

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

Table No. : MP 08

State : MADHYA PRADESH

CHHATARPUR

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 %					
WALL								100		100			
A1 - Mud & Unburnt Brick Wall	Rural	209,201	47.7										
	Urban	19,849	4.5										
	Total	229,050	52.2					<i>L</i>		<i>H</i>			
A2 - Stone Wall not packed with mortar	Rural	10,554	2.4										
	Urban	976	0.2										
	Total	11,530	2.6					<i>L</i>		<i>M</i>			
Total - Category - A		240,580	54.8										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	128,210	29.2										
	Urban	61,687	14.1										
	Total	189,897	43.3					<i>VL</i>		<i>M</i>			
Total - Category - B		189,897	43.3										
C1 - Concrete Wall	Rural	1,106	0.3										
	Urban	326	0.1										
	Total	1,432	0.4					<i>VL</i>		<i>VL</i>			
C2 - Wood wall	Rural	631	0.1										
	Urban	64	-										
	Total	695	0.1					<i>VL</i>		<i>H</i>			
Total - Category - C		2,127	0.5										
X - Other Materials	Rural	5,235	1.2										
	Urban	1,138	0.3										
	Total	6,373	1.5					<i>VL</i>		<i>H</i>			
Total - Category - X		6,373	1.5										
TOTAL HOUSES*		438,977											

ROOF													
R1 - Light Weight Sloping Roof	Rural	31,653	7.2										
	Urban	6,925	1.6										
	Total	38,578	8.8					<i>VL</i>		<i>VH</i>			
R2 - Heavy Weight Sloping Roof	Rural	252,491	57.5										
	Urban	26,243	6.0										
	Total	278,734	63.5					<i>VL</i>		<i>M</i>			
R3 - Flat Roof	Rural	70,793	16.1										
	Urban	50,872	11.6										
	Total	121,665	27.7	Damage Risk as per that for the Wall supporting it									
TOTAL HOUSES*		438,977											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 515 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