



Photo credit: Ezra Millstein

# WHAT MATTERS FOR HOUSEHOLDS' RECOVERY TRAJECTORIES FOLLOWING THE GORKHA EARTHQUAKE?

**>** *Report Brief:*  
A Two-Year Panel Study

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# RESEARCH BACKGROUND

In April 2015, a 7.8 magnitude earthquake struck Nepal, killing over 9,000 people, destroying or badly damaging more than 800,000 homes and displacing approximately 2.8 million people. Where shocks like earthquakes cannot easily be prevented, strengthening the ability to prepare, respond and recover is critical to maintaining development gains in spite of them. In this context, resilience can be thought of as the combination of pre-existing capacities and the responses used to cope and recover in the aftermath. Ultimately, the ability of households to maintain their long-term wellbeing in the face of shocks depends upon the combination of their capacities and how they are used. To understand what mattered for recovery in the short and long-term, this study followed the same households 10 weeks, one year and two years after the Gorkha earthquake. The analysis will explore what factors mattered most for short-term coping and long-term recovery in order to improve humanitarian response and design of recovery programs in the aftermath of acute disasters.



## METHODOLOGY

### SAMPLING

Sampling was conducted via a quantitative survey administered in three rounds (10 weeks, one year and two years after the earthquake) to randomly selected households within five earthquake-affected Village Development Committees: Barhabise, Ramche, Dhuskun, Karthali and Maneswnara. In round one, 1,117 households were surveyed. Round two surveyed a sub-sample of 635 households from the 1,177 households interviewed in 2015 in an effort to reduce data collection time and costs. Round three surveyed 577 households.

### RESEARCH QUESTIONS

In order to understand what mattered for recovery and wellbeing in the short-term (10 weeks post-earthquake), medium-term (one year post-earthquake) and long-term (two years post-earthquake), the following research questions were asked during the different survey rounds:

1. What resilience capacities matter most for short, medium and long-term recovery and wellbeing?

2. What resilience responses helped households recover and achieve positive wellbeing in the short, medium and long-term?
3. Are households who see positive change in resilience capacities and responses over time more likely to have better outcomes two years after the earthquake?
4. What shocks and stresses are most associated with reduced wellbeing and recovery outcomes one and two years after the earthquake?

**Figure 1: Temporal Relationship Between Capacities, Shock Exposure, Responses and Wellbeing Outcomes**



## KEY FINDINGS AND RECOMMENDATIONS

### **A SINGLE MAJOR DISASTER CAN BE A CATALYST FOR INCREASED FRAGILITY**

The aftermath of the 2015 earthquake was complicated by subsequent environmental and economic shocks and stresses. Most households experienced several shocks in the year following the earthquake, which may explain why households were unable to rebuild their homes and recover their livelihoods at this time. Households also experienced sharp increases in food prices both years after the earthquake, which may have influenced decreases in food security two years post-earthquake. The results demonstrate that earthquake-affected households remained vulnerable to continuing economic and environmental shocks after the earthquake, which strengthens the argument that building resilience against shocks and stresses requires continued intervention beyond the initial shock.

**Recommendation:** Ensure humanitarian actors are prepared to alleviate suffering in the short-term, while working with government and communities to identify and manage future risks.

Figure 2: Percent of Household Reporting Climate Shocks at Different Time Periods after the Earthquake

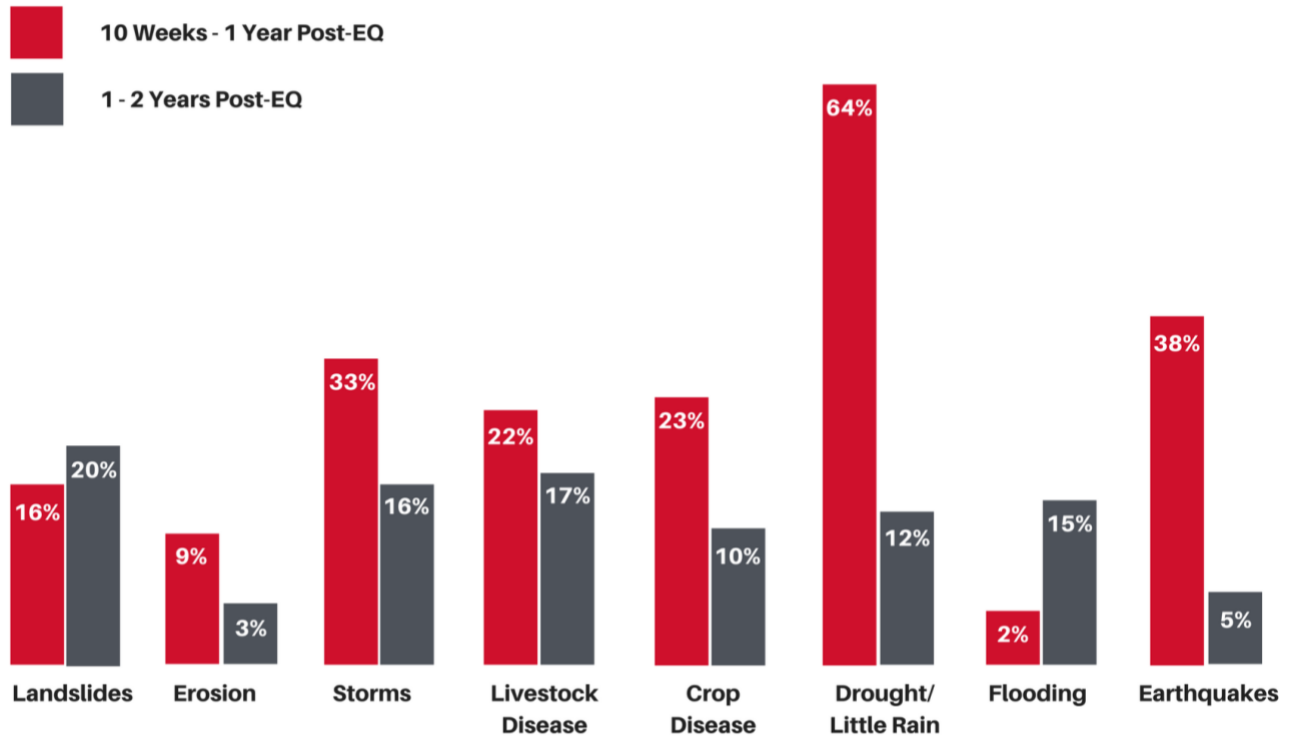
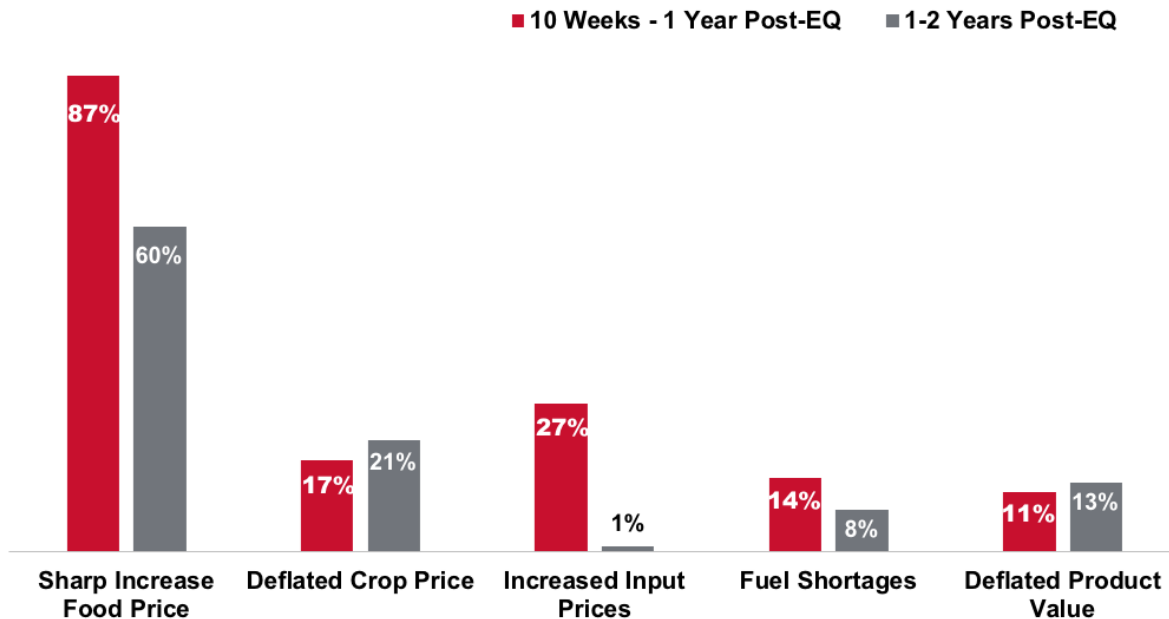


Figure 3: Percent of Households Reporting Economic Shocks at Different Time Periods after the Earthquake



## **FACTORS THAT HELP HOUSEHOLDS IN THE IMMEDIATE AFTERMATH OF A SHOCK MAY NOT SUSTAIN LONGER-TERM RECOVERY:**

Timely emergency aid and informal savings helped households mitigate the worst effects of the earthquake in its immediate aftermath, but did not influence long-term recovery trajectories. In the short-term, these factors were associated with decreased negative food coping strategies, improved shelter quality and livelihood recovery, but the effects were negative, or disappeared two years later. This suggests that rapid relief operations and informal savings are important in the immediate aftermath of a shock, but alternative measures are necessary to ensure these effects can last beyond the acute stage of a disaster.

**Recommendation:** Bolster timely and nimble relief efforts that provide aid within seven days and quickly pivot to building longer-term resilience capacities for rapid recovery.

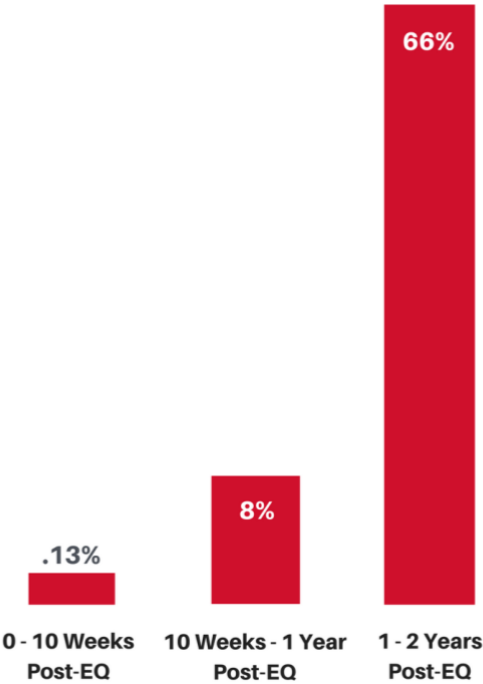
## **BOLSTERING KEY RESILIENCE CAPACITIES OVER TIME ALLOWS HOUSEHOLDS TO COPE IN THE SHORT-TERM AND ACHIEVE LONG-TERM RECOVERY:**

The study showed that sustained increases over time in key resilience capacities, including access to and use of formal savings, formal credit, household disaster risk reduction awareness and bonding social capital had positive effects on household short and long-term recovery trajectories. Households with formal savings before the earthquake had better food security and poverty outcomes immediately after the earthquake. Seeing positive change in having formal savings or drawing on formal credit over time was related to even larger effects on livelihood recovery, purchasing productive assets and lowering negative food coping strategies in the long-term. Bonding and bridging social capital appeared to not erode over time, despite continued shocks and stresses. Households who saw positive growth in their ability to rely on their own caste for help saw modest improvements in food security in the short and long-term, suggesting that social networks may be the key to bolstering food consumption and access when times are tough. Households who gained new bridging social capital capacity over time saw improvements in their long-term home restoration and livelihood recovery. Households with greater disaster risk awareness before the earthquake and those who developed awareness over time were associated with higher livelihood recovery in the short and long-term.

**Recommendation:** Support disaster-affected households with an integrated package of resilience interventions, including formal savings and loans, household risk awareness and planning and social capital to speed and strengthen recovery and build a more resilient future.



Figure 5: Proportion of Households Reporting Home as Restored or Improved Since Earthquake

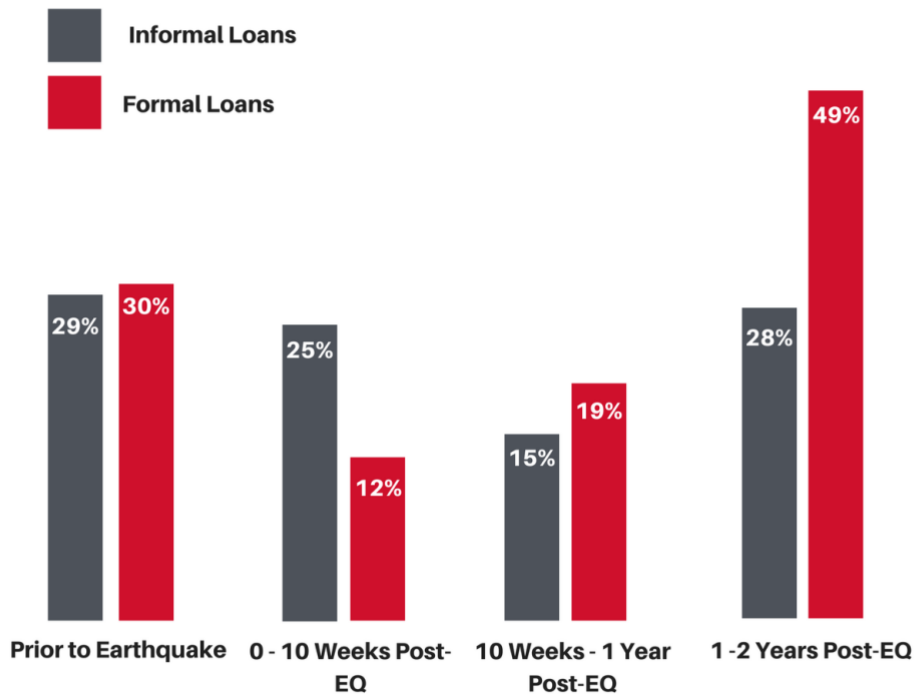


**FORMAL LENDING CONSISTENTLY HELPS HOUSEHOLDS COPE BETTER AND RECOVER FASTER:**

Households who accessed formal credit were better off than households who did not borrow, both in the immediate aftermath of the shock, and one and two years later. Access to formal credit mattered the most for food security and recovering livelihoods in the short-term and home reconstruction and livelihood recovery in the long-term. This was not true for informal credit, which appeared to make households worse off in the short and long-term in terms of food coping strategies, dietary diversity and livelihood recovery.

**Recommendation:** Strengthen preferred lending terms and loan products as part of disaster recovery efforts in order to help households rebuild their lives better and faster and increase their resilience to future shocks and stresses.

Figure 4: Percentage Households Reporting Formal and Informal Borrowing



### RELYING ON GOVERNMENT DISASTER PREPAREDNESS AND RESPONSE CAPACITY IS INSUFFICIENT IN CONTEXTS OF WEAK GOVERNANCE:

Relying on poorly functioning community leadership and plans before the earthquake may have left households less equipped to access food, recover their livelihoods and purchase assets in the short and long-term. However, households with greater disaster risk reduction awareness before the earthquake were able to recover their livelihoods and had better dietary diversity in the short-term. Households who gained disaster risk reduction awareness capacity over time were less likely to be in poverty and more likely to recover their livelihoods in the long-term.

**Recommendation:** Ensure disaster risk reduction efforts focus on household-level risk awareness and planning capacity, while simultaneously addressing underlying governance constraints to effective public sector-led disaster risk reduction.

### CONCLUSION:

Study findings suggest that humanitarian relief and response efforts must be nimble and adaptive, moving faster toward integrated recovery work. This includes increasing households' access to a holistic and effective package of key resilience capacities over time, allowing them to better manage current and future shocks, rebuild their lives in a complex risk environment and forge a stronger, more resilient future.



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