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Cloudbursts

- 1. Most Cloudbursts occur in association with thunderstorms. In such type of storms there are strong uprushes of air. These updrafts are filled with turbulent wind pockets that shove the small raindrops around leading to collisions between raindrops. The collisions lead to conglomerations and large-sized drops are formed. The forceful upward rush of air also prevents the condensing raindrops from falling downwards. So instead of falling down to Earth the water droplets are pushed upwards till a large amount of water accumulates at a high level. Eventually all updrafts become weak and collapse. With nothing to push it up, the entire water falls down almost all at once.
- 2. The mechanical action of rain is greatly increased by the force and amount of rainfall. So a single Cloudburst can do far more damage than the same volume of rain falling as a gentle shower. The perilous nature of Cloudbursts is therefore because of these large raindrops falling as a torrent, at great speed over a small area.
- 3. Cloudbursts cause flash floods. Flash floods in turn, uproot trees, trigger soil erosion, landslides and landslips leading to habitat destruction, and massive loss of property. Downstream, the floodwaters show down and deposit large amounts of silt that may choke the mouth of water bodies and/or raise the riverbed. Other things being equal, the rapidity with which the rain sweeps away the soil depends upon the steepness of the slope. On hillsides, flash floods can be devastating.
- 4. India is no stranger to this calamity. There have been many major Cloudbursts that have caused untold loss in recent times.
- 5. And the latest in line was one that led to untold devastation in Leh recently.

The Cumulonimbus

The Cumulonimbus is a tall cloud that contains very high, unpredictable winds. Such clouds are associated with thunderstorms. Typically these are the clouds that are usually responsible for Cloudbursts.

Courtesy: Science Reporter