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Disaster Relief: A Monitoring & Evaluation Framework for Kopan Monastery

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Figure 1: Political map of Nepal and region with epicenter of the April 25 Nepal earthquake. Image courtesy of takk.com user Erika Walt.

1. Introduction

On April 25, 2015 Nepal suffered a magnitude 7.8 earthquake. The epicenter was 82km northwest of capital city Kathmandu. The event has been followed by hundreds of aftershocks, including events of magnitude 7.3 and 6.3 on May 12, 2015.

Kopan Monastery stands on a low hill north of Kathmandu. It is affiliated with the Foundation for the Preservation of the Mahayana Tradition (FMPT). It accommodates ~400 monks and student monks, and provides lessons in Tibetan buddhism to visitors and tourists on weekends. As a focus point of immediate foreign relief aid, the monastery shifted its focus and sought to provide relief to nearby villagers following the earthquake.

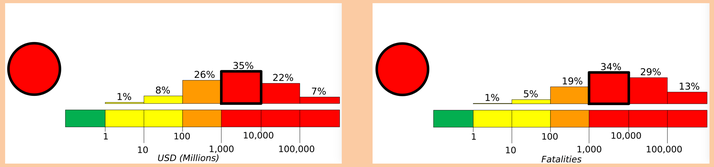
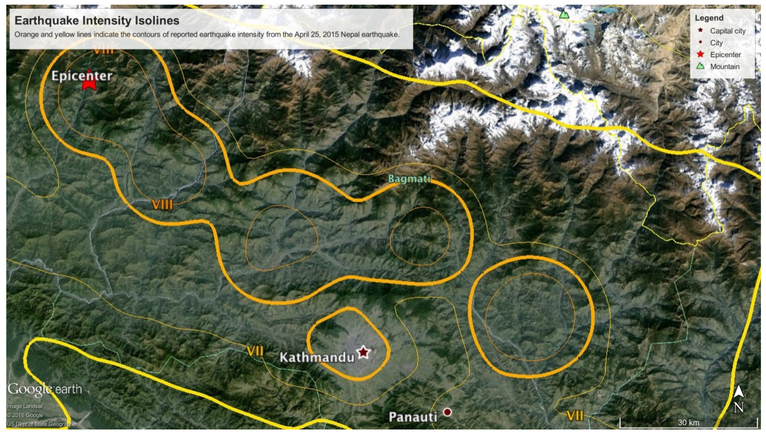


Figure 2: The USGS classified the April 25 Nepal quake as “red alert” for shaking fatalities and economic losses (USGS 2015).

2. Methods

- We used USGS earthquake data to assess the extent and impact of the April 25, earthquake
- We looked at Kopan Monastery’s response from their online resources
- We applied logical frameworks (LogFrame) and social networks approaches from Imas and Rist (2009) to Kopan Monastery’s response as described on their website



V	Moderate	84,253k*
VI	Strong	40,899k
VII	Very Strong	3,556k
VIII	Severe	2,885k
IX	Violent	12k

Figure 3: Earthquake shaking intensity contours based on the Modified Mercalli Intensity scale. Table on the left shows approximate Nepal population figures affected by shaking intensities from V Moderate to IX Violent (USGS 2015). Note the VII Very Strong contour around Kathmandu valley.

Results

- Kopan Monastery fielded a vital earthquake response in the weeks following April 25, 2015. However, this response was not monitored.
- Monitoring and evaluating disaster response can help organizations respond more flexibly and efficiently.
- The monastery provided earthquake relief through existing social connections. A modified LogFrame with social networks analysis is likely the most helpful tool

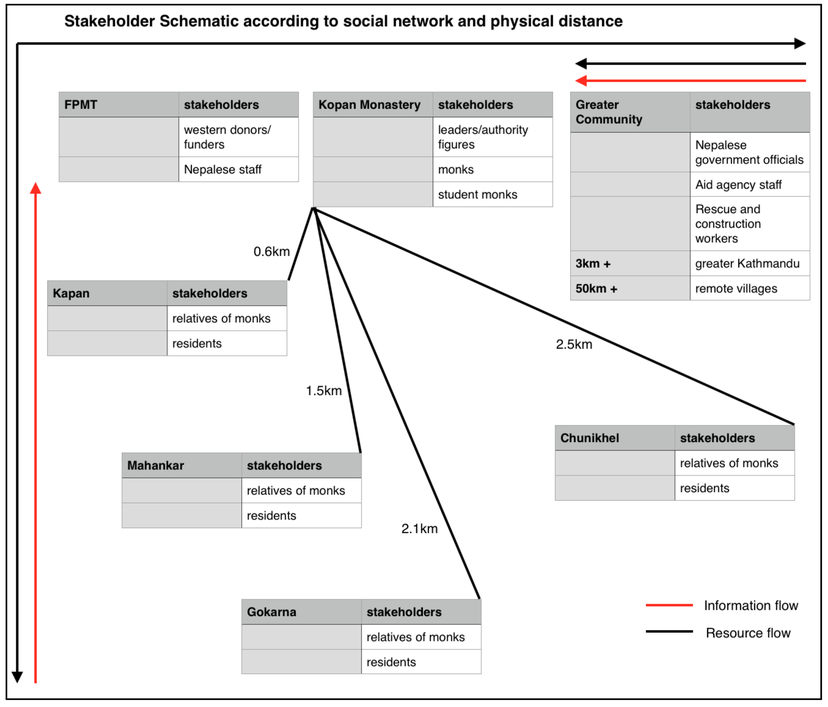


Figure 4: Social network plot of key stakeholders for Kopan Monastery’s work following the earthquake.

Activity	Responsible party	Event occurs	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Accounting of funds and resources	Head monks									Week 8
Immediate funding outreach	FPMT western staff and members									
Immediate protective measures	All monks									
Needed evacuations	All monks									
Damage assessment	Physically fit/ technically trained monks, residents									
Surrounding area damage assessment	Physically fit/ technically trained monks, residents									
Family relation outreach (damage snowball effect)	All monks									
Reporting system for aid disbursements	Monastery accountant									
Reporting system for resource disbursements	Monastery accountant									
Short report draft	Monastery accountant									
Sharing data with government	Head monks									
Sharing data with relief organizations	Head monks									
Repeat	All monks									⇒

Figure 5: Proposed 8-week timeline for ongoing monitoring efforts following a catastrophic event.

Discussion

Smaller institutions like Kopan Monastery do not have explicit contingency plans for disaster relief. Consequently they do not have tools in place to monitor their response to catastrophic events. However, their local role in providing needed supplies and aid is important. A monitoring scheme based on an short-term timeline and the social networks of the monks is likely to provide an unobtrusive, simple, and speedy solution that can be applied to varied catastrophic events.

Conclusions

- Kopan Monastery did not have a monitoring plan in place for disaster relief.
- The monastery is an important node of aid and relief, with connections to western donors, relative resource wealth, and a leadership role in its community.
- A monitoring scheme based on an 8-week timeline and the social connections of the monks is likely to provide for an unobtrusive, simple, and speedy solution.
- The monitoring process will allow the monastery to operate efficiently with local emergency management officials and other aid groups to maximize distribution of scarce resources.

Figure 6: Bhimsen Tower, Kathmandu, before and after the earthquake. Side-by-side courtesy of Mashable; Image: FLICKR, Geoff Stearns; AP, Niranjan Shrestha.

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