

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

**Table No. : MH 05**

**State : MAHARASHTRA**

**AKOLA**

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 %					
						18.3	81.7				100				
<b>WALL</b>															
<b>A1 - Mud &amp; Unburnt Brick Wall</b>	Rural	134,193	28.8												
	Urban	44,697	9.6												
	<b>Total</b>	<b>178,890</b>	<b>38.4</b>					<i>M</i>	<i>L</i>				<i>M</i>		
<b>A2 - Stone Wall not packed with mortar</b>	Rural	6,591	1.4												
	Urban	3,462	0.7												
	<b>Total</b>	<b>10,053</b>	<b>2.1</b>					<i>M</i>	<i>L</i>				<i>L</i>		
<b>Total - Category - A</b>		<b>188,943</b>	<b>40.6</b>												
<b>B - Burnt Bricks Wall &amp; Stone wall packed with mortar</b>	Rural	101,951	21.9												
	Urban	99,353	21.3												
	<b>Total</b>	<b>201,304</b>	<b>43.2</b>					<i>L</i>	<i>VL</i>				<i>L</i>		
<b>Total - Category - B</b>		<b>201,304</b>	<b>43.2</b>												
<b>C1 - Concrete Wall</b>	Rural	9,784	2.1												
	Urban	12,526	2.7												
	<b>Total</b>	<b>22,310</b>	<b>4.8</b>					<i>VL</i>	<i>VL</i>				<i>VL</i>		
<b>C2 - Wood wall</b>	Rural	982	0.2												
	Urban	1,119	0.2												
	<b>Total</b>	<b>2,101</b>	<b>0.4</b>					<i>VL</i>	<i>VL</i>				<i>M</i>		
<b>Total - Category - C</b>		<b>24,411</b>	<b>5.2</b>												
<b>X - Other Materials</b>	Rural	37,293	8.0												
	Urban	13,904	3.0												
	<b>Total</b>	<b>51,197</b>	<b>11.0</b>					<i>VL</i>	<i>VL</i>				<i>M</i>		
<b>Total - Category - X</b>		<b>51,197</b>	<b>11.0</b>												
<b>TOTAL HOUSES*</b>			<b>465,855</b>												

<b>ROOF</b>														
<b>R1 - Light Weight Sloping Roof</b>	Rural	136,104	29.2											
	Urban	53,551	11.5											
	<b>Total</b>	<b>189,655</b>	<b>40.7</b>					<i>L</i>	<i>VL</i>				<i>H</i>	
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	104,770	22.5											
	Urban	29,716	6.4											
	<b>Total</b>	<b>134,486</b>	<b>28.9</b>					<i>L</i>	<i>VL</i>				<i>L</i>	
<b>R3 - Flat Roof</b>	Rural	49,920	10.7											
	Urban	91,794	19.7											
	<b>Total</b>	<b>141,714</b>	<b>30.4</b>					<i>Damage Risk as per that for the Wall supporting it</i>						
<b>TOTAL HOUSES*</b>			<b>465,855</b>											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 595 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