

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

Table No. : HP 12

State : HIMACHAL PRADESH

KINNAUR

Wall / Roof		Census Houses		Level of Risk under									
		No. of Houses	%	EQ Zone				Wind Velocity m/s				Flood Prone Area in %	
				V	IV	III	II	55 & 50	47	44 & 39	33		
				Area in %				Area in %					
				100							100		
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	989	2.8										
	Urban	-	-										
	Total	989	2.8									<i>M</i>	
A2 - Stone Wall not packed with mortar	Rural	7,651	21.4										
	Urban	-	-										
	Total	7,651	21.4									<i>L</i>	
Total - Category - A		8,640	24.1										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	21,017	58.7										
	Urban	-	-										
	Total	21,017	58.7									<i>L</i>	
Total - Category - B		21,017	58.7										
C1 - Concrete Wall	Rural	1,650	4.6										
	Urban	-	-										
	Total	1,650	4.6									<i>VL</i>	
C2 - Wood wall	Rural	2,975	8.3										
	Urban	-	-										
	Total	2,975	8.3									<i>M</i>	
Total - Category - C		4,625	12.9										
X - Other Materials	Rural	1,506	4.2										
	Urban	-	-										
	Total	1,506	4.2									<i>M</i>	
Total - Category - X		1,506	4.2										
TOTAL HOUSES*		35,788											

ROOF													
R1 - Light Weight Sloping Roof	Rural	26,173	73.1										
	Urban	-	-										
	Total	26,173	73.1									<i>H</i>	
R2 - Heavy Weight Sloping Roof	Rural	4,319	12.1										
	Urban	-	-										
	Total	4,319	12.1									<i>L</i>	
R3 - Flat Roof	Rural	5,296	14.8										
	Urban	-	-										
	Total	5,296	14.8		Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		35,788											

Probable Maximum Precipitation at a Station of the district in 24 hrs is 720 mm

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, 2011

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, Stone/Slate)

Category - R3 - Flat Roof (Brick, 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

* Total No.of Houses excluding Vacant/Locked Houses