

Erosion: Human Impacts on the Land

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Erosion can cause problems that affect humans. Erosion is the process of natural forces moving rocks and soil. The natural forces that cause erosion are water, wind, ice, and gravity. Soil erosion, for example, can create problems for farmers. Soil erosion can remove nutrient-rich topsoil, leaving rocky soil behind. Erosion can also cause problems for humans by removing or weakening soil that supports buildings.

Water erosion happens when water moves the pieces of rock or soil downhill. Waves carry away small pieces of material. A wave can wash up onto the surface of rock or soil and carry away pieces of material as it flows back into the ocean or lake.



Homes built on a cliff near Pacifica, California collapse as ocean waves erode the cliff.

Ocean waves slowly erode cliffs near the beach. Many people like to live near the beach; however, this can be dangerous if they build their houses too close to the edge of the cliff. Over decades, ocean waves eat away at the soil, undercutting the cliff. Erosion destabilizes the cliff and can cause homes to fall down the cliff.



This landslide in El Salvador destroyed many homes in the valley below the hill. It happened after recent logging on the hill.

Human actions can increase the effects of water erosion. Clear-cutting trees to create farmland or to sell as timber can cause erosion problems. With no tree roots to hold soil, the topsoil easily washes away in heavy rains. Erosion caused by deforestation can lead to increased flooding because there is not as much topsoil there to absorb rain water. In hilly regions, deforestation can lead to increased likelihood of landslides.