

# Earthquakes Without Frontiers<sup>1</sup>

Professor James Jackson returned from Kathmandu, having attended an Earthquakes Without Frontiers (EwF) Partnership meeting, in the week preceding the Gorkha (Nepal) earthquake on the 25 April.



James is the lead Principal Investigator for the [Earthquakes Without Frontiers](#) (EwF) project, the aim of which is to bring together earthquake scientists, social scientists and policy experts to share expertise and experience, and to work towards increasing resilience to earthquakes in the Alpine-Himalayan-central Asian earthquake belt. The meeting was hosted by the Nepalese group [National Society for Earthquake Technology](#) (NSET).

It was quite by chance that the meeting was held in Kathmandu, as current scientific knowledge cannot forecast the time or dates of earthquakes beyond the understanding that where they have happened in the past, they will occur again in the future. The understanding that Kathmandu was at risk has been well-publicised for many decades and certainly since the last big earthquake in 1934.

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NSET, together with the [Bihar State Disaster Management Authority](#) (BSDMA), have been working very hard in the region for some time to raise awareness and sponsor practical involvement in reducing earthquake risk, for example retrofitting schools, training masons, sponsoring community projects, raising awareness and promoting preparedness. Both organisations have made modest inroads: this sort of re-education takes time and requires support and encouragement.

Building resilience is not simply a matter of top-down directives: individual people and local communities have to understand and engage with the risk-reduction agenda. The difficulty is in persuading the population to focus on reducing earthquake risk when there are more pressing everyday concerns common to Asian urban life: air and water quality; pollution; overcrowding; poverty; congestion and traffic. The earthquake risk is known, but remains a remote threat for the majority. This problem is not limited to Nepal and Kathmandu, and is common to most countries in the Alpine-Himalayan-central Asian earthquake belt.

Since 1900 earthquakes have killed between 2 and 2.5 million people, approximately two thirds of them in moderate-sized events in continental interiors. Bigger and more frequent earthquakes occur on the margins of the oceans, where the simpler geological context, better understanding and increased awareness have all contributed to a much greater resilience to them. The EwF research is focused on three continental regions: North-East China; Iran and Central Asia; and the Himalayan mountain front. In each of them EwF works closely with local scientists, policy-makers and organisations, both non-governmental and within government as appropriate.

In the short interval between the Gorkha earthquake of the 25 April and the major aftershock on 12 May, James was overwhelmed by requests for interviews and to provide written information, and was quoted in many news sources, including the [Telegraph](#) and the [Independent](#). James and his colleagues have since travelled to Tehran, also an area with many earthquake faults, for another EwF meeting to help train young scientists and raise earthquake awareness in Iran. Tehran has been badly hit by earthquakes four times in the last 1000 years, the last time in 1830, and its population now exceeds 12 million.

Earthquakes Without Frontiers will continue to pinpoint the regions at risk, while trying to understand the vulnerabilities of their communities and to communicate this knowledge to policy makers.