

# Impact of flooding and flood risk on community economic resilience in the Upper Calder Valley



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Localise West Midlands  
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Commissioned by Calderdale Council and DEFRA





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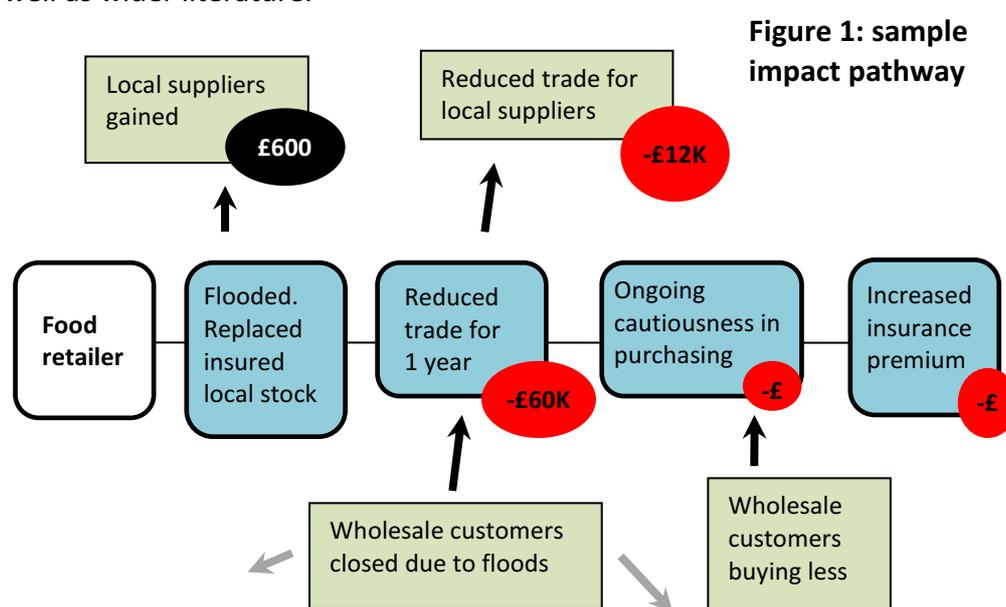
## Executive summary

The purpose of this study, commissioned by Calderdale Council and DEFRA, is to provide greater understanding of the scale, reach and complexity of the economic impacts of flooding and flood risk in the Upper Calder Valley and how this relates to community economic resilience.

It has done this by investigating impacts of the major floods that hit the Calder Valley in June and July 2012, firstly on a 'first tier' of flood-affected businesses and then the impacts on their suppliers, customers and employees in the area, to give the collective 'multiplied' economic impact of flooding and flood risk. It is based on responses from a wide range of 50 local businesses as well as wider literature.

14 impact pathways (see Figure 1), based on information from respondent businesses, mapped what losses and gains were experienced, their values and their reach.

The results demonstrate the variability of these impacts and how they interconnect, giving a sense of the complexity and scale and showing both losses and gains to the local economy. Conclusions and recommendations from this are summarised below.



### a) How flooding impacts accumulate locally and affect supply and demand chains

- The results show that flooding does impact along the supply and demand chains of flooded businesses. The impacts are highly variable, positive and negative, societal as well as economic, and of varying magnitude and timescale. Some might appear minor but may scale up through replication across the local economy.
- As with the benefits of flood resilience measures, it is difficult to quantify these impacts and to separate them from the impacts of other factors.
- From what quantifiable information there was, the negative impacts on the local area significantly outweighed the positive. By way of illustrating this, from 26 businesses where impacts could be quantified, net losses totalled £823,900 and net

gains £17,300, giving a combined net loss to the local economy of £806,600 through the activities of these businesses.

- The biggest loss to the local economy came from the drop in trade amongst businesses and their supply chains in the months after the floods (£831,324 from 21 businesses), not from uninsured direct impacts (£199,449 from 12 businesses)
- The biggest gain came from insurance payout spend on local suppliers (£132,970 from 14 businesses).
- Even in cases where insurance payouts are fairly comprehensive, there are usually knock-on losses to local supply chains. Where businesses have a more localised supply chain, this knock-on impact will obviously be higher, but also gives a greater earning potential for the area to assist recovery.

**Recommendation: More, or more detailed, impact pathway mapping and perhaps use of the LM3 tool, to learn more about the Upper Calder Valley's normal 'multiplier' (how money circulates locally along supply/demand chains) and thus what to expect when this is reversed during a crisis. This will help support agencies understand how to support and restore the greater prosperity-creation potential of the area.**

- There were more negative than positive impacts on local employees' earnings – and thus a likely knock-on impact in terms of those employees' local spend. By way of illustrating this impact, the estimated net loss to local employees from 8 businesses was £54,800. But many employees seemed to be insulated from loss by their employer's priorities or by insurance settlements. If insurance cover remains difficult or impossible for local businesses to acquire, employees (and their local spending power) are likely to be more severely affected in future floods.
- Local suppliers lose from reduced sales while flood-affected businesses are closed, and from subsequent trade downturn. The data available suggested more gain to local suppliers than loss, but this may reflect better data on affected businesses' insurance spend on suppliers, than on how their buying varied in the months after the floods.
- Refurbishment spend from insurance payouts was a major source of local gain and should be maximised as a way of recovering some of the area's losses - including if possible by resisting insurer insistence on non-local suppliers, if the capacity and quality assurance is available locally. However, if difficulties with insurance are not resolved, gains may be reduced in the future.

**Recommendation: Work on the local repair and refurbishment supply chain to ensure the maximum gain from insurance spend in the wake of a further flood: skilling up and**

**ensuring a degree of preparedness in case of crisis, and addressing any issues with insurer requirements and quality assurance.**

- Despite the value of the gain it seems unlikely that a spike in refurbishment activity compensates for the loss to the businesses that form the Valley's normal economy.
- Reductions in businesses' turnover for up to a year after the floods were the biggest source of loss to the local economy. By way of illustrating this, 21 businesses had a collective decrease in sales of £831,324, averaging £39,587 per business in relation to a mean turnover of around £569,733. This seems to come from both from reduced footfall and businesses' flood-affected customers, with transport disruption and a negative media focus as probable contributing factors.
- Gains were mainly due to insurance payout spend on refurbishment by local suppliers and (less) on replacement stock (£127,615) and to small changes to operation and sourcing as a result of the floods (£5,355).
- Positive impacts that were experienced by a few respondents included increased confidence resulting from community support; new business opportunities; and higher quality premises after refurbishment.
- There were longer term or permanent impacts on supply chains and business behaviour, but these became impossible to separate from other factors. 17 out of 50 businesses said they experienced ongoing impacts in some way.

**Recommendation: Learn from information around what knock-on economic costs might not be covered by insurance market failure in the event of another flood and how this would impact practically on the local area. Use this information to demonstrate impacts more accurately to influence local and national decision-making.**

**b) How the risk/or fear of flooding impacts on the local area**

- Flood risk has severe consequences for business confidence, with a significant majority of interviewees reporting ongoing anxieties and uncertainties. Problems getting any, adequate or affordable insurance is a major issue leaving several businesses uninsured and extremely vulnerable.
- Impact mapping shows that if insurance cover remains inaccessible to local businesses, the impacts on employees are likely to be more severe and gains for local refurbishment trades less positive, as well as more business closures. This issue is the focus of other research, but there is certainly a sense that insurers do not gain a sufficient understanding of individual resilience levels before coming to decisions and that solutions are urgently needed.

**Recommendation: Use greater understanding of cumulative local impacts of flooding to help prove the need for better risk/resilience analysis for insurance and a more needs- and public interest- orientated insurance provision, in the interests of minimising knock-on impacts.**

**c) Local business relationships (supply chains and collaboration) and flooding**

- Businesses seemed to gain significant support from the relatively collaborative spirit and activity between businesses and also the wider community. It seems to be a significant 'soft' factor in flood resilience alongside more physical measures. For some interviewees the floods increased their understanding of the value of these linkages. The Valley of Lights festival and the Nelsons Wine Bar pop-up are great examples of using local resources to strengthen community economic resilience, from which others could learn.

**Recommendation: Work on nurturing some of the vitality and mutuality created by the floods to ensure it is there when needed, but more importantly to gain economic benefits in the meantime. How this is done depends on the interests and enthusiasms of those involved and requires a light touch from a local authority, but may involve ensuring there are genuine roles in decision-making in order to create the virtuous circle of localising prosperity (see Figure 1).**

**Recommendation: Promote local good practice for learning elsewhere in the UK and learn from it locally. Use this in combating any negative media profile.**

This study demonstrates how the cumulative impacts of flooding and flood risk can be better understood, and what might be gained from understanding them. It should contribute to demonstrating local economic and societal impacts more accurately, and to better informed local and national decision-making.

Localise West Midlands  
27<sup>th</sup> January 2015

## **1. Introduction**

### **1.1. Purpose**

This study, commissioned by Calderdale Council, is intended to use information around the 2012 floods in the Upper Calder Valley to provide a greater understanding of the scale and scope of the economic impacts of flooding and flood risk, in order to guide local intervention priorities and provide an evidence base to bring to the attention of relevant government departments.

As well as its usefulness to Calderdale Council, the study also contributes to the national picture by means of evidence on the cumulative economic impact of flooding and flood risk on localities, which could assist central government in accounting for these in relevant legislation, policy and funding.

### **1.2. Basic concept of study**

Conventional financial impact analysis of flooding tends to assume a net economic gain nationally from money spent repairing flood damage and replacing goods, as it does with many other environmental and human costs. This does not seem to reflect the economic impact on the specific flooded area, its businesses and people. Additionally the most visible impact in literature and media is immediate costs to businesses of repairing or replacing flood-damaged equipment, stock and buildings, and of loss of trade whilst closed or affected by the flood. These are the costs that are generally expected to be covered by insurance. But what are the stories beyond these immediate costs and beyond the gain from replacement? Who else is affected despite not having been flooded themselves, how does this happen and what does it cost the area as a whole?

This study will identify how flooding and flood risk impacts (positively and negatively) on locally-owned business supply and demand chains in the Upper Calder Valley, by investigating impacts on a 'first tier' of flood-affected businesses and then the impacts on their suppliers, customers and employees in the area, to give the collective 'multiplied' economic impacts of flooding and flood risk, map the reach of these impacts and the pathways that lead to them.

It will explore:

- How flooding affects a business' supply and demand chains, quantifiably and unquantifiably, and how this impacts cumulatively on the area as a whole.
- How the risk/or fear of flooding impacts on the local area
- What (in terms of supply and demand and customers and other interrelations) makes businesses and the wider area resilient or otherwise

- How local business relationships (supply chains and collaboration) relate to what happens in the aftermath of a flood.

It is not intended to be a comprehensive account of the 2012 floods' impact on the Upper Calder Valley's economy, but to explore the reach and complexity of economic impacts beyond those more widely known, and how they relate to community economic resilience.

The need for this work was identified through a business flood resilience pilot project running in Calderdale as part of the wider Defra-funded Pathfinder initiative - through which it is funded.

The study builds on learning from Localise West Midlands' (LWM) [Mainstreaming Community Economic Development](#) project which examined how local economic linkages relate to economic success and social outcomes. This has given us a close understanding of how community economic resilience and economic success can result from strong economic interlinkages and this provides useful background for exploring the cumulative economic impacts of incidents such as flooding on localities.

### **1.3. Methodology**

#### **i) Context review**

The researchers reviewed material from Calderdale Council, news articles, previous survey responses and other sources in order to understand the local context and what further information was needed to understand cumulative impacts on the local area. On the advice of local contacts we also interviewed Chris Sands of The Good Company, who was a founder of Valley-based initiative Totally Locally and took a lead role in the Valley of Lights festival (see section 3.9.2), and include a comment from Robert Campbell as the study's contact officer.

#### **ii) Initial survey**

An initial survey was developed jointly by Calderdale Council and Localise West Midlands. The survey asked businesses for:

- Business details such as location, turnover, number of employees
- The immediate, yearly and lasting financial impact of the 2012 floods and flood risk on the business itself, and on its suppliers, customers and employees;
- Size of insurance payout
- What proportions of their customers and suppliers (by spend) and employees (by number) were in the Upper Calder Valley
- Whether they were willing to be contacted for a follow-up interview.

It also contained comment boxes for any further information they thought relevant. This survey can be seen at Appendix 1.

It was distributed to the Council's list of flood-affected businesses in the Upper Calder Valley (and in some cases beyond) by post and email, with a covering letter. 250 businesses were sent the survey.

Responses were returned for analysis by Localise West Midlands, from a variety of businesses, some of which were outside the Upper Calder Valley (see section 1.4 on boundaries).

### **iii) Analysis**

Results were analysed to get a broad picture of what the evidence was starting to tell us and to identify priority businesses for follow-up interview and appropriate interview questions. Identifying in-depth interviewees was in accordance with criteria:

- where the businesses were based (mainly Upper Calder Valley, and representation across its different settlements)
- how the floods impacted on the business
- the degree of knock-on impact, positive or negative, to suppliers, customers and/or staff within the area
- range of types and sizes of business
- presence of illustrative comments or issues of interest.

This shortlist was then subject to the availability and willingness of the business contact for interview within the required period. At this point a progress review was conducted by phone with Calderdale Council staff.

### **iv) Develop and conduct in-depth surveys and case studies.**

The purpose of the more in-depth interviews is to gather more qualitative and quantitative information on the impacts of flooding and flood risk on community economic resilience (economic and wellbeing impacts on the community via businesses, their supply chain, customers and employees) and to develop case study narratives. Interviewees were also asked to suggest customers, suppliers and employees for the second tier interviews.

Questions for semi-structured interviews were developed for both first and second tier interviewees, and interviews were conducted in person during a visit to Calderdale. Some of these were followed up with email or phone calls to clarify some responses. The initial question set for first and second tier interviewees can be seen at Appendix 2.

Because these interviews led to fewer second tier contacts than we expected (see section 3.1) we also interviewed five local accountants and one insurance firm to gather wider if anonymised data on flooding impacts on their customers and the wider local business

environment. Before this we had contacted online community forums and social media for the UCV settlements asking for stories from those who had been indirectly affected, but this did not generate any significant responses.

Second tier interviews were conducted by phone and email. Some additional second tier data was identified within initial survey responses once the supply and demand chain links between businesses had become clear.

#### **v) Analysis**

Survey and interview data were then analysed together with information from the other sources to identify quantifiable and qualitative impacts of flooding and flood risk on the subject business, and also those accumulating up and down its supply chains (see section 1.5-1.6 for details). A further review phone call based on some interim findings was held with staff at Calderdale Council.

#### **vi) Case studies and impact pathways**

The original proposal included the production of four short case studies. But on further investigation it seemed that this would not be feasible because businesses are reluctant to be named in relation to the more quantitative information that we gave us – such as turnover. We also found fewer businesses than we thought had been able to give us contacts with their second tier businesses (i.e. businesses affected not directly but by the impact on the first business) so that a comprehensive, far reaching case study was less viable. Instead, we have mapped the pathways of supply and demand chain impacts for a larger number of anonymised businesses. This gives a strong set of visual representations of cumulative impacts of flooding, with elements of the ‘story’ factor for which case studies are important.

#### **vii) Report writing**

A first draft written report, including executive summary, was produced, reviewed by Calderdale Council, amended and finalised.

Permission was given by all interviewees and survey respondents to use data for the report. Because some wanted anonymity it was necessary to make all comments and figures anonymous.

### **1.4 Geographical boundaries of study**

The study area originally proposed was the Upper Calder Valley (UCV), comprising the area around the major settlements of Todmorden, Hebden Bridge, Mytholmroyd, Luddendenfoot and Sowerby Bridge. But the initial survey was sent to a wider list from a previous post-flooding survey, which included some businesses outside this area. Three out of the 41 initial survey responses were from outside the UCV. First tier interviewees were also mostly

within the Upper Calder Valley, with two exceptions in Elland and Brighouse, chosen from the initial survey responses to bring in a wider range of business types and experiences. Also although survey and interview questions referred to the UCV, we found that some businesses had their own interpretations of its boundary, in terms of the location of their supply and demand chain businesses. This gives a slightly 'fuzzier' boundary which perhaps to some extent better represents realities of the area's functioning economic geographies and remains relevant to the study's purpose of seeking indicative findings on how impacts can accumulate locally, rather than a comprehensive evaluation of impact across the whole area.

### **1.5. Distinction between 'local economy' impacts and 'local business' impacts**

Please note here the distinction between a loss of gain to the local economy, and a loss or gain to an individual business. For example, a business loses money if it spends money replacing a flood-damaged item, but if it buys this from another local business, then this in effect neutral to the local economy in financial terms, although the knock-on effects of spend are beneficial and can be mapped further. A gain to the local economy would come from spending insurance money on services or replacement goods from local suppliers, although the financial impact on the local business might be neutral. A reduction in trade, uninsured, as a result of floods would result in a loss to the business and also to the local economy.

This study is primarily concerned with the losses and gains to the local economy, rather than to individual businesses, and how these multiply in the local area by the impacts on suppliers, customers and staff.

### **1.6. How losses and gains to the local economy were calculated**

Losses and gains to the local economy from the flooding were calculated by working out how local spend and local income varied from normal due to the floods over time. This therefore included:

- Insurance payouts being spent on local staff, refurbishment by local suppliers and restocking from local suppliers.
- Losses to a business' suppliers because the business was closed or experiencing reduced sales.
- Losses to a business' staff if they were made redundant or on reduced hours
- Loss to the business as a whole, through its sales being stopped or reduced.
- Money spent by the business's own funds (i.e. not insurance payout) on remote suppliers of refurbishment or restocking.

Another source of loss and gain to the local economy would be losses in business rates through business rate relief or through permanent closure of businesses. 54 business ratepayers received relief during 2012/13, amounting to £64,000<sup>1</sup>. Most of this was for Calderdale Council's agreed three-month flood relief period. This relief could potentially have freed up businesses' funds for more spending locally, but it would also have reduced council income, with impacts that are hard to measure. We do not have data from businesses on what difference this rate relief made, so it is not factored into the analysis.

Cumulative impacts have not been double-counted, but represented separately. E.g.:

- Fully insured costs and losses to the affected business were not counted as costs and losses to the local economy. So if a business was shut for six weeks, and its loss of trade was covered by insurance, the value of the loss of trade would not be included in the net loss because it has been replaced by the insurance payout; but trade lost to its suppliers *would* be counted.
- If an insurance payout covered replacement stock from local firms, the gain to the first tier business is not counted, but the gain to their suppliers *would* be counted.
- On the other hand if the business was shut for six weeks and not insured, or if it suffered reduced trade for some months after the flooding, its loss of trade *would* be counted, but consequent trade lost to its suppliers would *not* be counted. Consequent trade lost to its suppliers would be listed separately as a cumulative impact.
- If the business spent its own money on local refurbishment suppliers, this is benefit-neutral, although the gain to local refurbishment suppliers would be listed separately as a cumulative impact.

Such cumulative impacts are listed separately at section 3.3.3, but are perhaps more easily be demonstrated through the supply and demand chain pathway mapping at section 3.2.

## **1.7. Assumptions**

Some estimates and assumptions were used in working with supplied data:

a) Where interviewees from cafe and restaurant businesses supplied sales figures but could not supply figures for altered spend with their suppliers, we estimated the change in spend with suppliers of ingredients, services and other overheads by using the standard industry mark-up of 70%<sup>2</sup>, and discounting 10% for overheads that would continue regardless of sales level. Thus if the sales reduction was £10,000 we estimated the spend reduction with suppliers (of ingredients, services and other variable overheads) to be £5,000.

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<sup>1</sup> Email from Robert Campbell at Calderdale Council

<sup>2</sup> Sourced from <https://www.thecaterer.com/articles/57649/> and verified in discussion with a cafe owner.

b) We also made an assumption in these cases that local suppliers and non-local suppliers would be affected in equal proportion. For example if the business had 25% local suppliers and had a drop of sales of £10,000 and thus an estimated spend with all suppliers of £5,000, we estimated the spend reduction with *local* suppliers to be 25% of this reduction, i.e. £1,250.

c) Similar to the above, we asked businesses how many of their employees were local to the UCV, and then how much less or more they had spent on staff costs in total over that year. We have then made the assumption in these figures that the loss will be distributed equally across local and non local employees.

d) Some estimates are based on typical wages for the role described over the time period given, as exact figures were not available. Typical wages for the area were identified by a brief review of local recruitment web pages.

e) Specifically for the net financial impact analysis (see section 3.3) and impact pathways, the total value of the few quantifiable ongoing impacts that had been identified were limited to two years, i.e. until the end of June 2014.

## **1.8. Limitations**

The limitations of this methodology in identifying local impact are:

a) Survey respondents are self-selecting, which inevitably makes the sample representative of particular interests or reasons for responding.

b) Self-evidently, none of the respondent businesses would have been permanently closed as a result of the flooding, thus missing out a significant set of impacts. This is one reason we sought data from local accountants, although this did not ultimately give us much information about closures.

c) The survey was targeted at businesses that were flooded themselves, meaning those who were only indirectly affected were less represented, including those who had benefited from flooding - and also that some may be suffering survey fatigue. This is why we sought views from those indirectly affected by other means and through the flooded businesses. The gain from benefiting businesses (refurbishment trades etc) is to some extent reflected in data on the post-flood spend of flooded businesses.

d) At the time of surveying it was just over two years since the flooding. This means firstly that some businesses may have been reluctant to revisit the issue, secondly that some were not able or willing to access their records for quantifiable financial information on impact. We addressed this as much as possible by taking a positive stance to the local area in interviews and by alerting businesses pre-interview for the need for figures.

Other slight limitations or uncertainties that emerged during the process are referred to at the relevant sections of the results below.

These limitations have been taken into consideration both in the research process and in analysing results.

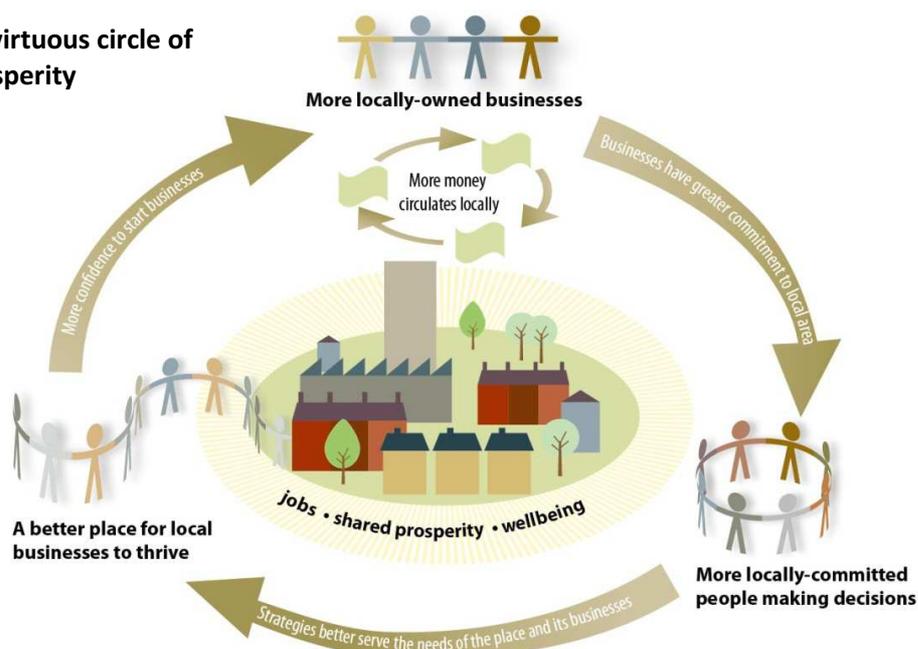
## 2. Context

### 2.1. Local economic impact and community economic resilience

For this study, the working definition of community economic resilience is adapted from a Cabinet Office definition of community resilience<sup>3</sup> as follows: *“The capacity a community economy has within its own resources to adapt to or overcome economic shocks.”* The term “community economy” demonstrates the study’s concern not only with the economic impact on the area but on those who live and belong there.

LWM's Mainstreaming Community Economic Development research in 2012-13 found that strong local economic interlinkages can lead to community economic resilience, prosperity and inclusion. Reviewed literature strongly suggested that it is not just the presence but the networking – in a supply chain and also collaborative sense - between small businesses that is a crucial factor in positive economic benefits in an area, creating a virtuous circle between more locally owned businesses, more local power, better social outcomes and greater prosperity (see Figure 2<sup>4</sup>).

**Figure 2: The virtuous circle of Localising Prosperity**



<sup>3</sup> National Strategic Framework for Community Resilience, Cabinet Office, 2011

<sup>4</sup> Source: <http://www.localisingprosperity.org.uk> – LWM, 2014

The Local Multiplier Effect is defined as *“the greater local economic return generated by money spent at locally-owned independent businesses compared to corporate chains or other absentee-owned businesses”*<sup>5</sup>. Having a high (but by no means exclusive) local multiplier or self-reliance is a good contributing factor to community economic resilience. An incident such as a flood is likely then to have disruptive “multiplied” impacts on these interlinkages, but from these findings it can then be that high local multiplier (and the social capital that goes with it) that can aid recovery. This is particularly the case in disadvantaged or peripheral areas.

## **2.2. Local Context**

The Calder Valley was severely affected by floods in June and July 2012. On Friday 22nd June 2012, a month’s rain fell in 24 hours, and the highest ever river level was recorded at Hebden Bridge. The Environment Agency estimated that *“about 900 properties were damaged in the upper Calder Valley floods”* and that *“the bill for repairs and clearing-up operations could run into tens of millions of pounds”*<sup>6</sup>. It is the impact of this most severe period of flooding on which this research is based.

Since June 2012, have been other, less severe floods in the Upper Calder Valley in future years with some properties affected more than once. It was clear from talking to local people as well as from wider literature that some sites in the valley have been flooded regularly for hundreds of years and that properties have been developed over that time to be relatively resilient, as have the habits of some current occupants.

The *Flood Needs Assessment 2012 report* by the Community Foundation for Calderdale (CFFC) highlighted the impact of the 2012 floods on health, with 66% of respondents’ health being affected. As they point out, this undermines the ability of the community to recover well. From its sample of 44 households in the area it also shows the high level of community keenness to be involved in community activity to tackle any future flooding problems, which is likely to add to community economic resilience: *‘The existence of the support systems such as the Flood Relief Fund and the volunteer effort has greatly increased the ability of the Calder Valley communities to recover.’* It also recorded that 22% reported an impact on their employment and/or business.

The Council created the Recovery Investment for a Stronger Economy (RISE) grant scheme for local businesses, totalling £250,000. Grant spend by the council in the next two years was £207,000 to around 150 businesses<sup>7</sup>. Around 30 of the worst affected businesses were

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<sup>5</sup> Definition from Wikipedia, explained in much more detail in Justin Sacks’ [The Money Trail](#), new economics foundation, 2002

<sup>6</sup> [Halifax Courier](#), 27<sup>th</sup> June 2012

<sup>7</sup> Email from Robert Campbell, Calderdale Council

also granted relief from business rates for three months following the floods, totalling £64,000. 90% of businesses had reopened by January 2013<sup>8</sup>.

Other forms of support for the recovery of local businesses came from both the council and the local community. This included the local business-led [Hebden Rising](#) initiative, the award-winning Valley of Lights Festival in November, a charity auction for affected businesses, Rotary donations and a lively local blogging community.

In 2013, Calderdale Council became one of DEFRA's Flood Resilience Community Pathfinders, with funding of £310,000 to improve flood resilience, reduce insurance risk and support the development of flood groups in at-risk areas<sup>9</sup>.

### 3. Results

#### **3.1. Characteristics and numbers of respondent businesses**

We had fewer recommendations for second tier interviews than we had anticipated, in part because businesses were not always aware of suppliers or customers having been impacted by their own closure, or in the case of employees it may be because it was too sensitive to put us in touch with former employees who had been significantly affected by the flooding of the business. To supply further information we held more first tier interviews than planned, and also spoke to some accountancy and insurance firms as detailed below. This also ensured we had a degree of data around businesses which a) benefited from the floods, such as electricians, decorators and builders, or conversely b) did not reopen after the floods at all.

The results of this study emerge from the following primary sources, all from businesses based in the Calder Valley (all but three in the Upper Calder Valley):

- 41 survey responses from 'first tier' businesses (i.e. directly affected by the floods)
- 12 interviews with first tier businesses (all but one had completed the survey)
- 5 interviews with 'second tier' businesses, i.e. businesses who were affected by the impacts on their suppliers or customers, (one of which had also completed the survey and been directly affected by flooding)
- 4 accountancy firms and 1 insurance broker, 2 of which were also flooded.

Thus the information comes from a total of 50 local businesses – 22 interviews and 28 from only survey responses. Each data set also contains figures on the knock-on economic impacts on other businesses up and down the supply chains.

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<sup>8</sup> [Upper Calder Valley – Section 19 Flood Investigation Report](#), Calderdale Council, 2012

<sup>9</sup> [Calderdale Council website](#)

The initial survey responses came from the following types of business:

- 15 “high street” retailers:
  - 3 food retailers
  - 2 jewellery
  - 2 clothing
  - 2 art galleries/sales
  - Cycle sales & repairs
  - Furniture
  - Flooring
  - Decorating
  - Hardware
  - TV/DVD sales and repairs
  - Beauty
- 6 cafes, bars or restaurants
- 4 manufacturers
- 2 car repairs
- Marketing
- Packaging retail & manufacture
- Printing services
- Indoor climbing
- Heating equipment
- Glass and security systems
- Architect
- Dry cleaning
- Information/campaigns
- Commercial landlord
- Fire protection
- Nursery
- Development site

Their turnovers ranged from £6 million to £12,000 and employee size from single-person businesses to 200 employees.

The interviewed businesses consisted of:

- 3 food retailers
- Jewellery retailer
- 3 cafes
- Car repair
- Marketing
- Packaging retail & manufacture
- Printing services
- Indoor climbing
- Art gallery
- 3 food producers
- Clothing/crafts retailer

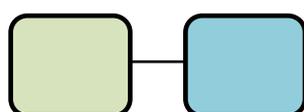
- plus the 4 accountants and 1 insurance firm. These interviewed businesses reflected the same range of turnover and employee numbers. All but two (Elland, Brighouse) were based within the Upper Calder Valley. As mentioned in the methodology, we prioritised for interview those who had relatively high local connections to the local economy - whether in their suppliers, customer base or employees.

### 3.2. Impact pathway mapping

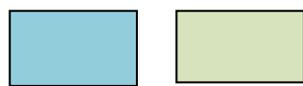
The following 14 diagrams demonstrate how the impact of flooding and flood risk travels and multiplies in the local economy of the Upper Calder Valley. These are real but anonymised case studies based on data from 14 of the interviewed businesses. Businesses were chosen for mapping on the basis of the reach and diversity of impacts.

They show the direct losses to the case study business immediately and in the longer term, and then how these impacts in turn affect suppliers, customers and employees. They also show how the impacts of flooding on suppliers, customers and employees in turn affect the case study business. This adds to the data in section 3.3 a greater quantitative and qualitative understanding of the impacts of flooding on the local economy.

The diagrams have been designed to be self-explanatory, but below is a key to provide any clarification needed.



Round-cornered boxes: the case study business



Square cornered boxes: other businesses in the supply and demand chain of the case study business

Blue shading: businesses/individuals *directly* affected by flooding

Green shading: businesses/individuals *indirectly* affected by flooding



Gain to the local economy



Potential gain to the local economy



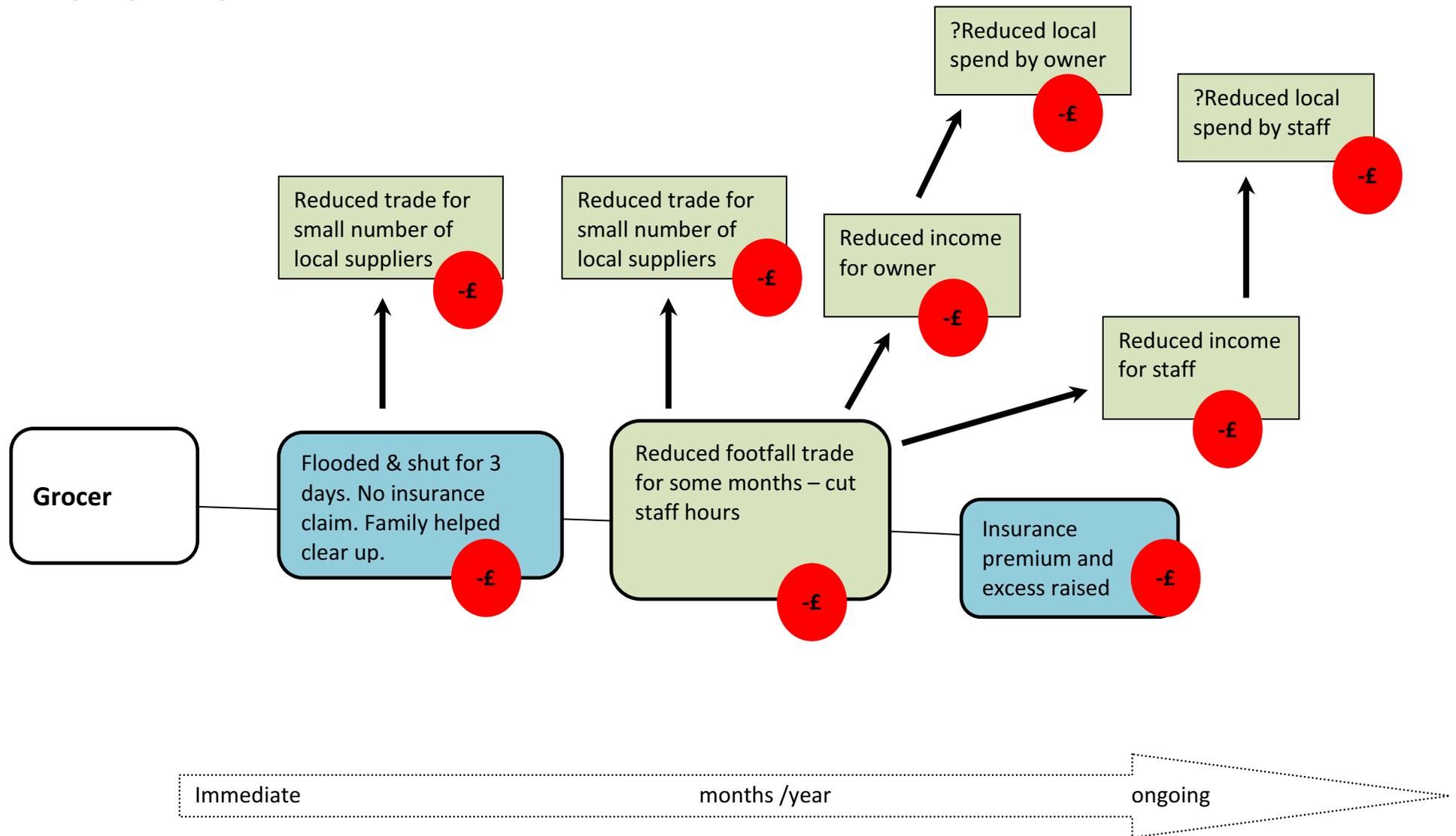
Loss to the local economy



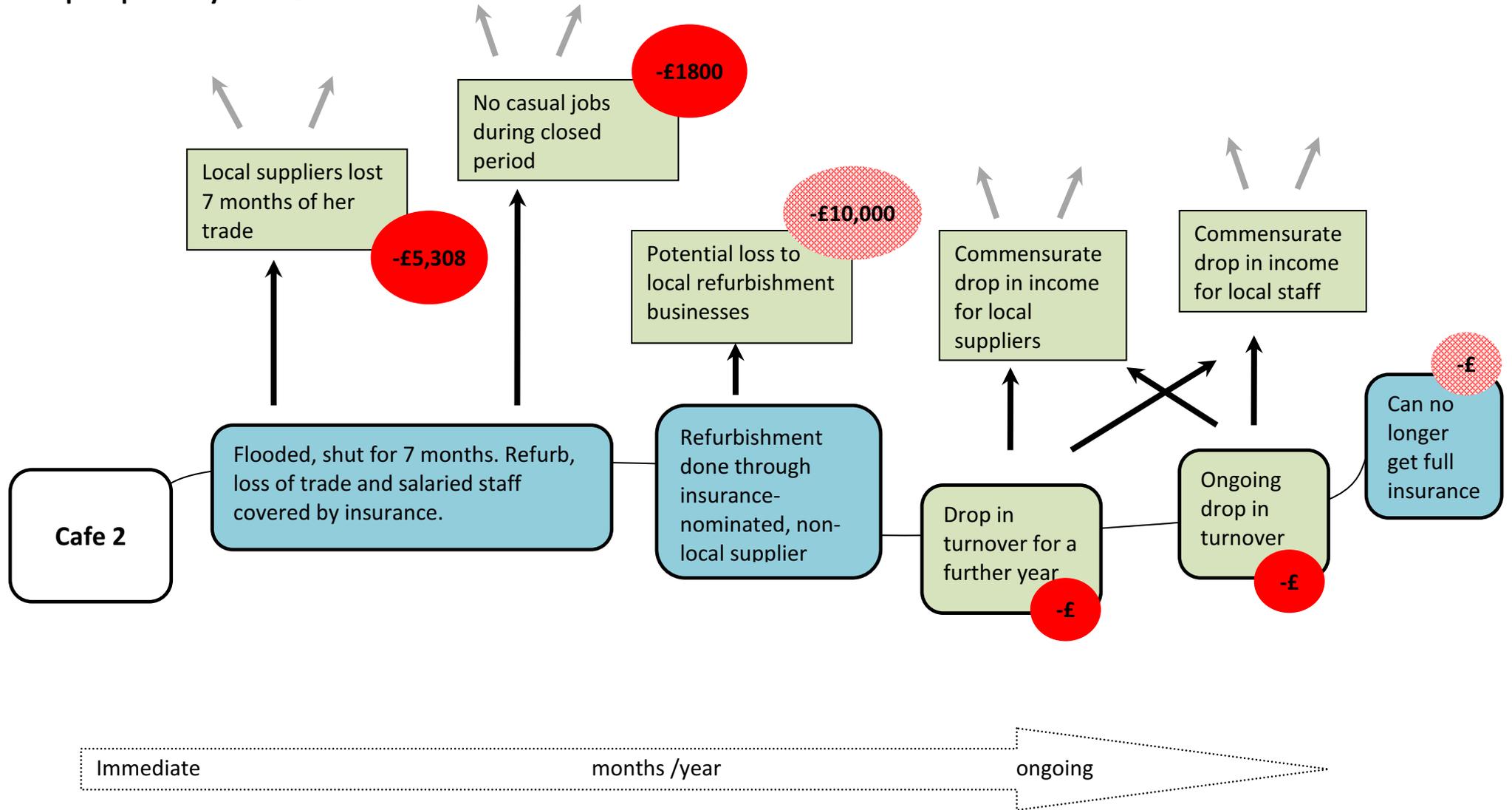
Potential loss to the local economy



**Impact pathway: Grocer**

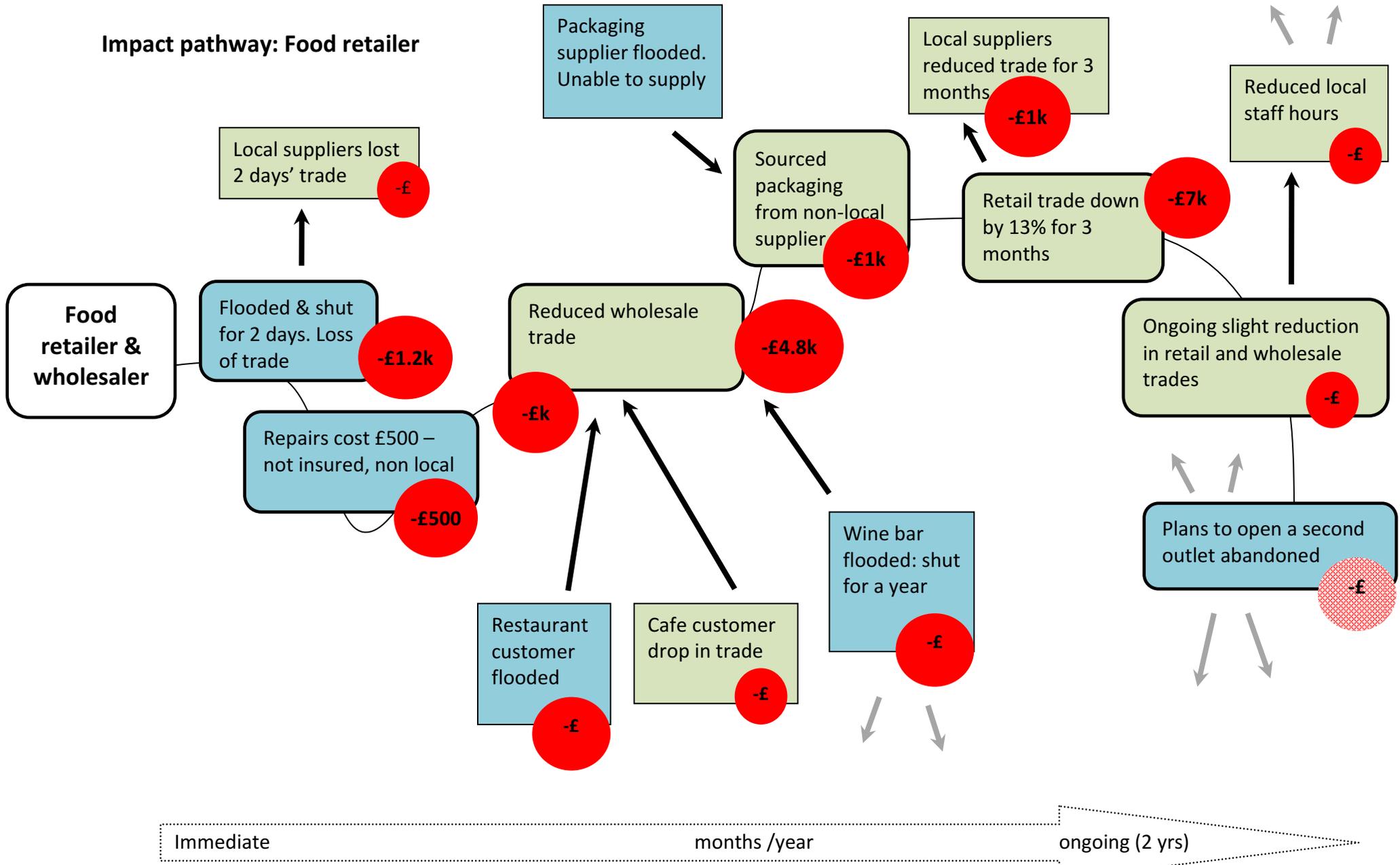


**Impact pathway: Cafe 2**

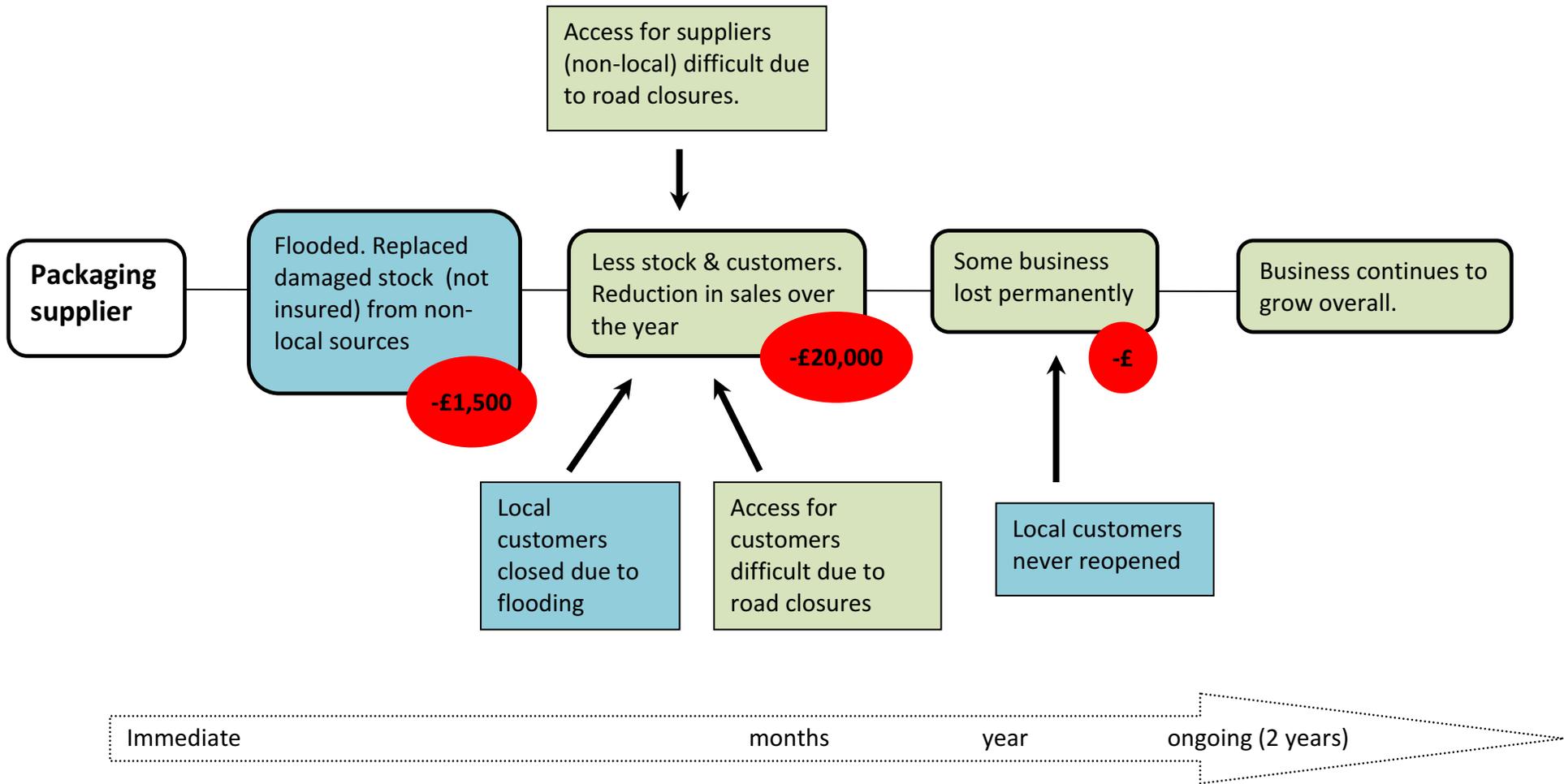


Impact of flooding and flood risk on community economic resilience in the Upper Calder Valley

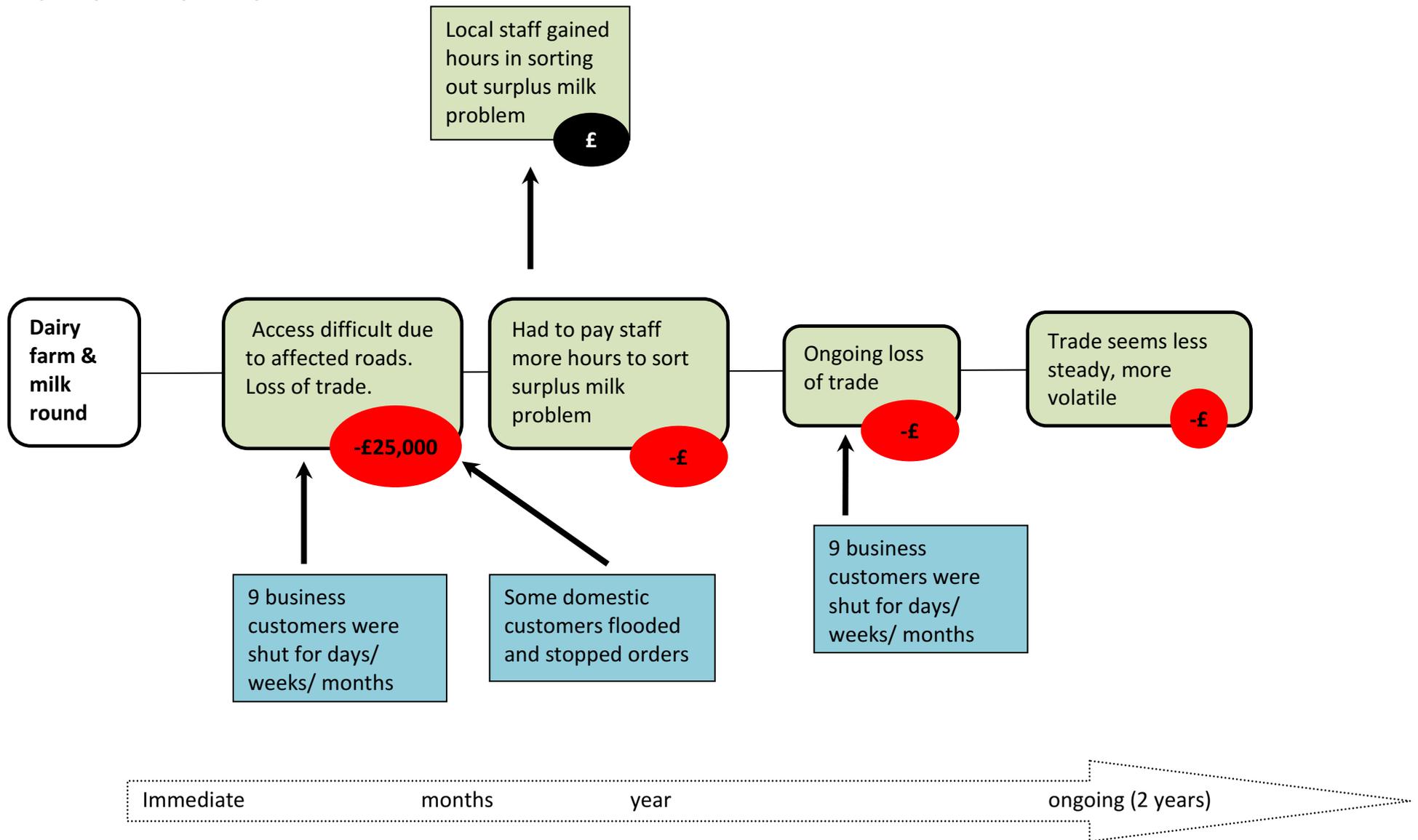
Impact pathway: Food retailer



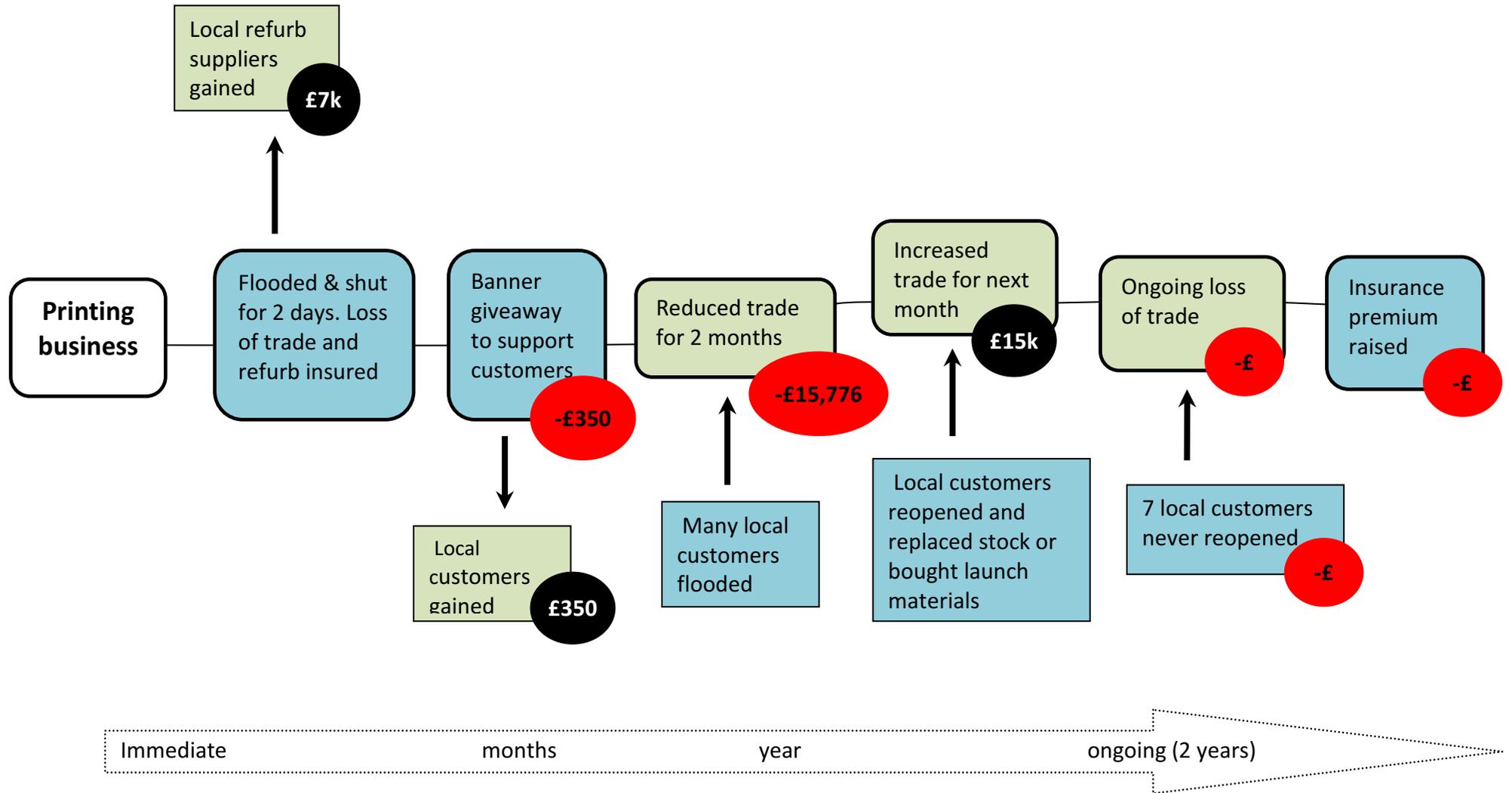
**Impact pathway: Packaging**



**Impact pathway: Dairy business**

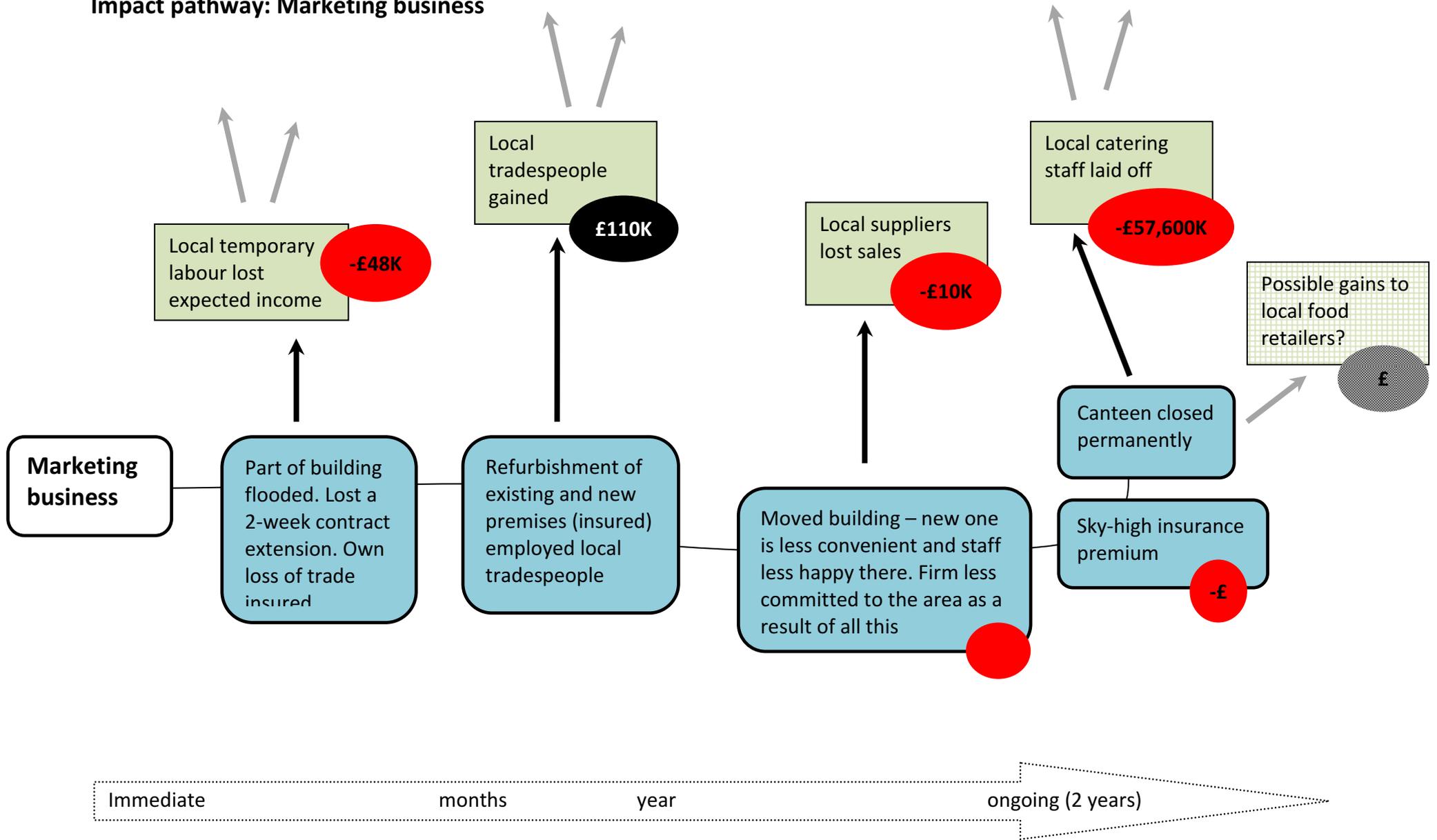


**Impact pathway: Printing**

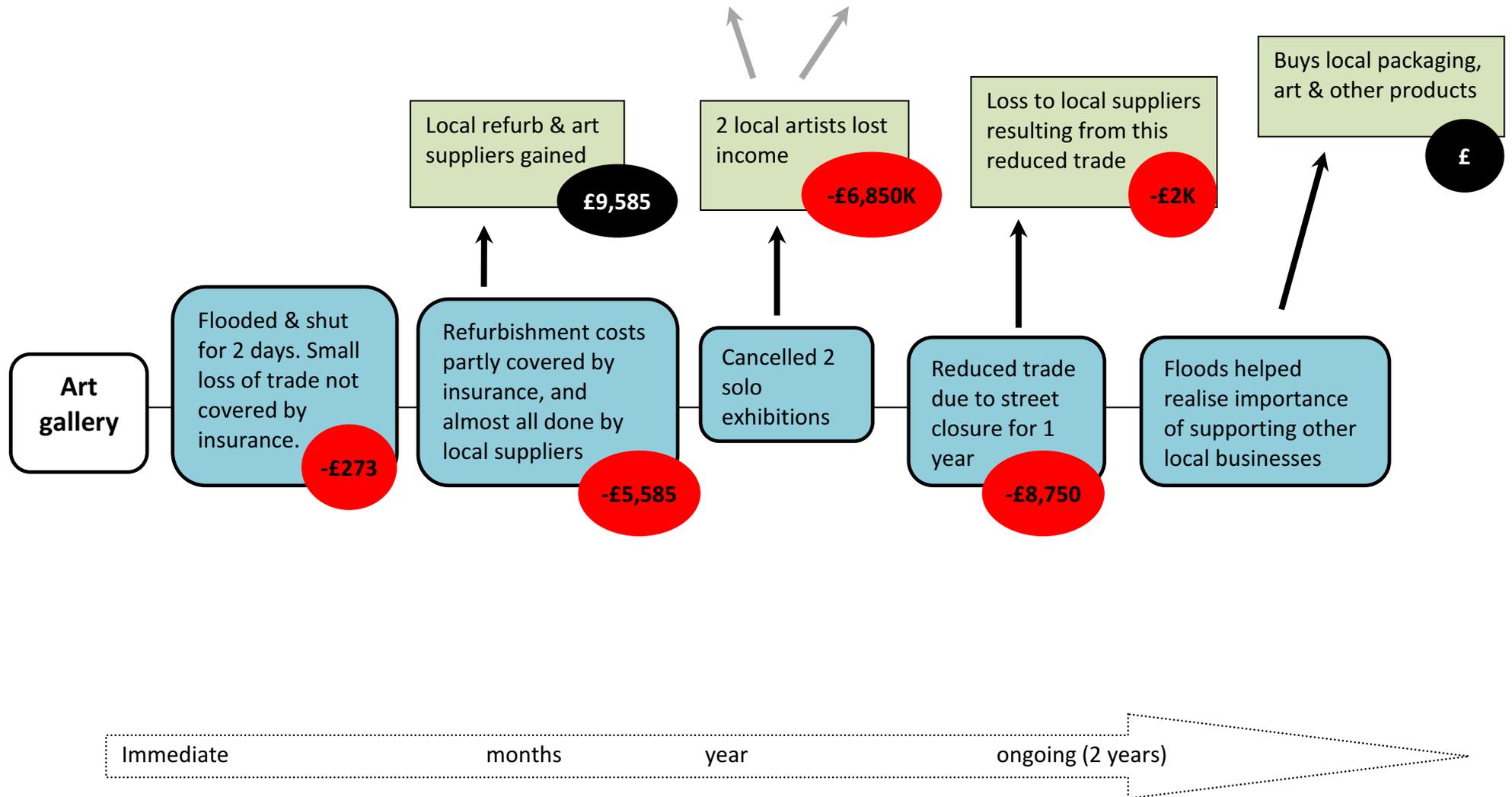




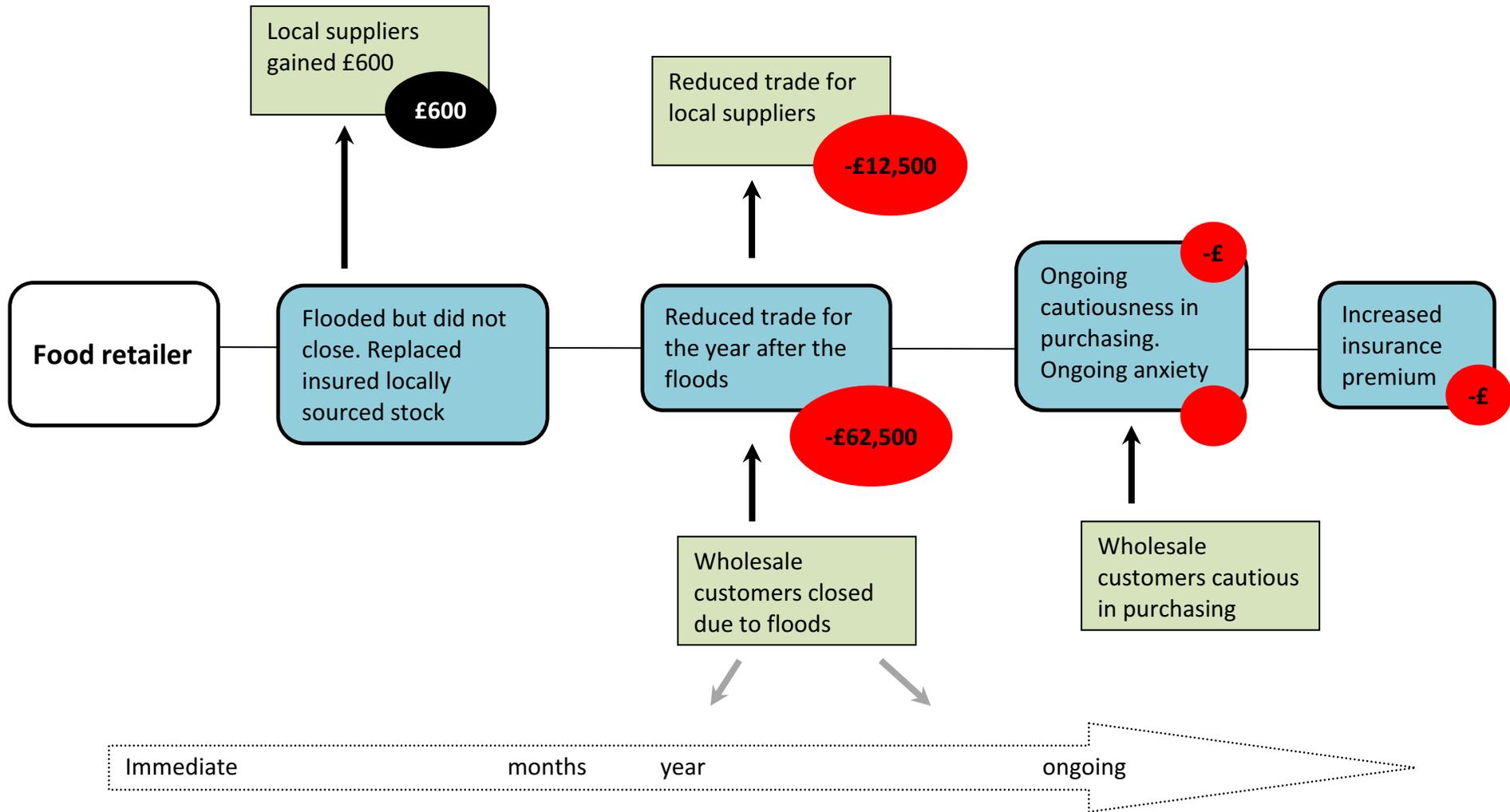
**Impact pathway: Marketing business**



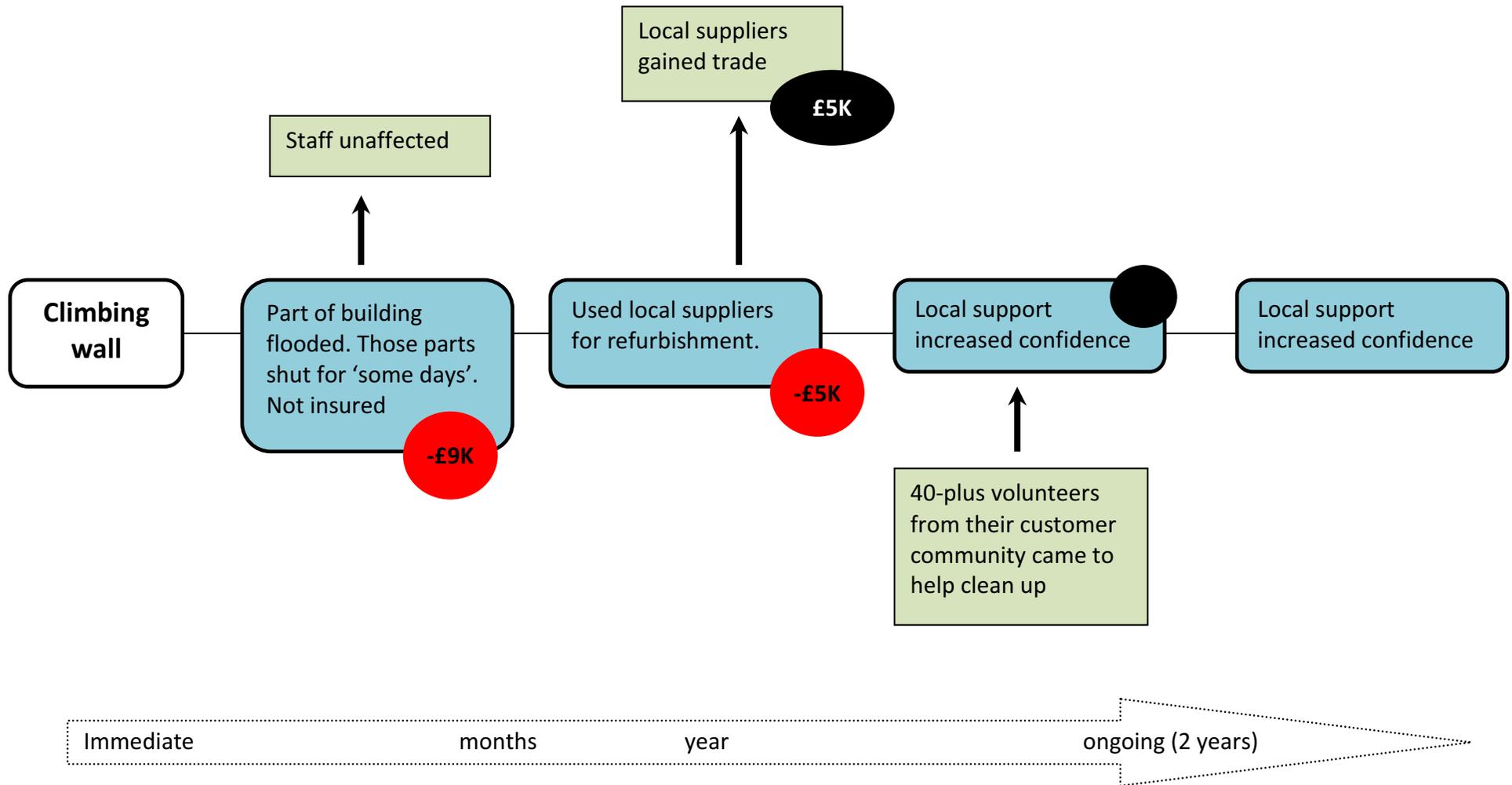
Impact pathway: Art gallery



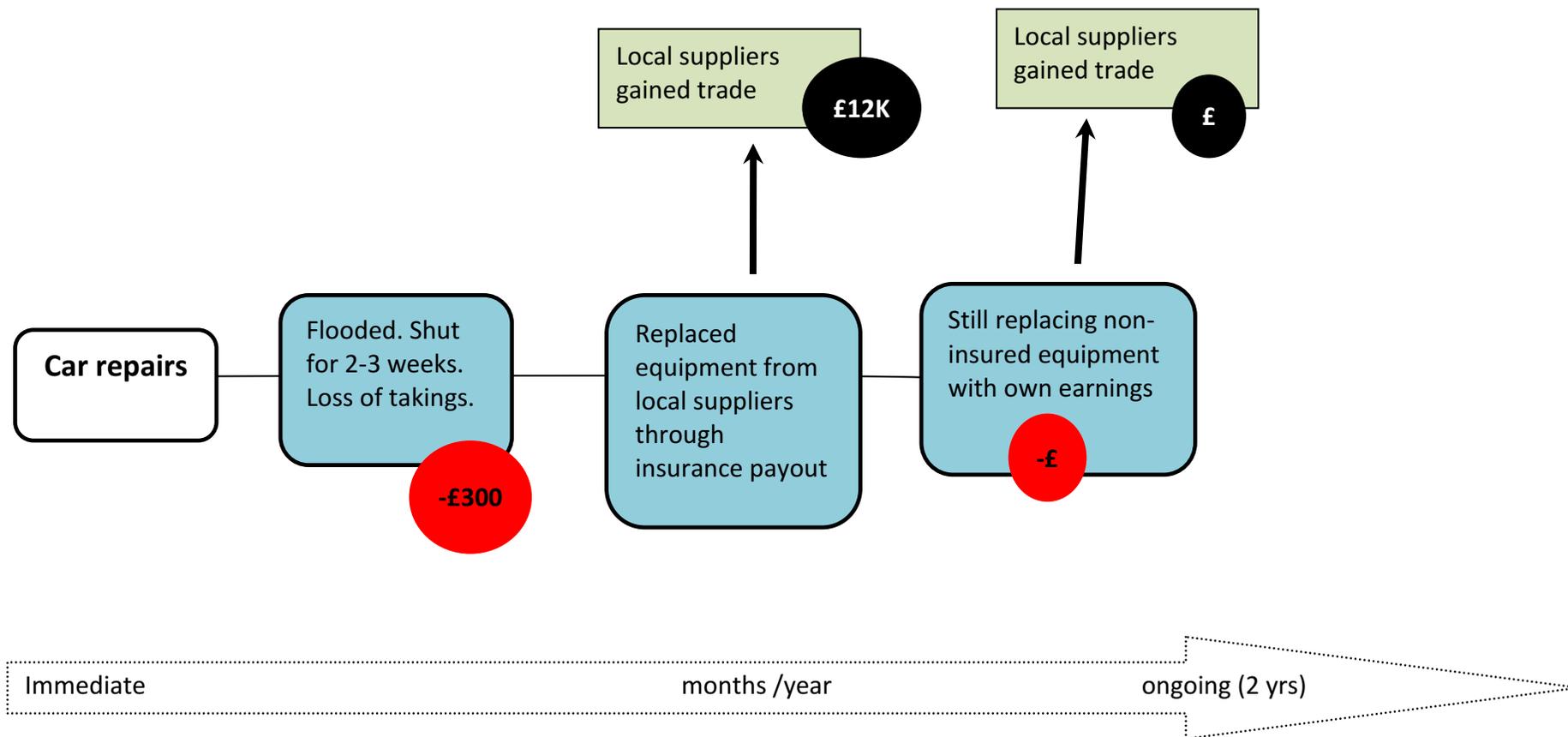
**Impact pathway: Food retailer**



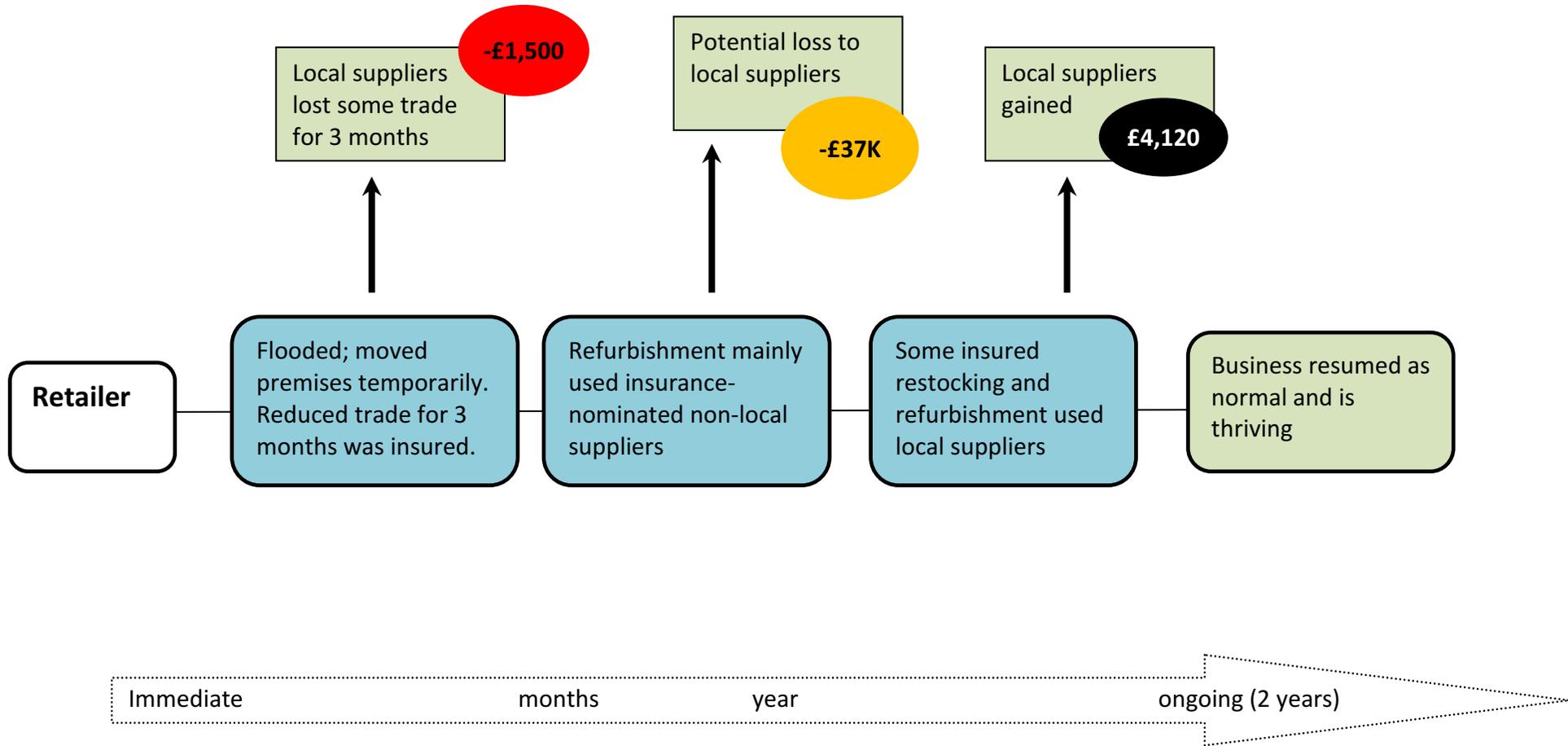
**Impact pathway: Climbing wall**



Impact pathway: car repairs



**Impact pathway: Retailer**



### **3.3. Net financial impact on the local economy**

In understanding the basis of these results it is important to bear in mind the impact analysis methodology described at section 1.5-6, and the assumptions and estimates outlined at section 1.7-8.

Taking into account all supply and demand chain impacts of the 2012 floods mentioned by the 50 respondent businesses up to the end of June 2014: for 9 of 50 respondent businesses although their responses contributed to other findings, it was not possible to calculate whether their data represented a loss or gain to the local economy. This was due to a mix of incomplete survey responses and interviewees not being able to give sufficient quantifiable information.

Of the remaining 41 businesses:

- 3 businesses indicated no or negligible impact on the local economy.
- 3 businesses indicated a net gain to the local economy but it was not possible to quantify this gain from the information supplied. All three were due to unspecified proportions of their own insurance payouts being spent with local suppliers, on cleaning, building, refurbishment and restocking.
- 9 businesses indicated a net loss to the local economy, but it was not possible to quantify this from the information supplied. These losses came from the whole range of reasons detailed above.
- 26 businesses indicated a mostly or entirely quantifiable net loss or gain to the local economy resulting from the floods up to June 2014. 24 of these were net losses, totalling £823,900. 2 of these were net gains, totalling £17,300. Thus the combined total net loss to the local economy is over £806,600. For businesses with quantifiable loss, this makes a mean average of over £31,023.076 per business<sup>10</sup>.
- In addition to these quantifiable losses, these businesses also mentioned 12 additional unquantified losses and 2 unquantified gains (for example businesses telling us they “spent less” with their local suppliers, but not giving a figure).

Many of the remaining figures within this study’s results are in a sense included in the above total net loss to the area, but they are important as other ways of analysing where the losses and gains were experienced and from what they resulted.

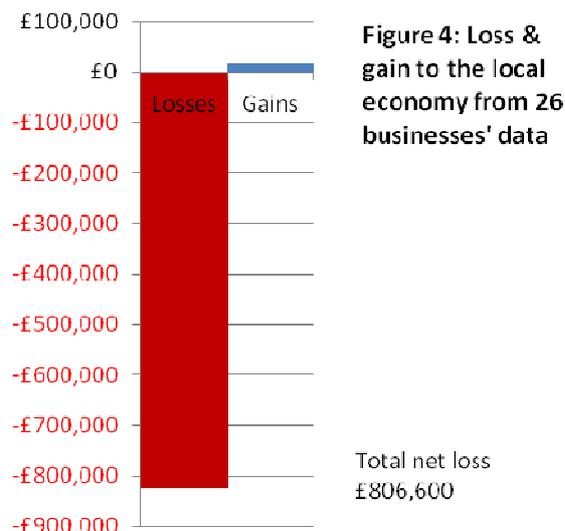
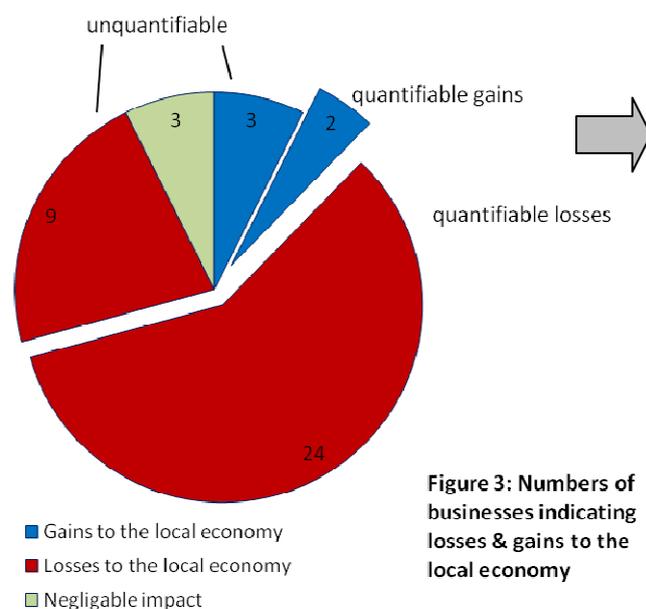
It is important to note that the value of the losses and gains that respondents were not able to quantify could significantly affect these figures.

#### **3.3.2 Losses to the local economy compared with, or beyond, insurance payouts**

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<sup>10</sup> Given the variation in business sizes and types this mean average doesn’t contribute much more than a broad sense of how this looks at small business scale.

## Impact of flooding and flood risk on community economic resilience in the Upper Calder Valley



For 6 of the interviewed flood-affected businesses, almost all the initial impacts of premises flooding such as loss of trade and some staff wages, were covered by insurance payouts, totalling £435,400, which neutralised the immediate direct costs to the flooded business. However, these businesses indicated knock-on losses to the local economy summarised as follows:

- Wages lost due to business decisions made because of the floods: £51,700 (up to June 2014)
- Quantifiable lost spend with local suppliers, who as not directly affected are not covered by insurance: £14,308
- Shortfall in insurance payout leading to owner covering costs and thus losing earnings: £5,000.

Thus the total *known* losses to other businesses and individuals in the local economy in the case of these six insured businesses is £71,008, with several other impacts that the respondents could not quantify. This demonstrates how impact continues on the local area beyond even the most comprehensive insurance payout.

### 3.3.3 Other cumulative or secondary impacts of these 'first tier' impacts

As highlighted in at section 1.5, although a net figure for the gain or loss to the local economy can be obtained, this does not fully reflect how this money or loss of money 'multiplies' in the local economy and impacts on more people and businesses in the area.

There were 12 first tier businesses for which that business' loss/gain AND the loss/gain to its second tier (i.e. suppliers or staff) were both quantifiable. The net loss to these first tier businesses totalled £199,449. But then these losses meant their suppliers and staff also lost income, so that the multiplied loss from this to their local suppliers and local staff was

£28,598. There would then be further multiplication of the loss through how this affected the local spend of those suppliers and staff.

Although it would be misleading to add this to a total net loss to the local economy, the additional losses this effect causes up and down supply chains are worth acknowledging. This approach mirrors the LM3 tool developed by the New Economics Foundation (nef) to measure how money circulates and multiplies benefit in the local economy by examining spend at three tiers<sup>11</sup>.

There was of course enormous variation as to what extent impacts were felt down the supply chain, as shown by the examples in the table below, and in the pathway mapping at section 3.2. With some businesses, if suppliers or staff are not local, the impacts stop multiplying immediately. With others, the impacts ripple out for several tiers of the supply and demand chain.

**Figure 5: example impacts down the supply chain**

| <b>Initial/1st tier impact</b>  | <b>2nd tier cumulative impacts &amp; potential impacts</b>  | <b>Known or potential third tier impacts</b>  |
|---|---|---|
| Cafe closed for 7 months; loss of trade insured, so no loss to the business itself or to the local area from this. £0 | Estimated loss of trade for suppliers £5,308<br>Estimated loss of casual work for staff: £1800<br><i>Loss of 3 months business rates to local council</i> | Suppliers' staff on reduced hours<br><i>Casual staff's local spending affected</i>  |
| Cafe closed for 10 weeks: insured, so no loss to the business itself. £0  | Estimated £8,400 lost to redundant cafe staff<br>Estimated loss of trade for local suppliers £2500  | One employee took out a loan to cover living costs; personal finances (and thus local spend) still affected two years later.<br><i>Suppliers may reduce hours for their staff</i> |
| Garage spent insurance payout locally on stock & equipment  | Stock & equipment suppliers benefit by £12,000  | <i>Increased hours &amp; thus local spending power for suppliers' staff</i>   |
| Company suffers decrease in sales of £20,000  | No local staff lose hours; all suppliers are outside the area: no multiplied impacts  | No third tier impacts   |
| Dairy (milk round) business – many customers affected, causing drop in sales and also a milk surplus                  | Local staff were paid extra hours dealing with milk surplus.  | <i>Increase in local staff's local spending power.</i>  |

<sup>11</sup> <http://www.neweconomics.org/publications/entry/the-money-trail>

### **3.4. Local employees' earnings in the year following the floods**

Of the 39 businesses which were asked and answered this question (this was on the survey form, which few of the 2<sup>nd</sup> tier and accountant interviewees had completed)

- 2 businesses said their employees earned more as a result of the floods in the following year (a dairy business had to employ more staff to work out how to deal with surplus milk in the few weeks after the flooding; another business paid staff for cleaning up)
- 29 businesses said the floods had no impact on their employees' earnings;
- 8 said their employees earned less.

The Needs Assessment (CFFC, 2012) also found that 14% of its 44 respondents' own business or employer's business was closed for a while after the floods, although it is not clear from this whether they experienced a loss of earnings as a result.

It is clear that in most cases employees were relatively insulated from the negative financial impacts of the flooding, sometimes with their salaries being covered by insurance payouts (the surveys did not give clear data on amounts). Given the problems businesses have since experienced in getting insurance (see section 3.8.3) it seems this impact might be worse in the future.

Quantifiable information on the impact on employees' (including casual and temporary) earnings in the year following the floods was given in interviews by 8 businesses. The estimated<sup>12</sup> total net losses to *local* employees of these 8 businesses was £54,800<sup>13</sup>. This included redundancies due to long term closure for refurbishment, reduced hours due to reduced business in the months following the floods, and one with increased hours from staff being paid to clean up.

We asked businesses in interviews how this impacted on their employees. In the main, those whose employees were affected were not able to give much information on this, sometimes through lack of knowledge, particularly if staff were new, temporary or casual; and sometimes because interviewees were reluctant to share difficult and sensitive information. This, along with the relatively low numbers of affected employees, explains why our investigations did not result in any interviews with affected employees for our 'second tier'. Responses from 3 businesses demonstrated the following:

- 1 of the former full-time employees started a part-time business, so eventually came back part-time. The other full-time employee was washing dishes in a pub to make ends meet. Their partner had to get a loan from the bank to tide them over and it caused a lot of pressure and difficulty for them (cafe/shop)

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<sup>12</sup> See assumptions at section 1.7, e.g. using average wages in estimates.

- “Not happy! Lots of personal issues” (cafe – did not want to discuss this further)
- 2-3 businesses made it clear they tried to protect their employees from loss of income: ‘we were all in it together’ (food retailer) ‘didn’t want the costs of retraining someone from scratch’ (cafe); “we tried to find casual staff other jobs locally (cafe).

We too asked whether businesses were affected by their staff being affected by the floods: for example, taking time off to deal with a flooded home. Very few businesses said they were affected by this: the largest employer reported a small rise in sickness levels in the months after the floods, which reflects the Needs Assessment finding on health impacts mentioned at section 2.2.

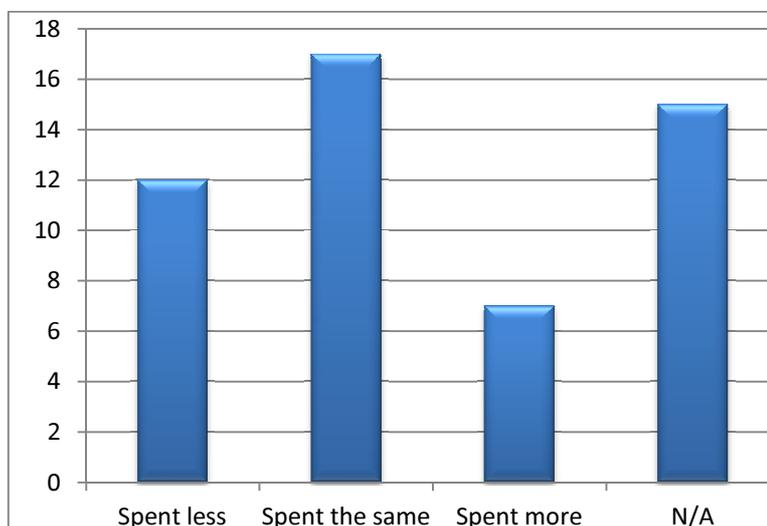
The Needs Assessment, whose respondents had all experienced domestic flooding, also found that 8% had had to take time off work to deal with their own flooding situations.

### **3.5. Impact on spend with local suppliers over the following year**

Of the 51 respondent businesses: (see figure 4)

- 12 businesses had spent less with local suppliers over the following year
- 17 businesses had spent the same with local suppliers
- 7 businesses had spent more with local suppliers
- (15 either did not answer this question, were not asked it, or the question was not relevant)

**Figure 6: Impact on spend with suppliers**



It may be that respondents interpreted this question in different ways on the survey form. From accompanying comments, some included refurbishment spend, others seemed only to include their usual expenditure. Some included local authority rates and we suspect others didn't. In other cases, a very significant drop in sales was reported but the business “spent the same on local suppliers”, which seems unlikely in the business type involved. This was clarified in some interviews but in other cases we have had to take this information at face value.

Additional quantifiable information on spend with suppliers was given in interviews and on survey forms. Based on this, there were the following knock-on impacts to local suppliers:

14 businesses indicated quantifiable impacts on local suppliers. Total losses to local suppliers amounted to £79,751, made up of 12 losses of various amounts. Gains amounted to £132,970, including one major spend of insurance payout with local suppliers (£100,000) and 8 smaller amounts, leaving a net gain to local suppliers of £53,219 (the suppliers gaining were not the same suppliers as those losing). Losses to local suppliers were mainly from reduced stock and service purchasing during closure and reduced trade in the months after the flooding. Gains were mainly due to a) insurance payout spend on refurbishment by local suppliers plus a small amount of replacement stock (£127,615) and b) small changes to operation and sourcing as a result of the floods (£5,355). There was also a significant number of unquantifiable impacts to add to this. Also without the single large spend of insurance payout with local suppliers, the results look very different.

It may also be that businesses were more likely to be able to quantify their post-flood refurbishment spend, which is where much of the local gain to suppliers came from, but less likely to be able to extract figures for the larger number of smaller impacts on the local supply chain from the year's /ongoing loss of trade. It is also perhaps worth questioning whether a sudden spike of activity in the refurbishment sector can compensate for the smaller but longer-lasting losses to the local economy's "bread and butter" businesses on which its normal economy depends.

As with the impacts on employees, this highlights how the impact would be different with fewer insurance payouts given the trouble businesses are having finding insurance.

### **3.5.2. Local benefit to suppliers of insurance spend – and lost potential**

3 of the businesses said that that their insurers required claimants to use nominated non-local suppliers to carry out the post-flood repairs. (This question was only asked of/answered by a small number of the interviewed businesses, as it was an issue that emerged late in the interviewing stage, so it may have applied more widely). This requirement by insurers prevents the area's relevant businesses from having the opportunity to gain from the floods to compensate for the area's losses. The potential value lost to the local economy in this way was £70,500<sup>14</sup>. This figure is not included in section 3.3.1's total net loss to the economy, because it is only a loss of potential rather than an actual loss.

It may be that local tradespeople would not have enough capacity within a limited timeframe for all the flood repairs needed, and there may be issues over quality assurance

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<sup>14</sup> We have not included the one business who said local suppliers did not have the capacity to supply their refurbishment

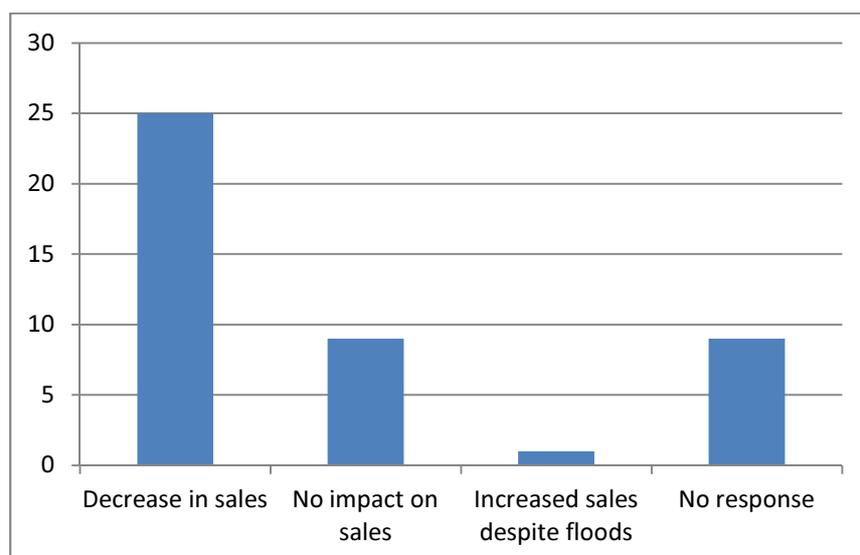
in some instances, but some flexibility would at least allow the potential here to be maximised.

### **3.6. Impact on sales over the following year**

Of the 43 businesses who were asked this question:

- 25 said their sales had decreased as a result of the floods during the following year
- 9 said there was no impact on sales
- None reported increased sales as a result of the floods (1 reported increased sales of £10,000 in spite of the floods)
- 9 did not answer the question, including 1 that was closed for a year and thus had no sales.

NB we do not include lost sales that were covered by insurance payouts, as these are neutral to the local economy.



**Figure 7: Impact on sales**

Additional quantifiable information on impact on sales was given by 21 businesses. Their collective decrease in sales totalled £831,324, averaging £39,587 per business. The mean average turnover of these businesses is around £569,733, ranging from £35,000 to £3,500,000 (although 5 did not give turnover figures).

Although none reported a net increase in sales, one business (providing printing services and goods largely to other local businesses) had a £15,776 drop in sales in the two months after the floods, and a £15,000 increase in sales the following month, which they think is due to businesses reopening and needing printed materials to relaunch and replace lost stock. Also, two accountants mentioned that some of their clients – builders and electricians - would have had increased sales in the months after the floods.

### 3.6.2. Impact on sales of customers being flooded themselves

Many of these sales decreases were due to flooding impacts not on the interviewed businesses but on some of their business customers. Those we have information about include:

- a printing business, many of whose business customers were affected (as above).
- a packaging company, whose £20,000 reduction in sales was partly due to business customers' closure from flooding
- a food and drink retailer, three of whose wholesale customers were closed due to flooding for between a few weeks and a year. Lost sales from this amounted to over £5,425.
- a greengrocer whose wholesale business was down by 25% due to flooded businesses in the area.
- a dairy (milk round) business, 9 of whose business customers in the area were shut for between a few days and a few months.

Sales both to retail and wholesale businesses seemed to be affected (of the 33 retail businesses represented, only three were unaffected] which suggests that as well as customer businesses being closed due to flooding there was reduced resident and tourist footfall in the area – very much the anecdotal experience of interviewees. One high street retail business which was not flooded directly gave up on a shop altogether and switched to online sales only, as a result of the drop in footfall after the floods. One interviewee commented, half in jest, that he thinks local retail suffered because in the weeks after the flood, local people were too busy dealing with flood impacts to shop for anything but the bare minimum.

Further information also came from the 4 accountants and 1 insurance broker's interviews: two reported that some clients such as builders and electricians benefiting from increased trade in the months following the floods, while other businesses lost turnover. One said that out of 2000 Upper Calder Valley clients, 150 were directly affected by the floods; another said that 18 out of 30 Upper Calder Valley clients were directly affected by the floods; another that 10 out of 40 Upper Calder Valley clients were directly affected and lost on average 2 months turnover each. One said that larger businesses were affected more than smaller businesses. No further quantitative data was available from this category of interviewees.

Two main conclusions on the impacts of the 2012 floods on turnover:

- a) Decrease in sales in the year following the floods was a major issue - from footfall reductions and affected customers.
- b) Businesses involved in building and related trades would clearly have increased sales due to the floods. This study has not been able to acquire quantifiable data on these, but it is reflected in the figures flooded businesses gave mainly for

refurbishment spend on local suppliers: £132,970. The Upper Calder Valley's anecdotally reported culture of local sourcing (see section 3.9) must have contributed to this gain.

### **3.7. Less quantifiable impacts over the year**

The following comments were made on how the floods affected their business and the wider local area in the months and year following the floods (comments on ongoing impacts can be found at section 3.8 below):

- 2 retail businesses said they were severely affected in the long term by street closure to repair the river bank. *"Big 'road closed' sign, not so much 'traders still open'"*
- 2 businesses mentioned that transport was part of the problem, with crucial roads and rail closed after the floods
- *"Terrible time – all tourists stopped coming to Hebden and they didn't return til Oct 2012. – retailer*
- One said the floods were *"a big distraction from running the business"*
- The floods helped one interviewee realise his business was valued by its local user community. He has major plans for expansion, and this increased confidence may have been a factor.
- An insurance firm said it gave some businesses an opportunity to modernise and bring their premises up-to-date.
- *"The opportunity was also taken through the insurance to make the properties more resilient to flooding and recover if they were flooded, e.g. solid floors put in to replace wooden."* – accountant.
- *"Some people have gone into business, since the floods, have seen opportunities and started a business"* – food retailer.

The drop in trade in the several months after the floods was widely experienced and reported beyond this study's respondent businesses<sup>15</sup>. It may have come also from the transport issues, and also perhaps from the lost local multiplier of other impacted individuals and businesses. There is a sense amongst local people that the media perpetuated the negative impacts on the valley: after the 2012 flood there were camera crews in the area every time it rained to see if it would flood again, which just made the area-wide impacts worse so that businesses that weren't affected initially became affected by this<sup>16</sup>. This perspective is backed up by the figures on sales and spend reduction contributed by our respondents.

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<sup>15</sup> E.g. [The Calderdale Flood Recovery Plan for the Upper Valley, following the Floods in Summer 2012](#) - Calderdale Council

<sup>16</sup> Interview with Chris Sands, The Good Company.

### **3.8. Ongoing impacts of the 2012 floods**

#### **3.8.1 Ongoing impacts on respondent businesses**

17 of the 50 businesses reported one or more ongoing impacts or those lasting longer than a year, although it was not always clear to what these could be attributed and most could not be quantified.

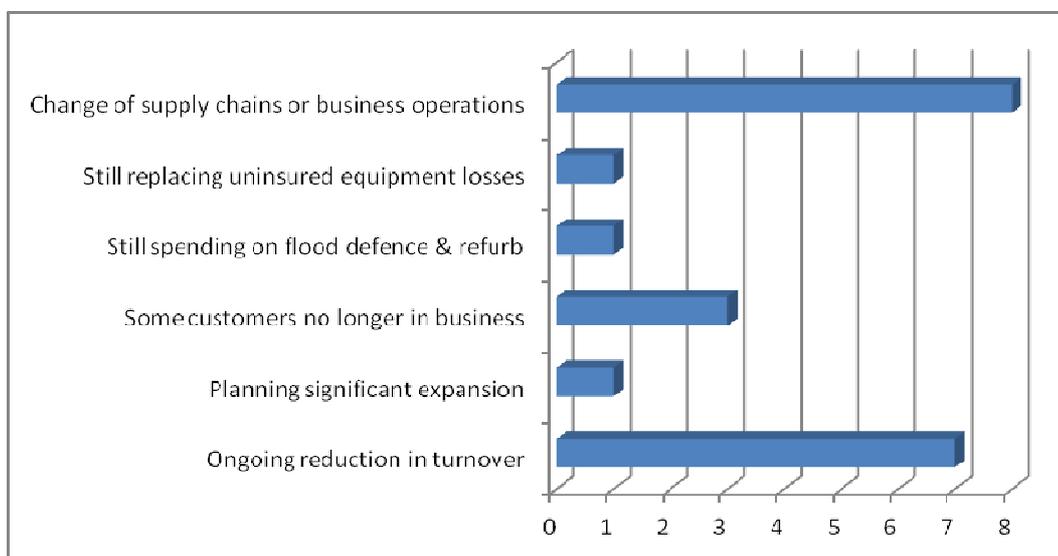
These impacts were:

- 7 businesses (in particular the cafes and high street retailers) reported an ongoing reduction in turnover since 2012. All said that while the reductions had followed on from the floods, they could not be sure of the reasons for this, with several mentioning recession/austerity impacts 2012 floods as other possible causes and one also mentioning the negative impact of online sales. They also did not quantify these reductions in turnover.
- 3 businesses reported growth over the last year. They said this was not connected to the floods.
- 1 business was planning significant expansion. They said this was not directly due to the floods, but the positive reaction to their flooding crisis from their community had given them confidence in the future of their business. So this may have contributed to their willingness to expand.
- 3 interviewed businesses reported that some of their customers had gone permanently out of business as a result of the floods, thus losing them trade.
- 1 business was still spending on flood defence and refurbishment.
- 1 repair business was still slowly replacing lost equipment that had not been insured.
- 8 businesses had changed their supply chains or business operations as a result:
  - 1 had stopped operating a shop, and switched to online sales.
  - 1 said that plans made before 2012 for expansion were shelved for the foreseeable future.
  - 2 had moved premises. One said this brought “more costs and loss of sales”. The other said the new premises were less nice and less convenient and this seemed to increase staff turnover. They were forced to relocate sooner than they’d have liked, and previously had a good plan to move into a neighbouring building.
  - 1 business owner had had to take on a second job for 4 days a week to repay debts incurred during the aftermath of the floods.
  - 1 had changed 4 of her suppliers, with the purposes of rationalising costs. The owner felt this had mainly been from local to more remote suppliers, but the information she shared demonstrated a local gain instead, although she was not able to provide figures for one local to national change. She said another reason to change suppliers was to take advantage of more local suppliers’ ability to deliver quickly, which is helpful when habitually carrying

less stock. 1 of these changes was from local to national, and 3 were to more local suppliers. The quantifiable net gain to the local economy from these changes was £1,440 per year.

- 1 said she now recognised the need to support local businesses and had changed her packaging supplier to one more local, with a very small net gain.
- 1 larger business had closed down its canteen, with an ongoing loss to local employment and suppliers to a value of £28,800 per year – although there would presumably be some replacement trade for local retailers.
- 1 art business had lost 2 local suppliers (artists) due to cancelling exhibitions when business was slow.
- 1 business reported permanently reduced staffing levels, but did not give figures.
- 4 businesses said they were more cautious about carrying stock, generally carrying less, as a result of the floods. One of these said several of their customers did too.
- 1 business no longer sold its own produce, but had stopped primary producing and bought in and repackaged all produce. They said this change in the business was brought about from a number of factors but the flooding in 2012 contributed.
- Between the 4 accountancy firms and 1 insurance broker we interviewed about their clients, there was evidence that in the longer term one client had gone out of business, many businesses were unaffected in the long term and some were affected positively by having refurbishments and modernisations to their premises. There was no quantifiable data from these interviews.
- From the survey that was sent out, it appears from the response spreadsheet that 17 surveys were returned to sender as “not known at this address” which suggests that these 17 businesses had moved or closed down. However, out of a mailing list of 250 some attrition would be expected after two years so this may not be significant.

**Figure 8 : Ongoing impacts on businesses**



### 3.8.2. Impacts on business confidence

There were comments on both positive and negative impacts on confidence of the floods, but more negative than positive.

- 6 interviewees mentioned (this was not a question – the information was volunteered) that the floods had in some way reduced their and sometimes their customers' confidence in maintaining or growing their business: 2 said that the floods had stopped plans for expansion; 4 said that due to lack of insurance or high excess, they would be out of business if there was another flood. One said *"I'd go now if someone offered."* *"Some customers are now living under a shadow of insurance worries, and don't buy with the same enthusiasm they used to"*
- As above, 4 businesses (2 food retailers, a food producer and a cafe) said they carried less stock now than they used to; one food retailer/wholesaler said their business customers did too.
- One reported a slight weakening of the business' commitment to the local area: *"next move might be south"* – a larger business
- Two reported anxiety and a sense of being constantly at risk of flooding
- One interviewee said *"You could say the floods forced local businesses to really focus, which could be one good thing"*; and another that *"The positive that came out of it was that he saw value of his business to his community by the way they reacted"*; he now had significant expansion plans.
- One said she was not worried about future flooding: *"the likelihood of serious flooding – it's not often."*

See also the comments below on insurance, which reflect ongoing concern within the business community.

### 3.8.3. Insurance impacts

9 businesses mentioned problems with getting adequate insurance. 5 businesses said they were no longer insured against floods – including cafes, retailers, a manufacturer and a food producer (this was not a question – the information was volunteered). One other said they had difficulty. The insurance and accountancy firms corroborated this:

- *"It is now much more difficult to get flood risk insurance.... Many now have no access to insurance and have to self-insure"*
- *"Our client businesses cannot get flood insurance now. We had to fight 'tooth and nail' to get ours, but that is it. Businesses now have to build that potential risk and cost into their business planning"*

It was clear from the language used that this was seen as a major issue: *"God help us if there is another flood – and there will be!"* (manufacturer); *"Next flood – out of business!"* (cafe/bar). Some mentioned their efforts to 'self insure', with one food producer using the

£420 saving on the insurance premium to buy sandbags and brick up all the non-essential doors and windows in their building.

Council officer Robert Campbell commented that *“Businesses in the Upper Calder Valley have worked hard to make their business premises more flood resilient but the insurance industry has not yet reflected this in their approach to considering each individual business’s insurance risk. Flood Insurance risk still tends to be postcode based and the business flood risk market is not one which insurance companies consider particularly attractive at present”*

If the rise in uninsured businesses continues, then in any subsequent major flood employees would not remain relatively insulated from economic impact (see section 3.4), and this would have knock-on impacts on the local economy through reduced local employee spend.

Problems with high excesses and premiums were also mentioned by 4 interviewees, e.g.:

- *“My insurance excess was increased to £25,000 for flood damage but reduced to £20,000 following installation of flood barriers”* – manufacturer.
- *“Insurance at the time of the flood £950 per annum £2500 excess. This year £8,500 per annum £10,000 excess”* – retailer.

Although we haven’t gathered data on the collective cost on increased insurance premiums, considering this too small in relation to other business costs to be meaningful, it is another added chip off the profit margin for hundreds of affected businesses.

The thorny issue of business insurance and appropriate risk and resilience assessment is subject to other Pathfinder work by Calderdale Council and nationally, and it certainly seems essential to avoid future floods having greater local economic impacts.

#### **3.8.4. Ongoing impacts on the local area environment**

Several businesses referred to ongoing impacts on the local area as a whole, although it is again difficult to attribute most of these to a single cause or to quantify them.

- 4 businesses mentioned ongoing voids in the High Streets of one or more of the towns, which they said were a consequence of flooding and ongoing flood risk. – *“if you imagine, every 4th shop affected means the whole street looks bad.” “When we took on our shop... it was really difficult to get one and we thought we were lucky at the time!”*
- One said that local investment had “almost ceased” since the flood because there had been no effort to clear the river to avoid it happening again.
- *“Trade in the valley has changed. It used to be steady, now it seems more up and down – perhaps the same overall, but more volatile. Wonder if ‘flood tourism’ is a factor there, or was”.*

- One interviewee reported that people moving into the area from cities for the rural lifestyle and starting small businesses were contributing strongly to the local economy of Hebden Bridge.
- More positively, and echoing some business comments made in section 3.8.2 above, Chris Sands commented that the floods *"made people stop looking after themselves and start looking after each other"* and that at least *"there was some positive economic impact from that"*. This relates also to the section below.

### **3.9 Role of local supply chain relationships and collaboration in flood resilience**

#### **3.9.1 Supply chains**

Two business interviewees said that the local commitment to buying local had been helpful in overcoming the impacts of the floods (this information was volunteered and not the answer to a question).

- One other said that she had switched to local suppliers on the grounds that as she was carrying less stock now, it was important to be able to get more supplies quickly; (although she had also switched two product lines to more remote suppliers for cost saving reasons to help her recovery).
- One said that the utilities and hire purchase companies exhibited no understanding of his circumstances or flexibility over contract arrangements in the months after the floods, whereas local suppliers immediately got in touch to vary terms without him even having to ask – *"The people affected locally were the more supportive - the more insulated from the problem, the less interested."*

Another said the floods had made her understand how important it was to support the businesses around her, and she had changed at least one supplier as a result (retailer).

The figures available from these switches are small in relation to other sources of business losses and gains, but are useful for their replicability and evidence of behaviour change.

8 out of the 12 interviewees who were asked about business-to-business relationships, mutual and community support in the UCV, said that this was good and played a part in assisting recovery, which they variously contributed to and benefited from:

- *"We were not seeing people on a daily basis [as normal] because so many places were shut - so people had to make the effort, were texting each other, communicating, trying to support each other."*
- *"Incredible support amongst businesses, creativity in addressing the problems"*
- *"Businesses couldn't have been more helpful to each other: even competing cafes were lending each other equipment"*

- *“Also we shared cleaning services - we hired someone to clean and then sent him round the other businesses nearby, he was there all day. Lots of business people took the Sunday out to help each other clear up.”*
- One said there was a collective voice for better flood defences and other support
- Two businesses said that since those initial months, some of these business relationships have faded a little but that there was still an increase in collaboration in comparison to the time before the floods.

It seems that there is an established culture of supporting and supportive local business in the area, with Hebden Bridge named as sixth top “Home Town” in the New Economics Foundation’s Clone Town surveys<sup>17</sup>, and the presence of initiatives such as Totally Locally, likely to be based on a long history of local sourcing. The 41 survey responses give the following averages for sourcing within the Upper Calder Valley, and although we don’t have comparators from other areas these seem reasonably high considering the mix of business types.

|  |        |
|--|--------|
| Average proportion of expenditure within the Upper Calder Valley:      | 31.55% |
| Average proportion of customers based within the Upper Calder Valley:  | 53.77% |
| Average proportion of workforce living within the Upper Calder Valley: | 75.76% |

The Valley of Lights festival seemed to provide another good example of business and community social capital and of intelligent use of local supply and demand. Held in November 2012, it won an APSE (Association for Public Service Excellence) award for best neighbourhood and community project. According to the evaluation, from a budget was £85,000, it gained £1.5 million in PR. With 12,000 people over three nights, it re-engaged a lot of people with the shops in the area<sup>18</sup>.

The procurement for the festival was at least 85% within the Upper Calder Valley, and at least another 10% from within Calderdale. A local market formed part of the event. Free market stalls were given to flood affected businesses, AND also to their suppliers, whom the organisers recognised were affected. LWM's Mainstreaming Community Economic Development research identified market stimulation as a key role for local authorities and support agencies in supporting local economies, and this provides a good example.

Having said this, as a lone event it didn't seem to be quite enough to overcome the negative impacts of the flooding, with one March 2013 report commenting that despite very positive event feedback businesses were saying "footfall has been very low since Christmas" and that there was "a poor image of the area, as portrayed by the media, so more marketing is

<sup>17</sup> [Re-imagining the high street](#): new economics foundation, 2010

<sup>18</sup> interview with Chris Sands, verified at Calderdale Council website: [Shining Bright in the Calder Valley](#)

required"<sup>19</sup> This is backed up by the findings of this study on the ongoing downturn in the area. It would be difficult to estimate whether things would be worse if the festival had not happened.

Another excellent example of supportive inter-business relationships identified through local media is that of the Nelson's wine bar 'popup'. Interviewee Chris Sands described this in more detail, saying that it was extremely successful. After the underground wine bar flooded, the 'popup' was arranged with the 'pubco' owners of the Hole In The Wall pub, which was otherwise unoccupied. What is particularly interesting is that the pop-up also hosted other popup nights for some of the other flood-affected businesses in the area such as restaurants and art retailers. The owner was quoted in the Hebden Times as saying the popup arrangement *"has been brilliant for all of us... it has kept us all in work and people have been very supportive."*<sup>20</sup>

Likewise wider communities and customers helped: *"we put something out on Facebook and 40 volunteers came to clear it."* *"Our team were clearing the mud and sludge from the streets around them."* Businesses helped local residents in return, with businesses were giving away free food to flood-affected people in Todmorden<sup>21</sup>.

It is not possible to quantify the difference this business-to-business and community collaboration makes to business resilience to flooding, but from our respondents it certainly seems to be a significant source of support.

### **3.10. Comments on support needs for the area and other problems**

Some businesses made comments about support needs for the area, other problems and solutions. Although most of these are only marginally relevant to this study, out of respect for the time contribution made by respondent businesses, these are as follows:

- *"Not enough being done to protect the town"*
- *"Rates are £21.5K!!"* – manufacturer
- Government should legislate so as to ensure that insurance companies made flood insurance available to business without exception and at across the board common rates and not at exorbitant premiums; with massive excesses and exclusions. – producer
- There is a need for more parking for the town; perhaps utilising the site of former Walkleys Clogs Mill and maybe with a park & ride facility.

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<sup>19</sup> [The Calderdale Flood Recovery Plan for the Upper Valley, following the Floods in Summer 2012](#) - Calderdale Council

<sup>20</sup> [Hebden Bridge Times](#), 28th February 2013

<sup>21</sup> Interview with Chris Sands

- *"Imposing charges on the parking this year didn't help! Unsure what impact are due to what"*
- Had no criticism of Calderdale Council, who he considered were a fair, very positive and proactive authority, but considered that to be unusual and that it was somewhat of lone voice amongst the generality of local authorities. – food producer (two other interviewees were also very complimentary about the council's role)
- The Environment Agency was a very different matter to the local authority - a law unto themselves as to what they decide to do, and should start listening more to the local communities. – food producer
- *"The council helped residents more than businesses. They did not reduce business rates. If the police had stopped the traffic from coming through, the shop would not have flooded – it was only passing traffic that breached their defences"* - retailer
- *"Council have provided flood barriers at doors. But floods don't always go through doors"* - retailer.

As is only logical, it appears from some of these comments and from a support role interviewee that the impacts of other factors including parking, the activities of Totally Local, austerity/recession and more recently the Tour de France, have had impacts that have combined with those of the floods, and to some businesses may even be more significant. It would be difficult to separate out the impacts of these different factors on the local economy.

### **3.11. Summary of quantifiable impacts**

*See also the impact pathway mapping at section 3.2*

Losses to the local economy came from the following: figures represent what quantifiable data was available rather than a total figure, so are broadly indicative of corresponding size of impact rather than representing exact losses to the local economy from these respondent businesses.

|  |
|--|
| From <b>26</b> businesses where impacts could at least partially be quantified, net losses totalled <b>£823,900</b> and net gains totalled <b>£17,300</b> . Thus the (known) combined net loss to the local economy is <b>£806,600</b> . |
|--|

|  |
|--|
| For <b>6</b> flood-affected businesses, whose own costs were covered by insurance payouts totalling <b>£435,400</b> , the knock-on losses to other businesses and individuals in their supply chain was well over <b>£71,008</b> (several unquantifiable impacts.) |
|--|

|  |
|--|
| For <b>12</b> first tier businesses, their losses totalling <b>£199,449</b> , meant their suppliers and staff also lost income, multiplying the loss and increasing it by <b>£28,598</b> . |
|--|

|  |
|--|
| The estimated <sup>22</sup> total net losses to <i>local</i> employees of <b>8</b> businesses was <b>£54,800</b> .   |
| From <b>14</b> businesses total losses to local suppliers amounted to well over <b>£79,751</b> (with a number unquantified); gains amounted to <b>£132,970</b> , including one major spend of insurance payout with local suppliers (£100,000) and 8 smaller amounts. This makes a net gain to local suppliers of well over <b>£53,219</b> (the suppliers gaining were not the same suppliers as those losing) |
| The potential value lost to the local economy from <b>3</b> businesses whose insurer specified a non-local supplier, was <b>£70,500</b> .  |
| <b>21</b> businesses had a collective decrease in sales of <b>£831,324</b> , averaging <b>£39,587</b> per business in relation to a mean turnover of around <b>£569,733</b> , (range £35,000 to £3,500,000)  |
| Out of <b>43</b> businesses, <b>25</b> said their sales had decreased as a result of the floods during the following year, <b>9</b> said there was no impact, <b>none</b> said sales had increased, and <b>9</b> did not answer the question.  |
| Of <b>39</b> businesses, <b>8</b> said their employees earned less as a result of the floods during the following year, <b>29</b> businesses said the floods had no impact and <b>2</b> said their employees earned more.  |
| Of <b>36</b> businesses, as a result of the floods <b>12</b> had spent less with local suppliers over the following year, <b>17</b> had spent the same and <b>7</b> had spent more.  |

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<sup>22</sup> See assumptions at section 1.7, e.g. using average wages in estimates.

## 4. Conclusions and recommendations

### 4.1. Conclusions

#### **4.1.1. How flooding impacts accumulate locally and affect supply and demand chains**

- The results show that flooding does impact along the supply and demand chains of flooded businesses. The impacts are highly variable and of varying magnitude. Some are immediately of significance; others are quite subtle but could be replicated across the local economy to a point where they become significant. Impacts can be positive or negative.
- As with the benefits of flood resilience measures, it is difficult to quantify these impacts and to separate them from the impacts of other factors. But to have some figures for some impacts, and to map impact pathways, at least allows potential to be illustrated.
- From what quantifiable information there was, and from the number of unquantifiable losses and gains available, the negative impacts on the local area significantly outweighed the positive. By way of illustrating this, from 26 businesses where impacts could be quantified, net losses totalled £823,900 and net gains £17,300, giving a combined net loss to the local economy of £806,600 through the activities of these businesses.
- The biggest loss to the local economy came from the drop in trade amongst businesses and their supply chains in the months after the floods (£831,324 from 21 businesses), not from uninsured direct impacts (£199,449 from 12 businesses)
- The biggest gain came from insurance payout spend on local suppliers (£132,970 from 14 businesses).
- Even where insurance payouts are fairly comprehensive, there are usually knock-on losses to local supply chains.
- Where businesses have a more localised supply chain, this impact will obviously be higher than where suppliers are based outside the area, but also gives a greater earning potential for the area to assist recovery and prior to the floods was contributing more the local economy. It is therefore useful for support agencies to understand how these impacts translate in an economy with a high 'local multiplier' factor such as the Upper Calder Valley. More, or more detailed, pathway mapping and use of the LM3 tool to learn more about the Upper Calder Valley's multiplier in

good times and therefore what to expect when this is reversed during a crisis, would help develop this knowledge further.

- It seems that the Valley's employees in 2012 were relatively insulated from the negative impacts of flooding. There were more negative than positive impacts on local employees' earnings – and thus a likely knock-on impact in terms of those employees' local spend. By way of illustrating this impact, the estimated net loss to local employees from 8 businesses was £54,800. But it was clear that many employees were safeguarded either by the priorities of their employer or by insurance settlements. If insurance cover remains difficult or impossible for local businesses to acquire, employees (and their local spending power) are likely to be more severely affected in future floods.
- Local suppliers lose trade from reduced sales of stock and services during the closure of flood-affected business, and from reduced trade in the months after the flooding. By way of illustrating this, from 14 businesses the quantifiable losses to local suppliers amounted to over £79,751 (with further unquantified losses).
- From the quantifiable data available, there appeared to be more gain to local suppliers than loss, but this may reflect better data on business' insurance spend than on more complex later variations in buying from suppliers.
- Refurbishment spend from insurance payouts is a major local gain and should be maximised as a way of recovering some of the area's losses - including if possible by resisting insurer insistence on non-local suppliers, if the capacity and quality assurance is available locally. However, if difficulties with insurance are not resolved, gains may be reduced in the future.
- Whilst certainly an economic gain for the local area, it seems doubtful that a spike in activity for refurbishment is of greater value than a drop in income for the businesses on which the Valley's normal economy depends.
- Gains were mainly due to insurance payout spend on refurbishment by local suppliers plus a small amount of replacement stock (£127,615) and b) small changes to operation and sourcing as a result of the floods (£5,355).
- Reductions in turnover of businesses in the months up to a year following the floods are significant, with most businesses reporting this. This seems to come from both from footfall reductions and flood-affected customers, and is reflected in comments about the downturn in the whole area made by respondents. Transport disruption was a likely contributing factor, alongside a largely negative media focus. By way of illustrating the reduction in sales, 21 businesses had a collective decrease in sales of

£831,324, averaging £39,587 per business in relation to a mean turnover of around £569,733.

- We were unable to obtain meaningful data on businesses permanently closing or moving away due to the flooding, although there were clearly some businesses lost as a result. If the insurance cover remains difficult or impossible for local businesses to acquire, this may be a worse problem in future floods.
- Some positive impacts that were experienced by a few respondents or their contacts included increased confidence resulting from community support during the floods; new business opportunities opening up; and higher quality premises after refurbishment.
- There were longer term or permanent impacts on supply chains and business behaviour and perhaps on general levels of economic activity, but these become impossible to separate from other factors. 17 out of 50 businesses experienced ongoing impacts in some way.

#### **4.1.2. How the risk/or fear of flooding impacts on the local area**

- There are severe consequences for business confidence from flooding, with a significant majority of interviewees reporting ongoing anxieties and uncertainties.
- Problems getting any, adequate or affordable insurance is a major issue leaving several businesses uninsured and extremely vulnerable – related to the anxieties above. The consequences of less insurance income to offset the losses from flooding are outlined above. This issue is the focus of other local research, but there is certainly a sense that insurers do not gain a sufficient understanding of individual resilience levels before coming to decisions and that solutions are urgently needed.

#### **4.1.3. How local business relationships (supply chains and collaboration) relate to what happens in the aftermath of a flood**

- Businesses seemed to gain significant support from the relatively collaborative spirit and activity between businesses, and between business and the wider community, in the Upper Calder Valley. It seems to be a significant ‘soft’ factor in flood resilience alongside more physical measures. For some interviewees the floods increased their understanding of the value of these linkages. The Valley of Lights festival and the Nelsons Wine Bar pop-up are good practice examples of using local resources to strengthen community economic resilience, from which others could learn. There could be value to community economic resilience in continuing to nurture some of the vitality and mutuality created by the crisis – while recognising that crisis

inevitably creates peaks in such relationships that are unlikely to be fully maintained through more normal times.

- Impacts of flooding and subsequent decisions have societal impacts, not just economic ones; and the two are in any case inseparably linked, particularly in an area with a high local multiplier such as the Upper Calder Valley. For the few instances where reported impacts on employees were financially significant, there were inevitable some serious personal and economic consequences to the individuals (although for some it brought opportunities)

#### **4.2. Recommendations**

This study demonstrates how impacts can be better understood and what might be gained from understanding them. Recommendations from this include:

- More, or more detailed, pathway mapping and perhaps use of the LM3 tool to learn more about the Upper Calder Valley's multiplier (i.e. knock-on economic impacts along supply and demand chains) in good times and therefore what to expect when this is reversed during a crisis. This will help support agencies understand how to support and restore the greater prosperity-creation potential of the area. (Local)
- Learn from information around what knock-on economic costs might not be covered by insurance market failure in the event of another flood and how this would impact practically on the local area. (Local and National)
- Use this information to demonstrate impacts more accurately to influence local and national decision-making. (Local and National)
- Work on nurturing some of the vitality and mutuality created by the crisis to ensure it is there when needed but more importantly to glean the economic benefits in the meantime. How this is done depends on the interests and enthusiasms of those involved and requires a light touch from a local authority, but may involve ensuring there are genuine roles in decision-making in order to create the virtuous circle of localising prosperity (see Figure 1). (Local)
- Promote local good practice for learning elsewhere in the UK and learn from it locally. Use it to combat any negative media profile. (Local and National)
- Work on the local repair and refurbishment supply chain to ensure the maximum gain from insurance spend in the wake of a further flood: skilling up and ensuring a degree of preparedness in case of flooding, and addressing issues with insurer requirements and quality assurance. (Local and National)

## Impact of flooding and flood risk on community economic resilience in the Upper Calder Valley

- It is not LWM's area of knowledge to suggest specific action to address business insurance issues, but perhaps these findings contribute a little towards proving the need for better risk/resilience analysis and a more needs- and public interest-orientated provision, to ensure the negative impact of flood disasters can be minimised. (National and Local)

Karen Leach

With contributions from Rajeev Prakash

Localise West Midlands

15th January 2015

<http://www.localisewestmidlands.org.uk>

## Appendix 1: Initial survey - Upper Calder Valley Flood Impact Study

Dear business owner/manager. Calderdale Council is continuing to explore ways in which it can support businesses at flood risk in the Upper Calder Valley and to gather evidence from businesses to help the National Flood Forum to lobby for improved business flood insurance. To do this we want to identify the cumulative impacts of flood costs on the area's economy. We are working with Localise West Midlands (LWM), a not-for-profit group, who will be analysing results and providing a report of the findings.

We would be grateful if you would spend a little time to answer the questions below which will feed into a study and findings report. We have designed the questionnaire to be as short as possible. Your information is essential in providing up to date information and supporting our efforts to help businesses in flood risk areas. We thank you for your co-operation and ask that you return your completed questionnaire by email to: [chris.whitaker@calderdale.gov.uk](mailto:chris.whitaker@calderdale.gov.uk) Please phone Chris on (01422) 392269 if you would like to reply by phone, or to arrange for your questionnaire to be collected.

**Confidentiality:** Calderdale Council and LWM will not publish or release any information whatsoever from individual business responses to other parties.

Thank you,

Robert Campbell  
 Business and Economy Manager  
 Calderdale Council  
 Direct tel. no. (01422) 392235  
 Email [robert.campbell@calderdale.gov.uk](mailto:robert.campbell@calderdale.gov.uk)

### 1. Business details

|   |   |               |  |
|---|---|---------------|--|
| Business Name                           |   |               |  |
| First Name                              |   | Surname       |  |
| Business Address                        |   |               |  |
|   |   |               |  |
|   |   |               |  |
| Post Code                               |   | Telephone No. |  |
| E-mail Address                          |   |               |  |
| Number of Employees                     |   |               |  |
| Business Turnover (2013/2014)           | £ |               |  |
| What Service does your business Provide |   |               |  |

### 2. Impact of the 2012 Floods

Please briefly summarise the costs to your business of the floods in 2012

Impact of flooding and flood risk on community economic resilience in the Upper Calder Valley

a) £.....to cover the cost of.....

b) £.....to cover the cost of.....

c) £.....to cover the cost of.....

d) £.....to cover the cost of.....

e) £.....to cover the cost of.....

f) £.....to cover the cost of.....

Please include more items and costs if necessary.....

How much of this cost was recovered by your business insurance settlement?

Total insurance payment received £.....

3. How your *normal* business spend circulates locally

Approximately what proportion of your normal annual business expenditure is with suppliers and businesses based in the Upper Calder Valley?

.....%

Approximately what proportion of your customers are based in the Calder Valley?

.....%

Approximately what proportion of your workforce lives in the Upper Calder Valley?

.....%

4. Impact of the floods on your spend with local suppliers

How did the floods impact on your expenditure *with suppliers and businesses within the Upper Calder Valley* in the year following the floods? Please indicate your answer with a tick below:

|                          |                          |
|--------------------------|--------------------------|
| We spent more            | <input type="checkbox"/> |
| We spent the same amount | <input type="checkbox"/> |
| We spent less            | <input type="checkbox"/> |

Figures / Comments if any.....

Impact of flooding and flood risk on community economic resilience in the Upper Calder Valley

5. Impact of the floods on your staff earnings

Approximately what impact did the 2012 floods have on your earnings and your employees earnings (where you have employees) in the year following them?

i) Impact on my earnings:

Reduction of £..... or Increase of £.....

ii) Impact on employees' earnings:

Reduction of £..... or Increase of £.....

6. Impact of the floods on your sales

Please give an estimate of the impact on your sales of the 2012 floods in the year following them, by completing one of the two lines below:

Our sales following the floods decreased by approximately £.....

Our sales increased by approximately £.....

7. If there were longer term impacts of the floods (after a year) on your spend with suppliers or employees, or on your sales, please tell us about them here

.....

8. Further contact

Would you be willing for us to contact you for a telephone or face-to-face discussion within the next 2 months to gather more information? Please reply by ticking one reply below.

I am willing to be contacted

I am not willing to be contacted

|                          |
|--------------------------|
| <input type="checkbox"/> |
| <input type="checkbox"/> |

Thank you very much for taking the time to reply

## Appendix 2: 1st and 2nd tier initial questions

### Upper Calder Valley flooding impact study - 1<sup>st</sup> tier interview questions

Explain purpose of survey, confidentiality and anonymity

#### **1. Clarifying information on the survey:**

1. Please clarify details of your turnover (if not given) OR number of employees (if not given)

#### ***Costs to the business of the floods:***

2. Please clarify details of the costs to the business of the floods
  - a. at the time
  - b. in the year or two since
  - c. did you include loss of business etc.

#### ***Insurance:***

3. If the insurance section was left blank – does this mean you were not insured, they didn't pay out, or you didn't have the information?
4. You appear to have had an insurance premium increase? How has this been funded?
5. Did you close and if so for how long?

#### **2) Finding out more about how what happened to your business affected others in the Calder Valley, such as your supply chains.**

By "Calder Valley based suppliers" or "local" we mean having (main) premises in Calder Valley.

#### ***A) your suppliers***

6. How many suppliers do you have?
7. How many suppliers are local?
8. You told us that a proportion of spend is with with local suppliers; so how much is this roughly?
9. You said you spent *more/less/the same* with these local suppliers to the tune of \_\_\_\_\_. Any more you can tell us about this, eg figures? Goods/services? Over what time period did this happen?
10. (Does this mean you switched suppliers to/from those outside the valley?)
11. Do you know how this affected your suppliers? *eg financial and employment impacts?*
12. Were some of your suppliers affected by the floods themselves?
  - a. Did this have an impact on your business?
  - b. *What were the impacts?*
  - c. *Where were they based?*
13. Has there been any lasting change in your trading with suppliers as a result of the floods?

## Impact of flooding and flood risk on community economic resilience in the Upper Calder Valley

14. In particular, has there been a lasting change in how much you spend with suppliers in/out of the Calder Valley? Please give details.

### **b) Your customers**

15. You told us proportion of income from local customers; how much is this roughly?
16. You told us what proportion of your customers are based in the Calder Valley. Would you be able to outline the approximate value of that local trade?
17. You told us how the floods impacted on your sales at the time – can you provide any more information on that?
  - a. How much of this impact was local?
  - b. Over what time period did this happen?
  - c. Do you know how this affected your customers – *eg financial impacts, having to source elsewhere?*
18. Were some of your customers affected by the floods themselves and did this have an impact on your business?
19. Has there been any lasting change in your trading with customers as a result of the floods – in particular, a change to the proportion of local/non-local customers? Give details. Do you have any figures that can illustrate this?

### **c) Your employees and own earnings**

20. You told us what proportion of your employees [IF ANY] live in the Calder Valley..... Does that figure include yourself?
21. You told us how the floods impacted the earnings of yourself and your employees:
  - a. Is there any more information?
  - b. How many of the affected were local?
  - c. Was there loss of casual work, redundancy, reduced or increased hours?
  - d. Please outline what happened during the floods and afterwards- over what time period did this happen?
22. Do you know how this affected your employees?
23. Were some of your employees affected by the floods themselves and did this have an impact on your business?
24. Has there been any lasting change to your staffing as a result of the floods?

### **d) Community and local area**

25. Was there any noticeable increase or decrease in trade due to changes in footfall eg due to closures of other shops on the street?
26. Was there any support and co-operation between affected businesses and/or other parts of the community during this time within the Valley?

## Impact of flooding and flood risk on community economic resilience in the Upper Calder Valley

27. How did your customers, suppliers and the business community support each react through the time of the floods?
28. Is there anything else you want to tell us?
29. What about impacts on your business and the people involved in it that you can't put a figure on?
30. Is there anything else you want to tell us?
31. If there were costs to the business (such as refurbishment or increased insurance premium) that weren't covered by insurance, did these increased costs impact on some other part of the business – e.g. did it just come off profits/earnings or did you make other reductions in your spending to cover it?

### e) Future impacts:

32. Have your future plans changed?
33. Does being at risk of flooding have any impacts on you economically – for example, changed practices, business flood risks?
34. What do you think would be the impacts on your business if there was another flood? (relates to insurance question above)

### Next steps questions

35. To help us gain an understanding of the wider impacts of flooding, can you give us details of some Upper Calder Valley based suppliers, customers or employees we can talk to, so we can see whether there were any more impacts further down the chain?
36. Is there anyone else you know with a story to tell about local impacts?

### Anything else you would like to tell us?

37. Is there anything else you would like to tell us?  
*Has there been any lasting change to your business and the way that it operates as a result of the floods?*

### Case study

38. Would you be willing for what you have told us to be written up as a case study? This would not be able to be anonymised, but certain things such as exact figures, names of suppliers etc could be changed and you would have the opportunity to check and correct what we wrote.

### Refresh on confidentiality and anonymity – are you happy?

## b) INTERVIEW questions FOR 2<sup>nd</sup> TIER INTERVIEWEES: (SUPPLIERS)

### Explain purpose of survey

### Confidentiality and anonymity

#### Direct Impacts

1. Were you flooded yourselves in 2012? (If 'Yes' go to Q.2, if 'No', go to Q. 5).
2. How was your business affected then? Can you quantify this?

## Impact of flooding and flood risk on community economic resilience in the Upper Calder Valley

- E.g. what did it cost you to overcome these impacts? Did you make an insurance claim? How much for and what did this cover? If your claim was for services or stock, how much spend then went to suppliers to you and based within the UCV?
3. Did this impact on your business then go on to impact on others e.g. your own suppliers, customers or staff? For example, you bought less or more from your suppliers, or your staff had more/less hours work?
  4. Can you tell us more about this? Are you able to quantify it?

### **Indirect impacts of the floods on your business:**

5. One of your customers, ..... was flooded and told us this may have affected your business. Is that right?  
  
Did you have other suppliers, customers or staff that were affected by the floods? How many? What types of business were they?
6. How did having these affected customers impact on you and your business? (For example, if needed, was there a loss or increase of sales; did you have to lay people off etc)? Over what period of time?
7. Did you lose any local customers because they ceased trading as a result of the floods, or have moved away from the UCV? How many?
13. Did you gain any customers as a result of the flooding? (get more detail, if so)?
14. Has there been any lasting change to your own business as a result of the 2012 floods?
15. Since then, have there been other factors that have had major influences on the economy, e.g. Tour de France? Any more detail on this?
16. Can you think of anyone who might have a story to tell about impacts of flooding on their supply chains and customers? (If so, give details).
17. Any other comments or observations?

**Thank you for your time**

### **Appendix 3: About Localise West Midlands**

Localise West Midlands has operated since 2002 as a non-profit thinktank, campaign group and consultancy working towards localised supply chains, ownership, money flow and decision-making for a more just and sustainable economy. As well as undertaking grant-funded research, we offer consultancy services in localisation and sustainable development to local communities and to a wide range of organisations, from small community groups through to local authorities and national bodies. Our consultancy work is driven by our aims and principles, and has been successful in creating significant changes in various fields.

Over the past two years LWM has been running a strand of work known as Mainstreaming Community Economic Development (MCED), which initially researched the socio-economic benefits of economic localisation strategies and how to integrate such approaches into mainstream economic development activity. This has increased our understanding of how community economic resilience and economic success can result from strong local economic interlinkages and how this increases social and economic inclusion. A follow-up project worked with some West Midlands local authorities and other organisations on integrating localised economic approaches into mainstream economic development.

This work also produced our web resource, [Localising Prosperity](#), which provides those with an interest in regeneration and economic development with guidance, evidence and inspiration on taking forward an approach that maximises the local benefits of all economic development.

Recent LWM consultancy activity includes three reviews of Friends of the Earth's environmental rights empowerment activities; an evaluation of the effectiveness of green energy equipment for Birmingham City Council, and a contribution to Defra's National Ecosystem Assessment follow-on project, with Birmingham City University and others, to integrate the 'ecosystem services' approach into the development and adaptation of tools, to improve policy and decision-making processes.

More information on LWM's activities can be found on our [website](#).

### **Acknowledgements**

Many thanks to all the business owners and managers who gave their time for interviews and filled in survey forms. Thanks also to the businesses whose excellent hospitality we made use of whilst staying in the Upper Calder Valley. We made sure our modest expenses budget was entirely spent with local independent businesses and this was certainly no hardship.

## Appendix 4: Sources

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