

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

Table No. : UP 70

State : UTTAR PRADESH

ETAH

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						100		69.9	30.1			
A1 - Mud & Unburnt Brick Wall	Rural	37,349	9.8									
	Urban	1,732	0.5									
	Total	39,081	10.3				<i>M</i>		<i>VH</i>	<i>H</i>		
A2 - Stone Wall not packed with mortar	Rural	2,438	0.6									
	Urban	1,089	0.3									
	Total	3,527	0.9				<i>M</i>		<i>H</i>	<i>M</i>		
Total - Category - A		42,608	11.1									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	266,871	69.8									
	Urban	58,230	15.2									
	Total	325,101	85.0				<i>L</i>		<i>H</i>	<i>M</i>		
Total - Category - B		325,101	85.0									
C1 - Concrete Wall	Rural	620	0.2									
	Urban	401	0.1									
	Total	1,021	0.3				<i>VL</i>		<i>L</i>	<i>VL</i>		
C2 - Wood wall	Rural	257	0.1									
	Urban	50	-									
	Total	307	0.1				<i>VL</i>		<i>VH</i>	<i>H</i>		
Total - Category - C		1,328	0.3									
X - Other Materials	Rural	12,843	3.4									
	Urban	706	0.2									
	Total	13,549	3.6				<i>VL</i>		<i>VH</i>	<i>H</i>		
Total - Category - X		13,549	3.5									
TOTAL HOUSES*		382,586										

ROOF												
R1 - Light Weight Sloping Roof	Rural	71,814	18.8									
	Urban	4,652	1.2									
	Total	76,466	20.0				<i>L</i>		<i>VH</i>	<i>VH</i>		
R2 - Heavy Weight Sloping Roof	Rural	60,018	15.7									
	Urban	7,949	2.1									
	Total	67,967	17.8				<i>L</i>		<i>H</i>	<i>M</i>		
R3 - Flat Roof	Rural	188,546	49.3									
	Urban	49,607	13.0									
	Total	238,153	62.3	<i>Damage Risk as per that for the Wall supporting it</i>								
TOTAL HOUSES*		382,586										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 553 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