

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

Table No. : KL 11

State : KERALA

ALAPPUZHA

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		29.5
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	11,075	1.7									
	Urban	7,777	1.2									
	Total	18,852	2.9			M				M		VH
A2 - Stone Wall not packed with mortar	Rural	27,047	4.1									
	Urban	15,113	2.3									
	Total	42,160	6.4			M				L		VH
Total - Category - A		61,012	9.3									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	225,746	34.2									
	Urban	289,922	44.0									
	Total	515,668	78.2			L				L		H/M
Total - Category - B		515,668	78.2									
C1 - Concrete Wall	Rural	10,202	1.5									
	Urban	8,674	1.3									
	Total	18,876	2.8			VL				VL		L/VL
C2 - Wood wall	Rural	12,078	1.8									
	Urban	18,587	2.8									
	Total	30,665	4.6			VL				M		H
Total - Category - C		49,541	7.5									
X - Other Materials	Rural	16,306	2.5									
	Urban	16,934	2.6									
	Total	33,240	5.1			VL				M		VH
Total - Category - X		33,240	5.0									
TOTAL HOUSES*		659,461										

ROOF												
R1 - Light Weight Sloping Roof	Rural	65,785	10.0									
	Urban	66,241	10.0									
	Total	132,026	20.0			L				H		VH
R2 - Heavy Weight Sloping Roof	Rural	124,436	18.9									
	Urban	146,792	22.3									
	Total	271,228	41.2			L				L		H
R3 - Flat Roof	Rural	112,233	17.0									
	Urban	143,974	21.8									
	Total	256,207	38.8	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		659,461										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **496 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