

## **Chapter 1 HOUSING**

### **1.1 HOUSEHOLDS AND BUILDINGS/STRUCTURES**

#### **HOUSEHOLDS**

The concept of the modern household in the 1998 General Population Census of Cambodia(GPCC 1998), in the CIPS 2004 and the 2008 General Population Census of Cambodia(GPCC 2008) refers to a group of persons who commonly live together and take meals from a common kitchen unless the exigencies of work prevent any of them from doing so. They may be a household of persons related by blood or a household of unrelated persons or having a mix of both. Examples of unrelated households include boarding houses, hotels, residential hotels, rescue homes, jails and pagodas. There are called institutional households.

#### **BUILDINGS/STRUCTURES**

Building refers generally to a single structure on the ground. Sometimes it is made up of more than one component unit which are used or likely to be used as dwelling (residence) or establishments such as shops, business houses, offices, factories, workshops, work sheds, schools, place of entertainments, place of worship, stores, etc. It is also possible that buildings, which have components units, may be used for a combination of purpose such as shop-cum-residence, workshop-cum-residence, office-cum-residence, etc.

##### **1.1.1 Type of Households**

The GPCC 2008 calculated a total 2.84 million households in 2008 compared to 2.19 million recorded in the GPCC 1998. This shows that the annual growth rate of households in Cambodia is 2.65 percent on average during 1998-2008. The majority households are the regular or normal households. During 1998-2008 these household registered 2.68 percent of annual growth rate on average. In 2008, 99.15 percent of total households are regular or normal households, it is 0.3 percentage points greater than in 1998 (Table 1.1). 'Housing and Household Amenities' described in this report is related to 'Normal Households'.

The institutional households occupied the second position far from the normal households in absolute number and percentage. These households registered annually an increase of 3.58 percent during the decade.

The homeless population is those who do not live in dwelling but reside on the pavements, in park and in open spaces outside pagodas or market. During the decade of 1998-2008 the homeless population was estimated an annual decline drastically of more than 15 percent. They are occupied the least position in 2008 and recorded a small percentage of 0.02. In 1998 these people could be seen easily in the urban areas, but today, they are rarely seen.

The Boat Population refers to persons living or conducting business from a boat that is on the move and therefore not registered with any local authority. In 1998 and 2008, special arrangement was made to try to

enumerate them as accurately as possible. Because the actual population living on boat at a fixed location are generally registered with the local authority and are therefore considered as regular or normal population. They occupied the least position of 0.02 percent in 2008 and recorded the annual decline of around 18 percent.

The transient population includes those people who stayed in airports, railway station, bus stands, harbours, ferries and in carts (such as travelers selling pots and clay products) , camped in village, stay on boats within the Cambodian territorial waters and stayed at international border posts during the night of the census. During the decade of 1998-2008, the transient population recorded an annual decline of approximately 8 percent. And it occupied 0.05 percent to total households and took the third position following the institutional households.

The proportion of households living in urban areas has increased slightly.

**Table 1.1. Distribution of Households by Type of Household: Urban/Rural, 1998 and 2008**

Type of Household	Number of Households						Average Annual Growth Rate* (%) (Cambodia Total)
	1998			2008			
	Total	Urban	Rural	Total	Urban	Rural	
<b>Cambodia Total</b>	2,188,663	374,395	1,814,268	2,841,897	521,710	2,320,187	2.65
Normal or Regular Households	2,162,086	364,581	1,797,505	2,817,637	506,579	2,311,058	2.68
Institutional Households	15,187	6,438	8,749	21,588	14,219	7,369	3.58
Homeless Households	3,741	1,202	2,539	658	276	382	-15.95
Boat Households	4,360	1,659	2,701	594	96	498	-18.07
Transient People	3,289	515	2,774	1,420	540	880	-8.06
	Percentage						
	1998			2008			
	Total	Urban	Rural	Total	Urban	Rural	
<b>Cambodia Total</b>	100.00	17.11	82.89	100.00	18.36	81.64	
Normal or Regular Households	98.79	16.66	82.13	99.15	17.83	81.32	
Institutional Households	0.69	0.29	0.40	0.76	0.50	0.26	
Homeless Households	0.17	0.05	0.12	0.02	0.01	0.01	
Boat Households	0.20	0.08	0.12	0.02	0.00	0.02	
Transient People	0.15	0.02	0.13	0.05	0.02	0.03	

\* Average Annual Growth Rate =  $(\sqrt[n]{P_{2008} / P_{1998}} - 1) * 100$

$n = 10$ ,  $P_{2008}$  = Total Number of Households in 2008,  $P_{1998}$  = Total Number of Households in 1998

Note: In case of Homeless and Transient Population, the Number of Households is only indicative, as, in certain cases, these populations may have been enumerated in groups.

### 1.1.2 Buildings/Structures with Households

This report describes the building/structures in which 'Normal Households' reside. Table 1.2 shows the basic number for the following analysis.

Kep province has the smallest percentage of 0.26 of buildings/structures with households in 2008 to the total of buildings in the country followed by Mondul Kiri province with 0.4, preceding Pailin province, with 0.5 Percent. In 1998 Kep had the same percentage of 0.3 percent in total, urban and rural. In 2008 Kep urban has 0.2 percent of buildings/structures with households and in rural is of 0.3 percent. In 2008, Kampong Cham continues to be the biggest province in terms of buildings/structures with households (13.0 percent). Kandal province (9.0 percent) and Phnom Penh (8.1 percent) are following.

In the distribution of urban areas, more than 40 percent of urban households concentrate in Phnom Penh. Banteay Meanchey, Kandal and Battambang occupies above 7 percent respectively. In rural areas, Kampong Cham province shows the biggest percentage of 14.7. During the decade of 1998-2008 Kampong Cham recorded a same decline of 1.4 percentage points in total and urban areas and presented a decline of 1.1 percentage points in rural areas.

**Table 1.2 Distribution of Buildings/Structures with Households by Provinces: Urban/Rural, 1998 and 2008**

Province	Percentage					
	1998			2008		
	Total	Urban	Rural	Total	Urban	Rural
<b>Cambodia Total</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b>Province</b>						
Banteay Meanchey	5.2	8.0	4.7	5.1	7.7	4.6
Battambang	6.8	9.9	6.2	7.5	7.5	7.5
Kampong Cham	14.4	6.6	15.8	13.0	5.2	14.7
Kampong Chhnang	3.9	2.2	4.2	3.7	1.7	4.1
Kampong Speu	5.6	2.7	6.1	5.4	2.3	6.1
Kampong Thom	5.1	1.8	5.6	4.9	1.4	5.6
Kampot	5.1	2.6	5.5	4.8	2.1	5.4
Kandal	9.4	7.8	9.6	9.0	7.6	9.3
Koh Kong	1.0	2.3	0.8	0.9	1.6	0.7
Kratie	2.2	1.9	2.3	2.3	1.6	2.4
Mondul Kiri	0.3	0.2	0.3	0.4	0.2	0.4
Phnom Penh	5.9	36.4	0.5	8.1	44.0	0.7
Preah Vihear	1.0	0.4	1.1	1.2	0.4	1.4
Prey Veng	9.1	2.1	10.3	8.1	1.5	9.4
Pursat	3.2	1.6	3.5	3.0	1.1	3.4
Ratanak Kiri	0.6	0.6	0.6	0.9	0.7	0.9
Siemreap	6.0	5.4	6.1	6.4	6.2	6.4
Preah Sihanouk	1.4	3.4	1.1	1.6	3.6	1.1
Stung Treng	0.7	0.8	0.7	0.7	0.7	0.7
Svay Rieng	4.7	1.0	5.3	4.1	0.8	4.8
Takeo	7.5	0.8	8.6	6.7	0.6	8.0
Oddar Meanchey	0.6	0.6	0.6	1.4	0.8	1.5
Kep	0.3	0.3	0.3	0.3	0.2	0.3
Pailin	0.2	0.4	0.2	0.5	0.7	0.5

## 1.2 RESIDENTIAL AND PARTLY RESIDENTIAL BUILDINGS

According to the classification by type of uses, the Buildings/Structures with Households, or the Buildings/Structures where household(s) resides are treated as wholly Residential and Partly Residential Buildings. The formers are predominant in numbers and percentages in the GPCC 1998 and 2008 (see Table 1.3 and Figure 1.1). During the decade of 1998-2008, the wholly residential buildings have increased 2.72 percent annually. In the decade, the number of the wholly residential buildings with households has increased but the proportion of those buildings has decreased. This reduction has been brought by the increase of the Partly Residential buildings. The proportion of Partly Residential buildings has increased slightly but the number of those buildings has increased 6.62 percent annually, as the result, it has nearly doubled in the decade.

Figure 1.1 Numbers of Buildings/Structures with Households by Type of Use: Urban/Rural, 2008

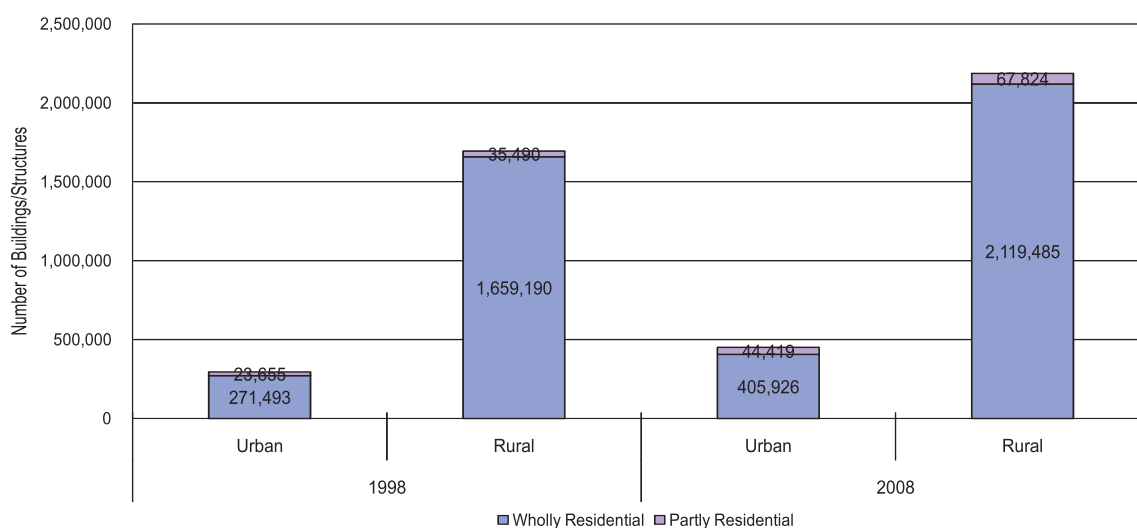


Table 1.3 Buildings/Structures with Households by Type of Use: Urban/Rural, 1998 and 2008

Type of Use	Number of Buildings/Structures with Households						Average Annual Growth Rate* (%)		
	1998			2008			Total	Urban	Rural
	Total	Urban	Rural	Total	Urban	Rural			
<b>Cambodia Total</b>	1,989,828	295,148	1,694,680	2,637,654	450,345	2,187,309	2.86	4.32	2.58
Wholly Residential	1,930,683	271,493	1,659,190	2,525,411	405,926	2,119,485	2.72	4.10	2.48
Partly Residential	59,145	23,655	35,490	112,243	44,419	67,824	6.62	6.50	6.69
Residence and shop	42,055	17,579	24,476	82,743	33,096	49,647	7.00	6.53	7.33
Residence and Workshop	10,760	3,447	7,313	17,981	6,017	11,964	5.27	5.73	5.05
Residence and any other establishment	6,330	2,629	3,701	11,519	5,306	6,213	6.17	7.27	5.32
	Percentage								
	1998			2008					
	Total	Urban	Rural	Total	Urban	Rural			
<b>Cambodia Total</b>	100.0	14.8	85.2	100.0	17.1	82.9			
Wholly Residential	97.0	13.6	83.4	95.7	15.4	80.4			
Partly Residential	3.0	1.2	1.8	4.3	1.7	2.6			
Residence and shop	2.1	0.9	1.2	3.1	1.3	1.9			
Residence and Workshop	0.5	0.2	0.4	0.7	0.2	0.5			
Residence and any other establishment	0.3	0.1	0.2	0.4	0.2	0.2			

\* Average Annual Growth Rate =  $(\sqrt[n]{P_{2008} / P_{1998}} - 1) * 100$

$n = 10$ ,  $P_{2008}$  = Total Number of Buildings in 2008,  $P_{1998}$  = Total Number of Buildings in 1998

The Partly Residential buildings consist of shop-cum-residence, workshop-cum-residence, office-cum-residence, etc. The front part of the shop-cum-residence facing the road is used as a shop, and the back part of the building is used for performing a household's life. This pattern can be seen in urban and rural areas. The workshop-cum-residence is a little bit different from the former. The workshop can be in any part of the building and the bedroom can be generally in the middle of the workshop. The office part in majority of the office-cum-residence occupies more spaces than the others according to its importance and utility. Table 1.3 shows that the percentages of these three categories of the partly residential buildings in 2008 exceed that of 1998 due to the development of Cambodian economy and the changes in living standards of Cambodian population.

### 1.3 MATERIALS OF BUILDINGS/STRUCTURES OCCUPIED BY HOUSEHOLDS

The quality of housing is mainly determined by materials used for the construction of the buildings. A building consists of three main components of roof, wall and floor. At first we review the materials of each component and then some combinations of those components.

#### 1.3.1 Materials of Roof

The GPCC 1998 and 2008 classified the materials of Roof to Hard/Permanent and Soft/Temporary. Roofs made of any of the following materials are considered as permanent: Tiles, Wood/ Plywood, Concrete/ Brick/ Stone, Galvanized Iron/ Aluminum/ Other metal sheets and Asbestos Cement sheets. Roofs made of Bamboo/ Thatch/ Grass or Plastic/ Synthetic Sheet are considered as temporary. Other materials of Roof which are not mentioned above and should have been specified during the census operation are generally considered as Soft/Temporary.

Table 1.4 and Figure 1.2 provide the distribution of the Roof Materials in spatial difference in Cambodia and time. The striped parts in Figure 1.2 indicates the materials of buildings/structures are 'non-Permanent'.

Figure 1.2 Predominant Roof Materials of Buildings/Structures with Households: Urban/Rural 1998 and 2008

