

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

Table No. : UP 01

State : UTTAR PRADESH

SAHARANPUR

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 %					
				100				89.6		10.4		13.9	
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	57,823	6.9										
	Urban	9,427	1.1										
	Total	67,250	8.0		H			VH		M		VH	
A2 - Stone Wall not packed with mortar	Rural	4,209	0.5										
	Urban	3,388	0.4										
	Total	7,597	0.9		H			H		L		VH	
Total - Category - A		74,847	8.9										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	491,385	58.7										
	Urban	240,885	28.8										
	Total	732,270	87.5		M			H		L		H/M	
Total - Category - B		732,270	87.5										
C1 - Concrete Wall	Rural	3,433	0.4										
	Urban	3,049	0.4										
	Total	6,482	0.8		L			L		VL		L/ VL	
C2 - Wood wall	Rural	648	0.1										
	Urban	390	-										
	Total	1,038	0.1		L			VH		M		H	
Total - Category - C		7,520	0.9										
X - Other Materials	Rural	19,816	2.4										
	Urban	2,522	0.3										
	Total	22,338	2.7		VL			VH		M		VH	
Total - Category - X		22,338	2.7										
TOTAL HOUSES*		836,975											

ROOF												
R1 - Light Weight Sloping Roof	Rural	181,128	21.6									
	Urban	34,533	4.1									
	Total	215,661	25.7		M			VH		H		VH
R2 - Heavy Weight Sloping Roof	Rural	18,124	2.2									
	Urban	6,155	0.7									
	Total	24,279	2.9		M			H		L		H
R3 - Flat Roof	Rural	378,062	45.2									
	Urban	218,973	26.2									
	Total	597,035	71.4	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		836,975										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 520 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