

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

**Table No. : MP 13**

**State : MADHYA PRADESH**

**REWA**

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		86.3	13.7			
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	375,374	63.0										
	Urban	25,762	4.3										
	Total	401,136	67.3				L		H	M			
A2 - Stone Wall not packed with mortar	Rural	8,766	1.5										
	Urban	1,014	0.2										
	Total	9,780	1.7				L		M	L			
Total - Category - A		410,916	69.0										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	111,599	18.7										
	Urban	57,532	9.7										
	Total	169,131	28.4				VL		M	L			
Total - Category - B		169,131	28.4										
C1 - Concrete Wall	Rural	1,424	0.2										
	Urban	660	0.1										
	Total	2,084	0.3				VL		VL	VL			
C2 - Wood wall	Rural	782	0.1										
	Urban	102	-										
	Total	884	0.1				VL		H	M			
Total - Category - C		2,968	0.5										
X - Other Materials	Rural	10,519	1.8										
	Urban	1,886	0.3										
	Total	12,405	2.1				VL		H	M			
Total - Category - X		12,405	2.1										
TOTAL HOUSES*		595,420											

ROOF													
R1 - Light Weight Sloping Roof	Rural	77,662	13.0										
	Urban	8,683	1.5										
	Total	86,345	14.5				VL		VH	H			
R2 - Heavy Weight Sloping Roof	Rural	378,678	63.6										
	Urban	31,039	5.2										
	Total	409,717	68.8				VL		M	L			
R3 - Flat Roof	Rural	52,124	8.8										
	Urban	47,234	7.9										
	Total	99,358	16.7	Damage Risk as per that for the Wall supporting it									
TOTAL HOUSES*		595,420											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **614 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