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

Table No. : HP 08　　　　**State : HIMACHAL PRADESH**　　　　**BILASPUR**

Wall / Roof		Census Houses - No. of Houses	Census Houses - %	EQ Zone V	EQ Zone IV	EQ Zone III	EQ Zone II	Wind 55 & 50	Wind 47	Wind 44 & 39	Wind 33	Flood Prone Area in %
						Area in %				Area in %		
				48.9	51.1					100		
WALL												
A1 - Mud &	Rural	32,275	21.8									
Unburnt Brick Wall	Urban	470	0.3									
	Total	**32,745**	**22.1**	VH	H					M		
A2 - Stone Wall	Rural	8,841	6.0									
not packed with mortar	Urban	93	0.1									
	Total	**8,934**	**6.1**	VH	H					L		
Total - Category - A		**41,679**	**28.1**									
B - Burnt Bricks Wall	Rural	94,235	63.6									
& Stone wall packed	Urban	8,776	5.9									
with mortar	*Total*	**103,011**	**69.5**	H	M					L		
Total - Category - B		**103,011**	**69.5**									
C1 - Concrete Wall	Rural	680	0.5									
	Urban	296	0.2									
	Total	**976**	**0.7**	M	L					VL		
C2 - Wood wall	Rural	371	0.3									
	Urban	112	0.1									
	Total	**483**	**0.4**	M	L					M		
Total - Category - C		**1,459**	**1.0**									
X - Other Materials	Rural	1,720	1.2									
	Urban	248	0.2									
	Total	**1,968**	**1.4**	M	VL					M		
Total - Category - X		**1,968**	**1.3**									
TOTAL HOUSES*		**148,117**										
ROOF												
R1 - Light Weight	Rural	21,095	14.2									
Sloping Roof	Urban	876	0.6									
	Total	**21,971**	**14.8**	M	M					H		
R2 - Heavy Weight	Rural	56,031	37.8									
Sloping Roof	Urban	804	0.5									
	Total	**56,835**	**38.3**	H	M					L		
R3 - Flat Roof	Rural	60,996	41.2									
	Urban	8,315	5.6									
	Total	**69,311**	**46.8**	*Damage Risk as per that for the Wall supporting it*								
TOTAL HOUSES*		**148,117**										

Probable Maximum Precipitation at a Station of the district in 24 hrs is　520 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 chocked 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