

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

**Table No. : MP 32**

**State : MADHYA PRADESH**

**HOSHANGABAD**

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			100		
<b>WALL</b>													
<b>A1 - Mud &amp; Unburnt Brick Wall</b>	Rural	74,278	25.1										
	Urban	13,540	4.6										
	<b>Total</b>	<b>87,818</b>	<b>29.7</b>					<i>M</i>			<i>M</i>		
<b>A2 - Stone Wall not packed with mortar</b>	Rural	977	0.3										
	Urban	502	0.2										
	<b>Total</b>	<b>1,479</b>	<b>0.5</b>					<i>M</i>			<i>L</i>		
<b>Total - Category - A</b>		<b>89,297</b>	<b>30.2</b>										
<b>B - Burnt Bricks Wall &amp; Stone wall packed with mortar</b>	Rural	101,947	34.5										
	Urban	75,252	25.5										
	<b>Total</b>	<b>177,199</b>	<b>60.0</b>					<i>L</i>			<i>L</i>		
<b>Total - Category - B</b>		<b>177,199</b>	<b>60.0</b>										
<b>C1 - Concrete Wall</b>	Rural	1,629	0.6										
	Urban	1,439	0.5										
	<b>Total</b>	<b>3,068</b>	<b>1.1</b>					<i>VL</i>			<i>VL</i>		
<b>C2 - Wood wall</b>	Rural	3,762	1.3										
	Urban	377	0.1										
	<b>Total</b>	<b>4,139</b>	<b>1.4</b>					<i>VL</i>			<i>M</i>		
<b>Total - Category - C</b>		<b>7,207</b>	<b>2.4</b>										
<b>X - Other Materials</b>	Rural	17,891	6.1										
	Urban	3,809	1.3										
	<b>Total</b>	<b>21,700</b>	<b>7.4</b>					<i>VL</i>			<i>M</i>		
<b>Total - Category - X</b>		<b>21,700</b>	<b>7.3</b>										
<b>TOTAL HOUSES*</b>		<b>295,403</b>											

ROOF													
<b>R1 - Light Weight Sloping Roof</b>	Rural	34,805	11.8										
	Urban	20,633	7.0										
	<b>Total</b>	<b>55,438</b>	<b>18.8</b>					<i>L</i>			<i>H</i>		
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	140,434	47.5										
	Urban	24,073	8.1										
	<b>Total</b>	<b>164,507</b>	<b>55.6</b>					<i>L</i>			<i>L</i>		
<b>R3 - Flat Roof</b>	Rural	25,245	8.5										
	Urban	50,213	17.0										
	<b>Total</b>	<b>75,458</b>	<b>25.5</b>					<i>Damage Risk as per that for the Wall supporting it</i>					
<b>TOTAL HOUSES*</b>		<b>295,403</b>											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 503 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