

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

**Table No. : UP 61**

**State : UTTAR PRADESH**

**MAU**

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			51.8
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	77,908	18.2									
	Urban	8,050	1.9									
	Total	85,958	20.1			M			H			VH
A2 - Stone Wall not packed with mortar	Rural	3,255	0.8									
	Urban	1,226	0.3									
	Total	4,481	1.1			M			M			VH
Total - Category - A		90,439	21.1									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	223,430	52.2									
	Urban	74,670	17.4									
	Total	298,100	69.6			L			M			H/M
Total - Category - B		298,100	69.6									
C1 - Concrete Wall	Rural	2,216	0.5									
	Urban	539	0.1									
	Total	2,755	0.6			VL			VL			L/VL
C2 - Wood wall	Rural	756	0.2									
	Urban	252	0.1									
	Total	1,008	0.3			VL			H			H
Total - Category - C		3,763	0.9									
X - Other Materials	Rural	31,600	7.4									
	Urban	4,114	1.0									
	Total	35,714	8.4			VL			H			VH
Total - Category - X		35,714	8.3									
TOTAL HOUSES*		428,016										

ROOF												
R1 - Light Weight Sloping Roof	Rural	111,256	26.0									
	Urban	15,704	3.7									
	Total	126,960	29.7			L			VH			VH
R2 - Heavy Weight Sloping Roof	Rural	51,714	12.1									
	Urban	6,632	1.5									
	Total	58,346	13.6			L			M			H
R3 - Flat Roof	Rural	176,195	41.2									
	Urban	66,515	15.5									
	Total	242,710	56.7	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		428,016										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **433 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