

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

Table No. : BH 22

State : BIHAR

BHAGALPUR

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				50.8	
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	137,213	21.6										
	Urban	20,058	3.2										
	Total	157,271	24.8		<i>H</i>				<i>H</i>			<i>VH</i>	
A2 - Stone Wall not packed with mortar	Rural	4,150	0.7										
	Urban	1,726	0.3										
	Total	5,876	1.0		<i>H</i>				<i>M</i>			<i>VH</i>	
Total - Category - A		163,147	25.7										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	242,313	38.2										
	Urban	91,201	14.4										
	Total	333,514	52.6		<i>M</i>				<i>M</i>			<i>H/M</i>	
Total - Category - B		333,514	52.6										
C1 - Concrete Wall	Rural	5,256	0.8										
	Urban	2,406	0.4										
	Total	7,662	1.2		<i>L</i>				<i>VL</i>			<i>L/ VL</i>	
C2 - Wood wall	Rural	2,313	0.4										
	Urban	431	0.1										
	Total	2,744	0.5		<i>L</i>				<i>H</i>			<i>H</i>	
Total - Category - C		10,406	1.6										
X - Other Materials	Rural	119,337	18.8										
	Urban	8,055	1.3										
	Total	127,392	20.1		<i>VL</i>				<i>H</i>			<i>VH</i>	
Total - Category - X		127,392	20.1										
TOTAL HOUSES*		634,459											

ROOF												
R1 - Light Weight Sloping Roof	Rural	199,402	31.4									
	Urban	20,267	3.2									
	Total	219,669	34.6		<i>M</i>				<i>VH</i>			<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	131,976	20.8									
	Urban	31,512	5.0									
	Total	163,488	25.8		<i>M</i>				<i>M</i>			<i>H</i>
R3 - Flat Roof	Rural	179,204	28.2									
	Urban	72,098	11.4									
	Total	251,302	39.6		Damage Risk as per that for the Wall supporting it							
TOTAL HOUSES*		634,459										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 665 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