WHAT DO WE KNOW ABOUT PREPARING FINANCIALLY FOR DISASTERS? AN ASSESSMENT OF THE EVIDENCE GAP

CENTRE FOR DISASTER PROTECTION

BRIEF

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About the Centre for Disaster Protection

The Centre for Disaster Protection works to find better ways to stop disasters devastating lives by supporting countries and the international system to better manage risks. The Centre is funded with UK aid through the UK government.

About this brief

This brief provides an overview of the Centre for Disaster Protection working paper 'The impact of pre-arranged disaster finance: Evidence gap assessment', which examines the evidence on how to prepare better for disasters, specifically the evidence on the welfare impacts of interventions that pre-arrange finance for disaster response. The brief was drafted by Heidi Fritschel.

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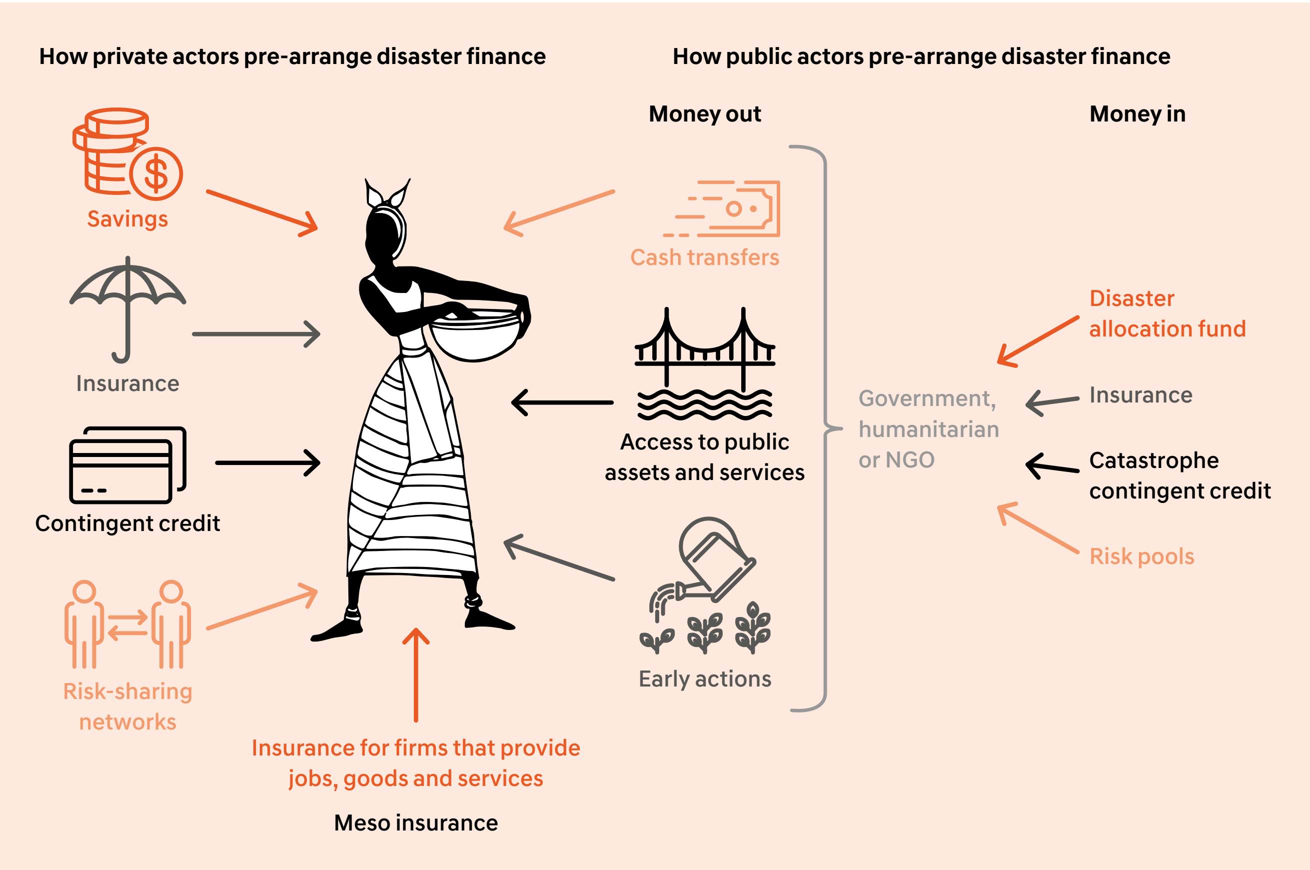
An assessment of the evidence gap

A strong body of evidence provides a compelling case that the current policy response to disasters—sudden, calamitous events that cause losses that exceed a community's or society's ability to cope using its own resources—is inadequate. This reality has been underscored by Covid-19, which has reversed a decade of welfare progress. Do we have an equally strong body of evidence on how we can respond better? On some things, yes; on others, the jury is still out.

A recent study by the Centre for Disaster Protection reviews the evidence on the welfare impacts of proactive approaches to setting up finance for disaster response. It considers interventions designed to strengthen individuals' and firms' ability to pre-arrange finance for disasters as well as interventions that pre-arrange finance for governments, humanitarian agencies, and non-governmental organisations (NGOs) for disaster response (Figure 1). The study, which draws on peer-reviewed publications that use a valid method for assessing impact, sheds light on evidence showing what works and what does not, and it highlights where more evidence is needed.

Figure 1: Timing of commitments and disbursements



In addition to examining the evidence on the impact of these interventions, the review considers whether the interventions studied have characteristics that make them likely to have impact, using six habits of highly effective disaster risk finance interventions: (1) focuses on poverty; (2) offers good value; (3) is timely; (4) provides a trusted guarantee; (5) creates power for people facing risk; and (6) aligns with the bigger picture and efforts toward broader resilience.[1]

Strengthening the ability of individuals to pre-arrange finance for disasters

There is strong evidence that when households are financially prepared for disasters, the impact of disasters is blunted. Households can prepare financially for disasters by saving, ensuring they have friends and family members they can rely on in a disaster (informal risk-sharing networks), buying insurance, and setting up a loan that can be used if disaster strikes (contingent credit). Households in low-income countries most often use savings and risk-sharing networks. Each of these instruments has strengths and weaknesses, and households will need a combination to effectively cope with disasters. This review considers the impact of interventions that increase access to and use of these instruments.

Assessing the strength of the evidence

The evidence is strong on:

- the welfare impacts of providing cash transfers in a disaster, even if financing is not pre-arranged (evidence is even stronger on the benefits of regular, non-emergency cash transfers)
- the benefits of interventions that extend the geographic reach of informal risk-sharing networks and improve households' ability to protect their welfare from the impact of disasters
- the benefits of subsidized insurance, primarily through the behaviour change that comes with users' belief that protection is guaranteed.

The evidence is still emerging on:

- the impacts of pre-arranged financing for public actors on households at the time of a disaster
- the impacts of other public support for households in disasters beyond cash transfers, such as nutrition interventions and reconstruction of infrastructure and housing
- the impact of timely support
- the effectiveness of meso insurance.

More evidence is needed on:

- the costs of interventions in insurance and risk-sharing networks (and whether these costs erode the welfare benefits)
- whether interventions can increase the support, insurance, and risk-sharing networks provide to the poorest households
- the non-financial constraints to effective disaster response that must also be addressed for pre-arranged finance to be impactful
- the potential of contingent credit for households
- the use of savings in a large disaster
- gender-differentiated impacts across interventions.

1 A seventh identified habit is 'improves constantly'. However, given that this study assesses the quality of evaluations, it does not separately consider the 'improve constantly' key. See https://www.disasterprotection.org/latest-news/7-habits-of-highly-effective-drf.

Savings

There is robust evidence showing that interventions designed to help individuals, especially women, increase their savings can help them manage smaller shocks, such as health shocks, but there is less robust evidence on whether such interventions help households respond to disasters. It can be costly for households to hold savings to cope with disasters, particularly for larger shocks. It would likely be more cost-effective for households to use savings in combination with other financial instruments, such as risk-sharing networks or insurance, that can help transfer risk across other households and years. More evidence is thus needed on both the cost of using savings and the optimal level of savings in relation to other instruments.

Risk-sharing networks

Traditionally, transfers of money between family and friends in the aftermath of a disaster have not been seen as a way to insure against disasters, which are likely to affect all members of a network at once. However, a strong body of evidence now shows how the expansion of mobile money increases the geographic reach of networks, enabling them to fully insure households against even quite large natural disasters. Still, such networks have limitations. Sometimes better-off network members will avoid investing in visible high-return activities or seek to hide or tie up their financial capital in response to an expectation that they will support those less fortunate than themselves. Furthermore, better-off households have larger, more diverse, and better-endowed networks than do poorer households, so a strategy that relies on this mechanism alone would leave poorer households with less insurance against a disaster than more affluent households.

Insurance

While a small evidence base shows that insurance improves households' welfare when disaster hits, a large body of evidence shows that the secure guarantee that households perceive when they are in an insurance contract causes them to significantly increase their productive investments. However, although insurance appears to have strong impacts, demand for insurance (particularly insurance for income, such as crop insurance) is low, perhaps reflecting the high cost and low quality of many contracts. The few studies that have examined whether poor households have access to insurance and purchase it find that often they do not.

Another collection of papers shows that poor households face higher potential barriers to demand, such as liquidity constraints, financial illiteracy, lack of knowledge about the new product, and higher basis risk as a result of living farther from target weather stations. To provide real benefits then, income insurance would require large subsidies and improvements in quality. Only two studies have looked at how insurance adoption and benefits vary between women and men; gaps in demand, they find, result from the different insurance needs of men and women.

Contingent credit

Little experimentation with contingent credit has taken place. One paper provides promising results, but much greater experimentation and evidence are needed in this area.

Pre-arranging finance for governments, humanitarian agencies, and NGOs

The effectiveness of pre-arranging financing for disaster response provided by governments, humanitarian agencies, and NGOs depends on (1) the disaster risk finance instruments used to ensure that money is available when needed, such as insurance, contingent credit, risk pools, and disaster allocation funds (the 'money in'); and (2) the processes to ensure that the money is spent on providing what households need when they need it most (the 'money out').

Money in

Overall, more evidence is required on whether disaster risk finance instruments (DRF) have an impact on the support provided to households. Existing evidence is mixed. Two rigorous evaluations (of reconstruction in Mexico and anticipatory cash transfers in Bangladesh) show that disaster response funded by pre-arranged finance had positive economic and welfare impacts, whereas another rigorous evaluation found that government insurance for a drought had no positive impact. Several papers simulate the benefits of DRF instruments in economy-wide models, finding that it can have positive impacts but does not universally do so.

Although evidence on the impact of these instruments is limited, there is some evidence on how well they conform to six habits of highly effective DRF interventions. For instance, research shows how some countries have used DRF instruments to target the poorest and most vulnerable, in particular when linked to social protection systems that respond to shocks. However, much disaster risk finance is not 'poverty-focused'. Evidence shows that payments are made quickly to governments when triggered, but there is little evidence on whether quick disbursement of money to the government has in turn allowed timely support to households. DRF could potentially encourage a holistic response to disaster—in other words, 'align with the bigger picture'—and could 'empower those at risk' because up-front planning can allow for greater participation and co-creation of solutions with affected communities. However, so far there is little evidence that this is happening. There is no evidence that it 'provides a trusted guarantee to households'. More evidence is needed in these areas, as well as on the non-financial constraints to effective disaster response that must be addressed for pre-arranged finance to be impactful.

Money out

It is possible to examine the impacts of the interventions that are most often financed with DRF instruments: cash transfers, provision of public services, and rebuilding of public assets.

- There is strong evidence that cash transfers provided in a disaster protect household welfare, although the strength of this evidence is weaker than the evidence on regular cash transfers.
- Although the large literature on the relationship between infrastructure investments and economic growth and poverty reduction shows that rebuilding infrastructure brings gains, only one paper looks at evidence on the impacts of using pre-agreed finance for disaster reconstruction. Simulations highlight the potential benefits of building back faster, and better, if financing is available.
- There is limited evidence on the impact of maintaining or re-establishing provision of public services quickly after a disaster. The exception is nutrition interventions—such as school feeding, food distribution, and nutritional supplements—for which a considerable literature documents impact. Papers that have rigorously tested the impact of nutrition interventions in emergencies show that they can widely reduce acute malnutrition and related mortality and increase school enrolment, especially for girls.

Meso tools

A household can also benefit if insurance for firms helps those firms guarantee jobs or markets for products or provide finance. Evidence on the links between disaster insurance and economic development is limited, but suggests that insurance markets benefit economic development. A few papers have showed that insuring financial intermediaries and service providers improves financial performance and helps them better manage their risk, with benefits to customers. Experiments with combining insurance and credit show that the impact depends on context.

Way forward

Despite a significant body of evidence emerging in these areas, there is a still need to fill significant evidence gaps. The evidence that is available highlights that these different approaches to strengthening disaster preparedness carry different benefits and costs that are likely to vary with the nature of the disaster, pre-existing levels of financial market development, and the capacity of the state and other actors to act. Much more evidence is needed to get to the point of being able to prescribe policy recommendations that are relevant across contexts. Filling these evidence gaps is essential to unlocking a more impactful public disaster response and is a priority for the evidence work of the Centre for Disaster Protection.

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Cover image: Turkish Red Crescent volunteers and staff provide life-saving assistance to people affected by the 6.6 magnitude earthquake that struck Turkey's Aegean coast, north of the Greek island of Samos. According to initial reports by Turkish authorities, at least 25 people have lost their lives, more than 800 have been injured, and several buildings have collapsed or sustained damage following the tremors. More than 140 Turkish Red Crescent volunteers and personnel were immediately sent to the affected area. Volunteers have been supporting authorities in search and rescue efforts, providing psychosocial support as well as deploying their mobile kitchens with the capacity to serve 25,000 people with hot food. Image: Anadolu Agency/ International Committee of the Red Cross

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