# December 2022 Uttarakhand Disasters & Accident Synopsis (UDAS) Monthly Reports

## Social Development for Communities (SDC) Foundation Dehradun, Uttarakhand

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#### **About UDAS Monthly Reports:**

Uttarakhand Disaster & Accident Synopsis (UDAS) is a monthly initiative by Dehradun-based environmental action and advocacy group, Social Development for Communities (SDC) Foundation. The goal of the UDAS reports is to document disasters and accidents in Uttarakhand, leading to human and ecological casualties. UDAS is based on media reports in respectable publications in English and Hindi newspapers, as well as news portals. UDAS neither attempts nor claims to document all disasters and all accidents in Uttarakhand; its focus instead is to document major casualties and non-casualty events on a regular basis.

We strongly believe that with the perils of inclement climate and unabated disasters, the ecologically fragile and earthquake-prone state of Uttarakhand needs to take many more steps to increase its disaster preparedness. We, therefore, see UDAS as a document that highlights attention towards the urgent need of a holistic disaster management and accident minimization policy framework in Uttarakhand.

It is our earnest hope that UDAS will spur political leadership, policy makers, bureaucracy, research and academic institutions, businesses, civil society organizations, media and the citizenry at large to initiate inclusive, regular and action-oriented conversations on the subjects of resilience, mitigation and adaptation in Uttarakhand. With mainstreaming and a greater focus on the issue, there is likely to be an improvement in the process of planning of climate actions and disaster management in Uttarakhand.

### 1. End December 2022: Joshimath "sinking" escalates, concerned citizens take out large protest march

For decades on end, the town of Joshimath has been a centre of faith, and a spiritual getaway in the mighty Himalayas. Located on National Highway 7, at a height of 6,150 feet, it is the doorway to the holy shrines of Badrinath and Hemkund Saheb, and the picturesque Valley of Flowers, and Auli.

It has strategic significance too; home as it is to the Joshimath Cantonment, permanent station of the Garhwal Scouts, close to the Indo-Tibetan Border. For the past few weeks though, Joshimath has a dangerous new identity for its 20,000 residents - a town that they fear is sinking.

For the past week, residents of the municipal town in Uttarakhand's Chamoli district have been protesting against land subsidence, a process of land sinking or settling of the ground surface. The Joshimath Bachao Sangharsh Samiti has claimed that ground fissures have affected to close to 500 houses over the past two years, primarily in the Ravigram and Kamet-Marwari Nala areas, caused cracks in the Joshimath-Auli ropeway, and rendered several homes at the risk of collapsing under their own weight.



People affected by the gradual "sinking" of Joshimath in Chamoli district of Uttarakhand took out a protest rally in the town on December 24, 2022 alleging the administration is not taking any corrective steps.



According to a survey conducted by the municipality of Joshimath, cracks have appeared in over 500 houses in the town over a year, rendering them inhabitable. The people alleged that the administration has not taken any action to address the situation, which has forced them to take to the streets. Around 800 shops in Joshimath remained closed as a mark of protest.

# 31 DECEMBER 2012 AMAN WORK

## जीशीमठ में बढ़ रहा खतरा, प्रभावित मकानों की संख्या 574 तक

साल बीता, लेकिन भू-धंसाव रोकने के लिए नहीं हुआ कोई काम

प्रदीप भंडारी

जोशीमठ। भू-धंसाव से जोशीमठ नगरवासियों को यह साल गहरे जख्म दे गया है। इस साल के शुरुआत में हीं चंद. मकान भू-धंसाव की चपेट में आए लेकिन साल खत्म होते-होते. करीब आधा नगर इसकी चपेट में आ गया है। अब स्थिति यह है कि भू-धंसावं से प्रभावित मकानों की संख्या 574 पहुंच गई है लेकिन अभी तक किसी को शासन-प्रशासन से कोई राहत नहीं मिली है।

नगर क्षेत्र में भू-धंसाव का ग्राफ बद्दता जा रहा है। पालिका की सर्वे रिपोर्ट के अनसार शक्रवार तक नगर में भू-धंसाव से प्रभावित मकानों की संख्या 574 पहुंच गई है। जोशीमठ बचाओ स्मूर्य समिति के प्रवक्ता किसी ने इसे गंभीरता से नहीं लिया। कमल रत्ही ने बताया कि पूरे साल



सुनील वार्ड में क्षतिग्रस्त मकान। संवाद

सरकार से गृहार लगाते रहे, लेकिन

प्रभावितों को विस्थापित कराने और है उसके बावजूद परिवार टूटे मकानों

प्रशासन आज से घर-घर जाकर करेगा निरीक्षण जोशीमठ। भू-धंसाव से प्रभावित परिवारों का प्रशासन की टीम शनिवार से घर-घर जाकर निरीक्षण करेगी। घर की स्थिति पर विस्तृत रिपोर्ट तैयार की जाएगी जिस पर तत्काल राहत देने का काम शरू किया जा सके। जिला प्रशासन ने निरीक्षण के लिए नगर पालिका. एसडीआरएफ 'और प्रशासन की टीम गठित की है। यह टीम प्रभावित घरों, कितने कमरे, परिवार के कितने सदस्य, कृषि भूमि सहित अन्य तरह के नुकसान

सरक्षा के उपाय करने को लेकर में रहने को विवश हैं लेकिन शासन-प्रशासन में गंभीरता नहीं दिखती है। उनका कहना है कि सरकार को जल्द इन दिनों कडाके की ठंड पड़ रही से जल्द विस्थापन कराते हुए सुरक्षा के उपाय शुरू कर देने चाहिए। संवाद

जोशीमठ बचाओ आंदोलन

प्रभावित परिवार इन नंबरों पर दर्ज कराएं शिकायत

आपदा कंट्रोल रूम चमोली-9068187120, 7830839443, 7055753124, 75799004644

सुरक्षा दीवार के लिए शासन को भेजी आख्या गोपेश्वर। डीएम हिमांश खराना ने

बताया कि डेनेज सिस्टम और नदी किनारे सुरक्षा दीवार के लिए शासन को आख्या भेजी है। निरीक्षण क्ररने वाली/टीम नुकसान का जायज्य लेने के साथ जागरूक भी करेगी रावाद

The reasons for this subsidence, experts believe, is not new; haphazard construction on fragile mountain terrains that have loose rock, the seepage of water subsurface, an erosion of topsoil, and local streams changing their course because of man-made factors that block their natural flow. The town is geologically sensitive, situated on an east-west running ridge to the south-west of Vishnuprayag, the confluence of the Dhauliganga and Alaknanda rivers. The gneissic rocks in Joshimath are highly weathered with low cohesive value.

The subsidence itself is not new either, first flagged in the 1976 state government-appointed Mishra Commission report. But it's aggravation over the past two years, causing cracks in homes, rendering them unstable and prompting some to flee, calls for urgent action.

> Joshimath 'sinking': Panel had warned 50 years ago

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Dehradun: In the backdrop of the "sinking" of Joshi-math which has led to a furo-re among the border town's residents, TOI accessed the Mishra Committee report of 1976 which had warned aga inst such an eventuality almost 50 years ago. "For road repairs and other construc-tion, it would be advisable not to remove boulders by digging or blasting the hill si-de... The trees are to be nurtu-red like children," read a re-commendation in the report.

Old-timers in the town, who once "rebuked" the Mishra panel members for their "forewarning", are now ruing the fact that "successi-

Old-timers who once 'rebuked' the Mishra panel members are now ruing the fact that 'successive governments failed to take heed of the panel's findings'

ve governments failed to take heed of the panel's findings". Recalling her interaction with survey team in 1976, Shanti Chauhan, 66, a Joshi-math resident, said: "I lived in a rented accommodation in Singhdhar and my husband was working in ITBP."

Continued on P 3

ICC 30, 2022

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TIMES OF INDIA

#### s cancelled region

on commissioner s directed all duty during New unless there is Leaves are to be espective district e chief medical fa hospital. The en in the Kumaon urist destinations

ll also be run in r, sources said the mplementation of otocol. "Private to implement and to implement and lations. Masks are lem arises with so-specially in public it have the necesure," said a teachool id Dalanwala, there were 28 acts at the of which 12 m.

#### 'Natural forest cover in Joshimath area was mercilessly destroyed'

Continued from P 1

The panel surveyed the area from Tapovan to Suneel and on reaching our 'kuccha' house, they said that 'your town will sink as it has a lifeline of just 100 years'. We got furious and scolded them for using 'apshabd' (bad words) and 'cursing' our town. But today we realise they were correct. Four rooms in our house have developed cracks." veloped cracks."

Another old-timer, Chan-dravallabh Pandey, 65, added, "Work on all-weather road and hydropower plants con-tinues unabated, further ag-gravating the already precarious situation. It is sheer care-lessness of all the govern-ments that we are at risk now. Why did they even allow mul-ti-storey buildings and so much construction despite being alerted decades ago?"

being alerted decades ago?"
Mishra Committee was
named after MC Mishra, then
Garhwal commissioner in
erstwhile Uttar Pradesh. It
comprised 18 members. Mishra had directed the team to
conduct a ground survey between May 10 and 15 in 1976.
The panel had members from

the Army, ITBP, BRO, Shri Ke-darnath-Badrinath Temple Committee and the local administration. The committee was mandated to find the cause of landslide and sinking along with both short and long-term remedies with fi-nancial implications.

According to old-timers, it was heavy rain and floods from Raini area in the Alaknanda river that started erod-

nanda river that started eroding the bottom soil of Joshimath which is located on a "landslide debris" that triggered the need of action to save the picturesque town.

Speaking to TOI about the 70s survey, Bhagwati Prasad Kaprwan, an official at the Joshimath municipal board then, said, "It was the excess water in the Alaknanda that washed away the entire Belakuchi market... The water current was so intense that it eroded soil from the base of eroded soil from the base of Joshimath town." The report, at that time, stated that, "Joshimath line, stated that, "Josh-imath lies on an 'ancient land-slide." It had strongly prohib-ited any heavy construction works. "... Natural forest cov-er in Joshimath area has been mercilessly destroyed by a number of agencies..."

Rudra protest baby ou tre (PH ham Si day mo admit I hospita tion aga cident c uty chic ached t fer of t into the



#### Geological survey

In August 2022, the state government set up a multi-institutional team to conduct a joint geological and geotechnical survey of Joshimath to ascertain the causes of ongoing subsidence and suggest remedial measures. In its findings, the committee found that "unplanned developmental activities, periodic seismic activities, and absence of the assessment of the carrying capacity of the ground" have burdened the fragile mountain slopes on which the town rests.



THE TIMES OF INDIA, NEW DELHI / DEHRADUN TUESDAY, DECEMBER 27, 20, 2

## Joshimath sinking: State govt orders detailed geological study of town

Irrigation Dept To Develop Drainage Plan & Stop Ongoing Land Erosion By Alaknanda River

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Dehradun: As fearful residents of Joshimath continue their protests over the town's apparent sinking and appearance of cracks in their houses, Uttarakhand State Disaster Management Authority (USD-MA) has ordered a detailed bearing capacity analysis of the border town, regarded as the gateway to Badrinath, Valley of Flowers and Auli, following cracks in almost 500 houses.

USDMA, in its latest meeting minutes of which are with TOI ordered the irrigation department to "make a drainage plan and conduct a geological study of the town". "An expression of interest (EoI) has been floated in this regard," an offi-

cial told TOI.

In August this year, a multiinstitutional team, comprising experts from USDMA, Central Building Research Institute (CBRI) Roorkee, IIT-Roorkee, Geological Survey of India (GSI) and Wadia Institute of Himalayan Geology (WIHG), constituted to undertake geological and geotechnical investigation around Joshimath town, found that it is built on an "unstable foundation", a thick cover of landslide material which can give way anytime in case of heavy rain, tremors, unregulated construction or more footfall

than carrying capacity. The team blamed the "sinking" on the numerous homes, resorts and small hotels that have mushroomed along the



Residents continue to protest over the town's apparent sinking and appearance of cracks

Joshimath-Auli road "without regard to the bearing capacity of the town". Poor drainage, sewage, surface runoff disposal of water and erosion by rivers have compounded the situation, experts said.

that the damage wasn't restricted to floors or walls of houses. It

through houses, including courtyards and outdoor areas, and even dislocated beams, resulting in lopsided structures.

"In the meeting, detailed discussions were held on the recommendations proposed by the multi-agency panel on the Joshimath issue," a senior official from USDMA said, adding that it was also suggested by the experts to prepare a map of Joshimath town at a scale of 1:5000 for better planning before taking any remedial measures.

The state irrigation department has also been tasked to make a plan to stop ongoing land erosion by Alaknanda riv-The panel also pointed out er which has been attributed as one of the primary reasons behind the 'sinking' by the panel.

been asked to suggest safe building designs keeping in mind land subsidence in Joshimath.

Last week, fresh cracks developed in houses and the Helang-Joshimath highway had caved in too. Since then, the locals have been protesting and alleging that the government is not taking necessary steps for the safety of residents. Atul Sati, convenor of Joshimath Ba chao Sangharsh Samiti spearheading a movement on the issue since 2004, said, "Government is not understanding the urgency of the situation. The measures being considered by the government are long term in nature and can take years to complete. What we need is an immediate solution.

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The expert panel set up by the Uttarakhand government found that several pockets of Joshimath are "sinking" due to man-made and natural factors. The panel found that ground subsidence — a gradual settling or sudden sinking of the earth's surface due to removal or displacement of subsurface materials — has induced structural defects and damage observed in almost all wards of Joshimath, according to reports.

BK Maheshwari, professor of earthquake engineering from the Indian Institute of Technology (IIT)-Roorkee, who was a part of the survey, said: "The survey report has been submitted to

the government and the secretary of Uttarakhand State Disaster Management Authority (USDMA) is working on the remedial measures as suggested in the report."

Among the remedial steps suggested by Maheshwari were a stop to haphazard construction and the use of heavy machinery for rock cutting. Others included pavement and roads to be properly compacted and consolidated; seepage from drains carrying storm water as also household wastewater to be minimized through routine maintenance and repairs; and the planning and lining of the towns drainage system.

"All construction activities in Ravigram, Sunil, and Gandhinagar in close proximity of nullah be curtailed. If necessary, the households will be relocated at alternate safe places. The foundation soil of the houses showing continuous crack development be strengthened," the recommendations said.

# 31 DEECHBER, 2012 HIMDUSTAN

# मट सह रहा है क्षमता से अधिक बोड़



#### फॉलीअप

#### 🛮 शैलेन्द्र सेमवाल

देहरादुन। जोशीमठ में भू धंसाव को लेकर इसी साल सितम्बर 2022 में राज्य आपदा प्रबंधन प्राधिकरण के नेतृत्व में बहु संस्थागत विशेषज्ञों की टीम ने जोश्रीमठ का सर्वे कर जो रिपोर्ट तैयार के⁄थी, उसमें जोशीमठ में मानकोंं के विपरीत भारी निर्माण कार्य, औली की ढलान से आने वाले पानी व शहर के आसपास के नालों को भू-धंसाव की वजह बताया गया। भवैज्ञानिकों का कहना है कि जोशीमठ का क्षेत्र भौगोलिक रूप से बेहद अस्थिर है और यह केयरिंग कैपेसिटी से बहुत अधिक भार वहन कर रहा है।

टीम में शामिल यूएसडीएमए ईडी डॉ.पीयूष रौतेला, सीबीआरआई

रिपोर्ट के मुताबिक इस क्षेत्र के उच्च हिमालय में क्रिस्टलीय खुली चट्टानें हैं, जोशीमट के चारों ओर अधिकांश बिखरी हुई चट्टानें हैं, जिसमें अधिकांश तीव ढलान वाली है। जोशीमट में अपेक्षाकृत ढीली मिटटी है। फील्डवर्क में टीम ने एटी नाला, रविग्राम व नौ अन्य नालों में कटाव बढ़ने व जमीन धंसने की तीव्र गति को भी महसूस किया। 17–19 अक्तबर 2021 को जोशीमट में 190 एमएम बारिश दर्ज की गई। इसके बाद दरार व धंसाव की समस्या गहराने लगी। जोशीमठ के बेहद पास बद्रीनाथ, औली, हेमकुंड साहिब, फूलों की घाटी, माणा, पांडुकेश्वर जैसे कई धार्मिक व पर्यटक स्थल हैं। इन सभी का दबाव जोशीमट पर पंड रहा है। इसे नजरअंदाज कर यहां अनियोजित विकासात्मक गतिविधियां की जा रही हैं।

रुडकी के मुख्य वैज्ञानिक डॉ.शांतन डॉ.स्वप्नमिता चौधरी वैदेशवरन ने इसी सरकार, आईआईटी रुड़की भूंकप विभाग के प्राध्यापक डॉ.बीके माहेश्वरी, जीएसआई नई दिल्ली के निदेशक मनोज कैस्था, युएसडीएमए 🕆 है। के भ वैज्ञानिक सुशील खंडडी, सीबीआरआई रुडकी के शोधार्थी सुवम दास व वाडिया हिमालय भू-विज्ञान संस्थान की भू वैज्ञानिक

साल 16 से 19 अगस्त को जोशीमठ का फील्डवर्क कर ये रिपोर्ट तैयार की थी, जिसे राज्य सरकार को सौंपा गया

सुझाव:रिपोर्ट में सुझाव दिया गया है कि सरकार हितधारकों से बातचीत करे, ढलानों पर पानी की निकासी का विशेष प्रबंध हो, बस्तियों में धंसाव

प्रबंधन ठीक नहीं है। औली रोड पर बारिश का पानी सडकों पर बहता है। खराब सीवरेज के कारण जमीन की सोखने की क्षमता प्रभावित हुई है। घरों की गुणवत्ता बेहद खराब हैं । – डॉ .स्वप्नमिता चौधरी वैदेश्वरन, भू-वैज्ञानिक, वाडिया संस्थान।

कम करने को टीटमेंट हो। निर्माणाधीन सीवर ट्रीटमेंट प्लांट का काम पुरा हो, रविग्राम, सुनील व गांधीनगर में व्यावसायिक व आवासीय भवनों की गतिविधियां बंद हों। नालों के आसपास से लोगों को शिफ्ट किया जाए। प्रभावित घरों के पास रिटर्निंग वाल . बनाई जाए। कमजोर जग्रहीं पर पिलर बनाकर मजबूती प्रदान/की जाए।

#### **Local voices**

In Joshimath, 71-year-old Bhagwati Prasad Kaparwan has half an acre of agricultural land and a home in Manohar Bagh, both of which have developed cracks in the past two years. "The agricultural land and the house in which I live is facing land subsidence with huge cracks developing over the last two years. We want the government to initiate action in the area."



I - I GON HAZ

In the neighboring Gandhinagar area, 34-year-old Kailash Joshwal has seen eight families that live around him leave in the past year. "They resided in this area, and left this year because of the continuous sinking, and the cracks that have developed in their homes. Living here is becoming more and more dangerous," Joshwal said.

# Cracks in 46 more houses in Joshimath in a week

Residents Look To Leave, Tenants Asked To Vacate

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Dehradun: With cracks appearing within the span of a week in 46 more houses of Joshimath, the "sinking town". petrified locals have found themselves caught between the devil and the deep blue sea. They now have three options before them: stay in houses with cracks, move to safer locations or return to native villages.

Some local residents said they had asked tenants to vacate houses. Some of the affected families have moved to safer locations in Joshimath and some have moved back to native villages. After intense protests by locals, the state government has ordered a survey on Joshimath. Studies have revealed that the town, which is gateway to Badrinath, Auli and Valley of Flowers, is built on an unstable foundation of "thick landslide cover" which can cave at the smallest disturbance. Numerous constructions, high footfall and ero-



Some farm lands have also developed cracks in Joshimath

sion by rivers has made the situation worse.

"Till last week, a total of 513 had cracks. The number grew to 559 within a week. Around 2,500 families have been adversely affected in the small hill town. Eight families simply left their houses and moved away. A family has moved back to their village in Pipalkoti," said Shailendra Panwar, chairman of Joshimath Municipal Corporation. Structures in the Ravigram, Manohar Bag and

Gandhi Nagar wards, and wards that are close to a hydro power plant and those in Signidhar are the worst hit, with the number of cracks increasing and getting larger. Residents here are worried for their life and losing their livelihood.

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Seeing the urgency of the situation, Chamoli district magistrate Himanshu Khurana rushed to Joshimath and inspected the sites and assured "full support" to local residents.

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Shailendra Panwar, who is the president of the municipal board in Joshimath, says that at least 500 families have been affected by the subsidence. "The number is increasing on a regular basis. Given the lackadaisical approach of the government, people here have decided to start an agitation to press the government to take this matter seriously."

Panwar said that he apprised the Uttarakhand government on December 21, 2022 of fissures that have started developing around the towers of the Joshimath-Auli ropeway. "This can be dangerous to tourists. Hence all such operations should be stopped immediately until remedial measures are undertaken," he said.

Dikka Devi Joshwal, member of municipal ward 1 in Joshimath, said that 14 families in his jurisdiction alone have left. "Around 14 families have already shifted elsewhere. We have demanded their rehabilitation to a safer place along with the construction of some sort of

concrete safety wall from Vishnu Prayag to the Marwadi area for the safety of the town," she said.

# बहुमाजला होटल झुका, दरारे आई

## जोशीमठ में भूधंसाव का पर्यंदन व्यवसाय पर असर, पर्यंटकों में दहशत

संवाद सहयोगी, गोपेश्वर: पर्यर्टन व धार्मिक नगरी जोशीमठ में हो रहे भूधंसाव से पर्यटन व्यवसाय पर भी फर्क पड रहा है। दहशत में लोग घरों को छोड़ रहे हैं तथा रतजगा भी कर रहे हैं। स्थिति यह है कि एक बहुमंजिला होटल तिरछा हो रहा है, जिससे पर्यटक भी भयभीत हैं।

थाने के समीप इस होटल का एसडीएम कुमकुम जोशी व नगर पालिका की टीम ने भी निरीक्षण किया। चार मंजिला इस होटल के अंदर भी मोटी दरारें आई हैं। बताया गया कि प्रशासन की ओर से भूगर्भीय जांच कराई जा रही है, ताकि खतरे को देखते हुए इसे पर्यटकों के लिए बंद कराया जाए। धार्मिक व पर्यटन नगरी जोशीमठ में इन दिनों पर्यटकों की भीड़ है, लेकिन जिस प्रकार यहां भूधंसाव हो रहा है, उससे पर्यटक खौफजदा हैं।

मकानों, भूखंड़ों में गहरी, आंशिक उठाए जाने की आवश्यकता है।

#### जोशीमठ के अस्तित्व पर आ रहा संकट

जोशीमट बचाओ संघर्ष समिति के बैनर तले स्थानीय लोग एकजुट होकर प्रभावितों की लड़ाई लड़ रहे हैं। मात्र एक साल में ही जिस प्रकार भवनों व भूमि पर दरारें आई है तथा इसका दायरा बढ़ रहा है, इससे नगर के अस्तित्व पर संकट आ रहा है। संघर्ष समिति के संयोजक अतल सती ने दरारों के लिए जोशीमठ की पहाड़ी के नीचे सुरंग से होकर गुजरने वाली एनटीपीसी की निर्माणाधीन तपोवन बिष्णुगाड जलविद्युत परियोजना को जिम्मेदार **टहराया**।

दरारें, दर्ज की गई है। नगर पालिका अध्यक्ष शैलेंद्र पंवार का कहना है भी सहमे हुए हैं। कुछ ही अंतराल कि सर्वे रिपोर्ट को प्रशासन को भेजी में औली रोपवे व थाने के पास एक जाएगी। उन्होंने कहा कि सर्वे में अभी बहुमंजिला होटल एक ओर झुक तक 559 मकानों व भूखंड़ों में दरारें रहा है। यही दिक्कत अन्य जगहों दर्ज की गई हैं। पूरे नगर के सर्वें के पर भी है। दरार आने से पर्यटक भी बाद इस रिपोर्ट को शासन-प्रशासन को भेजकर तत्काल भूधंसाव रोकने नगर पालिका करा रहा है सर्व : के लिए कारगर कदम उठाए जाने नगर पालिका जोशीमठ नगर में को लेकर प्रस्ताव भेजा जाएगा। भूधंपाव व दारारों को लेकर सर्वे उन्होंने कहा कि इस पौराणिक शहर करा पहा है। आज तक सर्वे में 559 को बचाने के लिए तत्काल कदम



्जोशीमठ नगर में हो रहे भूधंसाव से तिरछा हुआ बहुमंजिला होटल 🛭 जागरण

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#### The government's stance

Piyoosh Rautela, executive director of USDMA, said the district of Chamoli, which houses Joshimath is tectonically sensitive, and falls in Zone V of the seismic zoning map of India - the highest gradation of tectonic activity.

"Chamoli district has several prominent tectonic discontinuities and experiences, particularly high precipitation. The district is therefore vulnerable to both rainfall and earthquake-induced landslides. The district thus experiences a number of landslides and land subsidence, particularly during the monsoon period," he said.

## जींश्रीमठ के भू-धंसाव का उपचार कराएगी सरकार

#### जागरण प्रभाव 🖈

केदार दत्त 🏿 देहरादन

चीन सीमा से सटे चमोली जिले के जोशीमठ में हो रहे भू-धंसाव को लेकर सरकार गंभीर हो गई है। क्षेत्र की सर्वेक्षण रिपोर्ट मिलने के बाद अब जोशीमठ के डेनेज सिस्टम पर ध्यान केंद्रित किया गया है। शासन ने सिंचाई विभाग को शीघ्र ही यहां का डेनेज प्लान व इसकी डीपीआर (विस्तृत परियोजना रिपोर्ट) तैयार करने के निर्देश दिए हैं। यही नहीं, जोशीमठ के सीवर सिस्टम से जुड़े कार्यों को जल्द पूर्ण कराकर सभी घरों को सीवर लाइन से जोड़ने के निर्देश संबंधित विभाग को दिए गए हैं। इसके अलावा जोशीमठ का जियो टेक्निकल अध्ययन भी सरकार कराने जा रही है। इसके आधार पर प्रभावित क्षेत्रों में बड़ी राज्य आपदा प्रबंधन प्राधिकरण, संरचनाओं के निर्माण पर रोक आइआइटी रुड़की, सीबीआरआइ लगाई जा सकती है।

जोशीमठ शहर लंबे समय से इंडिया, वाडिया हिमालय भू-विज्ञान भू-धंसाव की जद में है। इसके चलते पांच सौ से ज्यादा भवनों में दरारें पड़ने से लोग भयभीत हैं। 10 कराया। सितंबर में विज्ञानियों ने किया है। सचिव आपदा प्रबंधन डा कदम बढ़ाए जाएंगे।

#### विज्ञानियों ने दिए थे ये सुझाव

- जोशीमढ के ड्रेनेज व सीवर सिस्टम पर किया जाए ध्यान केंद्रित
- नदी से हो रहे भू-कटाव की रोकथाम को उठाए जाएं कदम
- शहर के निचली ढलानों पर स्थित परिवारों का हो विस्थापन
- प्रभावित क्षेत्रों में निर्माण कार्यों पर लगाई जाए रोक
- बडी संरचनाओं का निर्माण इस क्षेत्र के लिए हो सकता है जोखिमपूर्ण

अपनी रिपोर्ट शासन को सौंपी। से ज्यादा भवन स्वामियों के अपने घर छोड़कर अन्यत्र जाने की बात

विज्ञानियों की अध्ययन रिपोर्ट में उल्लेख है कि जोशीमठ में पानी भी सामने आई है। दैनिक जागरण इस मुद्दे को प्रमुखता से उठाता रहा की निकासी का अभाव, भवनों का निर्माण उचित तरीके से न होना, है। जोशीमठ पर मंडराते इस खतरे को देखते हुए सरकार भी गंभीर हुई नदी से भू-कटाव, अनियोजित ढंग है। सरकार ने इसी वर्ष अगस्त में से हो रहे निर्माण और प्राकृतिक लिहाज से संवेदनशील होना इस क्षेत्र में भू-धंसाव व भवनों में दरार रुडकी, जियोलाजिकल सर्वे आफ के कारण बन रहे हैं। शासन ने रिपोर्ट का गहनता से अध्ययन करने संस्थान के विज्ञानियों की टीम गठित के बाद अब जोशीमठ के भू-धंसाव कर जोशीमठ का भूगर्भीय सर्वेक्षण का उपचार कराने पर ध्यान केंद्रित

 सिंचाई विभाग को जोशीमठ का ड्रेनेज प्लान व डीपीआर बनाने के निर्देश हुई है। विज्ञानियों की रिपोर्ट के

- जोशीमठ क्षेत्र का जियो टेक्निकल अध्ययन भी कराने जा रही सरकार
- क्षेत्र चिह्नित कर बड़ी संरचनाओं के निर्माण पर लगाई जा सकती है रोक

47 साल से हो रहा भू-धंसाव जोशीमठ में भू-धंसाव पिछले 47 साल से

हो रहा है, जो अब तेज हुआ है। वर्ष 1975 में मिश्रा कमेटी की रिपोर्ट में भी जोशीमढ में भू-धंसाव का उल्लेख है। यह क्षेत्र भूकंपीय दृष्टि से भी संवेदनशील है।

जा रहे हैं। -डा रंजीत सिन्हा, सचिव आपदा प्रबंधन रंजीत सिन्हा ने हाल में अधिकारियों के साथ इस विषय पर मंथन किया था। शासन ने विज्ञानियों की रिपोर्ट के आधार पर जोशीमठ के ड्रेनेज सिस्टम पर ध्यान केंद्रित किया है। सिंचाई विभाग को इसका प्लान व डीपीआर शीघ्र बनाने के साथ ही नदी से हो रहे भू-कटाव के मद्देनजर सुरक्षा दीवार की डीपीआर तैयार करने को भी कहा गया है। इसके अलावा क्षेत्र का जियो टेक्निकल अध्ययन, प्रभावितों के पुनर्वास्

समेत अन्य बिंदुओं पर भी जल्द्र ही

जोशीमट में भ-धंसाव पर

हमारी निरंतर नजर बनी

आधार पर जोशीमट का ड्रेनेज

सिस्टम बनाने के साथ ही सीवर

किसका पुनर्वास किया जाना है,

किस क्षेत्र में निर्माण कार्य व बड़ी

संरचनाओं को रोकना है, ऐसे

बिंदुओं के दृष्टिगत हम जल्द ही

जियो टेक्निकल अध्ययन भी कराने

सिस्टम को दुरुस्त किया जाएगा।



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Rautela, who was part of the team that conducted the survey in August, said that the area around Joshimath was covered with a thick layer of overburden material (caused by landslides). "Large boulders of gneisses and fragments of basics and schistose rocks are embedded in the area, contributing significantly in the gradual sinking of the area", he said Rautela said the latest satellite data shows that some mountain streams have expanded their channels or have changed course, and this has induced greater slope instability.

Himanshu Khurana, Chamoli's district magistrate, said that the irrigation department has been asked to prepare a detailed project report to strengthen anti erosion work. "This toe erosion work will be undertaken to mitigate the problem of land subsidence."

On Tuesday December 27, 2022 a five-member team headed by Khurana conducted an inspection of the affected areas and sought feedback from people. "I have also instructed concerned officials to prepare a proposal for the construction of a security wall to prevent subsidence in the river area stretching from Marwari Bridge to Vishnuprayag, a distance of 1.5 kilometers. I have also directed that remedial work on homes that have developed cracks begin immediately after consulting structural engineers" Khurana said.

Rautela said that the government was cognisant of the protests and the concerns, and given the sensitivity of the matter, was looking closely at the suggestions of the survey committee. "We are looking into these recommendations and appropriate action will be taken."

## 2. December 30, 2022 : Cricket Star Rishabh Pant meets with car accident due to potholes

Indian wicket-keeper batter Rishabh Pant met with an accident on Friday, december 30, 2022 on the Delhi-Dehradun highway near Roorkee following his car ramming into the road divider. He was seen with a bloodied face moments after the car crash.

Pant had a narrow escape early morning when the Mercedes Coupe he was driving crashed into a road divider near Roorkee and caught fire. Pant, police said, lost control after he apparently dozed off at the wheel. Haridwar SSP Ajai Singh said that as per preliminary information, Pant dozed off while driving and lost control. "The time was 5.22 am when Rishabh Pant was returning from Delhi and on the Delhi-Roorkee highway, his car hit the divider and caught fire after it turned upside down. A Haryana roadways bus was passing and its driver Susheel Kumar helped Rishabh and called 112. Within 10 minutes, a police team reached the spot and rushed him to a nearby hospital in an ambulance," said Singh.

As per the police, Pant was able to escape through the broken windscreen of his car, a Mercedes-AMG GLE43 Coupe. After being initially admitted to Saksham, a private hospital in Roorkee, the 25-year-old Pant, who was on his way to his hometown Roorkee from Delhi, was transferred to Max Hospital in Dehradun.

He has two cuts on his forehead and a ligament tear in his right knee. He has also hurt his right wrist, ankle, toe and suffered abrasion injuries on his back, doctors said. Dr Ashish Yagnik, Medical Superintendent of Max, said that doctors "prima facie" did not find any serious injuries on the cricketer and that he is stable.

CCTV footage of the incident shows the speeding car losing control and swerving to its right before it rams into the divider and turns upside down. Another video, shot minutes later by a passerby, shows the car engulfed in flames and some people helping a visibly injured Pant. Haryana Roadways bus driver Susheel Kumar, who was the first person to come to the cricketer's rescue, said that he left Haridwar around 4.25 and as he reached Gurukul Narsan and slowed down the bus, he noticed a speeding vehicle coming from the Delhi side, losing control, and jumping across the divider.

According to Kumar, after the ambulance arrived in around 15-20 minutes, they helped Pant get inside. Kumar said that there were currency notes of around Rs 6-7,000 lying on the road and passengers collected the cash and handed it over to Pant. In another video, shot before he was taken to the hospital, Pant could be seen bleeding and trying to talk to those helping him.

Uttarakhand CM Pushkar Singh Dhami reached the Max Hospital to meet Pant on Sunday, January 1, 2023. The CM stated that Pant informed him that his accident on the Delhi-Dehradun highway happened due to a pothole that came in the way.

The Uttarakhand CM interacted with the media after meeting Pant. He also opened up on Pant's health. "Rishabh Pant is experiencing pain in the body due to injuries suffered in the accident." Dhami said as quoted by ANI. The Uttarakhand CM was reportedly in touch with Pant's family after the cricketer met with the car accident. He also had formed a team, who kept the CM updated on Pant's health. Earlier, Delhi & District Cricket Association Director Shyam Sharma went to meet Pant at the Max Hospital and the Indian cricketer had informed him about a pothole causing the horrific accident.



#### **About Social Development for Communities (SDC) Foundation:**

SDC Foundation is a Dehradun-based environmental action and advocacy group engaged in communication, citizen engagement and capacity building in the Himalayan state of Uttarakhand. The foundation works in partnership with the institutions of Government of India, Government of Uttarakhand and other stakeholders such as research & academic institutions, community groups, civil society, media partners, NGOs, businesses & trade bodies, schools & colleges in the state.

Climate and environment conservation, waste management, sustainable urbanisation and a basket of sustainable development issues are key focus areas of the foundation.

#### **Anoop Nautiyal**

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