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

Table No. : GJ 02   **State : GUJARAT**   **BANAS KANTHA**

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 %					
					54.6	45.4			100				31.1
WALL													
A1 - Mud &	Rural	161,907	23.8										
Unburnt Brick Wall	Urban	9,695	1.4										
	Total	*171,602*	*25.2*	H	M				H				VH
A2 - Stone Wall	Rural	7,142	1.1										
not packed with mortar	Urban	457	0.1										
	Total	*7,599*	*1.2*	H	M				M				VH
Total - Category - A		179,201	26.4										
B - Burnt Bricks Wall	Rural	364,599	53.6										
& Stone wall packed	Urban	98,676	14.5										
with mortar	*Total*	*463,275*	*68.1*	M	L				M				H/M
Total - Category - B		463,275	68.1										
C1 - Concrete Wall	Rural	7,199	1.1										
	Urban	2,898	0.4										
	Total	*10,097*	*1.5*	L	VL				VL				L/VL
C2 - Wood wall	Rural	2,195	0.3										
	Urban	190	-										
	Total	*2,385*	*0.3*	L	VL				H				H
Total - Category - C		12,482	1.8										
X - Other Materials	Rural	23,418	3.4										
	Urban	1,466	0.2										
	Total	*24,884*	*3.6*	VL	VL				H				VH
Total - Category - X		24,884	3.7										
TOTAL HOUSES*		**679,842**											
ROOF													
R1 - Light Weight	Rural	163,198	24.0										
Sloping Roof	Urban	30,735	4.5										
	Total	*193,933*	*28.5*	M	L				VH				VH
R2 - Heavy Weight	Rural	295,685	43.5										
Sloping Roof	Urban	12,247	1.8										
	Total	*307,932*	*45.3*	M	L				M				H
R3 - Flat Roof	Rural	107,577	15.8										
	Urban	70,400	10.4										
	Total	*177,977*	*26.2*	*Damage Risk as per that for the Wall supporting it*									
TOTAL HOUSES*		**679,842**											

Probable Maximum Precipitation at a Station of the district in 24 hrs is 720 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

bmtpc **Building Materials & Technology Promotion Council**   **Peer Group, MoHUA, GOI**