

Distribution of Houses by Predominant Materials of Roof and Wall and Level of Damage Risk

HIMACHAL PRADESH

Wall / Roof		Census Houses		Level of Risk under							Flood Prone Area in %	
		No. of Houses	%	EQ Zone				Wind Velocity m/s				
				V	IV	III	II	55 & 50	47	44 & 39		33
				Area in %				Area in %				
State - HIMACHAL PRADESH 02		44.2	55.8					.1	8.7	91.2		
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	640,847	26.6									
	Urban	20,946	0.9									
	Total	661,793	27.5	VH	H			VH	H	M		
A2 - Stone Wall	Rural	982,235	40.8									
	Urban	30,368	1.3									
	Total	1,012,603	42.1	VH	H			H	M	L		
Total - Category - A		1,674,396	69.5									
B - Burnt Bricks Wall	Rural	455,886	18.9									
	Urban	168,730	7.0									
	Total	624,616	25.9	H	M			H	M	L		
Total - Category - B		624,616	25.9									
C1 - Concrete Wall	Rural	10,230	0.4									
	Urban	8,193	0.3									
	Total	18,423	0.7	M	L			L	VL	VL		
C2 - Wood wall	Rural	43,416	1.8									
	Urban	5,218	0.2									
	Total	48,634	2.0	M	L			VH	H	M		
Total - Category - C		67,057	2.8									
X - Other Materials	Rural	35,725	1.5									
	Urban	7,128	0.3									
	Total	42,853	1.8	M	VL			VH	H	M		
Total - Category - X		42,853	1.8									
TOTAL BUILDINGS		2,408,922										

ROOF											
R1 - Light Weight Sloping Roof	Rural	534,297	22.2								
	Urban	64,512	2.7								
	Total	598,809	24.9	M	M			VH	VH	H	
R2 - Heavy Weight Sloping Roof	Rural	1,076,451	44.7								
	Urban	22,355	0.9								
	Total	1,098,806	45.6	H	M			H	M	L	
R3 - Flat Roof	Rural	557,591	23.1								
	Urban	153,716	6.4								
	Total	711,307	29.5	<i>Damage Risk as per that for the Wall supporting it</i>							
TOTAL BUILDINGS		2,408,922									

Housing Category : Wall Types

Category - A : Buildings in field-stone, rural structures, unburnt brick houses, clay houses

Category - B : Ordinary brick building; buildings of the large block & prefabricated type, half-timbered structures, building in natural hewn stone

Category - C : Reinforced building, well built wooden structures

Category - X : Other materials not covered in A,B,C. These are generally light.

Notes : 1. Flood prone area includes that protected area which may have more severe damage under failure of protection works. In some other areas the local damage may be severe under heavy rains and choked drainage.

2. Damage Risk for wall types is indicated assuming heavy flat roof in categories A, B and C (Reinforced Concrete) building

3. Source of Housing Data : Census of Housing, GOI, 2001

Housing Category : Roof Type

Category - R1 - Light Weight (Grass, Thatch, Bamboo, Wood, Mud, Plastic, Polythene, GI Metal, Asbestos Sheets, Other Materials)

Category - R2 - Heavy Weight (Tiles, Slate)

Category - R3 - Flat Roof (Brick, Stone, Concrete)

EQ Zone V : Very High Damage Risk Zone (MSK > IX)

EQ Zone IV : High Damage Risk Zone (MSK VIII)

EQ Zone III : Moderate Damage Risk Zone (MSK VII)

EQ Zone II : Low Damage Risk Zone (MSK < VI)

Level of Risk : VH = Very High; H = High;

M = Moderate; L = Low; VL = Very Low