

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

Table No. : GJ 03

State : GUJARAT

PATAN

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 %						
				60.8	39.2				100				31.6		
WALL															
A1 - Mud & Unburnt Brick Wall	Rural	54,057	16.4												
	Urban	7,206	2.2												
	Total	61,263	18.6		<i>H</i>	<i>M</i>			<i>H</i>				<i>VH</i>		
A2 - Stone Wall not packed with mortar	Rural	4,066	1.2												
	Urban	378	0.1												
	Total	4,444	1.3		<i>H</i>	<i>M</i>			<i>M</i>				<i>VH</i>		
Total - Category - A		65,707	19.9												
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	176,544	53.6												
	Urban	70,853	21.5												
	Total	247,397	75.1		<i>M</i>	<i>L</i>			<i>M</i>				<i>H/M</i>		
Total - Category - B		247,397	75.1												
C1 - Concrete Wall	Rural	4,343	1.3												
	Urban	1,322	0.4												
	Total	5,665	1.7		<i>L</i>	<i>VL</i>			<i>VL</i>				<i>L/ VL</i>		
C2 - Wood wall	Rural	864	0.3												
	Urban	174	0.1												
	Total	1,038	0.4		<i>L</i>	<i>VL</i>			<i>H</i>				<i>H</i>		
Total - Category - C		6,703	2.0												
X - Other Materials	Rural	8,576	2.6												
	Urban	1,159	0.4												
	Total	9,735	3.0		<i>VL</i>	<i>VL</i>			<i>H</i>				<i>VH</i>		
Total - Category - X		9,735	3.0												
TOTAL HOUSES*		329,542													

ROOF													
R1 - Light Weight Sloping Roof	Rural	98,291	29.8										
	Urban	25,793	7.8										
	Total	124,084	37.6		<i>M</i>	<i>L</i>			<i>VH</i>				<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	100,190	30.4										
	Urban	6,408	1.9										
	Total	106,598	32.3		<i>M</i>	<i>L</i>			<i>M</i>				<i>H</i>
R3 - Flat Roof	Rural	49,969	15.2										
	Urban	48,891	14.8										
	Total	98,860	30.0		Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		329,542											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sq.km. is 505 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