

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

### WEST BENGAL

Wall / Roof		Census Houses		Level of Risk under								
		No. of Houses	%	EQ Zone				Wind Velocity m/s				Flood Prone Area in %
				V	IV	III	II	55 & 50	47	44 & 39	33	
				Area in %				Area in %				
<b>STATE - WEST BENGAL</b>				<b>3.2</b>	<b>31.0</b>	<b>56.1</b>	<b>9.7</b>	<b>35.1</b>	<b>63.0</b>	<b>1.9</b>		<b>45.5</b>
<b>WALL</b>												
<b>A1 - Mud &amp; Unburnt Brick Wall</b>	Rural	5,880,154	24.3									
	Urban	572,219	2.4									
	<b>Total</b>	<b>6,452,373</b>	<b>26.7</b>	VH	H	M	L	VH	H	M		VH
<b>A2 - Stone Wall not packed with mortar</b>	Rural	64,022	0.3									
	Urban	70,276	0.3									
	<b>Total</b>	<b>134,298</b>	<b>0.6</b>	VH	H	M	L	H	M	L		VH
<b>Total - Category - A</b>		<b>6,586,671</b>	<b>27.2</b>									
<b>B - Burnt Bricks Wall &amp; Stone wall packed with mortar</b>	Rural	5,502,576	22.7									
	Urban	5,758,558	23.8									
	<b>Total</b>	<b>11,261,134</b>	<b>46.5</b>	H	M	L	VL	H	M	L		H/M
<b>Total - Category - B</b>		<b>11,261,134</b>	<b>46.5</b>									
<b>C1 - Concrete Wall</b>	Rural	383,637	1.6									
	Urban	589,974	2.4									
	<b>Total</b>	<b>973,611</b>	<b>4.0</b>	M	L	VL	VL	L	VL	VL		L/ VL
<b>C2 - Wood wall</b>	Rural	139,682	0.6									
	Urban	62,480	0.3									
	<b>Total</b>	<b>202,162</b>	<b>0.9</b>	M	L	VL	VL	VH	H	M		H
<b>Total - Category - C</b>		<b>1,175,773</b>	<b>4.9</b>									
<b>X - Other Materials</b>	Rural	4,444,978	18.3									
	Urban	769,573	3.2									
	<b>Total</b>	<b>5,214,551</b>	<b>21.5</b>	M	VL	VL	VL	VH	H	M		VH
<b>Total - Category - X</b>		<b>5,214,551</b>	<b>21.5</b>									
<b>TOTAL HOUSES*</b>												

ROOF												
<b>R1 - Light Weight Sloping Roof</b>	Rural	8,968,984	37.0									
	Urban	1,631,114	6.7									
	<b>Total</b>	<b>10,600,098</b>	<b>43.7</b>	M	M	L	VL	VH	VH	H		VH
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	4,766,668	19.7									
	Urban	2,247,709	9.3									
	<b>Total</b>	<b>7,014,377</b>	<b>29.0</b>	H	M	L	VL	H	M	L		H
<b>R3 - Flat Roof</b>	Rural	2,679,397	11.1									
	Urban	3,944,257	16.3									
	<b>Total</b>	<b>6,623,654</b>	<b>27.4</b>					Damage Risk as per that for the Wall supporting it				
<b>TOTAL HOUSES*</b>												

#### 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