

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

**Table No. : GJ 01**

**State : GUJARAT**

**KACHCHH**

Wall / Roof		Census Houses		Level of Risk under								Flood Prone Area in %
		No. of Houses	%	EQ Zone				Wind Velocity m/s				
				V	IV	III	II	55 & 50	47	44 & 39	33	
				Area in %				Area in %				
				81.2	18.0	.8		34.6	65.4			
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	14,495	2.5									
	Urban	2,978	0.5									
	Total	17,473	3.0	VH	H	M		VH	H			
A2 - Stone Wall not packed with mortar	Rural	36,035	6.1									
	Urban	7,407	1.3									
	Total	43,442	7.4	VH	H	M		H	M			
Total - Category - A		60,915	10.4									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	212,509	36.2									
	Urban	148,340	25.3									
	Total	360,849	61.5	H	M	L		H	M			
Total - Category - B		360,849	61.5									
C1 - Concrete Wall	Rural	97,549	16.6									
	Urban	40,988	7.0									
	Total	138,537	23.6	M	L	VL		L	VL			
C2 - Wood wall	Rural	3,633	0.6									
	Urban	5,106	0.9									
	Total	8,739	1.5	M	L	VL		VH	H			
Total - Category - C		147,276	25.1									
X - Other Materials	Rural	12,245	2.1									
	Urban	5,666	1.0									
	Total	17,911	3.1	M	VL	VL		VH	H			
Total - Category - X		17,911	3.1									
TOTAL HOUSES*		586,951										

<b>ROOF</b>												
<b>R1 - Light Weight Sloping Roof</b>	Rural	61,183	10.4									
	Urban	47,099	8.0									
	<b>Total</b>	<b>108,282</b>	<b>18.4</b>	M	M	L		VH	VH			
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	183,364	31.2									
	Urban	29,159	5.0									
	<b>Total</b>	<b>212,523</b>	<b>36.2</b>	H	M	L		H	M			
<b>R3 - Flat Roof</b>	Rural	131,919	22.5									
	Urban	134,227	22.9									
	<b>Total</b>	<b>266,146</b>	<b>45.4</b>	<i>Damage Risk as per that for the Wall supporting it</i>								
<b>TOTAL HOUSES*</b>		<b>586,951</b>										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sq.km. is **963 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