

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

Table No. : UP 57

State : UTTAR PRADESH

GORAKHPUR

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 %					
				60.0	40.0			6.6	93.4			63.5	
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	98,662	11.0										
	Urban	10,293	1.1										
	Total	108,955	12.1		<i>H</i>	<i>M</i>		<i>VH</i>	<i>H</i>			<i>VH</i>	
A2 - Stone Wall not packed with mortar	Rural	9,211	1.0										
	Urban	4,331	0.5										
	Total	13,542	1.5		<i>H</i>	<i>M</i>		<i>H</i>	<i>M</i>			<i>VH</i>	
Total - Category - A		122,497	13.7										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	525,621	58.6										
	Urban	142,404	15.9										
	Total	668,025	74.5		<i>M</i>	<i>L</i>		<i>H</i>	<i>M</i>			<i>H/M</i>	
Total - Category - B		668,025	74.5										
C1 - Concrete Wall	Rural	5,347	0.6										
	Urban	1,975	0.2										
	Total	7,322	0.8		<i>L</i>	<i>VL</i>		<i>L</i>	<i>VL</i>			<i>L/ VL</i>	
C2 - Wood wall	Rural	1,716	0.2										
	Urban	355	-										
	Total	2,071	0.2		<i>L</i>	<i>VL</i>		<i>VH</i>	<i>H</i>			<i>H</i>	
Total - Category - C		9,393	1.0										
X - Other Materials	Rural	84,819	9.5										
	Urban	11,527	1.3										
	Total	96,346	10.8		<i>VL</i>	<i>VL</i>		<i>VH</i>	<i>H</i>			<i>VH</i>	
Total - Category - X		96,346	10.7										
TOTAL HOUSES*		896,261											

ROOF												
R1 - Light Weight Sloping Roof	Rural	185,879	20.7									
	Urban	22,532	2.5									
	Total	208,411	23.2		<i>M</i>	<i>L</i>		<i>VH</i>	<i>VH</i>			<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	76,262	8.5									
	Urban	12,402	1.4									
	Total	88,664	9.9		<i>M</i>	<i>L</i>		<i>H</i>	<i>M</i>			<i>H</i>
R3 - Flat Roof	Rural	463,235	51.7									
	Urban	135,951	15.2									
	Total	599,186	66.9	<i>Damage Risk as per that for the Wall supporting it</i>								
TOTAL HOUSES*		896,261										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 527 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