

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

Table No. : MH 06

State : MAHARASHTRA

WASHIM

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		
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	106,651	34.3										
	Urban	11,967	3.9										
	Total	118,618	38.2					<i>L</i>			<i>M</i>		
A2 - Stone Wall not packed with mortar	Rural	7,301	2.4										
	Urban	1,719	0.6										
	Total	9,020	3.0					<i>L</i>			<i>L</i>		
Total - Category - A		127,638	41.1										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	103,446	33.3										
	Urban	27,678	8.9										
	Total	131,124	42.2					<i>VL</i>			<i>L</i>		
Total - Category - B		131,124	42.2										
C1 - Concrete Wall	Rural	9,067	2.9										
	Urban	5,428	1.7										
	Total	14,495	4.6					<i>VL</i>			<i>VL</i>		
C2 - Wood wall	Rural	2,198	0.7										
	Urban	400	0.1										
	Total	2,598	0.8					<i>VL</i>			<i>M</i>		
Total - Category - C		17,093	5.5										
X - Other Materials	Rural	31,398	10.1										
	Urban	3,394	1.1										
	Total	34,792	11.2					<i>VL</i>			<i>M</i>		
Total - Category - X		34,792	11.2										
TOTAL HOUSES*		310,647											

ROOF													
R1 - Light Weight Sloping Roof	Rural	221,187	71.2										
	Urban	28,939	9.3										
	Total	250,126	80.5					<i>VL</i>			<i>H</i>		
R2 - Heavy Weight Sloping Roof	Rural	11,896	3.8										
	Urban	2,186	0.7										
	Total	14,082	4.5					<i>VL</i>			<i>L</i>		
R3 - Flat Roof	Rural	26,978	8.7										
	Urban	19,461	6.3										
	Total	46,439	15.0	Damage Risk as per that for the Wall supporting it									
TOTAL HOUSES*		310,647											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 467 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