

How Earthquakes Trigger Ground Failure

One earthquake can trigger different kinds of ground failure.

Landslide

Steep slopes may fail.

Rockfall

Fractured rock can fall from cliffs.

Liquefaction

Some loose sandy or silty ground can lose strength during shaking.

Buildings and roads may tilt or settle.

Earthquake shaking

Roads, bridges, buildings, and utilities may be exposed.

Lateral spreading

Ground can crack and move sideways toward the river.

Buried utilities can be damaged.



Policy takeaway: Earthquakes can damage communities by moving the ground itself, not just by shaking buildings. Seismic planning should account for landslides, rockfalls, liquefaction, and lateral spreading as well as structural design.