

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

Table No. : BH 04

State : BIHAR

SITAMARHI

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 %					
				86.2	13.8				100			85.1	
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	85,640	10.1										
	Urban	4,339	0.5										
	Total	89,979	10.6	VH	H				H			VH	
A2 - Stone Wall not packed with mortar	Rural	3,949	0.5										
	Urban	586	0.1										
	Total	4,535	0.6	VH	H				M			VH	
Total - Category - A		94,514	11.2										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	365,234	43.3										
	Urban	32,871	3.9										
	Total	398,105	47.2	H	M				M			H/M	
Total - Category - B		398,105	47.2										
C1 - Concrete Wall	Rural	2,729	0.3										
	Urban	611	0.1										
	Total	3,340	0.4	M	L				VL			L/ VL	
C2 - Wood wall	Rural	6,826	0.8										
	Urban	320	-										
	Total	7,146	0.8	M	L				H			H	
Total - Category - C		10,486	1.2										
X - Other Materials	Rural	332,382	39.4										
	Urban	8,262	1.0										
	Total	340,644	40.4	M	VL				H			VH	
Total - Category - X		340,644	40.4										
TOTAL HOUSES*		843,749											

ROOF												
R1 - Light Weight Sloping Roof	Rural	345,716	41.0									
	Urban	12,504	1.5									
	Total	358,220	42.5	M	M				VH			VH
R2 - Heavy Weight Sloping Roof	Rural	293,893	34.8									
	Urban	12,097	1.4									
	Total	305,990	36.2	H	M				M			H
R3 - Flat Roof	Rural	157,151	18.6									
	Urban	22,388	2.7									
	Total	179,539	21.3	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		843,749										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 553 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