

APPENDIX E. CONSULTATIONS: POLICY ENGAGEMENT AND LOCAL CASE STUDIES

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E.1 Policy engagement

Engagement with policy leads in England, Wales, Scotland and Northern Ireland took place to discuss the role of social justice in current policy approaches to flood risk management (FRM) across the different countries and the anticipated direction of travel in the future (Table D-1).

Table D-1 Policy meetings

Where	When	Attendees
England	02/06/2016	Defra and the Environment Agency
Northern Ireland	05/09/2016	Northern Ireland Government and the Rivers Agency
Scotland	01/06/2016	Scottish Government, SEPA and Scottish Flood Forum
Wales	04/07/2016	Welsh Government

A summary of the findings from the discussions, and subsequent review comments, is given below.

E.1.1 Current understanding of social justice within FRM policy

Discussion points

What is your current understanding of:

- The role of social justice in FRM policy development? Are there specific examples where the consideration of social justice has modified policy?
- Geographic flood disadvantage - Is it an issue? What are the drivers? Where are the hot spots?
- Systemic flood disadvantage - Is it considered an issue? How is it addressed in policy and practice if all?
- The relative priority given to addressing issues in the most vulnerable communities?
- The political desire/feasibility of embedding social justice more centrally into future FRM policy?

All the policy leads interviewed noted that in recent years the focus has been moving from the construction of defences towards thinking about how FRM fits into the wider social and environmental picture. The legacy of embedded practice and pre-existing assets is still strong but there is a consensus that it is becoming less so as successive governments move towards bringing FRM into wider policy, towards a more resilience-based understanding. However, a representative from Defra pointed out that there is still a political appetite for language around *protection* as this is what communities want to hear.

Each country is currently at a different stage along this process. Discussions in each country highlighted that there is still a long way to go as there is not always a desire to put social justice at the heart of policy. For example, it was originally suggested to exclude Council Tax Band H homes (which includes large riverside houses) from the recently instated Flood Re (which reduces premiums for those at highest risk who might otherwise find insurance unaffordable), but this idea was abandoned. Flood Re said of this decision:

'The decision to exclude Band H homes was originally taken by Ministers who felt it unfair that lower income flood risk households should subsidise higher income households. However, of course, the impact of a flood can be no less devastating for Band H and I homes and we welcome their inclusion in Flood Re.'

Council tax bandings can be seen as a proxy for income variation with higher bands associated with higher income households and while there are some low-income households in all council tax bands (e.g. some households may be asset rich but have low incomes) there are far more lower income households in the lower bands.

England

Representatives from Defra described how an ‘enhanced rate of payment for deprived areas’ was introduced five years ago (in the FDGiA process), but expressed that the flexibility of national policies needs to be increased so that local authorities have the power to deal with local distinctions. This is discussed further in the main report.

Northern Ireland

The need to specifically target the most vulnerable appears to be least developed in Northern Ireland, where FRM plans are principally focused on areas most at risk of flooding. Policy leads remarked that *‘social justice is not seen as a layer for special consideration in their development’*.

Scotland

The Scottish Government representatives set out how the concept of sustainable FRM is promoted in Scotland; noting it looks at how to best deliver FRM in other ways than just large capital schemes. However, they believe that:

‘there is room for improvement in terms of social justice – the development of current policy began around 12 years ago and although it is difficult to say that social justice was considered at this time, the process is constantly being reviewed.’

In delivery, SEPA’s approach to FRM is underpinned by the Flood Risk Management (Scotland) Act 2009. This Act calls for the preparation of a National Flood Risk Assessment (NFRA) to provide a strategic-level overview of flood risk across Scotland and identify the areas at most significant flood risk (Potentially Vulnerable Areas, PVAs), where FRM actions will be targeted – although this focuses on a combined measure of risk and not a separate measure of the vulnerability of those that live there. Objectives to manage flood risk are set for individual PVAs and at the national scale, and actions to meet those objectives are appraised to determine the most sustainable combination of actions.

SEPA’s National Flood Risk Assessment (NFRA) was published for the first time in 2011. This assessment used a grid-based approach to identify areas of high risk based on a combination of different aspects of social vulnerability. There were two criteria which represented aspects of social vulnerability which fed into the overall risk grid. The NFRA made use of the Social Flood Vulnerability Index (SFVI) (Tapsell *et al.*, 2002) which was developed as a means of measuring the impacts that flooding can have on a community and used social characteristics and financial deprivation indices. The NFRA also used information on the number and type of community services located in the floodplain. For the prioritisation of flood protection schemes and studies in the 2015 FRM Strategies, several factors relating to social flood vulnerability were included as non-monetised scores. These included where the average vulnerability (defined by a ‘human health’ metric) score in the area potentially benefitting from an action was identified as greater than the national average, where community facilities or utilities were in the scheme/study target area, where a significant proportion of the community was found to be at risk and where frequent flooding was identified as an issue.

SEPA is now working to update the FRM Strategies and the data that underpins them. The second NFRA is due for publication in 2018 and second FRM Strategies in 2021. In 2015, the Scottish Government commissioned a study to identify those neighbourhoods that are most socially and spatially vulnerable to potential flooding in Scotland. This *Mapping Flood Disadvantage in Scotland* (MFDS) study (Kazmierczak *et al.*, 2015) considers 34 indicators spread across five dimensions of vulnerability: sensitivity, enhanced exposure, ability to prepare, ability to respond and ability to

recover (and built on original work for JRF by Lindley et al 2011). Social vulnerability was combined with information on flood exposure to develop the flood disadvantage dataset at the data zone level. The second NFRA will use the MFDS indicators, updated using the 2011 Census outputs. Further to this, the NFRA will also consider the proportion of the community at risk, the number and type of community facilities and utilities located in the floodplain, the remoteness of communities at risk and the change in risk posed by climate change.

Wales

The Welsh Government explained FRM policy has been transitioning over the last ten years towards a risk management approach. The introduction of the Well-being of Future Generations Act (2015) shifted the focus of all policies to well-being, and this was built on with the introduction of the Environment Act (2016), which outlines the core principles of FRM policy. For example, the Well-being of Future Generations (Wales) Act 2015

‘requires public bodies to carry out sustainable development ... and ... set well-being objectives that contribute to the achievement of well-being goals and to take steps to meet those objectives’.

This is a clear indication that Wales are trying to take social justice issues into account and translates to four objectives in the National Strategy for FCERM in Wales including to reduce the consequences for individuals, communities and businesses, and to prioritise investment in the most at risk communities. These themes are enshrined in WG’s Well-being for Future Generations Act (WFG), and the Taking Wales Forward Well-being objectives and the Welsh FCERM programme has the desire to:

- improve prosperity;
- support a climate resilient society;
- deliver sustainable and resilient infrastructure;
- support safe, cohesive and resilient infrastructure; and
- improve access to secure, safe, efficient and affordable homes.

E.1.2 How are the ‘most vulnerable’ communities defined within existing policy and planning?

Discussion points

Which national and local policies do you see as the main levers for addressing vulnerability?

How successful are these in reducing risk in the most flood disadvantaged areas?

As mentioned above, the introduction of the Well-being of Future Generations (2015) Act and the Environment Act (2016) have outlined the priorities that all policies in Wales should be working towards.

In Scotland, policy leads explained the need to link national and local policies, noting that the education and housing teams, amongst others, are considered crucial for successfully increasing flood resilience.

In Northern Ireland, policy leads explained how economic efficiency is the main driving force behind FRM plans, and this is unlikely to change in the near future. However, the location of vulnerable groups has been included in emergency response plans (which are more likely to be drawn up at a local scale).

National funding support for defence schemes

Although funding schemes such as the Defra Partnership Funding (England) are starting to try and take social justice issues into consideration, there is still debate around whether this particular example actually benefits the most vulnerable; some suggest that more affluent areas who can more easily raise funds will still be more likely to get defence schemes under these rules.

In Wales, NRW receives 100% GiA and then the Communities at Risk Register is used to allocate funding to Local Authorities, who decide themselves how to spend their budgets. Whilst this does not involve the targeting of the most vulnerable, the impression was that national funding does seem to be reaching the most vulnerable areas; this may be coincidence or because the most vulnerable populations live in the most at risk areas.

Property grant schemes and other approaches that encourage the take-up of receptor level resilience (RLR)

The process here varies across the UK but in general grant schemes and subsidies across the UK are typically only provided in response to flood events and in general not provided on an on-going basis. In Wales, RLR measures are community based, with decisions being made locally about if and where to install them. In Scotland, it is also done at a local level whereby Flood Action Groups are set up and these apply for grants that may be available at any given time (following a flood or to pilot take-up) and develop schemes for the local area. In England, the situation is similar with grants for property level measures typically only provided for short periods or in response to flood events.

Northern Irish government representatives explained that RLP grants are administered by the Rivers Agency; houses that have been flooded multiple times can be granted up to 90% of the installation costs (up to a total of £10,000) of RLP measures. This is only available to homeowners – in rented accommodation, the landlord needs to implement the measures, leaving tenants potentially unable to help themselves. Additionally, a one-off grant, an ‘inconvenience payment’ of £1500, is available to any flooded household. Government representatives made it clear that this was not supposed to be a replacement for insurance but should be used towards the costs of temporary accommodation, dehumidifiers or the replacement of flood-damaged white goods. This grant is available to homeowners and tenants alike.

Despite the different processes, getting high take-up in more vulnerable areas seems to be a problem across the board, for example getting residents to fill in grant applications without ‘hand-holding’.

FFW - Sign-up to forecasting and warning services

Generally, there is agreement across the UK that forecasting and warning services are not well accessed in the most vulnerable areas. In Scotland, it was commented that take-up is usually far greater in areas that have a local flood group. This does very much depend on actions taken at a local level to encourage sign up. Issues were also mentioned that those without access to a landline, which may exclude them from accessing warning services.

Flood Re/insurance with rent for low income households: Take-up of insurance

Flood Re was introduced for England, Wales and Scotland in April 2016 with premiums modified to reflect council tax banding as a proxy for income. At the moment, insurance very rarely takes into account the presence of RLP measures in a property (although this may be changing-). Prior to Floods Re, insurance penetration for contents amongst lower income groups and those living in rented properties was much lower than for higher income home owners (as discussed in more detailed in Appendix D). At present it is unclear if Flood Re will be successful in increasing penetration.

Community actions

Community responses are hard to quantify on a national scale but NRW have been working to give an on-going overview of community resilience, highlighting ways of implementing sustainable development and of trying to engage with existing community groups to incorporate their ideas.

Scotland have a specific national policy to encourage local communities to build resilience plans (as these are recognised to better support communities if a flood event does happen) but there is not an equivalent to the Pathfinders project in England; policies around community resilience are at local

discretion. The Scottish Government does totally fund the Scottish Flood Forum however, who act in communities during flood-hit areas and encourage the establishment of local flood action groups.

In Northern Ireland, the Rivers Agency does not supply funding to community groups but it does provide information and practical resources such as sand bags, and assists in the development of community and household plans. A representative from the Rivers Agency explained that these local actions by a national organisation are possible due to the small size of Northern Ireland (in comparison to the rest of the UK). He gave his opinion that *'community and social justice work should be viewed as an additional way of managing flood risk rather than an alternative; in five to ten years it may help relieve pressure on the government but this will be a gradual process.'*

E.1.3 What is the 'right' balance between local and national policy?

Discussion points

What role do you see for communities themselves in developing resilience?

Which broader spatial planning policies/ studies influence the way flood risk is managed / will be managed in the most flood disadvantaged areas?

Across the UK, national policies are needed to set the standards of work and encourage resilience measures to be adopted, as well as for implementing large scale schemes. The Shoreline Management Plans are seen as a good example of successful national policy in this regard. However, it was also agreed that it is much more appropriate to implement many smaller scale measures at a much more local scale.

Although Northern Ireland is perhaps somewhat 'behind' regarding bringing social justice concepts into FRM policies, they do have a robust spatial planning policy, resulting in very little new development in flood risk areas (including surface water floodplains). A government representative here explained how, since the introduction of the new planning policy, Planning Policy 15, in 2008/09, policy has been against the development of any floodplain areas (including surface water floodplains), even those that are defended, and that *'hardly anything is being added to the stock of dwellings at high flood risk.'* A representative from the Rivers Agency confirmed that these planning policies also included an element of climate change adaptation on the outlines of the floodplains.

National scale long-term planning

Although national risk assessment is in place in England and Wales (since 1998), Scotland (since 2011) and Northern Ireland, the only example of formal national long-term investment planning for FCERM was in England through the Long-Term Investment Scenarios (LTIS), although Scotland has an internal process of ranking and prioritising expenditure at a national scale.

In Northern Ireland and Wales the process of long-term investment planning is discussed in less formal terms. In Wales, for example, the Communities at Risk register is used to allocate funding to Local Authorities but then there is no formal guidance regarding how and where the LAs then spend their budgets.

The role of regeneration grants as a vehicle for improving flood resilience in flood disadvantaged areas?

The drive for a more integrated action was clear in all countries but it was unclear exactly how this would be supported by policy. For example, although recognised as important it was unclear how city deals/LEPs engagement with flood resilience issues. The Housing White Paper that may improve flood resilience of new developments in England is under consideration (at the time of writing) and may lead to greater integration of flood and planning policy.

SUDs

The use of SUDS as a FRM measure is growing, and there are policies incorporating SUDS across the UK. In England, Local FRM Strategies are required to include SUDS as an element leading to flood probability reduction.

Similarly, in Scotland their Surface Water Management Planning Guidance documents outline how SUDS can be incorporated into many of the potential measures for addressing surface water flooding (Scottish Water *et al.*, 2013).

In Northern Ireland, all new developments (including those not in a floodplain) must include SUDS; this is to attempt to manage the source of flooding rather than just the areas affected. The Water and Sewerage Services Act (Northern Ireland) 2016 (NI, 2016) includes a section on 'sustainable drainage systems' which gives power to NI Water to adopt SUDS that are constructed to a recognised high standard (it will refuse maintenance costs if they are not built sustainably). This is backed up by restrictions on connecting new surface water sewers to the public network.

Finally, in Wales, TAN 15 (Welsh Government, 2004) states that development should not create additional runoff (when compared with the pre-development situation) and encourages the use of SUDS to manage this.

Overall however there is a sense that SUDS are developed as a single issue flood response, and the full benefits of SUDs (offering other co benefits for health and wellbeing) are not always achieved, particularly if grey rather than blue/green SUDS are used.

E.1.4 How does governance influence social justice and FRM policy?

Discussion points

Do you see further devolution of powers/funding as a route for future development of local responses to improve flood resilience?

How are operating authorities (lead local flood authorities, EA, SE, RA, NRW, IDBs etc.) incentivised to preferentially address flood risk in the most vulnerable communities, if at all?

What guidance is given to operating authorities and other local groups involved in flood risk management with regard to addressing risk in the most vulnerable communities?

Operating authorities are not usually incentivised to address issues in the most vulnerable areas, although, local organisations who are familiar with the characteristics of the area are more likely to take this into account, and so it does sometimes happen in practice.

In **England** for example this is explicit through the preferential weighting given to protecting households in 'deprived areas' (20% most deprived by IMD) and support from most policy statements to reduce risk for the most vulnerable.

In **Scotland** the methodology for prioritisation of actions for the second FRM Strategies is still under development but SEPA are looking to improve the approach to better incorporate aspects of sustainability and non-economic factors.

In **Wales**, the FCERM Appraisal Guidance is currently being reviewed but, although reflecting these desires, it is unclear if there will be any specific weighting to ensure investment in the most vulnerable areas.

E.1.5 What plans, if any, exist for changing future policy or practice?

Discussion points

Do you have any plans for future changes in the way flood risk management policy or practice addresses risk in the most vulnerable communities?

If so, what timescale which are attached to changes in policy or practice with regard to the above question?

If not, can you envisage any changes that might be needed but are not yet planned?

Any other comments or thoughts on how to improve resilience?

All the policy meetings expressed the wish to address the needs of vulnerable communities to a greater extent in the future, although the practicality of this varied. In Scotland and Wales, this concept is already well on the way to becoming a reality, whereas in Northern Ireland it was acknowledged that this was unlikely to happen in the near future.

E.1.6 Evidence of policy impact for the most vulnerable

Discussion points

Do you have any documents which record or in other ways explain your policies and practices with regard to managing flood risk in the most vulnerable communities?

What evidence do you have that your efforts are improving the resilience of the most flood disadvantaged communities?

Little quantified evidence was available to confirm the role FRM policy has in reducing risk in the most vulnerable neighbourhoods. Although across the UK the assessment of vulnerability was built into policy making and appraisal, no systematic assessment of the changing risks in the most vulnerability areas was offered. Representatives from England, Wales and Scotland recognised this as a gap.

E.2 Local case studies

E.2.1 Purpose of the local case studies

A series of local case studies have been undertaken to provide insights into:

- **The validity of the national scale analysis:** Does the characterisation of vulnerability based on the Neighbourhood Flood Vulnerability Index (NFVI) and Social Flood Risk Index (SFRI) reflect the local understanding?
- **The quantification of the individual adaptation measures:** What are the additional barriers faced by the most vulnerable in adapting to flood risk under a changing climate?

In all cases, those interviewed recognised the value of the concepts presented here (the NFVI and SFRI) as well as their application. The assessment of those areas exposed to flooding and the NFVI were easily understood and recognised, whereas the integrated measure of SFI was less intuitively recognisable.

E.2.2 Selection of the case study locations

The case study sites were selected based on a combination of (i) existing contacts in the area; (ii) ensuring a geographic distribution across the UK, (iii) suggestions arising from the policy meetings, and (iv) the results of the preliminary national analysis of the risks (see Table E-2).

Table E-2 Selected case studies

Location	Country	Geographic setting				Rationale for selection
		Local Authority	Flood Hazard	Settlement Type	City in Decline	
Carlisle	England	Carlisle District (B)	Fluvial	Urban city and town	No	Recent high-profile floods (in 2005 and 2015) have sparked a lot of attention and action in the area, including the setting up of the Cumbria Floods Partnership and £50m has been granted to the area by the Government.
Boston	England	Boston District (B)	Coastal	Urban city and town	No	Boston District is highest ranked local authority on the SFRI. Severe flooding in 2013 because of a tidal surge which affected much of the east coast of England and Scotland.
Blaenau Gwent	Wales	Blaenau Gwent			No	Areas of high SFRI although no recent floods in the area. The rural nature of the area provides a contrast to the other case studies.

Additionally, this Appendix will also include discussion from York, the case study used by Robotham (2016), a Masters thesis which employed the same method and data used in this study.

E.2.3 Interviewees

Semi-structured interviews were undertaken with a range of stakeholders across the three case study areas (Table E-3). The collective findings from these interviews are discussed below.

Table E-3 Range of stakeholders interviewed

Case study	Carlisle	Blaenau Gwent	Boston	York
Environment Agency/Natural Resources Wales	①	①	①	④
Internal Drainage Boards			①	
Police and fire brigade officers			①	
Lead Local Flood Authority staff	①	②	①	①
Local resilience fora			①	
Community flood groups (if applicable)	①			
Other community groups/volunteers/residents			①	⑥
Media				①
Academia				③

E.2.4 Validity of the national assessment of NFVI and SFRI at local scale

Discussion points

Each interviewee was shown the maps of their area highlighting:

- NFVI of case study location
- NFVI of wider area surrounding case study location
- SFRI of case study location
- SFRI of wider area surrounding case study location

And asked to reflect upon the degree to which the maps reflect their understanding of the vulnerabilities and risks.

Across all the case study locations, the outputs from the NFVI were received favourably, with local representatives acknowledging the patterns of vulnerability shown on the maps broadly agreed with their understanding of local conditions.

For example, in Carlisle a local government representative commented that *‘the districts with higher NFVI levels typically coincide with areas with high proportions of terrace, private rented and ex-council stock housing, and elderly populations.’*

There was more uncertainty surrounding the outputs of the SFRI. In Carlisle and Boston, which have both suffered from flooding recently, interviewees were more unsure about verifying the pattern of flood risk shown by the SFRI where it differed from the extent of recent flood events that they have experienced.

In Blaenau Gwent, local government representatives agreed that the areas shown to be at highest risk *'would indeed flood if the defences were not there'* but expressed the view that the flood risk was exaggerated in the SFRI as there has not been flooding in the area recently. There was also the suggestion that the effectiveness of the flood defences may not have been fully taken into account. A representative from a local water board thought that most of the flooding issues in Blaenau Gwent were from localised issues, particularly from sewer blockages.

In Robotham (2016), the SFRI of three LSOAs in York were verified in detail. The allocations were considered 'relatively accurate', however one was considered a possible over-estimate as the presence of an 'old people's complex' increased the calculated vulnerability level, and in another LSOA that the SFRI had been under-estimated due to the fact that higher floor flats are not included in the FFE.

E.2.5 The characteristics of vulnerability with the case studies

Discussion points

Each interviewee was asked to reflect upon the most significant characteristics of the area that make it more or less vulnerable in the event of a flood? should the following maps of their area.

All of the case study locations have areas of high vulnerability, but each had different underlying causes for this vulnerability (Table E-4).

In Carlisle, the consensus of interviewees was that areas of high vulnerability were generally a result of low income households living in poor quality, terraced housing, combined with the impersonal qualities and lack of community networks that come with living in a large town or city.

In Boston, the CEO from a local Internal drainage board expressed their opinion on how the isolated coastal location of Boston and its poor transport connections has caused a decline in employment opportunities as professionals are deterred by the time-consuming commute, low pay and limited opportunities for career progression. All interviewees cited the high migrant population as a one of the principal reasons for high levels of vulnerability in Boston; these workers do not necessarily speak English and do not have a good knowledge of the local area or a social network outside of their own communities.

In Blaenau Gwent, local government representatives thought that the rural nature of the area was the main reason for high levels of vulnerability in the area, and the terraced nature of the housing stock. The road network is limited and many places have just one access route, which causes major problems if this gets blocked, and a lack of mobile signal means that new technologies cannot be utilised to their full extent.

Table E-4 Characteristics of vulnerability considered significant at each case study

Case study	Carlisle	Blaenau Gwent	Boston	York
Age	●●	●●	●●	●●●
Health	●	●	●●	●●
Income	●●●	●●●	●●●	●●
Information use	●	●	●●●	*
Local knowledge	●	●	●●●	*
Tenure	●●●	●●	●●●	*
Mobility	●●	●●●	●	●●
Crime				*
Housing characteristics	●●●	●	●●	*
Flood experience	●●●	●	●●	*
Service availability	●●		●	*
Social networks (non-flood)	●●●	●●	●●●	●●

Scale:

Scale 0-3 dots, 3 being very important characteristic for causing vulnerability in that area based on overview of the responses from the interviewees.

* = not discussed in Robotham (2016). As this case study was not conducted by the project team, it is more difficult to get a general feeling for how important each characteristic of vulnerability is in York.

E.2.6 Barriers to adaptation by the most vulnerable

Discussion points

Each interviewee was asked to reflect upon the most significant barriers and enablers of reducing risk for the most vulnerable communities in their area.

In all the case studies, most of the discussion around barriers for the most vulnerable in the population revolved around measures that vary from person to person, rather than broader scale measures such as flood defences or spatial planning.

Residents in both Carlisle and Boston were offered a grant of up to £5000 to install PLP measures following the recent floods. However, the CEO of an Internal Drainage Board for Boston told us how tenure also causes problem in the installation of PLP measures and SUDS as tenants need permission and even with grants, *'landlords are not bothered as they make more money from renting the properties than the cost of repair work after a flood event'* – there was the general opinion in both of these case studies that this was a barrier to action for the most vulnerable residents.

Local authority representatives in Carlisle suggested other reasons for low take-up of the £5000 grants offered to all households affected by the 2015 floods, including the complex administration process and tight deadlines. Carlisle City Council have launched several initiatives, including a 'Berg' bus which travels around the community and can offer support for filling out grant applications and also provide quotes for work that needs doing.

Awareness

Sign up to the flood warning services is universally low across all the case study locations, although the reasons for this seem to vary between places. In Carlisle, flood defences installed since the 2005 floods had left many residents assured that flooding would not happen again despite there still being a risk; there was consequently a lot of resentment following the 2015 floods as residents felt that they had not been warned. In Blaenau Gwent, there was felt to be general low awareness about the risk of flooding, predominantly due to the lack of floods in the area in recent years. Saying that, the Borough Council did give an example of an active Flood Action Group who recently put into practice their emergency response plan very efficiently when a flood warning was given. In Boston, the relatively low levels of English spoken among the large numbers of migrant workers living in the town were thought to play a part as these residents are simply not aware that these warnings exist or how to sign up to them. Similarly, when a warning is given, the number of residents who know the appropriate actions to take and put them into practice is low.

A representative from Groundwork's *Healthy River Programme* felt that a lack of awareness about maintaining healthy river environments is a significant factor in flood risk:

'Currently, the attitude of much of the population of Blaenau Gwent is that the rivers are there to be abused and therefore they become a dumping site for large volumes of debris which adds to the flood risk.'

Similarly, a source from Welsh Water cited a lack of awareness for many incidents of flooding in Blaenau Gwent caused by maintenance issues in the shallow, small-diameter sewers running through gardens.

Insurance

It is universally acknowledged that the most vulnerable in the population are the least likely to have any type of house insurance. Representatives from Boston explained how most people who end up living in flood risk areas in Boston will choose to live there due to proximity to employment and low rent and are unlikely to consider the feasibility of getting insurance.

Complications surrounding tenure of properties also plays a part, particularly in Boston where a very high percentage of properties are rented.

A representative from the Flood Awareness Wales programme at Natural Resources Wales also highlighted that *'half of the problem is having the time and incentive to go through the process of finding the best insurance, and knowing the right questions to ask'*. As the risk in flooding in Blaenau Gwent is fairly low, many of the most vulnerable residents are unlikely to prioritise getting insurance. A local government representative from Carlisle also highlighted how more vulnerable people are less likely to get a good insurance deal: *'a young couple might fight their corner but an elderly lady will get a bad deal.'* Furthermore, a vicar in Carlisle told us how he has spent time since

the 2015 floods helping more vulnerable residents to write to their insurance companies who are reluctant to pay up fully.

The interviews conducted in York by Robotham (2016) seem to have highlighted the neglect of the most vulnerable residents as they are less likely to be able to 'shout as loud' than those with higher social capital and are therefore less likely to receive funding.

E.2.7 Perception of fairness

Discussion points

Each interviewee was asked to reflect upon their perceptions of fairness within current Flood Risk Management policies and actions being taken in the case study location.

Opinions on whether FRM policies were fair in the case study locations varied. Many considered that they made a good attempt at being fair but there is considerable room for improvement in the future.

A representative at Flood Awareness Wales (a Natural Resources Wales programme) explained their attitude is to *'make sure that programmes target all sectors of the population and ensure that they are able to access high quality information and advice. It is difficult to write this into policy as it is largely about education, but improvements could be made to housing and commercial policy, where there are certainly gaps.'*

The CEO of a local Internal Drainage Board in Boston did not consider current FRM policies to be fair as *'they are only concerned with flood risk rather than also incorporating other variables of flood management... and they do not value farmland highly, as they are only concerned with people and property.'*

A local government representative from Carlisle also remarked that the fairness of funding allocation does not always seem apparent when certain communities (but not all) are granted large sums of money following a large event when budgets to flood schemes are being cut elsewhere.

E.3 References

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