

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

Table No. : JD 19

State : JHARKHAND

RANCHI

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 %					
WALL						.4	99.6			100			
A1 - Mud & Unburnt Brick Wall	Rural	268,792	39.7										
	Urban	47,853	7.1										
	Total	316,645	46.8					<i>M</i>	<i>L</i>			<i>M</i>	
A2 - Stone Wall not packed with mortar	Rural	7,437	1.1										
	Urban	3,363	0.5										
	Total	10,800	1.6					<i>M</i>	<i>L</i>			<i>L</i>	
Total - Category - A		327,445	48.3										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	110,100	16.3										
	Urban	215,068	31.7										
	Total	325,168	48.0					<i>L</i>	<i>VL</i>			<i>L</i>	
Total - Category - B		325,168	48.0										
C1 - Concrete Wall	Rural	2,211	0.3										
	Urban	11,546	1.7										
	Total	13,757	2.0					<i>VL</i>	<i>VL</i>			<i>VL</i>	
C2 - Wood wall	Rural	727	0.1										
	Urban	504	0.1										
	Total	1,231	0.2					<i>VL</i>	<i>VL</i>			<i>M</i>	
Total - Category - C		14,988	2.2										
X - Other Materials	Rural	5,695	0.8										
	Urban	4,187	0.6										
	Total	9,882	1.4					<i>VL</i>	<i>VL</i>			<i>M</i>	
Total - Category - X		9,882	1.5										
TOTAL HOUSES*		677,483											

ROOF													
R1 - Light Weight Sloping Roof	Rural	86,406	12.8										
	Urban	100,272	14.8										
	Total	186,678	27.6					<i>L</i>	<i>VL</i>			<i>H</i>	
R2 - Heavy Weight Sloping Roof	Rural	244,805	36.1										
	Urban	42,473	6.3										
	Total	287,278	42.4					<i>L</i>	<i>VL</i>			<i>L</i>	
R3 - Flat Roof	Rural	63,751	9.4										
	Urban	139,776	20.6										
	Total	203,527	30.0					<i>Damage Risk as per that for the Wall supporting it</i>					
TOTAL HOUSES*		677,483											

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 662 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

