

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

**Table No. : WB 10**

**State : WEST BENGAL**

**NADIA**

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				
				Area in %		Area in %								
				100		102,280 5622		.1						
<b>WALL</b>												96.0		
<b>A1 - Mud &amp; Unburnt Brick Wall</b>	Rural	101,949	6.8											
	Urban	18,818	1.3											
	<b>Total</b>	<b>120,767</b>	<b>8.1</b>				<i>M</i>		<i>VH</i>	<i>H</i>		<i>VH</i>		
<b>A2 - Stone Wall not packed with mortar</b>	Rural	3,518	0.2											
	Urban	2,179	0.1											
	<b>Total</b>	<b>5,697</b>	<b>0.3</b>				<i>M</i>		<i>H</i>	<i>M</i>		<i>VH</i>		
<b>Total - Category - A</b>		<b>126,464</b>	<b>8.4</b>											
<b>B - Burnt Bricks Wall &amp; Stone wall packed with mortar</b>	Rural	431,544	28.8											
	Urban	300,130	20.0											
	<b>Total</b>	<b>731,674</b>	<b>48.8</b>				<i>L</i>		<i>H</i>	<i>M</i>		<i>H/M</i>		
<b>Total - Category - B</b>		<b>731,674</b>	<b>48.8</b>											
<b>C1 - Concrete Wall</b>	Rural	27,578	1.8											
	Urban	20,544	1.4											
	<b>Total</b>	<b>48,122</b>	<b>3.2</b>				<i>VL</i>		<i>L</i>	<i>VL</i>		<i>L/ VL</i>		
<b>C2 - Wood wall</b>	Rural	2,756	0.2											
	Urban	1,900	0.1											
	<b>Total</b>	<b>4,656</b>	<b>0.3</b>				<i>VL</i>		<i>VH</i>	<i>H</i>		<i>H</i>		
<b>Total - Category - C</b>		<b>52,778</b>	<b>3.5</b>											
<b>X - Other Materials</b>	Rural	485,882	32.4											
	Urban	102,705	6.8											
	<b>Total</b>	<b>588,587</b>	<b>39.2</b>				<i>VL</i>		<i>VH</i>	<i>H</i>		<i>VH</i>		
<b>Total - Category - X</b>		<b>588,587</b>	<b>39.3</b>											
<b>TOTAL HOUSES*</b>		<b>1,499,503</b>												

ROOF												
<b>R1 - Light Weight Sloping Roof</b>	Rural	412,355	27.5									
	Urban	131,681	8.8									
	<b>Total</b>	<b>544,036</b>	<b>36.3</b>				<i>L</i>		<i>VH</i>	<i>VH</i>		<i>VH</i>
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	382,608	25.5									
	Urban	106,682	7.1									
	<b>Total</b>	<b>489,290</b>	<b>32.6</b>				<i>L</i>		<i>H</i>	<i>M</i>		<i>H</i>
<b>R3 - Flat Roof</b>	Rural	258,264	17.2									
	Urban	207,913	13.9									
	<b>Total</b>	<b>466,177</b>	<b>31.1</b>				Damage Risk as per that for the Wall supporting it					
<b>TOTAL HOUSES*</b>		<b>1,499,503</b>										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 524 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 clogged 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