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TODAY'S IMPORTANT CURRENT AFFAIRS

UPSC PRELIMS

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TODAY'S DROPS OF NEWS:

<u>SUBJECT</u>	<u>IN NEWS</u>
POLITY	---
ECONOMY	---
GEOGRAPHY	Three soldiers killed as avalanche hits Army base camp in Siachen of Ladakh.
HISTORY AND ART & CULTURE	---
ENVIRONMENT	---
SCIENCE & TECH	---
MISCELLANEOUS	---

GEOGRAPHY

In news: Three soldiers killed as avalanche hits Army base camp in Siachen of Ladakh.

Mass Movements:

Movements that carry rock debris down slopes because of gravity are called mass movements. Unlike other forces like air, water, or ice, gravity directly pulls the

debris downhill. This means the debris itself doesn't need help moving, but it can pick up air, water, or ice as it goes. These movements play a big role in shaping the Earth's surface, especially in hilly or mountainous areas. Factors favoring mass movements: weak materials, steep slopes, rainfall, and lack of vegetation.

Types of Mass Movements: Include creep, flow, slide, and fall.

Rapid Movements:

- Most prevalent in humid climatic regions, occurs over gentle to steep slopes.
- **Earthflow:** It is the movement of water-saturated clayey or silty materials down low-angle terraces or hillsides.
- **Mudflows:** They occur when heavy rainfall saturates thick layers of weathered materials, flowing slowly or rapidly down the channels like a stream of mud.
- **Debris avalanches:** These are fast-moving mass movements that occur in narrow tracks on steep slopes, resembling snow avalanches, and can be much faster than mudflows.
- **Landslide:** It refers to rapid and perceptible movements; the materials involved are relatively dry. Depending upon the type of movement of materials, there are several types:
- **Slump:** It is the slipping of one or several units of rock debris with a backward rotation concerning the slope over which the movement takes place.
- **Debris Slide:** It is the rapid rolling or sliding of earth debris without backward rotation of mass.
- **Rockslide:** It is the sliding of individual rock masses down bedding, joint, or fault surfaces.

- **Rockfall:** It is the free fall of rock blocks over steep slopes while maintaining some distance from the slope's surface.

Avalanche: An avalanche is a sudden, rapid flow of snow, ice, and debris down a mountain or slope.

- It can be triggered by various factors such as heavy snowfall, rapid temperature changes, or human activity.
- Many regions that are prone to avalanches have specialized teams that monitor and control avalanche risks by using various methods such as explosives, snow barriers, and other safety measures.

Types:

- ✓ Rock Avalanches (which consist of large segments of shattered rock),
- ✓ Ice Avalanches (which typically occur in the vicinity of a glacier),
- ✓ Debris Avalanches (which contain a variety of unconsolidated materials, such as loose stones and soil).

MENTOR

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