

# Landslides

The term "landslide" describes a wide variety of processes that result in the downward and outward movement of slope forming materials such as rock, soil, artificial fill, etc. The materials may move by sliding, spreading, toppling, flowing, or falling (United States Geological Survey 3 Dec. 2004). Landslides can move slowly and cause damage over time, or they may move quickly, destroying property and taking lives. There are many causes of landslides, but most common are water, earthquakes, and volcanic activity. Intense rainfall or snowmelts are the primary causes of landslides. Often, a landslide happens simultaneously with flooding or after a fire has removed the vegetation from a slope. The occurrence of earthquakes increases the chance of landslides in areas with steep slopes already prone to failure (United States Geological Survey).

Each year, landslides kill between 25 and 50 people and cause \$3.5 billion in damages. Landslides are capable of destroying homes, washing away cars, roads and bridges, wiping out utility lines, and obstructing streams and roadways (United States Geological Survey). It is usually the municipality that picks up the tab when it comes to damages caused by landslides.

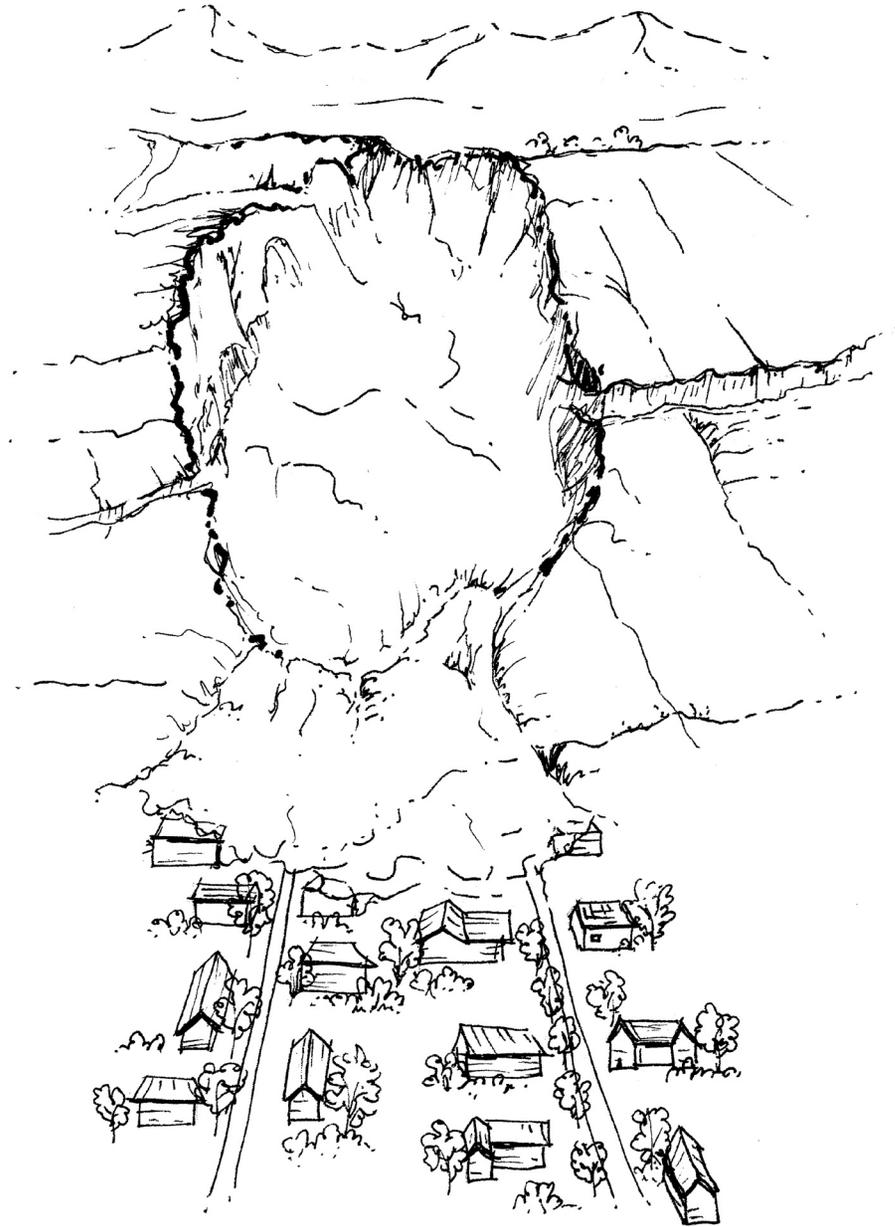
The effects of landslides can be reduced by mitigation. Perhaps the most important step in the mitigation process is the mapping of areas of landslide potential. The most obvious measure to prevent damage from landslides is to prohibit or restrict development in potential hazard areas. If development is to occur in a hazardous area, the landslide potential should be disclosed to the consumer. Having disclosed the potential for landslides, the consumer then assumes the cost for any damages that may occur.

## references and further reading:

National Academy of Sciences. 2004. "Partnerships for Reducing Landslide Risk: Assessment of the National Landslide Hazards Mitigation Strategy." 13 Dec. 2004. <<http://www.nap.edu/books/0309091403/html/>>.

United States Geological Survey. Landslides Hazards. 3 Dec. 2004. <<http://landslides.usgs.gov/>>.

Federal Emergency Management Agency. 1 Nov. 2004. Hazards: Landslides. 3 Dec. 2004. <<http://www.fema.gov/hazards/landslides/>>.



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