

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

Table No. : BH 10

State : BIHAR

KATIHAR

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 %				37.5
				100				100				
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	58,731	8.1									
	Urban	4,099	0.6									
	Total	62,830	8.7		H				H			VH
A2 - Stone Wall not packed with mortar	Rural	1,754	0.2									
	Urban	502	0.1									
	Total	2,256	0.3		H				M			VH
Total - Category - A		65,086	9.0									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	159,412	22.0									
	Urban	40,707	5.6									
	Total	200,119	27.6		M				M			H/M
Total - Category - B		200,119	27.6									
C1 - Concrete Wall	Rural	1,655	0.2									
	Urban	1,084	0.1									
	Total	2,739	0.3		L				VL			L/ VL
C2 - Wood wall	Rural	2,066	0.3									
	Urban	607	0.1									
	Total	2,673	0.4		L				H			H
Total - Category - C		5,412	0.7									
X - Other Materials	Rural	436,362	60.1									
	Urban	18,808	2.6									
	Total	455,170	62.7		VL				H			VH
Total - Category - X		455,170	62.7									
TOTAL HOUSES*		725,787										

ROOF												
R1 - Light Weight Sloping Roof	Rural	425,378	58.6									
	Urban	14,508	2.0									
	Total	439,886	60.6		M				VH			VH
R2 - Heavy Weight Sloping Roof	Rural	159,315	22.0									
	Urban	19,977	2.8									
	Total	179,292	24.8		M				M			H
R3 - Flat Roof	Rural	75,287	10.4									
	Urban	31,322	4.3									
	Total	106,609	14.7		Damage Risk as per that for the Wall supporting it							
TOTAL HOUSES*		725,787										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 708 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