

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

Table No. : OR 09

State : ODISHA

BHADRAK

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				40.2
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	234,589	57.2									
	Urban	18,207	4.4									
	Total	252,796	61.6				L	VH				VH
A2 - Stone Wall not packed with mortar	Rural	1,347	0.3									
	Urban	443	0.1									
	Total	1,790	0.4				L	H				VH
Total - Category - A		254,586	62.1									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	81,951	20.0									
	Urban	24,557	6.0									
	Total	106,508	26.0				VL	H				H/M
Total - Category - B		106,508	26.0									
C1 - Concrete Wall	Rural	2,333	0.6									
	Urban	774	0.2									
	Total	3,107	0.8				VL	L				L/VL
C2 - Wood wall	Rural	2,732	0.7									
	Urban	1,156	0.3									
	Total	3,888	1.0				VL	VH				H
Total - Category - C		6,995	1.7									
X - Other Materials	Rural	37,826	9.2									
	Urban	4,259	1.0									
	Total	42,085	10.2				VL	VH				VH
Total - Category - X		42,085	10.3									
TOTAL HOUSES*		410,174										

ROOF												
R1 - Light Weight Sloping Roof	Rural	295,195	72.0									
	Urban	29,876	7.3									
	Total	325,071	79.3				VL	VH				VH
R2 - Heavy Weight Sloping Roof	Rural	5,801	1.4									
	Urban	1,142	0.3									
	Total	6,943	1.7				VL	H				H
R3 - Flat Roof	Rural	59,782	14.6									
	Urban	18,378	4.5									
	Total	78,160	19.1	<i>Damage Risk as per that for the Wall supporting it</i>								
TOTAL HOUSES*		410,174										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **735 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