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

Table No. : BH 29   **State : BIHAR**   **BHOJPUR**

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 %				
					15.9	84.1			100			4.9
WALL												
A1 - Mud &	Rural	112,399	22.8									
Unburnt Brick Wall	Urban	9,768	2.0									
	Total	122,167	24.8		H	M			H			VH
A2 - Stone Wall	Rural	7,720	1.6									
not packed with mortar	Urban	1,549	0.3									
	Total	9,269	1.9		H	M			M			VH
Total - Category - A		131,436	26.7									
B - Burnt Bricks Wall	Rural	263,249	53.5									
& Stone wall packed	Urban	56,803	11.5									
with mortar	*Total*	320,052	65.0		M	L			M			H/M
Total - Category - B		320,052	65.0									
C1 - Concrete Wall	Rural	3,698	0.8									
	Urban	1,138	0.2									
	Total	4,836	1.0		L	VL			VL			L/VL
C2 - Wood wall	Rural	1,491	0.3									
	Urban	279	0.1									
	Total	1,770	0.4		L	VL			H			H
Total - Category - C		6,606	1.3									
X - Other Materials	Rural	31,715	6.4									
	Urban	2,413	0.5									
	Total	34,128	6.9		VL	VL			H			VH
Total - Category - X		34,128	6.9									
TOTAL HOUSES*		492,222										
ROOF												
R1 - Light Weight	Rural	106,967	21.7									
Sloping Roof	Urban	12,200	2.5									
	Total	119,167	24.2		M	L			VH			VH
R2 - Heavy Weight	Rural	239,643	48.7									
Sloping Roof	Urban	17,443	3.5									
	Total	257,086	52.2		M	L			M			H
R3 - Flat Roof	Rural	73,662	15.0									
	Urban	42,307	8.6									
	Total	115,969	23.6	*Damage Risk as per that for the Wall supporting it*								
TOTAL HOUSES*		492,222										

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 chocked 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