

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

Table No. : UK 02

State : UTTARAKHAND

CHAMOLI

Wall / Roof		Census Houses		Level of Risk under									
		No. of Houses	%	EQ Zone				Wind Velocity m/s				Flood Prone Area in %	
				V	IV	III	II	55 & 50	47	44 & 39	33		
				Area in %				Area in %					
				100							100		
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	2,977	1.8										
	Urban	397	0.2										
	Total	3,374	2.0	VH							M		
A2 - Stone Wall not packed with mortar	Rural	65,053	39.5										
	Urban	1,715	1.0										
	Total	66,768	40.5	VH							L		
Total - Category - A		70,142	42.5										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	72,621	44.0										
	Urban	17,292	10.5										
	Total	89,913	54.5	H							L		
Total - Category - B		89,913	54.5										
C1 - Concrete Wall	Rural	1,379	0.8										
	Urban	136	0.1										
	Total	1,515	0.9	M							VL		
C2 - Wood wall	Rural	931	0.6										
	Urban	80	-										
	Total	1,011	0.6	M							M		
Total - Category - C		2,526	1.5										
X - Other Materials	Rural	1,304	0.8										
	Urban	994	0.6										
	Total	2,298	1.4	M							M		
Total - Category - X		2,298	1.4										
TOTAL HOUSES*		164,879											

ROOF												
R1 - Light Weight Sloping Roof	Rural	16,485	10.0									
	Urban	3,444	2.1									
	Total	19,929	12.1	M							H	
R2 - Heavy Weight Sloping Roof	Rural	82,971	50.3									
	Urban	1,361	0.8									
	Total	84,332	51.1	H							L	
R3 - Flat Roof	Rural	44,809	27.2									
	Urban	15,809	9.6									
	Total	60,618	36.8	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		164,879										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 434 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