

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

Table No. : MP 12

State : MADHYA PRADESH

SATNA

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		76.4	23.6		
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	294,021	53.9										
	Urban	24,378	4.5										
	Total	318,399	58.4					<i>L</i>		<i>H</i>	<i>M</i>		
A2 - Stone Wall not packed with mortar	Rural	11,973	2.2										
	Urban	1,101	0.2										
	Total	13,074	2.4					<i>L</i>		<i>M</i>	<i>L</i>		
Total - Category - A		331,473	60.8										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	125,882	23.1										
	Urban	74,066	13.6										
	Total	199,948	36.7					<i>VL</i>		<i>M</i>	<i>L</i>		
Total - Category - B		199,948	36.7										
C1 - Concrete Wall	Rural	1,606	0.3										
	Urban	1,258	0.2										
	Total	2,864	0.5					<i>VL</i>		<i>VL</i>	<i>VL</i>		
C2 - Wood wall	Rural	413	0.1										
	Urban	119	-										
	Total	532	0.1					<i>VL</i>		<i>H</i>	<i>M</i>		
Total - Category - C		3,396	0.6										
X - Other Materials	Rural	7,935	1.5										
	Urban	2,691	0.5										
	Total	10,626	2.0					<i>VL</i>		<i>H</i>	<i>M</i>		
Total - Category - X		10,626	1.9										
TOTAL HOUSES*		545,443											

ROOF													
R1 - Light Weight Sloping Roof	Rural	56,851	10.4										
	Urban	10,967	2.0										
	Total	67,818	12.4					<i>VL</i>		<i>VH</i>	<i>H</i>		
R2 - Heavy Weight Sloping Roof	Rural	325,151	59.6										
	Urban	45,961	8.4										
	Total	371,112	68.0					<i>VL</i>		<i>M</i>	<i>L</i>		
R3 - Flat Roof	Rural	59,828	11.0										
	Urban	46,685	8.6										
	Total	106,513	19.6	Damage Risk as per that for the Wall supporting it									
TOTAL HOUSES*		545,443											

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