

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

Table No. : BH 38

State : BIHAR

ARWAL

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			60.6
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	51,179	36.7										
	Urban	2,013	1.4										
	Total	53,192	38.1			M			H				VH
A2 - Stone Wall not packed with mortar	Rural	1,506	1.1										
	Urban	182	0.1										
	Total	1,688	1.2			M			M				VH
Total - Category - A		54,880	39.3										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	71,716	51.4										
	Urban	7,025	5.0										
	Total	78,741	56.4			L			M				H/M
Total - Category - B		78,741	56.4										
C1 - Concrete Wall	Rural	1,064	0.8										
	Urban	94	0.1										
	Total	1,158	0.9			VL			VL				L/VL
C2 - Wood wall	Rural	245	0.2										
	Urban	16	-										
	Total	261	0.2			VL			H				H
Total - Category - C		1,419	1.0										
X - Other Materials	Rural	4,377	3.1										
	Urban	144	0.1										
	Total	4,521	3.2			VL			H				VH
Total - Category - X		4,521	3.2										
TOTAL HOUSES*		139,561											

ROOF												
R1 - Light Weight Sloping Roof	Rural	44,595	32.0									
	Urban	1,483	1.1									
	Total	46,078	33.1			L			VH			VH
R2 - Heavy Weight Sloping Roof	Rural	43,826	31.4									
	Urban	2,580	1.8									
	Total	46,406	33.2			L			M			H
R3 - Flat Roof	Rural	41,666	29.9									
	Urban	5,411	3.9									
	Total	47,077	33.8	<i>Damage Risk as per that for the Wall supporting it</i>								
TOTAL HOUSES*		139,561										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **578 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