

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION No. 3505
TO BE ANSWERED ON WEDNESDAY, 22ND MARCH, 2023**

EARTHQUAKE PREDICTION SYSTEM

‡3505 SHRI RAMCHARAN BOHRA:
SHRI NIHAL CHAND:

Will the Minister of Earth Sciences be pleased to state:

- (a) whether any emergency response system is in place for earthquake prediction;
- (b) if so, the accuracy at which it could be predicted;
- (c) whether the Government has urged Indian scientists of Indian Space Research Organisation (ISRO) to research for earthquake prediction system and if so, the details thereof;
- (d) whether the Government has reached any agreement with other countries for jointly working on this issue; and
- (e) if so, the details thereof and if not, the reasons therefor?

ANSWER

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

- (a) & (b) Presently, there is no proven scientific technique available, anywhere in the world, to predict the occurrence of earthquake with reasonable degree of accuracy in location, time and magnitude. However, Earthquake Early Warning (EEW) System is another tool developed in recent times for issue of earthquake alert/warning based on P-wave arrival time after the occurrence of an earthquake. The warning time will range from a few seconds to a little more than a minute and will primarily be a function of the distance of the user from the epicentre. There are instruments available to sense primary waves of an earthquake and by the help of suitable/fast communication systems at place, the Earthquake Early Warning may be issued at farther locations before the arrival of secondary waves/surface waves which might cause critical shaking or damage.
- (c) No Sir.
- (d) – (e) Till date globally no scientific technique is able to predict the occurrence of earthquake. However, research is being conducted world-wide to understand the science of earthquake prediction with reasonable degree of accuracy in location, time and magnitude.

India is exploring and strengthening its R&D activities towards better understanding of this vital aspect of Earthquake including Earthquake Early Warning systems through International collaborations with the countries having expertise in this specialised field such as, Japan, US, etc.
