

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION NO. 3243
ANSWERED ON 21/08/2025

EARTHQUAKE RISK AND BUILDING SAFETY COMPLIANCE IN DELHI

3243. MS. SWATI MALIWAL:

Will the Minister of **Earth Sciences** be pleased to state:

- (a) the region-wise risk classification within Delhi under the Earthquake Disaster Risk Index (EDRI), based on hazard, vulnerability, and exposure;
- (b) number of public buildings in Delhi including hospitals, schools, and offices audited for earthquake resilience since 2020, along with the percentage found non-compliant with the provisions of National Building Code (NBC) 2016;
- (c) details of funds allocated and utilised for structural upgrades under Central and State schemes during the last five years, including current year of such works; and
- (d) the earthquake-resistant design guidelines prescribed under NBC, 2016 for buildings in Delhi and the mechanisms in place to ensure compliance, along with the current status of their enforcement?

ANSWER
THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR
MINISTRY OF SCIENCE AND TECHNOLOGY
AND EARTH SCIENCES
(DR. JITENDRA SINGH)

- (a) In the study titled "Earthquake Disaster Risk Index (EDRI) – Phase I", completed in 2019, Delhi was included in the assessment as it falls under Seismic Zone IV. As per the risk analysis conducted under this study, Delhi was categorized as a medium-risk city in terms of earthquake risk (hazard, vulnerability and exposure). A sample survey of 84 buildings was carried out, based on which the structural vulnerability of the built environment in Delhi was also classified as medium.
- (b) In 2019, NDMA launched a pilot project titled “Improving Earthquake Resiliency of Masonry Lifeline Structures and Upcoming Constructions” in collaboration with the North Delhi Municipal Corporation, with a total project cost of ₹303.33 lakhs. NDMC has engaged DTU as Technical Partner. As part of this initiative, a structural safety audit of five public buildings was conducted. However, the project could not be continued further due to the unsatisfactory quality of reports submitted by the implementing agencies, which did not meet the expected technical standards.
- (c) In 2019, NDMA launched a pilot project titled “Improving Earthquake Resiliency of Masonry Lifeline Structures and Upcoming Constructions”, with a total project cost of ₹303.33 lakhs. The project was handed over to the North Delhi Municipal Corporation (NDMC) and a first instalment of ₹91 lakhs was released. Out of this, approximately ₹35 lakhs were utilized for training, capacity building and preparation of technical reports. However, the project could not be continued further due to the poor quality of reports submitted by the implementing agencies, which did not meet the required technical standards.

- (d) Compliance with the National Building Code (NBC) and building bye-laws falls under the jurisdiction of state governments. However, to support and promote earthquake-resilient construction, NDMA has developed user-friendly guidelines based on NBC 2016. Notable among these are the “Home Owner’s Guide for Earthquake & Cyclone Safety (2019)” and “Simplified Guidelines for Earthquake Safety (2021)”, which offer practical guidance on site selection, architectural design, structural safety and the role of qualified professionals in safe construction.

Furthermore, NDMA has engaged with various departments of the Government of NCT of Delhi to assess the city's preparedness for earthquake risk mitigation. This engagement was carried out as part of the 2nd Meeting of the Committee on Disaster Risk Reduction – Earthquake (CoDRR-Earthquake) held on April 8, 2025. During the meeting, department-wise immediate measures were recommended to help Delhi strengthen its seismic safety and reduce vulnerabilities.
