

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

## UTTAR 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 - UTTAR PRADESH					29.0	48.3	22.7	43.2	53.4	3.4		26.0
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	7,671,487	18.0									
	Urban	557,829	1.3									
	Total	8,229,316	19.3		H	M	L	VH	H	M		VH
A2 - Stone Wall not packed with mortar	Rural	328,497	0.8									
	Urban	181,046	0.4									
	Total	509,543	1.2		H	M	L	H	M	L		VH
Total - Category - A		8,738,859	20.5									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	21,620,426	50.7									
	Urban	8,140,057	19.1									
	Total	29,760,483	69.8		M	L	VL	H	M	L		H/M
Total - Category - B		29,760,483	69.9									
C1 - Concrete Wall	Rural	147,358	0.3									
	Urban	114,495	0.3									
	Total	261,853	0.6		L	VL	VL	L	VL	VL		L/VL
C2 - Wood wall	Rural	62,424	0.1									
	Urban	20,630	-									
	Total	83,054	0.1		L	VL	VL	VH	H	M		H
Total - Category - C		344,907	0.8									
X - Other Materials	Rural	3,365,434	7.9									
	Urban	392,676	0.9									
	Total	3,758,110	8.8		VL	VL	VL	VH	H	M		VH
Total - Category - X		3,758,110	8.8									
TOTAL HOUSES*		42,602,359										

<b>ROOF</b>												
<b>R1 - Light Weight Sloping Roof</b>	Rural	11,074,872	26.0									
	Urban	1,223,806	2.9									
	<b>Total</b>	<b>12,298,678</b>	<b>28.9</b>		M	L	VL	VH	VH	H		VH
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	7,767,796	18.2									
	Urban	1,759,998	4.1									
	<b>Total</b>	<b>9,527,794</b>	<b>22.3</b>		M	L	VL	H	M	L		H
<b>R3 - Flat Roof</b>	Rural	14,352,958	33.7									
	Urban	6,422,929	15.1									
	<b>Total</b>	<b>20,775,887</b>	<b>48.8</b>	<i>Damage Risk as per that for the Wall supporting it</i>								
<b>TOTAL HOUSES*</b>		<b>42,602,359</b>										

### 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