

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

Table No. : GJ 13

State : GUJARAT

AMRELI

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 %				
WALL						100			31.2		68.8	
<b>A1 - Mud &amp; Unburnt Brick Wall</b>	Rural	66,456	17.1									
	Urban	9,048	2.3									
	<b>Total</b>	<b>75,504</b>	<b>19.4</b>				<i>M</i>		<i>VH</i>		<i>M</i>	
<b>A2 - Stone Wall not packed with mortar</b>	Rural	14,028	3.6									
	Urban	2,739	0.7									
	<b>Total</b>	<b>16,767</b>	<b>4.3</b>				<i>M</i>		<i>H</i>		<i>L</i>	
<b>Total - Category - A</b>		<b>92,271</b>	<b>23.8</b>									
<b>B - Burnt Bricks Wall &amp; Stone wall packed with mortar</b>	Rural	196,029	50.5									
	Urban	86,775	22.4									
	<b>Total</b>	<b>282,804</b>	<b>72.9</b>				<i>L</i>		<i>H</i>		<i>L</i>	
<b>Total - Category - B</b>		<b>282,804</b>	<b>72.9</b>									
<b>C1 - Concrete Wall</b>	Rural	4,544	1.2									
	Urban	1,633	0.4									
	<b>Total</b>	<b>6,177</b>	<b>1.6</b>				<i>VL</i>		<i>L</i>		<i>VL</i>	
<b>C2 - Wood wall</b>	Rural	1,293	0.3									
	Urban	264	0.1									
	<b>Total</b>	<b>1,557</b>	<b>0.4</b>				<i>VL</i>		<i>VH</i>		<i>M</i>	
<b>Total - Category - C</b>		<b>7,734</b>	<b>2.0</b>									
<b>X - Other Materials</b>	Rural	4,341	1.1									
	Urban	1,020	0.3									
	<b>Total</b>	<b>5,361</b>	<b>1.4</b>				<i>VL</i>		<i>VH</i>		<i>M</i>	
<b>Total - Category - X</b>		<b>5,361</b>	<b>1.4</b>									
<b>TOTAL HOUSES*</b>		<b>388,170</b>										

ROOF												
<b>R1 - Light Weight Sloping Roof</b>	Rural	12,845	3.3									
	Urban	4,626	1.2									
	<b>Total</b>	<b>17,471</b>	<b>4.5</b>				<i>L</i>		<i>VH</i>		<i>H</i>	
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	174,191	44.9									
	Urban	34,206	8.8									
	<b>Total</b>	<b>208,397</b>	<b>53.7</b>				<i>L</i>		<i>H</i>		<i>L</i>	
<b>R3 - Flat Roof</b>	Rural	99,655	25.7									
	Urban	62,647	16.1									
	<b>Total</b>	<b>162,302</b>	<b>41.8</b>				<i>Damage Risk as per that for the Wall supporting it</i>					
<b>TOTAL HOUSES*</b>		<b>388,170</b>										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sq.km. is 883 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 chocked 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