

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

**Table No. : OR 14**

**State : ODISHA**

**DHENKANAL**

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 %				
						79.7	20.3	87.2	12.8			
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	130,276	39.0									
	Urban	5,227	1.6									
	Total	135,503	40.6			M	L	VH	H			
A2 - Stone Wall not packed with mortar	Rural	10,152	3.0									
	Urban	607	0.2									
	Total	10,759	3.2			M	L	H	M			
Total - Category - A		146,262	43.8									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	121,878	36.5									
	Urban	25,153	7.5									
	Total	147,031	44.0			L	VL	H	M			
Total - Category - B		147,031	44.0									
C1 - Concrete Wall	Rural	1,460	0.4									
	Urban	217	0.1									
	Total	1,677	0.5			VL	VL	L	VL			
C2 - Wood wall	Rural	8,529	2.6									
	Urban	1,259	0.4									
	Total	9,788	3.0			VL	VL	VH	H			
Total - Category - C		11,465	3.4									
X - Other Materials	Rural	28,019	8.4									
	Urban	1,506	0.5									
	Total	29,525	8.9			VL	VL	VH	H			
Total - Category - X		29,525	8.8									
TOTAL HOUSES*		334,283										

<b>ROOF</b>												
<b>R1 - Light Weight Sloping Roof</b>	Rural	182,851	54.7									
	Urban	11,867	3.5									
	<b>Total</b>	<b>194,718</b>	<b>58.2</b>			L	VL	VH	VH			
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	28,310	8.5									
	Urban	3,422	1.0									
	<b>Total</b>	<b>31,732</b>	<b>9.5</b>			L	VL	H	M			
<b>R3 - Flat Roof</b>	Rural	89,153	26.7									
	Urban	18,680	5.6									
	<b>Total</b>	<b>107,833</b>	<b>32.3</b>	<i>Damage Risk as per that for the Wall supporting it</i>								
<b>TOTAL HOUSES*</b>		<b>334,283</b>										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **706 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