

Sansad TV Perspective: The Himalayan Crisis

In the series Sansad TV Perspective, we bring you an analysis of the discussion featured on the insightful programme 'Perspective' on Sansad TV, on various important topics affecting India and also the world. This analysis will help you immensely for the [IAS exam](#), especially the mains exam, where a well-rounded understanding of topics is a prerequisite for writing answers that fetch good marks.

In this article, we feature the discussion on the topic: **The Himalayan Crisis**

Video link: <https://www.youtube.com/watch?v=M4BjumzFw3c>

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Participants:

1. Dr. Yaspal Sundriyal, Professor & Head, Department of Remote Sensing and GIS, HNB Garhwal University
2. Sudhir Krishna, Former Secretary, Ministry of Urban Development
3. Urmi Goswami, Senior Journalist

Context - Several roads and over 600 houses in Joshimath in Uttarakhand, the gateway town to the Badrinath temple, have developed cracks over the past few weeks, causing panic and protests among the local population. A high-level meeting of officials from the Centre, state govt and agencies like the [National Disaster Management Authority \(NDMA\)](#), GIS and NIH took stock of the situation. According to experts, Joshimath city has been built on an ancient landslide material — meaning it rests on a deposit of sand and stone, not rock, which doesn't have high load-bearing capacity. This makes the area extremely vulnerable due to ever-burgeoning infrastructure and population.

What is land subsidence?

According to the National Oceanic and Atmospheric Administration (NOAA), subsidence is the sinking of the ground because of underground material movement. It can happen due to a variety of reasons - man-made or natural like the removal of water, oil, natural resources, and mining activities. Earthquakes, soil erosion and soil compaction are some of the well-known causes of land subsidence. Land subsidence is a global phenomenon and many cities are also sinking like Jakarta, Mexico, etc.

Reasons behind Joshimath Subsidence -

Joshimath, also known as Jyotirmath, in the Chamoli district of Uttarakhand is known as a gateway to several important climbing expeditions, trekking trails and pilgrimages in the Himalayas. Joshimath is situated in the middle slopes of a hill with the Dhaliganga and Alaknanda rivers on the south and the

north and perennial streams on the west and the east. It is simultaneously impacted by landslides and subsidence. In recent years, the flood events of June 2013 and the [glacial lake burst of February 2021](#) also impacted the region.

- The Joshimath incident is a result of a combination of factors - illegal activities like sand mining, unchecked deforestation, unplanned construction, overpopulation, increased tourist footfall, obstruction of the natural flow of water, and hydel power activities. Also, the area is a seismic zone (Zone V), which makes it prone to frequent [earthquakes](#). Experts say that unplanned and unauthorised construction has led to the blocking of the natural flow of water, which eventually results in frequent landslides.
- Experts suggest that one of the reasons for the land subsidence could be NTPC's (National Thermal Power Corporation) Tapovan Vishnugad Hydro Power Project. The tunnel had water seepage from a punctured aquifer, leading to the drying of water sources in Joshimath.
- It is also said that subsidence in Joshimath might have been triggered by the reactivation of a geographic fault — defined as a fracture or zone of fractures between two blocks of rock — where the Indian Plate has pushed under the Eurasian Plate along the Himalayas.
- A study by the Indian Institute of Remote Sensing suggests that Joshimath and surrounding areas have been sinking at the rate of 6.5 cm or 2.5 inches per year. Satellite images show the spread is not limited to Joshimath town. The residents of Bahuguna Nagar in Karnaprayag have also raised a red flag regarding cracks appearing in some homes.

1976 Mishra Committee Report -

- There were incidents of land subsidence in Joshimath in the 1970s as well. A committee was then formed under the chairmanship of Garhwal Commissioner Mahesh Chandra Mishra to investigate the cause of the collapse.
- The report submitted by the 18-member committee clearly explained that Joshimath was situated on an old landslide zone and could sink if development continued unabated, and recommended that major construction works be prohibited in Joshimath as well as in the Niti and Mana valleys.

Focus areas to work on to prevent such incidents in future -

- Regional plan for the Himalayan region based on geographical, geological, and geo-hydrological parameters.
- Projects should be owned by both the central and state governments. A new strategy of governance is required for the Himalayan region. All central projects should not entirely be central ones but executed jointly with local governments and for this, local planning authority needs to be strengthened. An inclusive framework is required.
- The Himalayan region is a fragile ecosystem, therefore every project in the region should have an [environmental impact assessment](#).
- Proper building codes and implementation of these codes, in the region.

- Unbridled tourism - limits should be put in for the number of tourists visiting the place. A proper tourism plan is required.

Conclusion - Various policy changes and overhauling of various laws and bylaws are required. Most importantly the proper implementation of those laws on the ground to protect the fragile ecosystem in the Himalayas which would avert Joshimath-like incidents in future is the need of the hour.

