

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

**Table No. : UP 06**

**State : UTTAR PRADESH**

**JYOTIBA PHULE NAGAR**

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 %					
				100				100				27.4	
<b>WALL</b>													
<b>A1 - Mud &amp; Unburnt Brick Wall</b>	Rural	22,416	5.3										
	Urban	4,996	1.2										
	<b>Total</b>	<b>27,412</b>	<b>6.5</b>		<i>H</i>			<i>VH</i>				<i>VH</i>	
<b>A2 - Stone Wall not packed with mortar</b>	Rural	2,890	0.7										
	Urban	1,683	0.4										
	<b>Total</b>	<b>4,573</b>	<b>1.1</b>		<i>H</i>			<i>H</i>				<i>VH</i>	
<b>Total - Category - A</b>		<b>31,985</b>	<b>7.5</b>										
<b>B - Burnt Bricks Wall &amp; Stone wall packed with mortar</b>	Rural	286,344	67.1										
	Urban	95,084	22.3										
	<b>Total</b>	<b>381,428</b>	<b>89.4</b>		<i>M</i>			<i>H</i>				<i>H/M</i>	
<b>Total - Category - B</b>		<b>381,428</b>	<b>89.3</b>										
<b>C1 - Concrete Wall</b>	Rural	677	0.2										
	Urban	546	0.1										
	<b>Total</b>	<b>1,223</b>	<b>0.3</b>		<i>L</i>			<i>L</i>				<i>L/VL</i>	
<b>C2 - Wood wall</b>	Rural	345	0.1										
	Urban	159	-										
	<b>Total</b>	<b>504</b>	<b>0.1</b>		<i>L</i>			<i>VH</i>				<i>H</i>	
<b>Total - Category - C</b>		<b>1,727</b>	<b>0.4</b>										
<b>X - Other Materials</b>	Rural	10,061	2.4										
	Urban	1,756	0.4										
	<b>Total</b>	<b>11,817</b>	<b>2.8</b>		<i>VL</i>			<i>VH</i>				<i>VH</i>	
<b>Total - Category - X</b>		<b>11,817</b>	<b>2.8</b>										
<b>TOTAL HOUSES*</b>		<b>426,957</b>											

<b>ROOF</b>												
<b>R1 - Light Weight Sloping Roof</b>	Rural	104,976	24.6									
	Urban	17,867	4.2									
	<b>Total</b>	<b>122,843</b>	<b>28.8</b>		<i>M</i>			<i>VH</i>				<i>VH</i>
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	69,492	16.3									
	Urban	13,142	3.1									
	<b>Total</b>	<b>82,634</b>	<b>19.4</b>		<i>M</i>			<i>H</i>				<i>H</i>
<b>R3 - Flat Roof</b>	Rural	148,265	34.7									
	Urban	73,215	17.1									
	<b>Total</b>	<b>221,480</b>	<b>51.8</b>	<i>Damage Risk as per that for the Wall supporting it</i>								
<b>TOTAL HOUSES*</b>		<b>426,957</b>										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 533 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