

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

Table No. : GJ 20

State : GUJARAT

NARMADA

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				100		15.5	
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	10,265	7.1										
	Urban	1,536	1.1										
	Total	11,801	8.2				<i>M</i>			<i>M</i>		<i>VH</i>	
A2 - Stone Wall not packed with mortar	Rural	387	0.3										
	Urban	57	-										
	Total	444	0.3				<i>M</i>			<i>L</i>		<i>VH</i>	
Total - Category - A		12,245	8.5										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	34,710	24.1										
	Urban	11,445	8.0										
	Total	46,155	32.1				<i>L</i>			<i>L</i>		<i>H/M</i>	
Total - Category - B		46,155	32.1										
C1 - Concrete Wall	Rural	646	0.4										
	Urban	569	0.4										
	Total	1,215	0.8				<i>VL</i>			<i>VL</i>		<i>L/ VL</i>	
C2 - Wood wall	Rural	557	0.4										
	Urban	72	0.1										
	Total	629	0.5				<i>VL</i>			<i>M</i>		<i>H</i>	
Total - Category - C		1,844	1.3										
X - Other Materials	Rural	80,508	55.9										
	Urban	3,182	2.2										
	Total	83,690	58.1				<i>VL</i>			<i>M</i>		<i>VH</i>	
Total - Category - X		83,690	58.1										
TOTAL HOUSES*		143,934											

ROOF													
R1 - Light Weight Sloping Roof	Rural	32,494	22.6										
	Urban	4,927	3.4										
	Total	37,421	26.0				<i>L</i>			<i>H</i>		<i>VH</i>	
R2 - Heavy Weight Sloping Roof	Rural	83,373	57.9										
	Urban	3,993	2.8										
	Total	87,366	60.7				<i>L</i>			<i>L</i>		<i>H</i>	
R3 - Flat Roof	Rural	11,206	7.8										
	Urban	7,941	5.5										
	Total	19,147	13.3				<i>Damage Risk as per that for the Wall supporting it</i>						
TOTAL HOUSES*		143,934											

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