

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

**Table No. : MH 15**

**State : MAHARASHTRA**

**NANDED**

Wall / Roof		Census Houses		Level of Risk under									
		No. of Houses	%	EQ Zone				Wind Velocity m/s				Flood Prone Area	
				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	162,685	21.2										
	Urban	45,732	6.0										
	<b>Total</b>	<b>208,417</b>	<b>27.2</b>					<i>L</i>			<i>M</i>		
<b>A2 - Stone Wall not packed with mortar</b>	Rural	40,667	5.3										
	Urban	6,719	0.9										
	<b>Total</b>	<b>47,386</b>	<b>6.2</b>					<i>L</i>			<i>L</i>		
<b>Total - Category - A</b>		<b>255,803</b>	<b>33.4</b>										
<b>B - Burnt Bricks Wall &amp; Stone wall packed with mortar</b>	Rural	244,266	31.9										
	Urban	125,417	16.4										
	<b>Total</b>	<b>369,683</b>	<b>48.3</b>					<i>VL</i>			<i>L</i>		
<b>Total - Category - B</b>		<b>369,683</b>	<b>48.2</b>										
<b>C1 - Concrete Wall</b>	Rural	18,663	2.4										
	Urban	17,181	2.2										
	<b>Total</b>	<b>35,844</b>	<b>4.6</b>					<i>VL</i>			<i>VL</i>		
<b>C2 - Wood wall</b>	Rural	16,783	2.2										
	Urban	1,689	0.2										
	<b>Total</b>	<b>18,472</b>	<b>2.4</b>					<i>VL</i>			<i>M</i>		
<b>Total - Category - C</b>		<b>54,316</b>	<b>7.1</b>										
<b>X - Other Materials</b>	Rural	75,720	9.9										
	Urban	10,843	1.4										
	<b>Total</b>	<b>86,563</b>	<b>11.3</b>					<i>VL</i>			<i>M</i>		
<b>Total - Category - X</b>		<b>86,563</b>	<b>11.3</b>										
<b>TOTAL HOUSES*</b>		<b>766,365</b>											

ROOF													
<b>R1 - Light Weight Sloping Roof</b>	Rural	350,319	45.7										
	Urban	88,762	11.6										
	<b>Total</b>	<b>439,081</b>	<b>57.3</b>					<i>VL</i>			<i>H</i>		
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	137,990	18.0										
	Urban	19,884	2.6										
	<b>Total</b>	<b>157,874</b>	<b>20.6</b>					<i>VL</i>			<i>L</i>		
<b>R3 - Flat Roof</b>	Rural	70,475	9.2										
	Urban	98,935	12.9										
	<b>Total</b>	<b>169,410</b>	<b>22.1</b>	Damage Risk as per that for the Wall supporting it									
<b>TOTAL HOUSES*</b>		<b>766,365</b>											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 426 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