

# Parliament Question: Awareness About Earthquake Safety Measures

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To enhance public awareness and education on earthquake safety, following measures are taken by the government:

- i. To address the community-based preparedness and raise awareness in earthquake prone regions, National Disaster Management Authority (NDMA) runs TV and radio campaigns focused on earthquake preparedness, highlighting critical do's and don'ts during seismic events. Special programs like Aapda ka Samna, aired on Doordarshan, feature expert discussions on prevention and mitigation strategies, equipping the public with actionable knowledge to safeguard lives and property.
- ii. (ii) NDMA, has also developed guidelines and formulates programs targeting earthquake risk mitigation to mitigate losses in a systematic and coordinated manner.

These initiatives are: (I) Home Owner's Guide for Earthquake & Cyclone Safety (2019): The guide will make homeowners aware of various considerations and minimum requirements which need to be taken care of while constructing and buying a house. It would also help them avoid the most common mistakes and ask the relevant questions to the engaged professionals or the seller in urban areas to ensure that the house is disaster-resilient. It outlines best practices for ensuring that masonry or reinforced concrete (RC) structures meet safety standards, empowering homeowners with knowledge to make informed decisions.

(II) Simplified Guidelines for Earthquake Safety (2021): It provides details based on the National Building Code of India 2016 (released by the Bureau of Indian Standards, Government of India) to those who are constructing a house and who are buying a flat in multi-storey buildings, which are made of either masonry or reinforced concrete (RC). This Guide focuses to address this aspiration of potential home owners, and provides the basic information that they should have when constructing individual houses or buying flats in multi-storey buildings. (b) Research efforts are started in India for developing an Earthquake Early Warning (EEW) System for Himalayan region but these are still at a nascent stage, so the question of coordination with neighbouring countries doesn't arise. However, National Centre for Seismology (NCS) under Ministry of Earth Sciences is capable of recording any earthquake of M:2.5 and above in and around Delhi, M:3.0 and above for NE region, M:3.5 and above in Peninsular and extra-peninsular region, M:4.0 and above in Andaman region, and M:4.5 and above in border regions lying between 0 - 40 degree; N: 60 - 100-degree East.

The details of the earthquakes reported by NCS are available in public domain through social media and on the website of NCS ([seismo.gov.in](http://seismo.gov.in)). (c) NDMA has undertaken the Earthquake Disaster Risk Indexing (EDRI) project to systematically address the challenges of rapid urbanization and ensuring earthquake resilience in growing cities; assess earthquake risk across Indian cities.

The project aims to provide actionable insights into urban earthquake risk to aid in mitigation, preparedness, and response planning for future seismic events. In Phase I, completed in 2019, the EDRI covered 50 cities, while Phase II targets 16 additional cities. The primary objective of this initiative is to evaluate earthquake risk by combining three critical parameters: hazard, vulnerability, and exposure for each city.

The risk index derived from these studies identifies regions within cities as low, medium, or high vulnerability and risk zones. These findings enable decision-makers to prioritize areas requiring immediate attention and implement targeted mitigation measures.

NDMA has initiated a project to develop a comprehensive Methodology for Risk Assessment aimed at guiding States in conducting various levels of earthquake risk assessment. The methodology will provide step by-step guidance for conducting risk assessments at different scales, from city-level evaluations to state wise analyses. It will also incorporate best practices and lessons learned from past studies and international frameworks, ensuring a robust and reliable approach. By equipping States with a clear and actionable methodology, NDMA aims to foster uniformity in risk assessments across the country.

The results of the EDRI and risk assessment have far-reaching implications, particularly in cities experiencing rapid urbanization. By integrating the risk index into urban planning frameworks, cities can adopt risk-informed decision-making, ensuring safer infrastructure development and community resilience. This initiative underscores NDMA's commitment to developing for proactive disaster risk reduction in urban India.

This information was provided by Union Minister of State (Independent Charge) for Science and Technology; Earth Sciences and Minister of State for PMO, Department of Atomic Energy, Department of Space, Personnel, Public Grievances and Pensions, Dr. Jitendra Singh, in a written reply to a question in Rajya Sabha today.

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**NKR/PSM**

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