

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

Table No. : HR 12

State : HARYANA

HISAR

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													22.7
A1 - Mud & Unburnt Brick Wall	Rural	10,486	2.5										
	Urban	3,256	0.8										
	Total	13,742	3.3					<i>M</i>	<i>L</i>		<i>H</i>		<i>VH</i>
A2 - Stone Wall not packed with mortar	Rural	1,850	0.4										
	Urban	1,912	0.5										
	Total	3,762	0.9					<i>M</i>	<i>L</i>		<i>M</i>		<i>VH</i>
Total - Category - A		17,504	4.2										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	264,041	62.9										
	Urban	128,807	30.7										
	Total	392,848	93.6					<i>L</i>	<i>VL</i>		<i>M</i>		<i>H/M</i>
Total - Category - B		392,848	93.5										
C1 - Concrete Wall	Rural	2,926	0.7										
	Urban	3,880	0.9										
	Total	6,806	1.6					<i>VL</i>	<i>VL</i>		<i>VL</i>		<i>L/ VL</i>
C2 - Wood wall	Rural	100	-										
	Urban	89	-										
	Total	189	-					<i>VL</i>	<i>VL</i>		<i>H</i>		<i>H</i>
Total - Category - C		6,995	1.7										
X - Other Materials	Rural	1,732	0.4										
	Urban	928	0.2										
	Total	2,660	0.6					<i>VL</i>	<i>VL</i>		<i>H</i>		<i>VH</i>
Total - Category - X		2,660	0.6										
TOTAL HOUSES*		420,007											

ROOF													
R1 - Light Weight Sloping Roof	Rural	144,628	34.4										
	Urban	24,544	5.8										
	Total	169,172	40.2					<i>L</i>	<i>VL</i>		<i>VH</i>		<i>VH</i>
R2 - Heavy Weight Sloping Roof	Rural	35,277	8.4										
	Urban	11,488	2.7										
	Total	46,765	11.1					<i>L</i>	<i>VL</i>		<i>M</i>		<i>H</i>
R3 - Flat Roof	Rural	101,230	24.1										
	Urban	102,840	24.5										
	Total	204,070	48.6	Damage Risk as per that for the Wall supporting it									
TOTAL HOUSES*		420,007											

Probable Maximum Precipitation at a Station of the district in 24 hrs is 360 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