

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

Table No. : UP 12

State : UTTAR PRADESH

ALIGARH

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 %					
				53.5	46.5			63.3	36.7			16.7	
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	32,443	4.1										
	Urban	8,600	1.1										
	Total	41,043	5.2		<i>H</i>	<i>M</i>		<i>VH</i>	<i>H</i>			<i>VH</i>	
A2 - Stone Wall not packed with mortar	Rural	4,698	0.6										
	Urban	4,567	0.6										
	Total	9,265	1.2		<i>H</i>	<i>M</i>		<i>H</i>	<i>M</i>			<i>VH</i>	
Total - Category - A		50,308	6.3										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	496,630	62.1										
	Urban	233,647	29.2										
	Total	730,277	91.3		<i>M</i>	<i>L</i>		<i>H</i>	<i>M</i>			<i>H/M</i>	
Total - Category - B		730,277	91.3										
C1 - Concrete Wall	Rural	1,568	0.2										
	Urban	2,396	0.3										
	Total	3,964	0.5		<i>L</i>	<i>VL</i>		<i>L</i>	<i>VL</i>			<i>L/ VL</i>	
C2 - Wood wall	Rural	512	0.1										
	Urban	234	-										
	Total	746	0.1		<i>L</i>	<i>VL</i>		<i>VH</i>	<i>H</i>			<i>H</i>	
Total - Category - C		4,710	0.6										
X - Other Materials	Rural	12,088	1.5										
	Urban	2,781	0.3										
	Total	14,869	1.8		<i>VL</i>	<i>VL</i>		<i>VH</i>	<i>H</i>			<i>VH</i>	
Total - Category - X		14,869	1.9										
TOTAL HOUSES*		800,164											

ROOF												
R1 - Light Weight Sloping Roof	Rural	84,009	10.5									
	Urban	17,139	2.1									
	Total	101,148	12.6		<i>M</i>	<i>L</i>		<i>VH</i>	<i>VH</i>			<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	391,216	48.9									
	Urban	112,434	14.1									
	Total	503,650	63.0		<i>M</i>	<i>L</i>		<i>H</i>	<i>M</i>			<i>H</i>
R3 - Flat Roof	Rural	72,714	9.1									
	Urban	122,652	15.3									
	Total	195,366	24.4	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		800,164										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 558 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