

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

Table No. : UP 07

State : UTTAR PRADESH

MEERUT

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				13.2	
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	18,947	2.6										
	Urban	14,166	1.9										
	Total	33,113	4.5		<i>H</i>			<i>VH</i>				<i>VH</i>	
A2 - Stone Wall not packed with mortar	Rural	5,131	0.7										
	Urban	9,459	1.3										
	Total	14,590	2.0		<i>H</i>			<i>H</i>				<i>VH</i>	
Total - Category - A		47,703	6.4										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	325,245	43.9										
	Urban	348,290	47.0										
	Total	673,535	90.9		<i>M</i>			<i>H</i>				<i>H/M</i>	
Total - Category - B		673,535	90.9										
C1 - Concrete Wall	Rural	2,531	0.3										
	Urban	5,156	0.7										
	Total	7,687	1.0		<i>L</i>			<i>L</i>				<i>L/VL</i>	
C2 - Wood wall	Rural	236	-										
	Urban	628	0.1										
	Total	864	0.1		<i>L</i>			<i>VH</i>				<i>H</i>	
Total - Category - C		8,551	1.2										
X - Other Materials	Rural	7,151	1.0										
	Urban	4,115	0.6										
	Total	11,266	1.6		<i>VL</i>			<i>VH</i>				<i>VH</i>	
Total - Category - X		11,266	1.5										
TOTAL HOUSES*		741,055											

ROOF												
R1 - Light Weight Sloping Roof	Rural	101,108	13.6									
	Urban	49,521	6.7									
	Total	150,629	20.3		<i>M</i>			<i>VH</i>				<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	88,854	12.0									
	Urban	36,401	4.9									
	Total	125,255	16.9		<i>M</i>			<i>H</i>				<i>H</i>
R3 - Flat Roof	Rural	169,279	22.8									
	Urban	295,892	39.9									
	Total	465,171	62.7	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		741,055										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 542 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