

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

Table No. : MP 14

State : MADHYA PRADESH

UMARIA

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 %				
						95.4	4.6			100		
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	104,285	64.9									
	Urban	6,760	4.2									
	Total	111,045	69.1			M	L			M		
A2 - Stone Wall not packed with mortar	Rural	363	0.2									
	Urban	136	0.1									
	Total	499	0.3			M	L			L		
Total - Category - A		111,544	69.4									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	24,883	15.5									
	Urban	19,612	12.2									
	Total	44,495	27.7			L	VL			L		
Total - Category - B		44,495	27.7									
C1 - Concrete Wall	Rural	381	0.2									
	Urban	253	0.2									
	Total	634	0.4			VL	VL			VL		
C2 - Wood wall	Rural	923	0.6									
	Urban	6	-									
	Total	929	0.6			VL	VL			M		
Total - Category - C		1,563	1.0									
X - Other Materials	Rural	2,580	1.6									
	Urban	556	0.3									
	Total	3,136	1.9			VL	VL			M		
Total - Category - X		3,136	2.0									
TOTAL HOUSES*		160,738										

ROOF												
R1 - Light Weight Sloping Roof	Rural	36,187	22.5									
	Urban	8,000	5.0									
	Total	44,187	27.5			L	VL			H		
R2 - Heavy Weight Sloping Roof	Rural	84,010	52.3									
	Urban	8,079	5.0									
	Total	92,089	57.3			L	VL			L		
R3 - Flat Roof	Rural	13,218	8.2									
	Urban	11,244	7.0									
	Total	24,462	15.2	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		160,738										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **442 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