

→ 1) Rock falls - Rock fall is the free falling of rock blocks over any steep slope.

These rocks are from the superficial layers of the rocky mountain.

talus - accumulated rock debris at the base of a steep slope.



Rock slides -

Zone of weakness mostly have rockslides. Excess water is present in the rocks. These rocks are slippery.





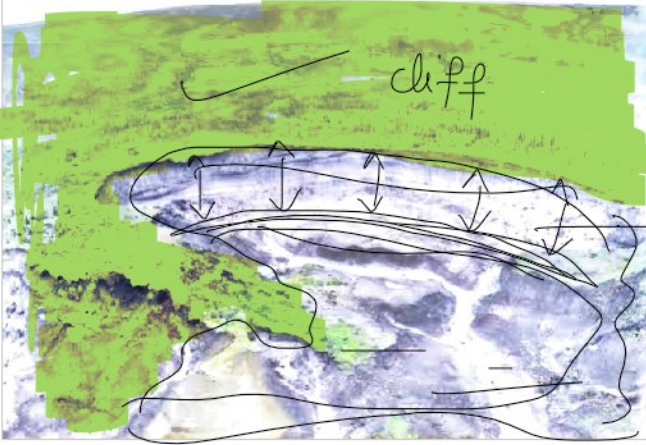
are slippery.



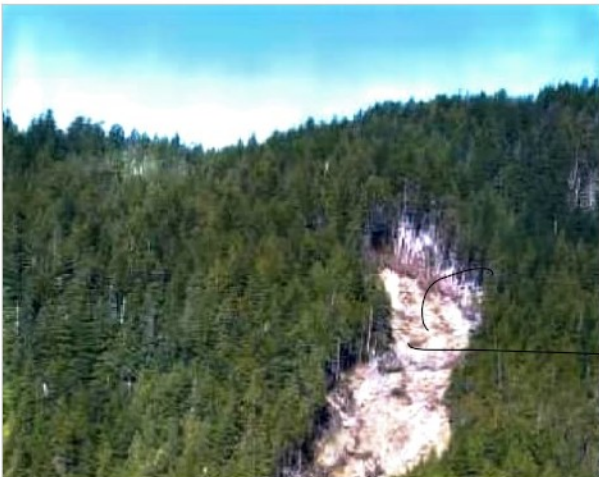
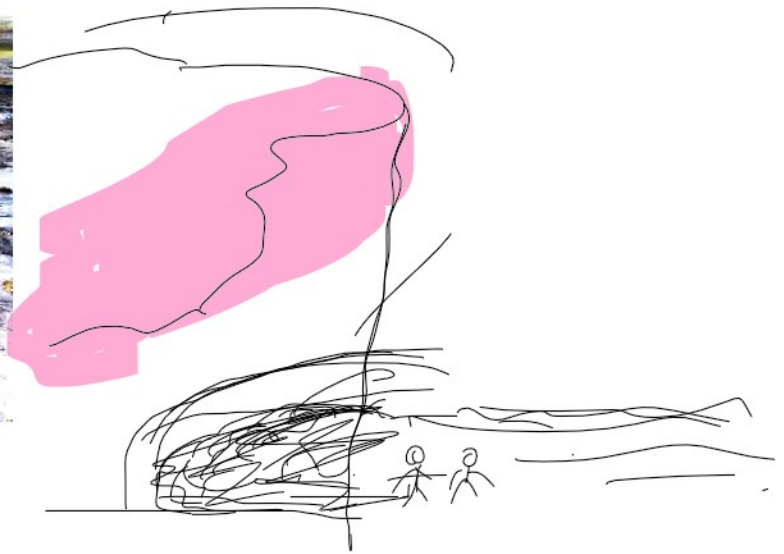
Landslide - mostly occur when a large piece of rock breaks off and slides down a hill. It is often initiated by earthquakes and very heavy rainfall.



Slump -



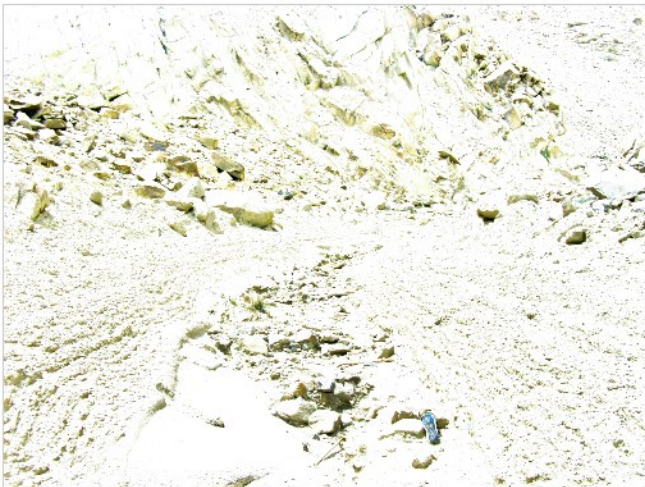
Great mass of bedrock moves downward by a rotational slip from a high cliff (slump).

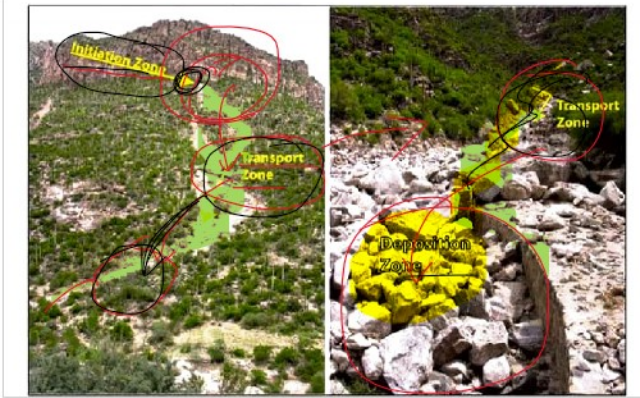


→ Debris slide - more extensive ; on a large scale ; mixture of soils



on a large scale; mixture of soils
as well as rock fragments.





Debris flow =
mudflow +
earthflow + debris

Types of debris flow :-



1) Earthflow - When earth material moves down a hill as a fluid like mass ; it is called earth flow. It takes place in humid regions. The soil is mostly thick and rich in clay, and it also has water trapped in it.

2) Mud flow - It is a liquid mass of soil, rock debris and water. It moves quickly down the slopes. It mostly occurs in mountainous and semi arid environments. A mud flow that originates on a volcanic slope is called a lahar.

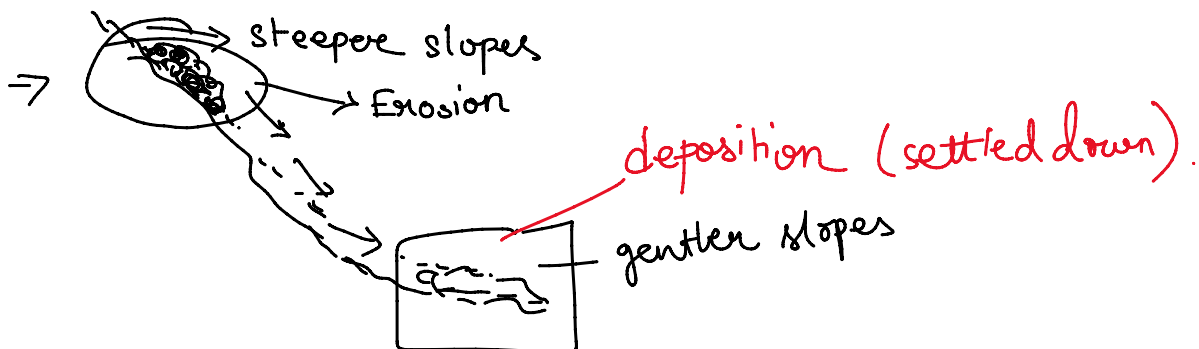
3) Avalanche - deadliest type of debris flow. It happens rapidly.

⑦ Creep - slow and gradual movement of soil downhill. It might move less than a centimetre per year.



Erosion - Removal of top layer of rocks and soil by agents like wind, sun, water, glaciers, waves, and groundwater.

→ Erosion degrades relief (any landmass), i.e. the landscape is worn down.



Deposition is a result of Erosion.

Aggradation

Formation of a

Degradation

Diminishing or

Formation of a level of land.



Diminishing or deterioration of a level of land.

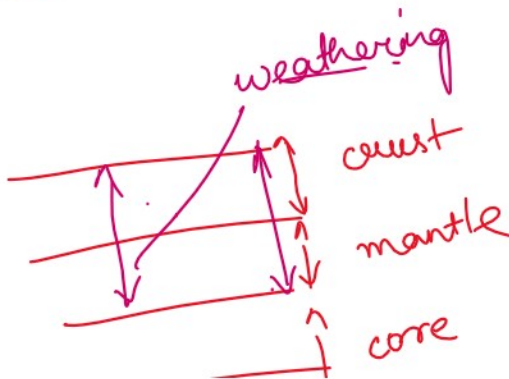


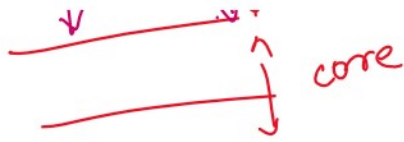
Increase in land elevation, typically near a river system due to the deposition of sediment.

Soil Formation (Pedogenesis)

↓
depends on weathering

→ Depth of the weathered material (weathering mantle) forms the basic source for soil formation.



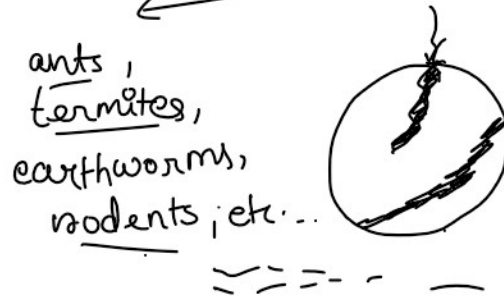
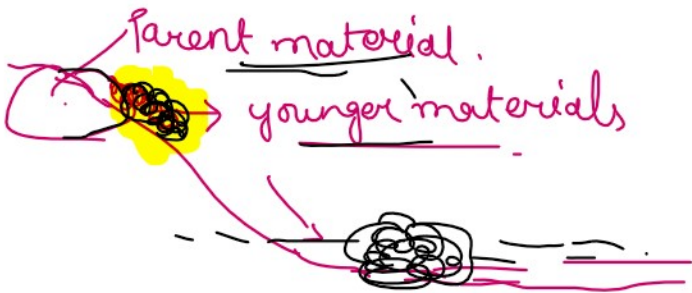


Firstly, the weathered material or transported deposits are colonised by bacteria and other inferior plant bodies like lichens and mosses.

Soil forming factors —

- 1) Parent material
- 2) Topography
- 3) Climate

- 4) Biological activity
- 5) Time



Fully mature level of soil will take sufficient time.