

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

Table No. : GJ 15

State : GUJARAT

ANAND

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 %						
						100		.5		99.5		33.3		
WALL														
A1 - Mud & Unburnt Brick Wall	Rural	139,668	26.5											
	Urban	25,575	4.9											
	Total	165,243	31.4				<i>M</i>		<i>VH</i>		<i>M</i>		<i>VH</i>	
A2 - Stone Wall not packed with mortar	Rural	1,571	0.3											
	Urban	1,503	0.3											
	Total	3,074	0.6				<i>M</i>		<i>H</i>		<i>L</i>		<i>VH</i>	
Total - Category - A		168,317	31.9											
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	190,256	36.1											
	Urban	130,345	24.7											
	Total	320,601	60.8				<i>L</i>		<i>H</i>		<i>L</i>		<i>H/M</i>	
Total - Category - B		320,601	60.8											
C1 - Concrete Wall	Rural	10,766	2.0											
	Urban	10,170	1.9											
	Total	20,936	3.9				<i>VL</i>		<i>L</i>		<i>VL</i>		<i>L/ VL</i>	
C2 - Wood wall	Rural	1,827	0.3											
	Urban	989	0.2											
	Total	2,816	0.5				<i>VL</i>		<i>VH</i>		<i>M</i>		<i>H</i>	
Total - Category - C		23,752	4.5											
X - Other Materials	Rural	10,719	2.0											
	Urban	3,652	0.7											
	Total	14,371	2.7				<i>VL</i>		<i>VH</i>		<i>M</i>		<i>VH</i>	
Total - Category - X		14,371	2.7											
TOTAL HOUSES*		527,041												

ROOF													
R1 - Light Weight Sloping Roof	Rural	100,997	19.2										
	Urban	45,544	8.6										
	Total	146,541	27.8				<i>L</i>		<i>VH</i>		<i>H</i>		<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	137,333	26.1										
	Urban	19,010	3.6										
	Total	156,343	29.7				<i>L</i>		<i>H</i>		<i>L</i>		<i>H</i>
R3 - Flat Roof	Rural	116,477	22.1										
	Urban	107,680	20.4										
	Total	224,157	42.5				<i>Damage Risk as per that for the Wall supporting it</i>						
TOTAL HOUSES*		527,041											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sq.km. is 552 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