

# PRESS RELEASE

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## Landslide early warning research to help protect Indian communities

**International research collaboration for landslide hazard reduction in the Nilgiris, Tamil Nadu, India. Physical scientists, engineers and social scientists from nine organisations in the UK, Italy and India are collaborating to improve the assessment of landslide hazard and early warning systems in India. This will help to protect lives, livelihoods and the local economy of vulnerable landslide-prone communities in India.**

Landslides affect a large area of India from the Himalayas in the north, the sub-Himalayan region in the north-east, the Western Ghats in the south and the Konkan Plains in the west. In the Western Ghats' Nilgiri hills, during 1978, 1979, 1993, 2001, 2006 and 2009, unprecedented monsoon rainfall triggered numerous landslides (more than 200 landslides each year) in the region.

Landslides are triggered by intense rainfall, snow melt, earthquakes and the impact of developments such as transport routes, mining and farming. Landslides have a direct impact on dense settlements, particularly hill towns, National Highways, strategic trade corridors and UNESCO world heritage sites located in these fragile mountain terrains. Landslides can cause fatalities, destruction of property, damage to infrastructure and disruption of livelihoods. This has a disproportionate effect on vulnerable sections of the communities in these areas, many of them ecologically sensitive.



**Landslide causing damage to a house in Nilgiri Hills, Western Ghats, Tamil Nadu, India**



Research will be carried out through the LANDSLIP (LANDSLide multi-hazard assessment, Preparedness and early warning in South Asia) project, which is funded as a part of the UK NERC/DFID SHEAR (Science for Humanitarian Emergencies and Resilience) programme. The LANDSLIP team will work together and engage with local stakeholders to develop enhanced landslide hazard assessment and forecasting methods using two study areas: Nilgiris District of the Western Ghats in the State of Tamil Nadu as well as Darjeeling-East Sikkim districts in Eastern Himalayas, in the States of West Bengal and Sikkim. LANDSLIP will help to develop landslide hazard assessment and early warning systems, and the best means of disseminating this information to those who need it in India. Some of the methodologies developed through this project will be replicable to the landslide-prone areas elsewhere in India (e.g. Uttarakhand) and South Asia.

The project consortium of 34 scientists and engineers is co-led by Dr Helen Reeves from the British Geological Survey (BGS) and Professor Bruce Malamud from King's College London (KCL) with the other project partners from the Amrita University, Consiglio Nazionale delle Ricerche (Research Institute for Geo-Hydrological Protection), the Geological Survey of India (GSI), Newcastle University, UK Met Office, Practical Action Consulting India and Practical Action Consulting UK. LANDSLIP will support the risk reduction concerns of the UN Sendai Framework for Disaster Risk Reduction (SFDRR), which has been endorsed by more than 180 countries in the world.

LANDSLIP is a 4-year project with the first Nilgiris stakeholder meeting taking place on Thursday 14th December 2017 at the Keystone Foundation in Kotagiri, Nilgiris and will be attended by members of the LANDSLIP consortium, senior officials from the Tamil Nadu State Government of India and other key organisations.

The guest participants include Mr R Mani, Chief Engineer, Agriculture Engineering, Govt of Tamil Nadu, Dr S Raju, Dy Director General of Geological Survey of India, Govt of India and Ms J Innocent Divya, District Collector.

The other participants comprise representatives of the national, State institutions, civil society organisations and local community based organisations. This include representatives at a senior level from Central Soil and Water Training Institute of Indian Council of Agricultural Research, UPASI (United Planters Association of South India), senior geologists from the Commissionerate of Mining and Geology of the State Govt of Tamil Nadu and Nilgiris Mountain Railways.

The gathering was welcomed by Mr Pratim Roy, Founder-Director of Keystone Foundation.

Dr Helen Reeves, Science Director for Engineering Geology, British Geological Survey said:

"I believe that LANDSLIP is providing a unique and exciting opportunity for UK, Italian and Indian scientists and engineers. It will provide new knowledge and information on landslide risk reduction in India and South Asia, supporting India's contribution to the Sendai Framework for Disaster Risk Reduction".

Professor Bruce Malamud, King's College London said:

"I am looking forward to working with this intellectually stimulating and passionate group of Indian, Italian and UK colleagues. I believe that LANDSLIP will improve risk assessment and early warning systems for landslides in two very diverse regions of India."

**\*Ends\***



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**Notes for Editors**

The following are available for interview:

- Dr Helen Reeves, Science Director for Engineering Geology, British Geological Survey
- Professor Bruce Malamud, King's College London
- Professor Vinod Menon, Founding Member, Indian National Disaster Management Authority

For additional information go to: <http://www.landslip.org/>

Photographs are available from our ftp server: <ftp://ftp.bgs.ac.uk/pubload/bgspress/LANDSLIP>

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