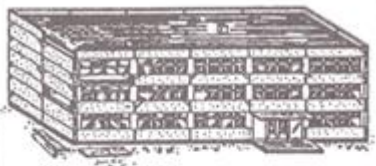




Source : Seismic retrofitting guidelines of buildings in Nepal (April 2013)

	<p><b>Grade 3: Substantial to Heavy Damage</b> (moderate structural damage, heavy non-structural damage)</p> <p>Cracks in columns and beam column joints of frames at the base and at joints of coupled walls. Spalling of concrete cover, buckling of reinforced rods.</p> <p>Large cracks in partition and infill walls, failure of individual infill panels.</p>
	<p><b>Grade 4: Very Heavy Damage</b> (heavy structural damage, very heavy non structural damage)</p> <p>Large cracks in structural elements with compression failure of concrete and fracture of rebars; bond failure of beam reinforced bars; tilting of columns. Collapse of a few columns or of a single upper floor.</p>
	<p><b>Grade 5: Destruction</b> (very heavy structural damage)</p> <p>Collapse of ground floor or parts (e. g. wings) of buildings.</p>

S.No.	Damage Grade	Wall
1	Grade 1: Negligible to slight damage	No structural damage, slight non- structural damage <ul style="list-style-type: none"> <li>• Hair line cracks in very few walls.</li> <li>• Fall of small pieces of plaster only.</li> <li>• Fall of loose stones from upper parts of buildings in very few cases</li> </ul>
2	Grade 2: Moderate damage	Slight structural damage, moderate non-structural damage <ul style="list-style-type: none"> <li>• Cracks in many walls.</li> <li>• Fall of fairly large pieces of plaster.</li> <li>• Partial collapse of chimneys.</li> </ul>
3	Grade 3: Substantial to heavy damage	Moderate structural damage, heavy non- structural damage <ul style="list-style-type: none"> <li>• Large and extensive cracks in most walls.</li> <li>• Roof tiles detach, chimney fracture at the roof line</li> <li>• Failure of individual non structural elements (partitions, gable walls, etc).</li> </ul>
4	Grade 4: Very heavy damage	Heavy structural damage, very heavy non-structural damage <ul style="list-style-type: none"> <li>• Serious failure of walls (gaps in walls)</li> <li>• Partial structural failure of roof and floors</li> </ul>
5	Grade 5: Destruction	Very heavy structural damage