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

SIKKIM

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 %					
STATE - SIKKIM					100				100				
WALL													
A1 - Mud &	Rural	13,159	8.7										
Unburnt Brick Wall	Urban	1,467	1.0										
	Total	**14,626**	**9.7**		H				H				
A2 - Stone Wall	Rural	6,463	4.3										
not packed with mortar	Urban	548	0.4										
	Total	**7,011**	**4.7**		H				M				
Total - Category - A		**21,637**	**14.3**										
B - Burnt Bricks Wall	Rural	16,400	10.8										
& Stone wall packed	Urban	29,013	19.1										
with mortar	*Total*	**45,413**	**29.9**		M				M				
Total - Category - B		**45,413**	**29.9**										
C1 - Concrete Wall	Rural	13,573	8.9										
	Urban	9,600	6.3										
	Total	**23,173**	**15.2**		L				VL				
C2 - Wood wall	Rural	31,852	21.0										
	Urban	3,044	2.0										
	Total	**34,896**	**23.0**		L				H				
Total - Category - C		**58,069**	**38.3**										
X - Other Materials	Rural	23,554	15.5										
	Urban	3,099	2.0										
	Total	**26,653**	**17.5**		VL				H				
Total - Category - X		**26,653**	**17.6**										
TOTAL HOUSES*		**151,772**											
ROOF													
R1 - Light Weight Sloping Roof	Rural	90,727	59.8										
	Urban	18,803	12.4										
	Total	**109,530**	**72.2**		M				VH				
R2 - Heavy Weight Sloping Roof	Rural	1,434	0.9										
	Urban	824	0.5										
	Total	**2,258**	**1.4**		M				M				
R3 - Flat Roof	Rural	12,840	8.5										
	Urban	27,144	17.9										
	Total	**39,984**	**26.4**	*Damage Risk as per that for the Wall supporting it*									
TOTAL HOUSES*		**151,772**											

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