

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

Table No. : MN 06

State : MANIPUR

IMPHAL WEST

Wall / Roof		Census Houses		Level of Risk under								Flood Pron e Area
		No. of Houses	%	EQ Zone				Wind Velocity m/s				
				V	IV	III	II	55 & 50	47	44 & 39	33	
				Area in %				Area in %				
				100						100		9.1
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	30,816	23.0									
	Urban	36,693	27.3									
	Total	67,509	50.3	VH						M		VH
A2 - Stone Wall not packed with mortar	Rural	274	0.2									
	Urban	1,054	0.8									
	Total	1,328	1.0	VH						L		VH
Total - Category - A		68,837	51.3									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	7,026	5.2									
	Urban	31,005	23.1									
	Total	38,031	28.3	H						L		H/M
Total - Category - B		38,031	28.3									
C1 - Concrete Wall	Rural	213	0.2									
	Urban	2,593	1.9									
	Total	2,806	2.1	M						VL		L/VL
C2 - Wood wall	Rural	755	0.6									
	Urban	1,699	1.3									
	Total	2,454	1.9	M						M		H
Total - Category - C		5,260	3.9									
X - Other Materials	Rural	11,298	8.4									
	Urban	10,812	8.1									
	Total	22,110	16.5	M						M		VH
Total - Category - X		22,110	16.5									
TOTAL HOUSES*		134,238										

ROOF												
R1 - Light Weight Sloping Roof	Rural	46,749	34.8									
	Urban	64,085	47.7									
	Total	110,834	82.5	M						H		VH
R2 - Heavy Weight Sloping Roof	Rural	1,450	1.1									
	Urban	4,711	3.5									
	Total	6,161	4.6	H						L		H
R3 - Flat Roof	Rural	2,183	1.6									
	Urban	15,060	11.2									
	Total	17,243	12.8	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		134,238										

Probable Maximum Precipitation at a Station of the district in 24 hrs is 360 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