

One-size does not fit all for post-disaster recovery, study finds

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Residents in Kashigaun used work exchange to build and renovate homes according to the new building codes at 2.5 years after the earthquakes. Because of the high building costs, they are being forced to construct very small houses to code in order to get funds through the government reconstruction program.
Credit: Jeremy Spoon / Portland State University

When a natural disaster strikes, it often takes years for vulnerable communities to recover, long after the news coverage fades and the rest of the world seems to move on. A new Portland State University study that followed 400 households after the 2015 Nepal earthquakes provides insight into better understanding the factors that contribute to resilience and change in short-term rural natural disaster recovery.

"Recovery is a [dynamic process](#) with multiple dimensions which means that government and outside aid programs cannot be one size fits all," said Jeremy Spoon, the lead researcher and an associate professor of anthropology at PSU.

Spoon's team conducted surveys with 400 households in four communities both nine months and 1.5 years after the April and May 2015 earthquakes. The team also returned at 2.5 years for research workshops to connect the results to the participant experiences and perspectives. They used a novel methodology to document and analyze [recovery](#) as a multidimensional phenomenon with more than 30 recovery indicators, from rebuilding of homes and access to electricity to impacts on herding, farming, and wage labor.

Researchers found substantial geographic variation in recovery across the sites but were also able to identify several common patterns in recovery.

The households that appeared the most resilient nine months after the earthquakes were those that had less herding and farming-based livelihoods, more market connections to shops and tourism, and easier access to rebuilding funds from the government and through loans.

The results suggest that a settlement's proximity to the road and access to outside aid and [government services](#) may be negatively or marginally benefitting recovery in certain situations.

In Gatlang, a cluster of two settlements in northern Nepal, their growing dependence on outside aid and a more tourism-centric economy as a result of being close to the road actually impeded their recovery. For most households, their circumstances were getting worse a year and a half after the earthquakes. Only 8% of households had returned to their homes from temporary shelters and they were experiencing greater impacts to their herding, farming, and forest product collection.

The study suggests that access may be a trap, where individuals receiving assistance adapted to waiting for help rather than helping themselves. The aid received was also not enough to help the residents recover to a point that was comparable to where they were before the earthquakes and contained generic rebuilding solutions that did not take into account local knowledge or perspectives.

By contrast, in Kashigaun, a cluster of three settlements that is a two- to three-day walk from the road with very few aid organizations serving the area, households pooled their resources and collectively worked together to rebuild their community through work exchange. A year and a half after the earthquakes, 92% of households returned to their homes from temporary shelters; however, few, if any, were rebuilt to code. The earthquakes helped to revive and reinforce communal traditions of work exchange, which served as a safety net for the poorest and most marginal.

Spoon said the lessons learned can help evaluate relief and reconstruction interventions where outside expert knowledge ignores cultural diversity and place-specific dynamics, such as the roles of local knowledge and institutions.

"We feel that governments and aid organizations can use our approach to capture some of the most important facets of recovery in a variety of contexts over the short- and long-term, especially if they use

participatory methods and outreach to develop appropriate recovery indicators," Spoon said. "Better understanding recovery dynamics then leads to improved natural disaster response."

Spoon, along with Drew Gerkey from Oregon State University, and their team received another grant from the National Science Foundation to continue their work in Nepal and collect data from the same 400 households in years six through nine. The study was published in the journal *World Development*. Its co-authors include Alisa Rai and Umesh Basnet from PSU; Gerkey from OSU; and Ram Bahadur Chhetri from Tribhuvan University in Nepal. Additional publications from this study are forthcoming.

More information: Jeremy Spoon et al, Navigating multidimensional household recoveries following the 2015 Nepal earthquakes, *World Development* (2020). [DOI: 10.1016/j.worlddev.2020.105041](https://doi.org/10.1016/j.worlddev.2020.105041)

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