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Structural Engineering Group

Risk Assessment of Towns in Indian Himalyan Region: Uttarakhand and Himachal Pradesh

Period: 14 Months (August 2024 - October 2025)

Project

Ajay Ch

Investigator:

Ajay Chourasia

Type of Project:

Government Funded

Sponsored

National Disaster Management Authority (NDMA) Ministry of Home Affairs,

by:

Government of India, New Delhi

Cost:

Rs. 45 Lakh

Objectives:

- Development of methodology for risk assessment of towns in hilly region from multi-hazard considerations
- Capacity building of engineers for risk assessment study (2 days training program at CSIR CBRI Roorkee)
- The safety assessment of existing towns based on buildings typology along with different attributes number of storeys, area, siting structural components, configuration, construction practice, material & construction details, condition/distress assessment and crack monitoring, if any; socio-economic considerations (population, occupancy, occupation, income, awareness about hazard), bye-law implementation mechanism/adoption, etc., and provide way forward towards reducing vulnerability and/or risk
- Analysis of the data with reference to multiple risk indicators such as multihazard, exposure, compliance of building bye-laws, socio- economic condition, and vulnerability owing to remoteness
- Draw the patterns/factors that are contributing to the disaster and explore for broader solutions
- Preparation of risk map of building/town
- Recovery needs assessment: Identification of immediate needs of affected households, such as shelter, food, water and medical assistance Analysis of the longer-term rehabilitation needs of households, including the need for repair, retrofitting, reconstruction of housing units Identification of institutional mechanism, gaps in local building by laws, implementation mechanism