

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

Table No. : MH 13

State : MAHARASHTRA

CHANDRAPUR

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 %					
						41.4	58.6			100			
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	188,209	29.8										
	Urban	38,182	6.0										
	Total	226,391	35.8					<i>M</i>	<i>L</i>			<i>M</i>	
A2 - Stone Wall not packed with mortar	Rural	10,289	1.6										
	Urban	6,717	1.1										
	Total	17,006	2.7					<i>M</i>	<i>L</i>			<i>L</i>	
Total - Category - A		243,397	38.5										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	165,449	26.2										
	Urban	134,099	21.2										
	Total	299,548	47.4					<i>L</i>	<i>VL</i>			<i>L</i>	
Total - Category - B		299,548	47.4										
C1 - Concrete Wall	Rural	6,599	1.0										
	Urban	20,971	3.3										
	Total	27,570	4.3					<i>VL</i>	<i>VL</i>			<i>VL</i>	
C2 - Wood wall	Rural	11,084	1.8										
	Urban	1,400	0.2										
	Total	12,484	2.0					<i>VL</i>	<i>VL</i>			<i>M</i>	
Total - Category - C		40,054	6.3										
X - Other Materials	Rural	42,395	6.7										
	Urban	6,707	1.1										
	Total	49,102	7.8					<i>VL</i>	<i>VL</i>			<i>M</i>	
Total - Category - X		49,102	7.8										
TOTAL HOUSES*		632,101											

ROOF													
R1 - Light Weight Sloping Roof	Rural	62,654	9.9										
	Urban	23,768	3.8										
	Total	86,422	13.7					<i>L</i>	<i>VL</i>			<i>H</i>	
R2 - Heavy Weight Sloping Roof	Rural	290,787	46.0										
	Urban	72,082	11.4										
	Total	362,869	57.4					<i>L</i>	<i>VL</i>			<i>L</i>	
R3 - Flat Roof	Rural	70,584	11.2										
	Urban	112,226	17.8										
	Total	182,810	29.0	Damage Risk as per that for the Wall supporting it									
TOTAL HOUSES*		632,101											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 537 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