

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

Table No. : HR 21

State : HARYANA

PALWAL

Wall / Roof		Census Houses		Level of Risk under										
		No. of Houses	%	EQ Zone				Wind Velocity m/s				Flood Prone Area in %		
				V	IV	III	II	55 & 50	47	44 & 39	33			
		Area in %				Area in %						53.6		
		100		100		100		100						
WALL														
A1 - Mud & Unburnt Brick Wall	Rural	9,715	4.2											
	Urban	2,074	0.9											
	Total	11,789	5.1		<i>H</i>				<i>H</i>			<i>VH</i>		
A2 - Stone Wall not packed with mortar	Rural	2,626	1.1											
	Urban	1,229	0.5											
	Total	3,855	1.6		<i>H</i>				<i>M</i>			<i>VH</i>		
Total - Category - A		15,644	6.8											
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	159,878	69.1											
	Urban	51,440	22.2											
	Total	211,318	91.3		<i>M</i>				<i>M</i>			<i>H/M</i>		
Total - Category - B		211,318	91.3											
C1 - Concrete Wall	Rural	458	0.2											
	Urban	879	0.4											
	Total	1,337	0.6		<i>L</i>				<i>VL</i>			<i>L/ VL</i>		
C2 - Wood wall	Rural	206	0.1											
	Urban	88	-											
	Total	294	0.1		<i>L</i>				<i>H</i>			<i>H</i>		
Total - Category - C		1,631	0.7											
X - Other Materials	Rural	2,367	1.0											
	Urban	542	0.2											
	Total	2,909	1.2		<i>VL</i>				<i>H</i>			<i>VH</i>		
Total - Category - X		2,909	1.3											
TOTAL HOUSES*		231,502												

ROOF												
R1 - Light Weight Sloping Roof	Rural	26,394	11.4									
	Urban	3,833	1.7									
	Total	30,227	13.1		<i>M</i>				<i>VH</i>			<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	126,934	54.8									
	Urban	34,709	15.0									
	Total	161,643	69.8		<i>M</i>				<i>M</i>			<i>H</i>
R3 - Flat Roof	Rural	21,922	9.5									
	Urban	17,710	7.7									
	Total	39,632	17.2		Damage Risk as per that for the Wall supporting it							
TOTAL HOUSES*		231,502										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 725 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