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SECTION 2 (E)

**FACT SHEET**

**LANDSLIDES**

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# FACT SHEET LANDSLIDES

## DEFINITION

Downslope transport of soil and rock resulting from naturally occurring vibrations, changes in direct water content, removal of lateral support, loading with weight, and weathering, or human manipulation of water courses and slope composition.

## CHARACTERISTICS

Landslides vary in types of movement (falls, slides, topples, lateral spread, flows) and may be secondary effects of heavy storms, earthquakes, and volcanic eruptions. Landslides are more widespread than any other geological event.

## LIKELY IMPACT

### *Physical Damage*

- \* Anything on top of or in the path of Landslide will suffer damage.
- \* Rubble may block roads, lines of communication or waterways. Indirect effect may include loss of productivity of agricultural or forest lands.
- \* Flooding.  
Reduced property values, destruction of buildings.

**Casualties** - Fatalities may occur due to slope failure.

## FACTORS CONTRIBUTING TO VULNERABILITY

- \* Settlements built on steep slopes, softer soils and cliff tops.
- \* Settlements built at the base of steep slopes, on mouths of streams from mountain valleys.
- \* Roads, communication lines in mountain areas.
- \* Buildings with weak foundations.
- \* Buried Pipelines and brittle pipes.
- \* Lack of understanding of landslide hazard.

## PREPAREDNESS MEASURES

Community Education after identification of areas most at risk from landslides. The basic information required:

- \* Knowledge of where past Landslides have occurred, derived from local records and knowledge of certain types of rocks prone to landslides.
- \* Monitoring, warning and evacuation systems

## MITIGATION MEASURES

- \* Capture and drainage of water before it reaches potential slope area
- \* Underground drainage by using sub-surface pipes
- \* Land Reform by terracing/re-shaping.

### **Agronomic**

- \* Reforestation, planting of deep rooting trees to prevent surface slips.
- \* Ground cover with grass or agricultural crops

### **Engineering**

- \* Use of Gabion construction to protect water course valleys and control the flow of water downslope.

### **Others**

- \* Hazard mapping, Land Use Regulations and Insurance.

## TYPICAL POST DISASTER NEEDS

Search and rescue (use of earth removal equipment), medical assistance and emergency shelter for homeless.



**Photograph showing the effects of a landslide**