





◦ Landslide

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⚙️ Status	Done
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➤ Parent-task	 <u>1. Natural Disasters:</u>
⬇️ Priority	Medium
🏷️ Tags	

Description

LandSlide

Overview:

- A landslide is the downward movement of soil, rock, and debris on slopes or steep terrain. It can be triggered by heavy rainfall, snowmelt, seismic activity, or human activities such as deforestation and construction.
- Landslides can occur suddenly and without warning, posing significant risks to life, property, and infrastructure.

Causes:

- Heavy Rainfall: Prolonged or intense rainfall can saturate the soil, leading to instability and increased risk of landslides.
- Slope Instability: Steep slopes, weak or weathered rock formations, and poorly compacted soil are prone to landslides.
- Human Activities: Deforestation, construction, mining, and road-building can alter the natural landscape and increase the likelihood of slope failure.

Effects:

- **Property Damage:** Landslides can damage or destroy buildings, roads, bridges, and other structures in their path.
- **Loss of Life:** People caught in landslides may suffer injuries or fatalities due to burial, crushing, or drowning.
- **Displacement:** Landslides can displace soil, rock, and debris, blocking roads, rivers, and drainage channels, and leading to secondary hazards such as flooding and mudflows.

Preparedness:

1. Risk Assessment:

- Identify landslide-prone areas near your home, workplace, and community using local geological maps, hazard assessments, and expert advice.
- Consult with local authorities and land management agencies to learn about landslide risk zones and evacuation routes in your area.

2. Early Warning Systems:

- Stay informed about weather conditions, rainfall forecasts, and landslide warnings issued by meteorological agencies and emergency management authorities.
- Sign up for automated alerts and notifications through local emergency alert systems, mobile apps, or community-based networks.

3. Property Mitigation:

- Implement slope stabilization measures such as retaining walls, terracing, and vegetation reinforcement to reduce the risk of landslides on your property.
- Regularly inspect and maintain drainage systems, gutters, and downspouts to prevent water accumulation and soil erosion.

4. Emergency Supplies:

- Prepare an emergency kit containing essential supplies such as water, non-perishable food, first aid supplies, flashlights, batteries, and emergency tools.

- Include items such as sturdy shoes, gloves, and protective gear for cleanup and rescue operations.

5. Family Emergency Plan:

- Develop a family emergency plan that includes evacuation routes, meeting points, and communication protocols in the event of a landslide or other natural disasters.
- Practice evacuation drills with family members to ensure everyone knows what to do and where to go during an emergency.

6. Community Engagement:

- Participate in community-based preparedness initiatives, workshops, and training exercises focused on landslide awareness, safety, and response.
- Join neighborhood watch groups, community forums, or volunteer organizations dedicated to disaster preparedness and resilience.

Building Vulnerability During Landslides:

Building Collapse:

- Structures located on or near steep slopes, unstable terrain, or landslide-prone areas are at risk of damage or collapse during a landslide event.
- Factors such as building materials, construction techniques, and foundation design can influence a building's vulnerability to landslide impacts.

Types of Structural Failure:

1. **Foundation Instability:** Buildings with shallow or inadequate foundations may experience settlement, tilting, or partial collapse during ground movement.
2. **Slope Failure:** Structures built on or near the edge of a slope may be undermined or engulfed by landslide debris, leading to structural damage or destruction.
3. **Debris Impact:** Fast-moving landslide debris can strike buildings with significant force, causing structural deformation, penetration, or collapse.

Safe Areas Within a Home:

1. Interior Rooms:

- Seek shelter in interior rooms located away from windows, exterior walls, and doors, which are more vulnerable to impact and intrusion.
- Choose rooms on the ground floor or basement level, as they may offer greater stability and protection during a landslide.

2. Reinforced Structures:

- Take cover under sturdy furniture such as tables, desks, or beds, which can provide additional protection from falling debris and structural collapse.
- Position yourself next to load-bearing walls, columns, or structural pillars, as they are more resistant to lateral forces and ground movement.

3. Low-Elevation Areas:

- Stay on the lower levels of multi-story buildings, as upper floors may experience greater sway and structural stress during a landslide event.
- Avoid areas near steep slopes, cliffs, or embankments, as they are more susceptible to landslide initiation and propagation.

4. Exterior Escape Routes:

- Plan and maintain clear pathways for emergency evacuation from your home, ensuring unobstructed access to doors, windows, and exits.
- Install safety features such as handrails, guardrails, and emergency lighting to facilitate safe egress during a landslide.

5. Post-Landslide Safety:

- After the landslide subsides, assess your home for structural damage, foundation instability, or other hazards before re-entering the building.
- Monitor for signs of additional landslides, ground movement, or secondary hazards such as flooding or gas leaks in the surrounding area.
- Follow guidance from local authorities and emergency responders regarding evacuation, sheltering, and recovery efforts.