

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

Table No. : UP 09

State : UTTAR PRADESH

GHAZIABAD

Wall / Roof		Census Houses		Level of Risk under								Flood Prone Area in %	
		No. of Houses	%	EQ Zone				Wind Velocity m/s					
				V	IV	III	II	55 & 50	47	44 & 39	33		
				Area in %				Area in %					
					100				100				30.2
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	18,585	1.8										
	Urban	21,247	2.0										
	Total	39,832	3.8		H			VH				VH	
A2 - Stone Wall not packed with mortar	Rural	7,148	0.7										
	Urban	21,713	2.1										
	Total	28,861	2.8		H			H				VH	
Total - Category - A		68,693	6.5										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	285,001	27.1										
	Urban	644,970	61.3										
	Total	929,971	88.4		M			H				H/M	
Total - Category - B		929,971	88.4										
C1 - Concrete Wall	Rural	3,919	0.4										
	Urban	15,724	1.5										
	Total	19,643	1.9		L			L				L/VL	
C2 - Wood wall	Rural	387	-										
	Urban	1,456	0.1										
	Total	1,843	0.1		L			VH				H	
Total - Category - C		21,486	2.0										
X - Other Materials	Rural	11,695	1.1										
	Urban	19,682	1.9										
	Total	31,377	3.0		VL			VH				VH	
Total - Category - X		31,377	3.0										
TOTAL HOUSES*		1,051,527											

ROOF												
R1 - Light Weight Sloping Roof	Rural	76,008	7.2									
	Urban	63,067	6.0									
	Total	139,075	13.2		M			VH				VH
R2 - Heavy Weight Sloping Roof	Rural	130,249	12.4									
	Urban	180,138	17.1									
	Total	310,387	29.5		M			H				H
R3 - Flat Roof	Rural	120,478	11.5									
	Urban	481,587	45.8									
	Total	602,065	57.3	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		1,051,527										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **540 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