

## 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										
		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		9.1		
<b>WALL</b>														
<b>A1 - Mud &amp; Unburnt Brick Wall</b>	Rural	30,816	23.0											
	Urban	36,693	27.3											
	<b>Total</b>	<b>67,509</b>	<b>50.3</b>	VH						M		VH		
<b>A2 - Stone Wall not packed with mortar</b>	Rural	274	0.2											
	Urban	1,054	0.8											
	<b>Total</b>	<b>1,328</b>	<b>1.0</b>	VH						L		VH		
<b>Total - Category - A</b>		<b>68,837</b>	<b>51.3</b>											
<b>B - Burnt Bricks Wall &amp; Stone wall packed with mortar</b>	Rural	7,026	5.2											
	Urban	31,005	23.1											
	<b>Total</b>	<b>38,031</b>	<b>28.3</b>	H						L		H/M		
<b>Total - Category - B</b>		<b>38,031</b>	<b>28.3</b>											
<b>C1 - Concrete Wall</b>	Rural	213	0.2											
	Urban	2,593	1.9											
	<b>Total</b>	<b>2,806</b>	<b>2.1</b>	M						VL		L/ VL		
<b>C2 - Wood wall</b>	Rural	755	0.6											
	Urban	1,699	1.3											
	<b>Total</b>	<b>2,454</b>	<b>1.9</b>	M						M		H		
<b>Total - Category - C</b>		<b>5,260</b>	<b>3.9</b>											
<b>X - Other Materials</b>	Rural	11,298	8.4											
	Urban	10,812	8.1											
	<b>Total</b>	<b>22,110</b>	<b>16.5</b>	M						M		VH		
<b>Total - Category - X</b>		<b>22,110</b>	<b>16.5</b>											
<b>TOTAL HOUSES*</b>		<b>134,238</b>												
<b>ROOF</b>														
<b>R1 - Light Weight Sloping Roof</b>	Rural	46,749	34.8											
	Urban	64,085	47.7											
	<b>Total</b>	<b>110,834</b>	<b>82.5</b>	M						H		VH		
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	1,450	1.1											
	Urban	4,711	3.5											
	<b>Total</b>	<b>6,161</b>	<b>4.6</b>	H						L		H		
<b>R3 - Flat Roof</b>	Rural	2,183	1.6											
	Urban	15,060	11.2											
	<b>Total</b>	<b>17,243</b>	<b>12.8</b>	Damage Risk as per that for the Wall supporting it										
<b>TOTAL HOUSES*</b>		<b>134,238</b>												

**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