

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

- Executive summary



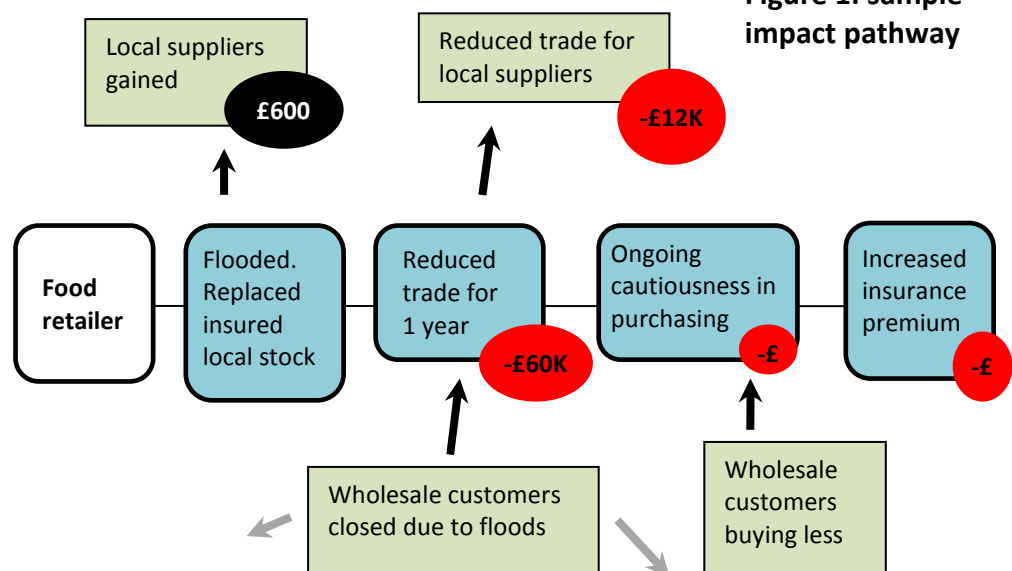
The purpose of this study, commissioned by Calderdale Council and DEFRA, is to provide greater understanding of the scale, reach and complexity of the economic impacts of flooding and flood risk in the Upper Calder Valley and how this relates to community economic resilience.

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.

Figure 1: sample impact pathway



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.

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- 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.

The full report can be read at http://localisewestmidlands.org.uk/calderdale_flooding_impacts/.

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