

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

Table No. : MN 09

State : MANIPUR

CHANDEL

Wall / Roof		Census Houses		Level of Risk under								
		No. of Houses	%	EQ Zone				Wind Velocity m/s				Flood Pron e Area
				V	IV	III	II	55 & 50	47	44 & 39	33	
				Area in %				Area in %				
				100						100		1.9
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	14,785	43.6									
	Urban	569	1.7									
	Total	15,354	45.3	VH						M		VH
A2 - Stone Wall not packed with mortar	Rural	28	0.1									
	Urban	12	-									
	Total	40	0.1	VH						L		VH
Total - Category - A		15,394	45.4									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	895	2.6									
	Urban	397	1.2									
	Total	1,292	3.8	H						L		H/M
Total - Category - B		1,292	3.8									
C1 - Concrete Wall	Rural	36	0.1									
	Urban	46	0.1									
	Total	82	0.2	M						VL		L/ VL
C2 - Wood wall	Rural	8,162	24.1									
	Urban	2,031	6.0									
	Total	10,193	30.1	M						M		H
Total - Category - C		10,275	30.3									
X - Other Materials	Rural	6,309	18.6									
	Urban	629	1.9									
	Total	6,938	20.5	M						M		VH
Total - Category - X		6,938	20.5									
TOTAL HOUSES*		33,899										
ROOF												
R1 - Light Weight Sloping Roof	Rural	29,520	87.1									
	Urban	3,458	10.2									
	Total	32,978	97.3	M						H		VH
R2 - Heavy Weight Sloping Roof	Rural	517	1.5									
	Urban	91	0.3									
	Total	608	1.8	H						L		H
R3 - Flat Roof	Rural	178	0.5									
	Urban	135	0.4									
	Total	313	0.9	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		33,899										

Probable Maximum Precipitation at a Station of the district in 24 hrs is 480 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