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

Table No. : GJ 24 **State : GUJARAT** **VALSAD**

Wall / Roof		Census Houses		Level of Risk under								
				EQ Zone				Wind Velocity m/s				Flood Prone Area in %
		No. of Houses	%	V	IV	III	II	55 & 50	47	44 & 39	33	
				Area in %				Area in %				
						100				100		.6
WALL												
A1 - Mud & *Unburnt Brick Wall*	Rural	36,394	8.4									
	Urban	7,105	1.6									
	Total	*43,499*	*10.0*			M				M		VH
A2 - Stone Wall *not packed with mortar*	Rural	1,316	0.3									
	Urban	1,175	0.3									
	Total	*2,491*	*0.6*			M				L		VH
Total - Category - A		*45,990*	*10.6*									
B - Burnt Bricks Wall *& Stone wall packed* *with mortar*	Rural	125,260	28.9									
	Urban	153,518	35.4									
	Total	*278,778*	*64.3*			L				L		H/M
Total - Category - B		*278,778*	*64.3*									
C1 - Concrete Wall	Rural	6,894	1.6									
	Urban	17,463	4.0									
	Total	*24,357*	*5.6*			VL				VL		L/VL
C2 - Wood wall	Rural	1,989	0.5									
	Urban	1,444	0.3									
	Total	*3,433*	*0.8*			VL				M		H
Total - Category - C		*27,790*	*6.4*									
X - Other Materials	Rural	71,693	16.5									
	Urban	9,530	2.2									
	Total	*81,223*	*18.7*			VL				M		VH
Total - Category - X		*81,223*	*18.7*									
TOTAL HOUSES*		**433,781**										
ROOF												
R1 - Light Weight **Sloping Roof**	Rural	69,518	16.0									
	Urban	70,744	16.3									
	Total	*140,262*	*32.3*			L				H		VH
R2 - Heavy Weight **Sloping Roof**	Rural	141,573	32.6									
	Urban	20,316	4.7									
	Total	*161,889*	*37.3*			L				L		H
R3 - Flat Roof	Rural	32,455	7.5									
	Urban	99,175	22.9									
	Total	*131,630*	*30.4*	*Damage Risk as per that for the Wall supporting it*								
TOTAL HOUSES*		**433,781**										

Probable Maximum Precipitation at a Station of the district in one day for areal extent of 1000 sq.km. is 1112 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, 2001*

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