

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

**Table No. : KL 09**

**State : KERALA**

**IDUKKI**

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 %				
						87.1	12.9			100		2.2
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	45,144	12.6									
	Urban	2,098	0.6									
	Total	47,242	13.2			M	L			M		VH
A2 - Stone Wall not packed with mortar	Rural	30,834	8.6									
	Urban	1,149	0.3									
	Total	31,983	8.9			M	L			L		VH
Total - Category - A		79,225	22.1									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	220,337	61.4									
	Urban	13,062	3.6									
	Total	233,399	65.0			L	VL			L		H/M
Total - Category - B		233,399	65.0									
C1 - Concrete Wall	Rural	19,770	5.5									
	Urban	1,036	0.3									
	Total	20,806	5.8			VL	VL			VL		L/VL
C2 - Wood wall	Rural	2,922	0.8									
	Urban	69	-									
	Total	2,991	0.8			VL	VL			M		H
Total - Category - C		23,797	6.6									
X - Other Materials	Rural	21,994	6.1									
	Urban	532	0.1									
	Total	22,526	6.2			VL	VL			M		VH
Total - Category - X		22,526	6.3									
TOTAL HOUSES*		358,947										
ROOF												
R1 - Light Weight Sloping Roof	Rural	165,960	46.2									
	Urban	1,326	0.4									
	Total	167,286	46.6			L	VL			H		VH
R2 - Heavy Weight Sloping Roof	Rural	99,629	27.8									
	Urban	5,750	1.6									
	Total	105,379	29.4			L	VL			L		H
R3 - Flat Roof	Rural	75,412	21.0									
	Urban	10,870	3.0									
	Total	86,282	24.0	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		358,947										

**Probable Maximum Precipitation at a Station of the district in 24 hrs is 520 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