

Geomorphic Processes and Earth Movements

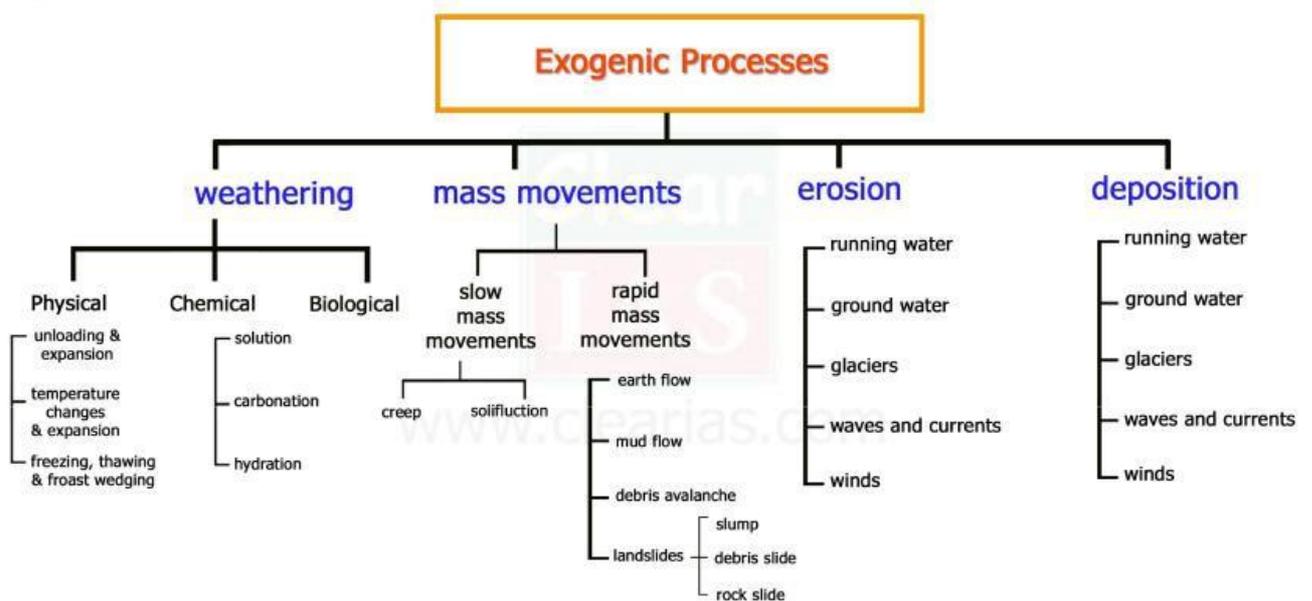
It is time to know in detail about the surface of the earth on which we live. We know that the surface of the earth is not a plain platform. It is distributed unevenly with a variety of landforms like mountains, hills, plateaus, plains, ravines, cliffs etc. Why is the surface of the earth uneven? What make changes in the earth's surface? What process makes mountains and hills? The answer to all the questions above – Geomorphic Processes.

Geomorphic Process

The formation and deformation of landforms on the surface of the earth are a continuous process which is due to the continuous influence of external and internal forces. The internal and external forces causing stresses and chemical action on earth materials and bringing about changes in the configuration of the surface of the earth are known as geomorphic processes.

Mind Map to Study Geomorphic Processes/Earth Movements

The below mind map will help to study geomorphic processes and their sub-classification in a matter of minutes.



Endogenic Forces

- Endogenic forces are those internal forces which derive their strength from the earth's interior and play a crucial role in shaping the earth crust.
- Examples – mountain building forces, continent building forces, earthquakes, volcanism etc.
- The endogenic forces are mainly land building forces.

The energy emanating from within the earth is the main force behind endogenic geomorphic processes. This energy is mostly generated by radioactivity, rotational and tidal friction and primordial heat from the origin of the earth.

Exogenic Forces

- Exogenic forces are those forces which derive their strength from the earth's exterior or are originated within the earth's atmosphere. Examples of forces – the wind,
- waves, water etc.
- Examples of exogenic processes – weathering, mass movement, erosion, deposition.
- Exogenic forces are mainly land wearing forces.

Also read: Erosion and Deposition: Action of Wind and Waves

Exogenic forces can take the form of weathering, erosion, and deposition. Weathering is the breaking of rocks on the earth's surface by different agents like rivers, wind, sea waves and glaciers. Erosion is the carrying of broken rocks from one place to another by natural agents like wind, water, and glaciers.

The actions of exogenic forces result in wearing down (**degradation**) of relief/elevations and filling up (**aggradation**) of basins/ depressions, on the earth's surface. The phenomenon of wearing down of relief variations of the surface of the earth through erosion is known as **gradation**.

Geomorphic Agents

Running water, groundwater, glaciers, the wind, waves, and currents, etc., can be called geomorphic agents.

Geomorphic Processes vs Geomorphic Agents

A process is a force applied on earth materials affecting the same. An agent is a mobile medium (like running water, moving ice masses, the wind, waves, and currents etc.) which removes, transports and deposits earth materials.

Earth Movements

- They are the movements in the earth's crust caused by the endogenic or exogenic forces. These movements are also termed as Tectonic movements.
- The term 'Tectonic' derived from the Greek word 'Tekton' which means
- builders. As the word means, these movements are mainly builders and have been responsible for building up of different types of landforms.

Next in the series: Endogenic Forces and Evolution of Land forms.