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

Table No. : GJ 09		State : GUJARAT											RAJKOT

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 %					
					16.5	83.5		42.3		57.7			
WALL													
A1 - Mud &	Rural	44,893	4.4										
Unburnt Brick Wall	Urban	22,286	2.2										
	Total	*67,179*	*6.6*		H	M		VH		M			
A2 - Stone Wall	Rural	28,719	2.8										
not packed with mortar	Urban	10,281	1.0										
	Total	*39,000*	*3.8*		H	M		H		L			
Total - Category - A		*106,179*	*10.3*										
B - Burnt Bricks Wall	Rural	315,158	30.6										
& Stone wall packed	Urban	545,289	52.9										
with mortar	*Total*	*860,447*	*83.5*		M	L		H		L			
Total - Category - B		*860,447*	*83.4*										
C1 - Concrete Wall	Rural	12,133	1.2										
	Urban	40,605	3.9										
	Total	*52,738*	*5.1*		L	VL		L		VL			
C2 - Wood wall	Rural	1,377	0.1										
	Urban	768	0.1										
	Total	*2,145*	*0.2*		L	VL		VH		M			
Total - Category - C		*54,883*	*5.3*										
X - Other Materials	Rural	4,599	0.4										
	Urban	5,421	0.5										
	Total	*10,020*	*0.9*		VL	VL		VH		M			
Total - Category - X		*10,020*	*1.0*										
TOTAL HOUSES*		**1,031,529**											
ROOF													
R1 - Light Weight	Rural	25,619	2.5										
Sloping Roof	Urban	52,063	5.0										
	Total	*77,682*	*7.5*		M	L		VH		H			
R2 - Heavy Weight	Rural	175,251	17.0										
Sloping Roof	Urban	85,750	8.3										
	Total	*261,001*	*25.3*		M	L		H		L			
R3 - Flat Roof	Rural	206,009	20.0										
	Urban	486,837	47.2										
	Total	*692,846*	*67.2*	*Damage Risk as per that for the Wall supporting it*									
TOTAL HOUSES*		**1,031,529**											

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