

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

Table No. : KL 14

State : KERALA

THIRUVANANTHAPURAM

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 %						
						100				100			24.0	
WALL														
A1 - Mud & Unburnt Brick Wall	Rural	112,819	10.8											
	Urban	75,376	7.2											
	Total	188,195	18.0				<i>M</i>				<i>M</i>		<i>VH</i>	
A2 - Stone Wall not packed with mortar	Rural	56,402	5.4											
	Urban	41,633	4.0											
	Total	98,035	9.4				<i>M</i>				<i>L</i>		<i>VH</i>	
Total - Category - A		286,230	27.4											
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	284,172	27.2											
	Urban	373,224	35.7											
	Total	657,396	62.9				<i>L</i>				<i>L</i>		<i>H/M</i>	
Total - Category - B		657,396	62.9											
C1 - Concrete Wall	Rural	20,541	2.0											
	Urban	34,412	3.3											
	Total	54,953	5.3				<i>VL</i>				<i>VL</i>		<i>L/ VL</i>	
C2 - Wood wall	Rural	3,270	0.3											
	Urban	2,053	0.2											
	Total	5,323	0.5				<i>VL</i>				<i>M</i>		<i>H</i>	
Total - Category - C		60,276	5.8											
X - Other Materials	Rural	25,054	2.4											
	Urban	15,746	1.5											
	Total	40,800	3.9				<i>VL</i>				<i>M</i>		<i>VH</i>	
Total - Category - X		40,800	3.9											
TOTAL HOUSES*		1,044,702												

ROOF													
R1 - Light Weight Sloping Roof	Rural	128,690	12.3										
	Urban	111,902	10.7										
	Total	240,592	23.0				<i>L</i>				<i>H</i>		<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	138,579	13.3										
	Urban	100,215	9.6										
	Total	238,794	22.9				<i>L</i>				<i>L</i>		<i>H</i>
R3 - Flat Roof	Rural	234,989	22.5										
	Urban	330,327	31.6										
	Total	565,316	54.1	<i>Damage Risk as per that for the Wall supporting it</i>									
TOTAL HOUSES*		1,044,702											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 485 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