

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

Table No. : UP 32

State : UTTAR PRADESH

KANPUR DEHAT

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 %					
WALL								12.2	87.8		100		3.6
A1 - Mud & Unburnt Brick Wall	Rural	80,019	20.7										
	Urban	3,243	0.8										
	Total	83,262	21.5					<i>M</i>	<i>L</i>		<i>H</i>		<i>VH</i>
A2 - Stone Wall not packed with mortar	Rural	2,523	0.7										
	Urban	552	0.1										
	Total	3,075	0.8					<i>M</i>	<i>L</i>		<i>M</i>		<i>VH</i>
Total - Category - A		86,337	22.3										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	231,981	59.9										
	Urban	29,572	7.6										
	Total	261,553	67.5					<i>L</i>	<i>VL</i>		<i>M</i>		<i>H/M</i>
Total - Category - B		261,553	67.5										
C1 - Concrete Wall	Rural	3,190	0.8										
	Urban	753	0.2										
	Total	3,943	1.0					<i>VL</i>	<i>VL</i>		<i>VL</i>		<i>L/ VL</i>
C2 - Wood wall	Rural	354	0.1										
	Urban	50	-										
	Total	404	0.1					<i>VL</i>	<i>VL</i>		<i>H</i>		<i>H</i>
Total - Category - C		4,347	1.1										
X - Other Materials	Rural	31,424	8.1										
	Urban	3,706	1.0										
	Total	35,130	9.1					<i>VL</i>	<i>VL</i>		<i>H</i>		<i>VH</i>
Total - Category - X		35,130	9.1										
TOTAL HOUSES*		387,367											

ROOF												
R1 - Light Weight Sloping Roof	Rural	189,945	49.0									
	Urban	10,326	2.7									
	Total	200,271	51.7					<i>L</i>	<i>VL</i>		<i>VH</i>	
R2 - Heavy Weight Sloping Roof	Rural	21,496	5.5									
	Urban	2,854	0.7									
	Total	24,350	6.2					<i>L</i>	<i>VL</i>		<i>M</i>	
R3 - Flat Roof	Rural	138,050	35.6									
	Urban	24,696	6.4									
	Total	162,746	42.0	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		387,367										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 570 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