

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

Table No. : BH 31

State : BIHAR

KAIMUR (BHABUA)

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				72.7	27.3		
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	128,282	38.8										
	Urban	961	0.3										
	Total	129,243	39.1				<i>M</i>			<i>H</i>	<i>M</i>		
A2 - Stone Wall not packed with mortar	Rural	5,025	1.5										
	Urban	256	0.1										
	Total	5,281	1.6				<i>M</i>			<i>M</i>	<i>L</i>		
Total - Category - A		134,524	40.6										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	160,268	48.4										
	Urban	12,163	3.7										
	Total	172,431	52.1				<i>L</i>			<i>M</i>	<i>L</i>		
Total - Category - B		172,431	52.1										
C1 - Concrete Wall	Rural	1,522	0.5										
	Urban	51	-										
	Total	1,573	0.5				<i>VL</i>			<i>VL</i>	<i>VL</i>		
C2 - Wood wall	Rural	1,065	0.3										
	Urban	16	-										
	Total	1,081	0.3				<i>VL</i>			<i>H</i>	<i>M</i>		
Total - Category - C		2,654	0.8										
X - Other Materials	Rural	21,033	6.4										
	Urban	387	0.1										
	Total	21,420	6.5				<i>VL</i>			<i>H</i>	<i>M</i>		
Total - Category - X		21,420	6.5										
TOTAL HOUSES*		331,029											

ROOF												
R1 - Light Weight Sloping Roof	Rural	83,274	25.2									
	Urban	1,233	0.4									
	Total	84,507	25.6				<i>L</i>			<i>VH</i>	<i>H</i>	
R2 - Heavy Weight Sloping Roof	Rural	178,108	53.8									
	Urban	3,700	1.1									
	Total	181,808	54.9				<i>L</i>			<i>M</i>	<i>L</i>	
R3 - Flat Roof	Rural	55,813	16.9									
	Urban	8,901	2.7									
	Total	64,714	19.6	<i>Damage Risk as per that for the Wall supporting it</i>								
TOTAL HOUSES*		331,029										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 523 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