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

Table No. : GJ 04 **State : GUJARAT** **MAHESANA**

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			52.9	47.1		.9
WALL												
A1 - Mud &	Rural	68,564	12.9									
Unburnt Brick Wall	Urban	10,214	1.9									
	Total	*78,778*	*14.8*			M			H	M		VH
A2 - Stone Wall	Rural	2,477	0.5									
not packed with mortar	Urban	590	0.1									
	Total	*3,067*	*0.6*			M			M	L		VH
Total - Category - A		*81,845*	*15.4*									
B - Burnt Bricks Wall	Rural	288,840	54.3									
& Stone wall packed	Urban	135,120	25.4									
with mortar	*Total*	*423,960*	*79.7*			L			M	L		H/M
Total - Category - B		*423,960*	*79.7*									
C1 - Concrete Wall	Rural	10,012	1.9									
	Urban	3,774	0.7									
	Total	*13,786*	*2.6*			VL			VL	VL		L/VL
C2 - Wood wall	Rural	877	0.2									
	Urban	358	0.1									
	Total	*1,235*	*0.3*			VL			H	M		H
Total - Category - C		*15,021*	*2.8*									
X - Other Materials	Rural	8,856	1.7									
	Urban	2,509	0.5									
	Total	*11,365*	*2.2*			VL			H	M		VH
Total - Category - X		*11,365*	*2.1*									
TOTAL HOUSES*		**532,191**										
ROOF												
R1 - Light Weight	Rural	195,305	36.7									
Sloping Roof	Urban	40,733	7.7									
	Total	*236,038*	*44.4*			L			VH	H		VH
R2 - Heavy Weight	Rural	47,161	8.9									
Sloping Roof	Urban	6,096	1.1									
	Total	*53,257*	*10.0*			L			M	L		H
R3 - Flat Roof	Rural	137,160	25.8									
	Urban	105,736	19.9									
	Total	*242,896*	*45.7*	*Damage Risk as per that for the Wall supporting it*								
TOTAL HOUSES*		**532,191**										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sq.km. is 540 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