

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

Table No. : UP 21

State : UTTAR PRADESH

SHAHJAHANPUR

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 %					
				2.6	97.4			100				44.9	
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	121,496	19.4										
	Urban	7,890	1.3										
	Total	129,386	20.7		<i>H</i>	<i>M</i>		<i>VH</i>				<i>VH</i>	
A2 - Stone Wall not packed with mortar	Rural	3,283	0.5										
	Urban	1,639	0.3										
	Total	4,922	0.8		<i>H</i>	<i>M</i>		<i>H</i>				<i>VH</i>	
Total - Category - A		134,308	21.4										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	316,863	50.5										
	Urban	104,979	16.7										
	Total	421,842	67.2		<i>M</i>	<i>L</i>		<i>H</i>				<i>H/M</i>	
Total - Category - B		421,842	67.2										
C1 - Concrete Wall	Rural	1,337	0.2										
	Urban	640	0.1										
	Total	1,977	0.3		<i>L</i>	<i>VL</i>		<i>L</i>				<i>L/ VL</i>	
C2 - Wood wall	Rural	986	0.2										
	Urban	483	0.1										
	Total	1,469	0.3		<i>L</i>	<i>VL</i>		<i>VH</i>				<i>H</i>	
Total - Category - C		3,446	0.5										
X - Other Materials	Rural	59,401	9.5										
	Urban	8,663	1.4										
	Total	68,064	10.9		<i>VL</i>	<i>VL</i>		<i>VH</i>				<i>VH</i>	
Total - Category - X		68,064	10.8										
TOTAL HOUSES*		627,660											

ROOF												
R1 - Light Weight Sloping Roof	Rural	238,787	38.0									
	Urban	23,758	3.8									
	Total	262,545	41.8		<i>M</i>	<i>L</i>		<i>VH</i>				<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	21,923	3.5									
	Urban	5,150	0.8									
	Total	27,073	4.3		<i>M</i>	<i>L</i>		<i>H</i>				<i>H</i>
R3 - Flat Roof	Rural	242,656	38.7									
	Urban	95,386	15.2									
	Total	338,042	53.9	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		627,660										

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