

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

Table No. : UK 12

State : UTTARAKHAND

UDHAM SINGH NAGAR

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				97.7		2.3		8.0
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	28,522	7.3										
	Urban	5,617	1.4										
	Total	34,139	8.7		H			VH		M		VH	
A2 - Stone Wall not packed with mortar	Rural	2,345	0.6										
	Urban	1,364	0.3										
	Total	3,709	0.9		H			H		L		VH	
Total - Category - A		37,848	9.7										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	190,336	48.7										
	Urban	118,272	30.2										
	Total	308,608	78.9		M			H		L		H/M	
Total - Category - B		308,608	78.9										
C1 - Concrete Wall	Rural	2,166	0.6										
	Urban	2,585	0.7										
	Total	4,751	1.3		L			L		VL		L/VL	
C2 - Wood wall	Rural	716	0.2										
	Urban	551	0.1										
	Total	1,267	0.3		L			VH		M		H	
Total - Category - C		6,018	1.5										
X - Other Materials	Rural	33,305	8.5										
	Urban	5,356	1.4										
	Total	38,661	9.9		VL			VH		M		VH	
Total - Category - X		38,661	9.9										
TOTAL HOUSES*		391,135											

ROOF												
R1 - Light Weight Sloping Roof	Rural	76,719	19.6									
	Urban	28,342	7.2									
	Total	105,061	26.8		M			VH		H		VH
R2 - Heavy Weight Sloping Roof	Rural	15,135	3.9									
	Urban	4,546	1.2									
	Total	19,681	5.1		M			H		L		H
R3 - Flat Roof	Rural	165,536	42.3									
	Urban	100,857	25.8									
	Total	266,393	68.1	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		391,135										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **525 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