

## Project Abstract

Non-volcanic tremor is a seismic signal observed away from volcanoes, and is characterized with long durations and no clear body wave arrivals. Recent studies have found that non-volcanic tremor can be triggered instantaneously during the surface waves of large teleseismic events along the circum-Pacific subduction zones, California, and Taiwan. However, it is still not clear whether triggered tremor could occur at other tectonic environments, and what are the necessary conditions for tremor to occur. Here we conduct a systematic search for triggered tremor around the Himalayan region for 30 teleseismic events since 2002, based on the continuous seismic data recorded by the temporary PASSCAL project HiCLIMB. We find many local earthquakes in southern Tibet triggered by the 2004 Mw9.2 Sumatra and 2005 Mw8.7 Nias earthquakes. However, we did not identify any triggered tremor along the Himalayan Fold-Thrust Belt in Nepal. This is mainly due to a lack of available seismic recordings in Nepal that are generated by large-size events. We also perform a similar search for additional triggered tremor in Northern California, focusing on the Central Calaveras fault, where triggered tremor has been identified previously. Out of the 29 teleseismic events with  $M \geq 7.5$  since 2000, our visual inspection shows that only the 2002 Denali Fault earthquake have triggered clear tremor in the central Calaveras fault. These observations are similar with a companion study (Fabian and Peng, 2009), where only the Denali Fault earthquake have triggered clear tremor in three regions in Southern California. In comparison, many large teleseismic events have triggered tremor in Japan, Cascadia, central California and Taiwan. Possible reasons for a lack of widespread triggering in these regions include: elevated background noises for surface stations that may hide weak triggered tremor signals, different ambient tremor rate, or different tremor triggering threshold in different regions. Updated results will be presented at the meeting.