

3.4.1 Earthquake

In most earthquakes, the collapse of structures like houses, schools, hospitals and public buildings results in the widespread loss of lives and damage. Past earthquakes show that over 95 per cent of the lives lost were due to the collapse of buildings which were not earthquake-resistant. In such situation, the losses can be reduced if all structures in earthquake-prone areas are built in accordance with earthquake-resistant construction techniques and by following the Building Bye Laws. The earthquake specific mitigation activities are described below;

Table 10 : : Structural & Non-Structural Measures

S. No.	Task	Activities	Responsibility
Structural Measures			
1	Micro- zonation	<ol style="list-style-type: none"> 1. To undertake micro zonation study according to priority area 2. To provide or make available seismic microzonation map 3. Provide vulnerability and risk assessment map 	<ul style="list-style-type: none"> ◆ SDMA ◆ SRSAC ◆ Dept of S & T. ◆ Dept. of Land Management ◆ Dept. of Town Planning ◆ Dept. of UD & Housing ◆ Dept. of Environment and Forests ◆ NERIST/RGU ◆ District Admn.
2	Earthquake Resistance Design for different earthquake zones	<ol style="list-style-type: none"> 1. To develop earthquake resistant design features for the construction of public utility structures 1 To develop earthquake resistant design features for the construction of residential structures 2 To provide earthquake resistant design for incorporating in different types of structures to the line departments 	<ul style="list-style-type: none"> ◆ SDMA /SEC ◆ Dept. of Town Planning ◆ Dept. of UD & Housing ◆ All Line Depts. ◆ NERIST ◆ DDMA/District Admn.

3	Retrofitting of existing structure	<ol style="list-style-type: none"> 1. Create a database of existing structure in the State A. Public B. Private 2. Identify the available resources 3. Identify structures that require retrofitting 4. Prepare a scheme/programme for retrofitting 5. Identification and removal of unsafe buildings/structure 	<ul style="list-style-type: none"> ◆ SDMA /SEC ◆ Dept. of Town Planning ◆ Dept. of UD & Housing ◆ All Engg Depts. ◆ NERIST ◆ DDMA/District Admn
4	Monitoring of seismic activities	<ol style="list-style-type: none"> 1. Establish seismological network and round the clock monitoring 2. Dissemination of information and reporting 3. Conduct seismological research 	<ul style="list-style-type: none"> ◆ SEOC/DEOC ◆ Dept. of IPR ◆ Dept of S & T ◆ Police Control Room ◆ All Deptt ◆ GSI ◆ GB Pant Institute of Himalayan Studies
Non Structural Measures			
1	Capacity Building	<ol style="list-style-type: none"> 1. Departmental earthquake contingency plan 2. Ensure earthquake related departmental action plan and SOP 3. Include earthquake engineering topics in curriculum 4. Provide professional training about earthquake resistance construction to engineers and architects 5. Provide training to masons. 6. Encourage soil and material testing in laboratories 	<ul style="list-style-type: none"> ◆ SDMA/ SEC ◆ Dept. of DM ◆ Education & Technical Dept ◆ ATI/ SIRD ◆ DDMA/District Admn. ◆ SDRF/ Police ◆ All Deptt
2	Awareness	<ol style="list-style-type: none"> 1 To disseminate earthquake risk to general public residing in earthquake prone zones 2 Campaign for Earthquake safety tips 	<ul style="list-style-type: none"> ◆ SDMA/ DDMA ◆ Dept of DM ◆ Dept of IPR ◆ District Administration ◆ ATI/ SIRD