

**LANDSLIDE**





PROJECTED ANNUALIZED LOSSES FROM  
LANDSLIDE BY STATE UNDER  
1980 CONDITIONS  
(1978 dollars in millions)



Who cares whether most landslide damage is the result of "An Act of God" or is largely preventable by "Acts of Man"? Probably not many of us. But this is one of several unresolved questions which could significantly affect the expenditure of billions of dollars and the lives of many people over the next 22 years. Here are four reasons why:

- (1) Although homes, condominiums and small businesses usually represent the largest single investment made in an average family's lifetime, landslide damage to them is no longer covered by domestic insurance carriers. In fact, landslide damage has been specifically excluded from all but the very largest, multi-million dollar corporate policies. Slide victims generally don't qualify for Federal or state aid, either, unless a major disaster is proclaimed.
- (2) Landslides annually cause more measureable damage in more states than any other natural hazard except expansive soil, riverine flood and tornado.
- (3) There's widespread agreement among experts that most landslides could be prevented or slide damage avoided if adequate land use and construction requirements were added to building codes; these codes were effectively enforced; and early detection methods, utilizing existing technology, were employed. However, until a city has

been hard hit, as Los Angeles was two decades ago, this strengthening of codes and enforcement simply does not happen.

- (4) Unless this pattern is altered, landslide damage to buildings will soar over 130 percent between 1970 and 2000. This is primarily because scarcity of available land in urban centers and development pressures are causing more and more homes to be built in areas susceptible to slides; population movement to more hazardous sections of the country is increasing; and the value of land and buildings is rapidly rising.

#### Record Keeping Inaccurate

Record keeping in many areas of the country is acknowledged to be woefully inadequate. An intensive review of all available historic data reveals that virtually all states suffer some degree of landslide damage. Predictably, over 45 percent of all slide damage to buildings occurs in six heavily populated states: California heads the list, accounting for over 15 percent of the damage. The others are Pennsylvania, New York, Ohio, Maryland and Illinois. The remaining 55 percent is fairly evenly

divided among the rest of the states and the District of Columbia.

Averaged over 10 years to take into account the fact that some regions have severe slides every year and others every two to five years, the nation's building losses from landslide during a typical year, under 1970 conditions, total 360 million 1978 dollars. This represents about 35 percent of the United States Geological Survey's estimate of 1977 slide dollar losses from all structures, including roads and bridges, which totalled approximately \$1 billion.

#### Appropriate Steps Needed

Unless appropriate broad-scale steps are taken to prevent slides or minimize damage, annual building losses from landslide will increase to at least 480 million 1978 dollars by 1980; \$650 million by 1990; and \$830 million by 2000. Based on USGS figures, total primary losses might well be three times higher.

Computer modeling reveals that more than a quarter of a billion dollars could be saved every year by the year 2000, just in the cost of replacing or repairing buildings hit by slides, if Chapter 70 of the Uniform Building Code were to be applied to all new construction across the nation, beginning in 1980. Indications are that at least 90 percent of all new buildings, therefore 30 percent of all existing ones, could be saved by taking this approach.