

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

**Table No. : MP 10**

**State : MADHYA PRADESH**

**SAGAR**

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 %				
						5.9	94.1		77.0	23.0		
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	234,310	40.3									
	Urban	34,935	6.0									
	Total	269,245	46.3			M	L		H	M		
A2 - Stone Wall not packed with mortar	Rural	41,088	7.1									
	Urban	3,935	0.7									
	Total	45,023	7.8			M	L		M	L		
Total - Category - A		314,268	54.0									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	133,170	22.9									
	Urban	105,457	18.1									
	Total	238,627	41.0			L	VL		M	L		
Total - Category - B		238,627	41.0									
C1 - Concrete Wall	Rural	2,186	0.4									
	Urban	4,259	0.7									
	Total	6,445	1.1			VL	VL		VL	VL		
C2 - Wood wall	Rural	5,987	1.0									
	Urban	730	0.1									
	Total	6,717	1.1			VL	VL		H	M		
Total - Category - C		13,162	2.3									
X - Other Materials	Rural	12,284	2.1									
	Urban	3,690	0.6									
	Total	15,974	2.7			VL	VL		H	M		
Total - Category - X		15,974	2.7									
TOTAL HOUSES*		582,031										

ROOF												
R1 - Light Weight Sloping Roof	Rural	47,335	8.1									
	Urban	18,238	3.1									
	Total	65,573	11.2			L	VL		VH	H		
R2 - Heavy Weight Sloping Roof	Rural	344,290	59.2									
	Urban	69,468	11.9									
	Total	413,758	71.1			L	VL		M	L		
R3 - Flat Roof	Rural	37,400	6.4									
	Urban	65,300	11.2									
	Total	102,700	17.6	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		582,031										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **493 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