



Kedarnath landslide (Credit: Vaibhav Kaul, University of Sheffield)

## Landslides triggered by humans on the rise

Landslides are large movements of rock, mud or debris down a mountain slope or cliff that can cause damage to buildings and people. They can happen, for example, when it rains too much and the soil is disturbed by the water, weakening its structure leading to slope material moving downhill. They can also be caused by human activities like construction works or mining since the digging up of soil/rock and the blasts associated with these activities can weaken the land.

In a new study published in the journal *Natural Hazards and Earth System Sciences*, UK's Sheffield University researchers Melanie Froude and David Petley looked at landslides that happened between 2004 and 2016 all around the world. They focused on fatal landslides, that is, those that caused deaths. They wanted to understand where landslides were harming people most and why they happen.

They collected information on more than 4800 landslides and found that over 50,000 people were killed by landslides around the world between 2004 and 2016. Most of these landslides (75%, or 3 out of 4) happened in Asia.

While the vast majority of landslides (79%, almost 8 out of 10) were caused by rainfall, the researchers also found that the number of fatal landslides caused by human activities has been increasing. They say that, if activities such as mining and construction of roads and buildings were regulated properly to ensure they are done in a safe way, most of the human-triggered landslides could be avoided.

Education is also important. "We found several incidences of children being caught-up in slides triggered as they collected coloured clay from hillslopes, for decoration of houses during religious festivals in Nepal. Educating communities who undertake this practise on how to do it safely, will save lives," Melanie says.

### Discuss with your teacher or parents

What causes landslides?

In what ways can we reduce the number of landslide victims?

Find out more about landslides in this National Geographic video:

<https://egu.eu/4R8HYF/>.

*This is a kids' version of the European Geosciences Union (EGU) press release '[Landslides triggered by human activity on the rise](#)'. It was written by Bárbara Ferreira (EGU Media and Communications Manager), reviewed for scientific content by Melanie Froude (Department of Geography, University of Sheffield, UK) and Cindy Mora-Stock (Department of Earth Sciences, University of Concepción, Chile), and for educational content by Monica Menesini (Retired science teacher, Italy). For more information, please check: <http://www.egu.eu/education/planet-press/>.*

