

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

Table No. : UP 24

State : UTTAR PRADESH

HARDOI

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		100		32.5
A1 - Mud & Unburnt Brick Wall	Rural	288,595	33.0									
	Urban	9,260	1.1									
	Total	297,855	34.1				<i>M</i>		<i>VH</i>			<i>VH</i>
A2 - Stone Wall not packed with mortar	Rural	3,780	0.4									
	Urban	1,352	0.2									
	Total	5,132	0.6				<i>M</i>		<i>H</i>			<i>VH</i>
Total - Category - A		302,987	34.7									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	411,625	47.1									
	Urban	96,120	11.0									
	Total	507,745	58.1				<i>L</i>		<i>H</i>			<i>H/M</i>
Total - Category - B		507,745	58.1									
C1 - Concrete Wall	Rural	841	0.1									
	Urban	282	-									
	Total	1,123	0.1				<i>VL</i>		<i>L</i>			<i>L/ VL</i>
C2 - Wood wall	Rural	1,197	0.1									
	Urban	631	0.1									
	Total	1,828	0.2				<i>VL</i>		<i>VH</i>			<i>H</i>
Total - Category - C		2,951	0.3									
X - Other Materials	Rural	55,552	6.4									
	Urban	4,299	0.5									
	Total	59,851	6.9				<i>VL</i>		<i>VH</i>			<i>VH</i>
Total - Category - X		59,851	6.9									
TOTAL HOUSES*		873,534										

ROOF												
R1 - Light Weight Sloping Roof	Rural	381,541	43.7									
	Urban	21,093	2.4									
	Total	402,634	46.1				<i>L</i>		<i>VH</i>			<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	11,111	1.3									
	Urban	3,610	0.4									
	Total	14,721	1.7				<i>L</i>		<i>H</i>			<i>H</i>
R3 - Flat Roof	Rural	368,938	42.2									
	Urban	87,241	10.0									
	Total	456,179	52.2	<i>Damage Risk as per that for the Wall supporting it</i>								
TOTAL HOUSES*		873,534										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 586 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