

# Landslide threat to Pakistan earthquake survivors

February 13 2006

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A landslide expert at Durham University, UK, is warning that further disasters are waiting to happen in North Pakistan because of the unstable ground conditions created by last October's earthquake.

Professor Dave Petley, of the International Landslide Centre in Durham's top-rated Geography Department, has returned from the earthquake zone after a reconnaissance mission with an US colleague. They have sent an urgent report to the Pakistan authorities with warnings and a list of actions required.

He says: “Although the national and international response to the disaster has been highly impressive there is a real need for the international community to take steps to help national organisations to prevent further tragedies in the coming months. The camps where people have lived since the earthquake could be hit by further landslips dislodged by the summer rains.”

The report warns about:

- A massive rock landslide in the Hattian area that has blocked two valleys to a depth of 250 metres. It was probably the largest earthquake-triggered landslide anywhere in the world during 2005. Two lakes are forming behind it and pose a serious threat. Previous studies show that 70 % of such landslide dams collapse and fail. Prof Petley recommends quick action to assess the stability of the dam, and the creation of a spillway to channel water safely before the July monsoons fill the lakes, causing overflow and possible collapse of the dam with potentially disastrous results.

- many other slopes in the area, left cracked and unstable by the earthquake. Monitoring equipment should be installed as soon as possible to assess the hazard. It may be advisable to move people out of some areas during the monsoon season.

- some of the tented villages for refugees built on the low terraces and 'alluvial fans'. These, say Prof Petley, are "highly dangerous positions". They are located at the bottom of slopes and close to rivers. The report adds: "These are near-perfect conditions for the generation of debris flows and flash-floods. Clearly the resistance of the tented villages to such events is effectively nil. We anticipate the potential for large-scale loss of life if this issue is not addressed."

Source: University of Durham

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