

**GOVERNMENT OF INDIA  
HOME AFFAIRS  
LOK SABHA**

UNSTARRED QUESTION NO:3230  
ANSWERED ON:30.11.2010  
STUDY ON EARTHQUAKE BY GSI  
Sainuji Shri Kowase Marotrao

**Will the Minister of HOME AFFAIRS be pleased to state:**

- (a) whether the Geological Survey of India conducts study on pre and post earthquake scenarios;
- (b) if so, the details thereof; and
- (c) the details of studies carried out by the GSI on post earthquakes damages in the country including Gujarat?

**Answer**

MINISTER OF THE STATE IN THE MINISTRY OF HOME AFFAIRS (SHRI MULLAPPALLY RAMACHANDRAN)

(a): Yes, Madam.

(b): Geological Survey of India (GSI) is engaged in earthquake related studies and has done some pioneering geo-seismological work. GSI conduct such studies both in the pre and post earthquake scenarios. Till date GSI has conducted studies of all major earthquakes since the Assam earthquake of 1897 including the Gujarat earthquake of 2001.

(c): In recent years, GSI carried out extensive studies on post earthquake damages and other phenomena related to earthquakes in the sites of devastating tremors, e. g., (i) Bihar-Nepal (21.8.1988) (ii) Uttarkashi (20.10. 1991), (iii) Latur/ Killari (30.09.1993), (iv) Jabalpur (22.5.1997), (v) Chamoli (29.3.1999), (vi) Bhuj (26.1. 2001), (vii) Sumatra-Andaman (26.12.2004), (viii) Kashmir (8.10.2005).

GSI carries out seismic microzonation of urban centres to produce hazard/risk maps and ancillary maps like fundamental frequency, liquefaction susceptibility, shear wave velocity etc. The GSI reports documents post -earthquake damage survey, isoseismal maps, earthquake induced ground changes, seismotectonic analyses etc. are useful for planning by State/Central Govt. agencies.