgage payments and other costs on a flood-damaged home, and incurred additional expenses associated with living away from their home. Thus, the costs facing householders with full flood insurance were still extremely high. Generally, households that had been affected by the flood were not allowed to begin cleaning up their homes until the insurance company had assessed the damage. This increased the time it took for people to return to their homes after the flood. Therefore, a funding gap remained for those who had purchased insurance as well as those that had not, and in certain cases insurance inhibited recovery.

Having been severely impacted by the flood, insured homeowners in Catcliffe worked closely with insurance companies to recover their homes. Many of the people involved in our case study felt that the insurance sector responded well. However, 63% of respondents thought that the level of funding was inadequate and 19% felt that funding was provided too slowly. Although some elements of the disaster response were successful, the provision of funding was widely criticised. Limited funding for recovery has implications for improving future resilience.

Flood Re: the UK’s Flood Reinsurance Scheme

The availability of insurance in high-risk areas has traditionally been maintained using the premiums of householders in low-risk areas to implicitly subsidise the premiums for those living in higher risk areas. In 2016, this relationship was made more explicit through the introduction of Flood Re, a not-for-profit reinsurer run and financed by the insurance industry. The system of reinsurance helps households at the highest risk of flooding (about 1-2% of domestic households) by allowing insurers to cede the flood risk part of the policy to Flood Re. In the event of a flood, the insurance company would pay the claim and maintain a relationship with their clients, but would then be able to seek reimbursement from Flood Re. Ultimately, Flood Re aims to ‘ensure the availability and affordability of flood insurance, without placing unsustainable costs on wider policyholders and the taxpayer’.14

Funding for Flood Re primarily comes from insurance premiums and a levy that is paid by insurers at a rate that is set according to their market share. The levy is deliberately set to be equivalent to the implicit subsidy that already occurs across premium payments. In total this amounts to £180 million each year for the first five years, after which it will be subject to a review.

The goal is for the levy taper off by 2040 and be covered by surplus from insurance premiums, however questions have been raised about how realistic this is. The scheme was devised without accounting for the impact of climate change on increasing flood risk. This means that the number of properties at moderate and high risk has been significantly underestimated. The Flood Re scheme has also been criticised because it does not encourage property owners to take flood mitigation measures themselves, such as the installation of flood doors, WC non-return valves, or elevating electric sockets.15

Figure 3: Speed of recovery of housing and the economy (Cambridge Centre for Risk Studies survey of UK flood experts)
In general, the vast majority of affected businesses were insured (95% of all affected businesses). The relatively fast rate of economic recovery suggests that more comprehensive levels of insurance enabled businesses to re-open quickly and help to stabilise the economy. Infrastructure and non-domestic buildings were largely repaired within 12 months. 54% of the experts interviewed felt that insurance reduced recovery time by six months to one year.

Although these results are broadly representative of the situation, recovery was varied between differently affected areas with contrasting socioeconomic characteristics.

Quality of Recovery

As discussed, a return to ‘normal’ may be undesirable if the quality of a system could be improved to enhance resilience. Floods can act as catalysts for human change and there is a ‘window of opportunity’ in the early phase of recovery to improve resilience or ‘build back better’. The ‘window of opportunity’ for accomplishing post-disaster improvements is narrow, in many cases lasting for just 18–36 months after an event. Within this period, governments are required to manage a disaster and restore functionality of critical infrastructure, and there is no alternative land available.

The 2007 floods were described as a ‘game changer’ in the UK, as they highlighted severe deficiencies in the state of flood risk management, vulnerability of critical infrastructure, and the response to, and planning and recovery phases of, flood events. This triggered an extensive and radical policy review; the government appointed Sir Michael Pitt as an independent chair to assess the country’s preparedness for, and response to, extreme weather events, in the context of increasing frequent and severe hazards forced by climate change. The final report, titled the ‘Pitt Review: Lessons learned from the 2007 floods’, was published in 2008. The window of opportunity’ for accomplishing post-disaster improvements is narrow, in many cases lasting for just 18–36 months after an event. Within this period, governments are required to manage a disaster and restore functionality of critical systems, and so issues relating to an event are pushed high up the policy agenda.

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A call for tighter building regulations in flood prone areas was critical. In spite of this, houses are still being built on flood plains and the UK Environment Agency lacks the power to veto these extremely high-risk building plans. The openness that Pitt called for in the property sector has also not been achieved, and even the most detailed housing surveys only provide basic information about flood risk. In addition to this, hard edge flood mapping creates an unrealistic picture of flood risk. In addition to this, hard edge flood risk and ignores the risk outside the designated flood plains.

The greatest test to the new initiatives came in 2015 when the UK experienced another significant flood event. The floods in 2015 were caused by Storm Desmond, which broke the UK record for floods and the UK Environment Agency was in the process of updating the UK’s long-term strategy for flood resilience in the UK.

In 2015, the number of homes at risk of flooding was estimated to be 5.5 million, which equates to approximately 1 in 6 properties in the UK.23 With the rapid onset of climate change increasing the frequency and severity of flooding in the UK, the overall cost of major flood events is expected to continue to rise, and the number of people and assets impacted will only increase. In 2019, the Environment Agency is in the process of updating the UK’s long-term strategy for flood and coastal risk and resilience.24 As well as investing £1 billion per year on traditional flood defences, this new policy recognises that it is not possible to win a ‘war against water’ by building higher flood defences. The new policy therefore acknowledges that other, broader societal resilience measures incorporated in the ‘Making Space for Water’ initiative25 must be central to the strategy to address increasing flood risk. For example, some communities pose such a high flood risk that in the future they may need to be relocated, although significant challenges will undoubtedly hinder this process, not least opposition by the at-risk households being asked to move.

Recovery Outcomes: Successes and Failures

Despite criticism raised in the Pitt Review concerning the state of preparedness for major floods and deficient organisational structures, the emergency services and Environment Agency responded swiftly when the flooding occurred and were largely praised. Communications with the public in the immediate aftermath of the floods were effective, supported by careful reporting in the media. Efficient evacuation saved numerous lives, and the community response was admirable. Recovery was generally completed within several years, and the quality of recovery was considered as local authorities worked to build community resilience. Flood insurance penetration is high in the UK and so a large proportion of residential and business losses could be recovered. The insurance sector therefore played an important role in financing the recovery effort and responded rapidly to the disaster. Home insurance pay-outs dramatically helped with the recovery effort, although the large scale and magnitude of the disaster led to delays to visit and release funds for repairs to flooded properties, meaning that some people were displaced for extended periods of time.

The Pitt Review represented an acceptance of widespread failures in flood risk management. The state was not sufficiently resourced to deal with the severity of flooding across multiple regions affected within a short period. There was little preparation to protect critical infrastructure from floods, resulting in utility outages and disruption to economic activities, which exacerbated the impacts and inhibited recovery. Coordination and preparation between the authorities and flood-impacted residents was poor and few households had signed up for flood warnings. However, the subsequent response to recommended improvements represented a dramatic advance in the state of resilience as the majority of suggested improvements were acted upon.

Scientific understanding of the hazard, preparedness measures (including early warning systems, cooperative disaster management plans, and community and household level readiness), and mitigation strategies have all developed, representing a largely reformatory recovery.

Considerations for the Insurance Sector

The continued availability of domestic flood insurance at a reasonable cost has been under pressure for some years. Following an increase in the number and severity of flood events, insurers can either continue to face repeated large claims from a minority of claimants or exclude hazardous areas with a high probability of flooding. Flood Re is the current UK approach to deal with the issue that some homes are at such a high risk of flood that they are uninsurable. However, in the context of increasingly frequent and severe hazard events caused by climate change, it remains unclear if this approach is a sustainable solution. The levy will taper off and cease by 204026 and Flood Re does nothing to encourage property owners to take flood mitigation measures.22 Could the insurance sector play a bigger role in ‘building back better’? Risk reflective insurance premium pricing can encourage engagement with mitigation measures, for example through insurance discounts once the measures are installed.26 However, as yet, insurance companies do little to encourage precautionary measures.21
The flooding that struck the UK in 2007 was unprecedented. The state was unprepared to face a crisis that impacted both the north and south of the country with equal severity and affected over one million people. The residential and commercial building stock faced a high level of damage, with 55,000 buildings impacted by the flood, and damage to infrastructure left thousands of people without water or electricity for extended periods of time.

Transportation links were severed with roads and railway lines damaged by floodwater and blocked by debris. The social impacts were wide ranging and 30,000 people were displaced due to the severity of the flooding. 13 people were killed, and hundreds required rescue during the disaster. The 2007 floods cost the economy £4 billion.

The majority of the funding for flood recovery came from insurance companies. Insurance penetration is unusually high in the UK because it is automatically included in most insurance products. Homeowners paid £1.2 billion of which 75% was insured. There was a dramatic gap in the funding available to those households that had insurance and the government aid that was offered to those who were uninsured. Insurance companies mainly replaced like for like and experts who were interviewed for this work felt that the insurance companies helped to reduce recovery time by a year.

In the aftermath of the flood regulation changes were brought in to improve future resilience to flooding. The Pitt Review was completed in 2008 and offered a comprehensive set of recommendations to ensure that the risk of future floods could be managed more effectively. The majority of these recommendations were incorporated into new legislation in the Flood and Water Management Act, 2010. Although many of these recommendations were implemented in the UK, changes took time and the quality of recovery was still lacking in many areas five years after the floods.

Opportunities were missed to build back better following the 2007 flooding. Insurance companies replaced ‘like for like’ which left little opportunity to improve resilience to future flooding. New legislation that was based on the Pitt Review relied heavily on the proactive involvement of local government, however comprehensive budget cuts have left local authorities unable to enact all the recommendations due to lack of funding or expertise.

Subsequent flooding in 2015 caused catastrophic damage, highlighting the failures that remain in flood management systems in the UK. Recovery in 2015 was even slower than it had been in 2007 and was held up by the time it took insurance companies to assess damage and approve insurance claims. The insurance sector has a large role to play in flood recovery in the UK and therefore efforts need to be made to decrease reaction times in the aftermath of a natural disaster. Investments must also be made in order to build back better and ensure that measures are taken to reduce the catastrophic impact of future flooding in the UK.


Section 6: Key Findings

The insurance sector has a large role to play in flood recovery in the UK and therefore efforts need to be made to decrease reaction times in the aftermath of a natural disaster.

Section 7: References
Acknowledgements

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