

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

Table No. : BH 02

State : BIHAR

PURBA CHAMPARAN

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 %				25.8
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	99,226	8.1									
	Urban	7,414	0.6									
	Total	106,640	8.7		H				H			VH
A2 - Stone Wall not packed with mortar	Rural	5,985	0.5									
	Urban	1,181	0.1									
	Total	7,166	0.6		H				M			VH
Total - Category - A		113,806	9.3									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	498,183	40.6									
	Urban	64,023	5.2									
	Total	562,206	45.8		M				M			H/M
Total - Category - B		562,206	45.9									
C1 - Concrete Wall	Rural	4,234	0.3									
	Urban	1,168	0.1									
	Total	5,402	0.4		L				VL			L/ VL
C2 - Wood wall	Rural	4,241	0.3									
	Urban	864	0.1									
	Total	5,105	0.4		L				H			H
Total - Category - C		10,507	0.9									
X - Other Materials	Rural	518,741	42.3									
	Urban	20,459	1.7									
	Total	539,200	44.0		VL				H			VH
Total - Category - X		539,200	44.0									
TOTAL HOUSES*		1,225,719										

ROOF												
R1 - Light Weight Sloping Roof	Rural	607,117	49.5									
	Urban	31,496	2.6									
	Total	638,613	52.1		M				VH			VH
R2 - Heavy Weight Sloping Roof	Rural	267,732	21.8									
	Urban	19,231	1.6									
	Total	286,963	23.4		M				M			H
R3 - Flat Roof	Rural	255,761	20.9									
	Urban	44,382	3.6									
	Total	300,143	24.5		Damage Risk as per that for the Wall supporting it							
TOTAL HOUSES*		1,225,719										

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