

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

Table No. : RJ 01

State : RAJASTHAN

GANGANAGAR

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 %				
						11.0	89.0		100			
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	180,218	36.0									
	Urban	13,936	2.8									
	Total	194,154	38.8			M	L		H			
A2 - Stone Wall not packed with mortar	Rural	1,160	0.2									
	Urban	1,088	0.2									
	Total	2,248	0.4			M	L		M			
Total - Category - A		196,402	39.2									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	171,390	34.2									
	Urban	126,349	25.2									
	Total	297,739	59.4			L	VL		M			
Total - Category - B		297,739	59.5									
C1 - Concrete Wall	Rural	242	-									
	Urban	394	0.1									
	Total	636	0.1			VL	VL		VL			
C2 - Wood wall	Rural	108	-									
	Urban	135	-									
	Total	243	-			VL	VL		H			
Total - Category - C		879	0.2									
X - Other Materials	Rural	4,297	0.9									
	Urban	1,360	0.3									
	Total	5,657	1.2			VL	VL		H			
Total - Category - X		5,657	1.1									
TOTAL HOUSES*		500,677										

ROOF												
R1 - Light Weight Sloping Roof	Rural	195,054	39.0									
	Urban	20,093	4.0									
	Total	215,147	43.0			L	VL		VH			
R2 - Heavy Weight Sloping Roof	Rural	4,453	0.9									
	Urban	4,975	1.0									
	Total	9,428	1.9			L	VL		M			
R3 - Flat Roof	Rural	157,908	31.5									
	Urban	118,194	23.6									
	Total	276,102	55.1	<i>Damage Risk as per that for the Wall supporting it</i>								
TOTAL HOUSES*		500,677										

Probable Maximum Precipitation at a Station of the district in 24 hrs is 280 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