

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

Table No. : UP 33

State : UTTAR PRADESH

KANPUR NAGAR

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												13.1
A1 - Mud & Unburnt Brick Wall	Rural	71,945	7.4									
	Urban	37,398	3.9									
	Total	109,343	11.3					<i>M</i>	<i>L</i>	<i>VH</i>	<i>H</i>	<i>VH</i>
A2 - Stone Wall not packed with mortar	Rural	3,902	0.4									
	Urban	14,335	1.5									
	Total	18,237	1.9					<i>M</i>	<i>L</i>	<i>H</i>	<i>M</i>	<i>VH</i>
Total - Category - A		127,580	13.2									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	235,908	24.3									
	Urban	514,212	53.0									
	Total	750,120	77.3					<i>L</i>	<i>VL</i>	<i>H</i>	<i>M</i>	<i>H/M</i>
Total - Category - B		750,120	77.3									
C1 - Concrete Wall	Rural	2,669	0.3									
	Urban	12,629	1.3									
	Total	15,298	1.6					<i>VL</i>	<i>VL</i>	<i>L</i>	<i>VL</i>	<i>L/ VL</i>
C2 - Wood wall	Rural	483	-									
	Urban	970	0.1									
	Total	1,453	0.1					<i>VL</i>	<i>VL</i>	<i>VH</i>	<i>H</i>	<i>H</i>
Total - Category - C		16,751	1.7									
X - Other Materials	Rural	31,653	3.3									
	Urban	44,064	4.5									
	Total	75,717	7.8					<i>VL</i>	<i>VL</i>	<i>VH</i>	<i>H</i>	<i>VH</i>
Total - Category - X		75,717	7.8									
TOTAL HOUSES*		970,168										

ROOF												
R1 - Light Weight Sloping Roof	Rural	173,382	17.9									
	Urban	85,233	8.8									
	Total	258,615	26.7					<i>L</i>	<i>VL</i>	<i>VH</i>	<i>VH</i>	<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	19,286	2.0									
	Urban	60,397	6.2									
	Total	79,683	8.2					<i>L</i>	<i>VL</i>	<i>H</i>	<i>M</i>	<i>H</i>
R3 - Flat Roof	Rural	153,892	15.9									
	Urban	477,978	49.3									
	Total	631,870	65.2	<i>Damage Risk as per that for the Wall supporting it</i>								
TOTAL HOUSES*		970,168										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 594 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