Disaster Management · GS - III

Explain the geological factors responsible for the high seismic vulnerability of the Himalayan region. Discuss the measures required to strengthen earthquake preparedness in the Himalayan states and adjoining regions.

EXAM YEAR	PAPER	SUBJECT
DAILY PRACTICE 06/11/2026	GS - III	Disaster Management

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Indian-Eurasian plate convergence, active faults, tectonic stress accumulation, seismic vulnerability, fragile mountain geology, earthquake-resistant construction, microzonation, early warning limitations, community preparedness, disaster-resilient infrastructure.

Model Answer

Introduction

The Himalayan region is among the world's most seismically active zones because of the continuing collision between the Indian and Eurasian tectonic plates.

Geological Factors

The Indian plate moves northwards beneath the Eurasian plate, generating tectonic stress along major faults and thrust systems. Sudden release of accumulated stress produces earthquakes. Fragile mountain slopes, landslides and unstable sediments can intensify secondary hazards.

Preparedness Measures

Earthquake-resistant building codes must be strictly implemented, particularly in densely populated towns and critical infrastructure. Seismic microzonation can identify vulnerable locations and guide land-use planning. Regular structural audits, public awareness programmes, mock drills and trained emergency-response teams are essential.

States should strengthen communication networks, emergency medical facilities and coordination across administrative boundaries. Scientific monitoring and regional data-sharing can improve risk assessment.

Conclusion

Earthquake risk cannot be eliminated, but its consequences can be reduced through resilient infrastructure, scientific planning and community-based disaster preparedness.