

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

**Table No. : SK 03**

**State : SIKKIM**

**SOUTH DISTRICT**

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 %					
					100					100			
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	4,026	11.5										
	Urban	261	0.7										
	Total	4,287	12.2		H				H				
A2 - Stone Wall not packed with mortar	Rural	1,360	3.9										
	Urban	17	-										
	Total	1,377	3.9		H				M				
Total - Category - A		5,664	16.2										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	4,493	12.9										
	Urban	4,394	12.6										
	Total	8,887	25.5		M				M				
Total - Category - B		8,887	25.4										
C1 - Concrete Wall	Rural	3,248	9.3										
	Urban	935	2.7										
	Total	4,183	12.0		L				VL				
C2 - Wood wall	Rural	9,468	27.1										
	Urban	490	1.4										
	Total	9,958	28.5		L				H				
Total - Category - C		14,141	40.4										
X - Other Materials	Rural	6,066	17.3										
	Urban	206	0.6										
	Total	6,272	17.9		VL				H				
Total - Category - X		6,272	17.9										
TOTAL HOUSES*		34,964											

<b>ROOF</b>												
<b>R1 - Light Weight Sloping Roof</b>	Rural	25,068	71.7									
	Urban	2,273	6.5									
	<b>Total</b>	<b>27,341</b>	<b>78.2</b>		M				VH			
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	318	0.9									
	Urban	94	0.3									
	<b>Total</b>	<b>412</b>	<b>1.2</b>		M				M			
<b>R3 - Flat Roof</b>	Rural	3,275	9.4									
	Urban	3,936	11.3									
	<b>Total</b>	<b>7,211</b>	<b>20.7</b>	<i>Damage Risk as per that for the Wall supporting it</i>								
<b>TOTAL HOUSES*</b>		<b>34,964</b>										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **673 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 chocked 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