

Disaster Risk Reduction and Resilience

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Story of a Small Town

- It is story of a small town
- It is high up in the Himalayas, with its gleaming lights
- It evokes the vision of a pristine landscape
- It is suddenly destabilized
- It has evoked nationwide concern
- It is Joshimath

A disaster in making for a long time..

- The town experienced subsidence
- There were cracks in the houses, rendering them unsafe
- Suddenly the people were homeless, looking for safe shelter
- We struggled to analyse the cause of disaster
- Team after teams were assigned
- All the important scientific institutions were involved
- Everyone looked at it from the point of view of his discipline
- It is subsidence... landslides.. or the impact of micro-earthquakes?
- Yet none of us was wiser after all these reports

Yet what we know for sure..

- Joshimath is located in a landslide-prone area
- In certain areas, the construction has happened on landfill
- On the slopes, natural drainage has been interrupted or impeded
- Water has seeped in, hollowing the sub-surface
- Soil does not have the load-bearing capacity
- As a result, houses have caved or developed large cracks
- Landslides or smaller earthquakes aggravate the impact

The context to look at various sectors... Let's begin with urban planning

- The town has uncontrolled expansion
- There is no land use plan for the city
- The municipality hasn't adopted the system of building permission
- No adherence to building codes
- All the buildings are improvisations– unbounded, disjointed
- In case of a bigger impact of earthquakes, large-scale building collapse is expected

Tourism

- Joshimath is gateway to Kedarnath and Badrinath, Valley of Flowers and Hemkund.
- Huge tourist arrivals in Joshimath has ecological footprints
- Through one account, at least 40 lakhs tourists pass through the town
- It leads to construction of multi-storeyed hotels and other tourist facilities which are not properly designed and constructed
- It's time to think about sustainable tourism

Infrastructure development

- There are various reports attributing disasters to infrastructure projects such as highways and power projects
- At present, there is no solid evidence of attribution
- However, the Himalayas are a fragile region
- All the human activities contribute to fragility
- In the past, we had so many disasters in Uttarakhand
- It's important to build roads, tunnels, ropeways, railway lines, and power projects with due diligence and standards

Education

- People from the villages come to Joshimath to educate their children
- There are more than 20 schools in the town
- None of them built on scale, and none of them to the desired standards
- School safety can be a major issue
- It's important to build good schools, which provide quality education and safe premise

Employment and Livelihoods

- People come from the villages, looking for employment
- Cities and town offer employment, but they are overcrowded
- In mountain areas, the employment is a huge issue
- It is time to decentralize the development
- It's important to plan growth centres that can offer employment

Strategic Importance

- The town has a huge strategic importance
- The Indian Army, the ITBP, BRO– all of them are present in the area
- Their quarters need to be safe and secure
- There is also a need to improve supply lines
- It's important to ensure that Joshimath as a town survives

Heritage Development and Conservation

- It is the seat of Shankaracharya
- It is a hugely important pilgrim's place
- It has beautiful traditional construction of timber
- It's time to preserve all that is precious to our heritage
- If Joshimath does not survive, something so sacred to us will go away
- It's time to pay attention to our local building traditions

Stabilizing Joshimath

- The biggest challenge today for us is to stabilize Joshimath
- It comes through right kind of development planning
- While we must attention to the slope stability of the mountains, it is not sufficient by itself
- It's important to plan land use, water, urban development and civic infrastructure
- It's important to emphasize building codes and building permissions
- It's time to regulate tourism and improve local ecoloy

Centre and State working together

- We have just conducted a comprehensive Post-disaster Needs Assessment of the disaster in Joshimath
- We work together with the State government to conduct the PDNA
- We need to support a large-scale recovery and reconstruction programme
- It has to be a multi-sector support
- It needs to be supported by all the Central ministries
- It is an issue of risk and vulnerability, but it also has a huge development dimension
- This is what we want you to impress upon it: every disaster is essentially a failure of development