#### **CHAPTER I**

## INTRODUCTION

## 1. Background

The process of formulating a National Population Policy has been greatly advanced in Cambodia through the availability of population census data and other demographic information. At the same time, data from specialized surveys such as the Socio-economic Surveys, Demographic and Health Surveys, labour force surveys and migration studies have complemented the census data and helped build a body of essential statistics to guide the development process. The conduct of the Cambodia Inter-Censal Population Survey 2013 is an important step in the creation of a continuous flow of population data that will enable Cambodia prepare plans and programmes of development supported by a strong database.

The Cambodia Inter-Censal Population Survey 2013 (CIPS) was conducted in March 2013. The reference time for the survey was the midnight of March 3 (00 hours). This is the second Inter-Censal Population Survey to be conducted in Cambodia (CIPS 2013). The first one (CIPS 2004) was conducted in March 2004. The Inter-Censal Population Survey in March 2013 was planned to take place exactly in the middle of the two censuses held in 2008 and 2018. For the first time, the 2013 Inter-Censal Population Survey provides estimates up to the provincial level even in respect of small provinces. The target population set for CIPS2013 was the normal household population (regular households) of Cambodia. People living in institutions, such as hospitals, hostels, police barracks and prison as well as homeless populations were not covered in the survey. However, normal households residing within institutional settings were covered.

It is a nationally representative sample survey conducted for updating information on population size and growth, fertility, mortality, migration and other population characteristics as well as household facilities and amenities

## 2. Objectives of the Cambodia Inter-Censal Population Survey 2013 (CIPS)

The Cambodia Inter-Censal Population Survey 2013 was conducted with the objective of providing information on the following characteristics of the population: Population size and distribution; sex, age and marital status; fertility and mortality; migration status; disabled population; literacy and educational level; employment and unemployment; housing and household amenities; other population and household information.

These fresh data will enable calculation and reliable projections of:

- Population size and growth
- Fertility level
- Mortality level
- Volume of migration and related details

The survey was also intended to train the national staff in sampling, data collection, data processing, analysis and dissemination. The draft questionnaires for the CIPS 2013 were more or less on the 2008 General Census pattern. Some modifications, however, were made by adding new questions and amending some of the old questions. Two types of questionnaires were used in the CIPS 2013: Form A House-list and Form B Household Questionnaire (see Appendix I).

Form A was used to collect information on buildings containing one or more households during the preliminary round preceding the survey night (March 3, 2013). Form B which has five parts, was used for the survey enumeration in the period closely following the reference time.

# 3. Sampling

The sample design for the survey was a stratified two-stage sampling. The first stage units consisted of Enumeration Areas (EAs) as the Primary Sampling Units (PSUs) and the second stage units were the households. The total sample sizes adopted to make reliable estimates at provincial level were 955 EAs as Primary Sampling Units (PSUs) and 28,650 households as the Secondary Sampling Units (SSUs). An EA is compact unit within a village with about 90 to 100 households. The second stage of sampling was carried out by the supervisor prior to the start of the interviews in the EA. Thirty households were selected by systematic equal probability sampling from a list of households in the EA (or a segment of the EA in the cases where a large EA has been segmented and one segment has been selected randomly). The selected EAs were located in 924 villages.

The survey provides reliable estimates separately for urban and rural areas at the national level, but at provincial level it provides reliable estimates only for total population by sex. The sample fraction varied by stratum and data had to be weighted to correctly estimate population. The weights also served other purposes, such as helping to correct for non-response. Estimation is made for total population including institutional, homeless etc. population. A note on estimation procedure and sampling errors will be published in the final report.

## 4. Organization of the Survey

The first preliminary work for the survey was mapping that was carried out with technical assistance from Japan International Cooperation Agency (JICA). Trained NIS staffs were deputed to draw the sketch map of the village and detailed EA map.

The Director General of NIS served as the Director of CIPS 2013. The provincial planning directors of each of the 23 provinces and Phnom Penh Municipality served as coordinators in their respective areas. About a hundred NIS survey coordinators were drawn from different divisions of NIS and allotted to provinces at the rate of about eight to nine villages per person. They then acted as technical advisors to all survey staff and were responsible for technical aspects of the survey in the allotted province. Their foremost tasks were to train the supervisors and the enumerators, supervise the fieldwork and ensure proper distribution of CIPS materials and collection of completed records.

For every selected enumeration area, there was one enumerator and normally the work of three enumerators was monitored and supervised by one supervisor. Enumerators and supervisors were drawn from the cadre of teachers and other civil servants. Preferably those residing within or near the selected villages were appointed by the provincial directors. In all there were 955 enumerators and 318 supervisors busy in the field during early March 2013. The Senior Minister, Minister of Planning, and Secretaries, Under-Secretaries and other Directors of Departments also supervised the field activities.

A technical consultant appointed by UNFPA undertook a few short-term missions at appropriate stages to provide assistance in questionnaire design, training and overall guidance to the NIS, and to assist in the preparation of the tabulation plan and reports. A sampling consultant provided guidance on sampling, particularly on estimation procedure and computation of sampling errors. Data Processing consultant (DPC) in his short-term missions gave training to the staff in data processing and guided and supervised the processing of CIPS results.

## 5. Training of Field Staff

The 100 NIS Survey Coordinators (NIS SC) were first intensively trained at the NIS (November-December 2012) by senior officers on updating village/ EA maps, sampling, house-listing, interviewing households and filling-in household questionnaires, concepts and definitions adopted. The Province Directors(with their Deputy Directors) were trained on CIPS at NIS for one week in January 2013, since they were expected to be closely involved in organizing the survey and making field visits to ensure that the survey was proceeding on track. The training of appointed enumerators and supervisors on all aspects of the survey, especially questionnaires and concepts (including practice), was conducted at the Provincial Headquarters by NIS survey coordinators assisted by the Provincial Director/Deputy Director for six days(19 to 23 February, 2013).

#### 6. Collection of Data

For every selected EA, a field listing was organized in order to make a current and complete listing of households located within it. At the first step the enumerator would have to update sketch maps of villages and EA maps. Residential and partly residential buildings were numbered using sticker and marked on map by covering a prescribed path of travel in order to make sure that all buildings in which households resided were accounted for.

During the primary operation of the survey (lasting five days from 26 February to 2 March, 2013) building/structures wholly or partly used for residential purpose in selected EAs (955 in all) were listed in the House List called Form A. After the listing operation was completed in an EA, a fixed sample size of 30 households was selected from the house list by the respective supervisor. This selection was carried out systematically by computing interval in each EA and choosing the random start, by using linear sampling. It was closely supervised by NIS survey coordinators to ensure correctness in the selection process.

During the main phase of the survey, the Household Questionnaire called Form B (Appendix I) was completed by the enumerator in each of the 30 sample households selected in his/her EA. Overall, the supervisory teams found that respondents were willingly answering the survey questions.

## 7. Data Processing

The completed records ( Form A , Form B, Form I, Form II, Map, and other Forms) were systematically collected from the provinces by NIS Survey Coordinators on the due dates and submitted to the team receptionist at NIS. Training on editing and coding of filled-in schedules was conducted for senior staff, who in turn trained other editors and coders. The purpose of the editing process was to remove matters of obvious inconsistency, incorrectness and incompleteness, and to improve the quality of data collected.

In order to capture the data recorded on Form A (House List), Form B (Household Questionnaire) and Form 2 (Enumerator's Summary), three separate data entry applications using CSPro software package were made. CSPro package was used for tabulation as well. The data entry section consisted of 14 keyboard operators working under two supervisors. They were thoroughly trained on data entry procedures and the CSPro data entry software in the third week of March 2013.

#### 8. The Present Publication

At the first instance a quick tabulation of population totals based on Enumerators Summary was made. This was checked again with reference to the results from the processing of Form B Household Questionnaire. This report presents the population totals, with a brief analysis, in respect of Cambodia and its Provinces so as to provide advanced information about the latest estimate of the size of population at the national and sub-national levels. It will be followed by a general report touching the different aspects of the country's population and in-depth analytical reports by topic. It

has been planned to bring out most of these reports in stages this year itself, starting from October 2013. Until then the results contained in this report could be used for immediate purpose of planning and administration. The various estimates presented in this report are derived from a sample of the surveyed population. As in any survey, these estimates are subject to both sampling and non-sampling errors

#### **CHAPTER II**

#### **ANALYSIS OF THE PRELIMINARY RESULTS OF CIPS 2013**

## 1. Estimated Population

Provisional Tables 1 and 2 presented below contain the provisional population totals of Cambodia and its provinces as revealed by CIPS 2013. These two tables form the basis for analysis in the present report. As on 3 March 2013(the reference date of CIPS 2013), population of Cambodia is estimated to be 14.68 million (Provisional Table 1).

CIPS 2013- Provisional Table 1- Number of Households and Population by Sex, Cambodia-Total, Urban and Rural

Cambodia	Number of		Population				
	Households	Both Sexes	Males	Females	Household Size		
Total	3,163,226	14,676,591	7,121,508	7,555,083	94.3	4.6	
Urban	657,951	3,146,212	1,527,479	1,618,734	94.4	4.8	
Rural	2,505,275	11,530,378	5,594,029	5,936,349	94.2	4.6	

Note: Total may not tally to the last digit in some cases due to rounding off

CIPS 2013-Provisional Table 2- Number of Households and Population by Sex, Cambodia and Provinces- Total

Cambodia/	Number		Population			
Province	of House- holds	Both Sexes	Males	Females	Sex Ratio	Household Size
Cambodia	3,163,226	14,676,591	7,121,508	7,555,083	94.3	4.6
Provinces						
Banteay Meanchey	161,423	729,569	354,604	374,965	94.6	4.5
Battambang	230,304	1,121,019	557,164	563,855	98.8	4.9
Kampong Cham	403,628	1,757,223	836,965	920,258	90.9	4.4
Kampong Chhnang	111,355	523,202	250,548	272,654	91.9	4.7
Kampong Speu	157,982	755,465	363,337	392,128	92.7	4.8
Kampong Thom	149,404	690,414	333,979	356,434	93.7	4.6
Kampot	136,148	611,557	303,709	307,849	98.7	4.5
Kandal	238,435	1,115,965	538,040	577,924	93.1	4.7
Koh Kong	25,658	122,263	61,319	60,944	100.6	4.8
Kratie	73,050	344,195	167,425	176,770	94.7	4.7
Mondul Kiri	15,251	72,680	37,098	35,582	104.3	4.8
Phnom Penh	352,702	1,688,044	816,145	871,900	93.6	4.8
Preah Vihear	48,242	235,370	116,737	118,633	98.4	4.9
Prey Veng	255,960	1,156,739	557,793	598,946	93.1	4.5
Pursat	96,284	435,596	208,292	227,305	91.6	4.5
Ratanak Kiri	36,178	183,699	91,265	92,434	98.7	5.1
Siem Reap	189,708	922,982	447,089	475,893	93.9	4.9
Preah Sihanouk	51,955	250,180	123,007	127,173	96.7	4.8
Stung Treng	25,359	122,791	62,149	60,641	102.5	4.8
Svay Rieng	130,972	578,380	286,073	292,307	97.9	4.4
Takeo	200,099	923,373	440,805	482,568	91.3	4.6
Otdar Meanchey	50,266	231,390	116,090	115,299	100.7	4.6
Кер	8,378	38,701	19,016	19,685	96.6	4.6
Pailin	14,483	65,795	32,859	32,936	99.8	4.5

Note: Total may not tally to the last digit in some cases due to rounding off

**Banteay Meanchey** Battambang Kampong Cham Kampong Chhnang Kampong Speu Kampong Thom Kampot Kandal Koh Kong Kratie Mondul Kiri Phnom Penh Preah Vihear /2 1,156,739 Prey Veng Pursat Ratanak Kiri Siem Reap Preah Sihanouk Population 2008 Stung Treng Population 2013 Svay Rieng Takeo Otdar Meanchey Pailin 500,000 1,000,000 1,500,000 2,000,000

Figure 1. Population of Cambodia and Provinces 2008 and 2013

# 2. Population Trends in Cambodia

Population of Cambodia was 5.7 million according to the 1962 Census which was the first official census conducted after the country attained independence from the French rule. Cambodia's demographic scenario had changed completely after that census due to war and unrest.

No census could be organized until 1998, and there were no systematic national surveys until 1993-94. However, the population changes during the 1970s were examined in detail by several demographers and scholars who made different population estimates, and the Government of the People's Republic of Kampuchea carried out population counts in 1979 and 1980(Statement 2.1).

There was no further confirmed information about Cambodia's population until 1992. The United Nations Transitional Authority in Cambodia (UNTAC) registered 4.28 million voters aged 20 and

over. The Socio-Economic Survey of Cambodia conducted by the NIS in April 1994 estimated the country's population as 9.87 million. The NIS carried out the Demographic Survey in March 1996 covering 20,000 households and estimated the population as 10.7 million.

This remained as the only source of population until the 1998 census conducted in March 1998. Cambodia's population according to the Census was 11.4 million in 1998. This had increased by about 1.96 million during the decade 1998-2008 reaching the figure of 13.40 million. During 2008-2013 the country's population is estimated to have increased to 14.68 million.

Statement 2.1 Population of Cambodia according to different sources

Statement 2.1 Pop		Population	Tung to uni		
Source	<b>Both Sexes</b>	Males	Females	Remarks	
(1)	(2)	(3)	(4)	(5)	
1962 census	5,728,771	2,862,939	2,865,832	Reference time of census was the night on April 17-18, 1962.	
1980 General Demographic Survey	6,589,954	3,049,450	3,540,504	With reference to the end of 1980.	
1993-94 Socio- Economic Survey of Cambodia	9,870,000	4,714,000	5,156,000	Extrapolated population with reference to April 1994 based on a sample of 5,578 households.	
1996 Demographic Survey of Cambodia	10,702,329	5,119,587	5,582,742	Extrapolated population with reference to March 20, 1996 based on a sample of 20,000 households.	
1998 Census	11,437,656	5,511,408	5,926,248	With reference to March 3, 1998. Did not include a few areas where conflict took place at the time of the census. Population in these omitted areas was estimated at 45,000.	
2004 Cambodia Inter-censal Population Survey (CIPS)	12,824,000	6,197,000	6,627,000	Estimate of population in regular households as of March 3, 2004.	
2008 Census	13,395,682	6,516,054	6,879,628	Reference date: March 3, 2008. Includes estimate for non-response in respect of some households.	
2013 Cambodia Inter-Censal Population Survey (CIPS)	14,676,591	7,121,508	7,555,083	Estimate of population as of March 3, 2013.	

16.00 14.68 13.40 12.82 14.00 Population (in millions) 11.44 12.00 10.70 9.87 10.00 8.00 6.59 5.73 6.00 4.00 2.00 0.00 1996 1962 1980 1994 1998 2004 2008 2013 Year

Figure 2.Trends of Population in Cambodia Over the Year

Sources: 1962 census,1980 General Demographic Survey, 1993-94 Socio-Economic Survey of Cambodia, 1996
Demographic Survey of Cambodia 1998 census, 2004 Cambodia Inter-Censal Population Survey(CIPS),
2008 Census, 2013 Cambodia Inter-Censal Population Survey(CIPS)

# 3. Population Distribution in Provinces

Provisional Table 2 given earlier provides the population by Province as per CIPS 2013. Statement 2.2 gives the rank of each Province on the basis of population proportion for the previous two census years and according to CIPS 2013.

Province	Percenta	age of Pop	oulation	Rank in			
Trovince	1998	2008	2013	1998	2008	2013	
Kampong Cham	14.07	12.54	11.97	1	1	1	
Phnom Penh	8.74	9.91	11.5	3	2	2	
Prey Veng	8.27	7.07	7.88	4	5	3	
Battambang	6.93	7.65	7.64	5	4	4	
Kandal	9.4	9.45	7.6	2	3	5	
Takeo	6.91	6.31	6.29	6	7	6	
Siem Reap	6.09	6.69	6.29	7	6	7	
Kampong Speu	5.24	5.35	5.15	8	8	8	
Bantey Meanchey	5.05	5.06	4.97	9	9	9	
Kampong Thom	4.98	4.71	4.7	10	10	10	
Kampot	4.62	4.37	4.17	11	11	11	
Svay Rieng	4.18	3.6	3.94	12	12	12	
Kampong Chhnang	3.65	3.53	3.56	13	13	13	
Pursat	3.15	2.96	2.97	14	14	14	
Kratie	2.3	2.38	2.35	15	15	15	
Preah Sihanouk	1.5	1.65	1.7	16	16	16	
Preah Vihear	1.04	1.28	1.6	17	18	17	
Otdar Meanchey	0.6	1.39	1.58	21	17	18	
Ratanak Kiri	0.82	1.12	1.25	19	19	19	
Stung Treng	0.71	0.83	0.84	20	21	20	
Koh Kong	1.01	0.88	0.83	18	20	21	
Mondul Kiri	0.28	0.46	0.5	22	23	22	
Pailin	0.2	0.53	0.45	24	22	23	
Кер	0.25	0.27	0.26	23	24	24	

Kampong Cham and Phnom Penh have maintained the first and second rank respectively in 2008 and 2013. Kep continues to be the last province in terms of population size. The change in population size of each province during 2008-2013 would be analysed in the main report with reference to fertility, mortality and migration data that would be available on completion of CIPS 2013 tabulation

## 4. Urban-Rural Distribution of Population

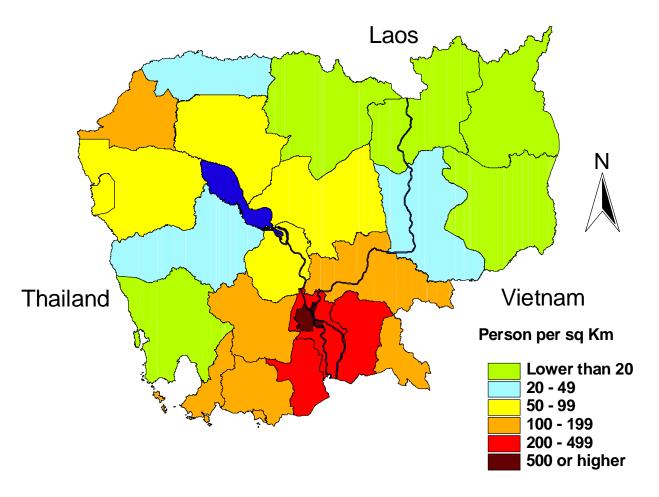
Based on Provisional Table 1 given earlier in this chapter, urban population in Cambodia constitutes 21.44 % of total population in 2013. The percentages of urban population were 18.32 in 1998 and 19.51 % in 2008. There is, therefore, an increasing trend in urbanization in Cambodia over the years.

# **5. Population Density**

The population density of Cambodia in 2013 is estimated to be 82 per square kilometre. It has increased by 7 points from the population density of 75 as per 2008 Census. However it continues to be much less than 126 for South East Asia.

Among the natural regions, the Plains Region which forms part of nearly 50 % of the country accounts for the highest population density of 288. As is to be expected, the plateau and mountain region forming part of about 7 % of the country's area has the lowest density of 25.

**Map2. Density of Population in Provinces** 



## 6. Population Growth Rate

According to CIPS 2013, the estimated provisional population of Cambodia is 14.68 million. The official population projections for Cambodia as of 1 July 2013, is 14.96 million. By interpolation, as of 3 March 2013, the projected population would be in the order of 14.89 million. Hence in terms of absolute figures the CIPS 2013 estimated population (14.68 million) is less than the projected population (14.89 million) by about 0.21 million or about 1.4 %.

The population of Cambodia as on 3 March 2008 was 13.40 million as per the 2008 General Population Census of Cambodia. Comparing with this, the CIPS 2013 estimate of population of 14.68 million, the annual growth rate of population during 2008-2013 works out to 1.83 %. However, as was done during the projection exercise, this has to be viewed in the light of under enumeration in the 2008 Census which is officially estimated as 2.77 % from the Post Enumeration Survey (PES). Adjusting for this under enumeration in the 2008 Census, the base population in 2008 is given by 13.77 million. Based on this population the growth rate of population as per CIPS 2013 during 2008-2013 is calculated as 1.28 %.

Another way of looking at the population growth rate is by comparing with the estimated population from CIPS 2004 (13.09 million). If this is done the annual growth rate during the nine years 2004-2013 works out to 1.27 %. Considering all the aspects, the growth rate of population in Cambodia during 2008-2013 may be the average of the three estimates (1.83 %, 1.28 % and 1.27 %), namely 1.46 %.

The population growth rate at national level was projected as 1.54 % in 2013 which is slightly higher than 1.46 % arrived at as population growth rate during 2008-2013 by the CIPS 2013

estimate. The relatively small difference between the projections and CIPS 2013 estimate may be accounted for by the fact that two different methodologies were adopted in projections and sample survey estimations. Projections are based on several assumptions pertaining to fertility, mortality and migration. Any sample survey is subject to sampling and non-sampling errors.

The marginal difference may not, therefore, be considered significant. However, based on (i) the final results of CIPS 2013 on fertility and mortality levels and (ii) the analysis of the results of CDHS 2014, the population projections may perhaps be reviewed.

The annual exponential growth rate of the population of Cambodia is higher than that of Southeast Asia as a whole (1.1 %) as per ESCAP Population Data Sheet of 2012. Cambodia's population has increased at a rate very much higher than that of Thailand (0.5 %) and marginally higher than the growth rate of Viet Nam (1.0 %) and marginally lower than the growth rate of Lao PDR (1.7 %).

As regards growth rate of population at province levels (Statement 2.3), an in-depth analysis would be made to estimate the precise growth rate in respect of each province with reference to final figures as mentioned in Paragraph 3

Statement 2.3 Growth Rate of Population by Province during 1998-2008 and 2008-2013, Cambodia-Total

	]	Population in	1	Annual Growth Rate during		
Cambodia/Province	1998	2008	2013	1998-2008	2008-2013	
(1)	(2)	(3)	(4)	(5)	(6)	
Cambodia	11,437,656	13,395,682	14,676,591	1.54	1.83*	
Banteay Meanchey	577,772	677,872	729,569	1.56	1.47	
Battambang	793,129	1,025,174	1,121,019	2.28	1.79	
Kampong Cham	1,608,914	1,679,992	1,757,223	0.43	0.90	
Kampong Chhnang	417,693	472,341	523,202	1.22	2.05	
Kampong Speu	598,882	716,944	755,465	1.79	1.05	
Kampong Thom	569,060	631,409	690,414	1.03	1.79	
Kampot	528,405	585,850	611,557	1.03	0.86	
Kandal	1,075,125	1,091,170	1,115,965	1.62	0.45	
Koh Kong	116,061	117,481	122,263	0.12	0.80	
Kratie	263,175	319,217	344,195	1.93	1.51	
Mondul Kiri	32,407	61,107	72,680	6.34	3.47	
Phnom Penh	999,804	1,501,725	1,688,044	2.83	2.34	
Preah Vihear	119,261	171,139	235,370	3.61	6.37	
Prey Veng	926,042	947,372	1,156,739	0.01	3.99	
Pursat	360,445	397,161	435,596	0.69	1.85	
Ratanak Kiri	94,243	150,466	183,699	4.67	3.99	
Siem Reap	696,164	896,443	922,982	2.52	0.58	
Preah Sihanouk	171,735	221,396	250,180	2.54	2.44	
Stung Treng	81,074	111,671	122,791	3.20	1.90	
Svay Rieng	478,252	482,788	578,380	0.09	3.61	
Takeo	790,168	844,906	923,373	0.66	1.78	
Otdar Meanchey	68,279	185,819	231,390	8.64	4.39	
Kep	28,660	35,753	38,701	2.21	1.58	
Pailin	22,906	70,486	65,795	11.24	-1.38	

<sup>(1)\*</sup> Please see explanation in Paragraph 6 on population growth rate..

<sup>(2)</sup> The annual exponential growth rate for 1998-2008 is worked out after adding to 1998 rural population, the estimated population in areas (wholly rural) where the 1998 Census could not be conducted due to conflict (3) Figures in Columns 2,3 and 5 in respect of Koh Kong and Preah Sihanouk provinces are based on the New Frame that emerged after the Sub-Decree changes. (4) After the 2008 Census, 20 communes with a population of 410,555 were transferred from Kandal Province to Phnom Municipality. The growth rates in column 6 above for these two areas have been worked out taking this fact into account.

Figure 3.1 Distribution of Population (Percentage) of Plain Region by Province, 2008 and 2013

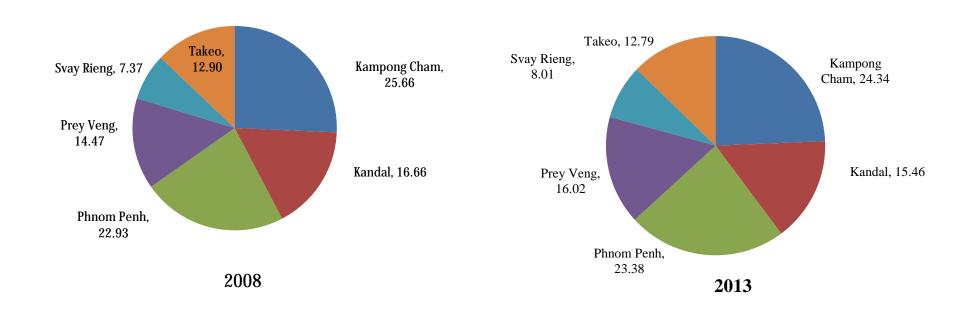


Figure 3.2 Distribution of Population (Percentage) of Tonle Sap Region by Province, 2008 and 2013

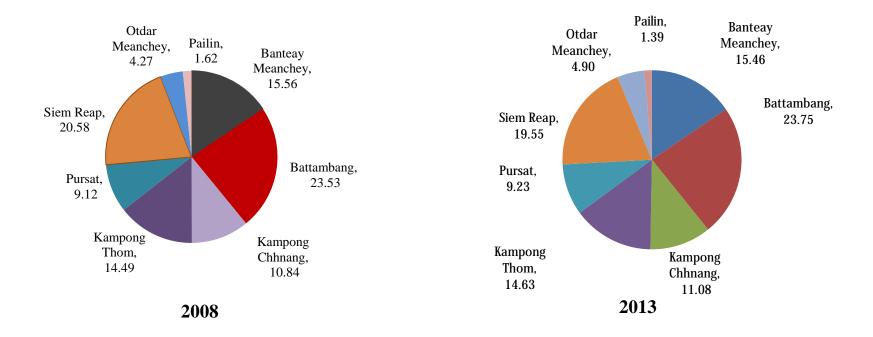


Figure 3.3 Distribution of Population (Percentage) of Coastal Region by Province, 2008 and 2013

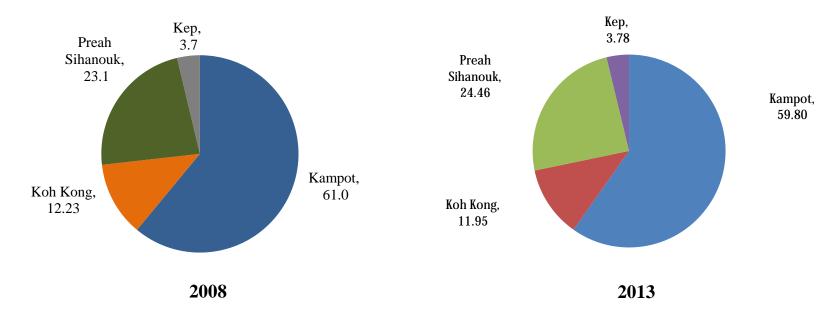
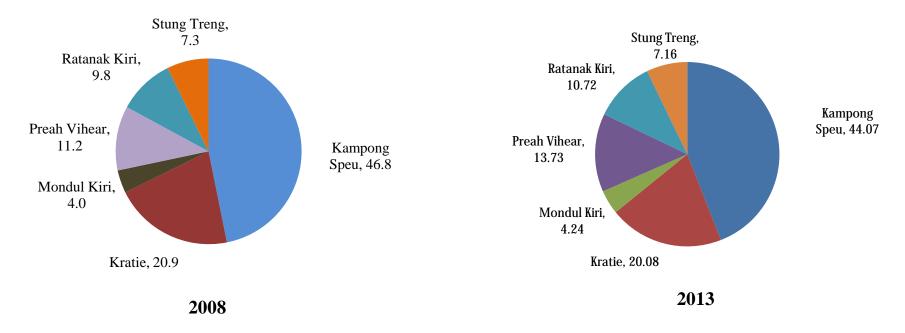


Figure 3.4 Distribution of Population (Percentage) of Plateau and Mountain Region by Province, 2008 and 2013



#### 7. Trends in Sex Ratio

Changes in sex composition mostly reflect the changes in the socio-economic and cultural patterns of a society. The sex ratio defined as the number of males per 100 females in the population is an important social indicator to measure the degree of equity between males and females in a society at a given point of time.

Statement 2.4 Sex Ratio in Cambodia over the years

Source of information	Sex Ratio
1962 Census	99.9
1980 General Demographic survey	86.1
1993-1994 Socio Economic survey of Cambodia	91.4
1996 Demographic Survey	91.7
1998 Census	93.0
2004 Cambodia Inter-Censal population survey	93.5
2008 Census	94.7
2013 Cambodia Inter-Censal population Survey	94.3

At the time of the 1962 Census, males and females in the population of Cambodia almost balanced each other (Statement 2.4). Subsequently the sex ratio tumbled recording only 86 in the early 1980s owing to heavy mortality among men during the Khmer Rouge years. However it has been showing gradual improvement since that time, and had reached 94.7 in 2008. In 2013 it showed a only a very marginal decline.

Contrary to general belief, males and females in a typical population do not exactly balance each other. While the past trends in fertility, mortality and migration determine the sex-age structure of any population, there are four main factors whose cumulative effect results in the sex ratio. These factors are: (1) sex ratio at birth or the sex ratio of new-born babies (2) differential mortality of males and females (3) the sex ratio of the net-migrants (4) sex differential in a census or survey. In the case of Cambodia one may rule out the possibility of the last factor as there was no sex bias in data collection as revealed by supervision and evaluation. In the male and female births there is no equality in number in general. The number of male births is always slightly higher. A study of sex ratios of registered births for a large number of countries over time has revealed that the sex ratio of births is around 105 meaning that 105 male babies are born per 100 female babies. It varies within a range of 102 to 107 from country to country. Cambodian sex ratio at birth may fall within the range. The war and genocide years spanning three decades have witnessed unusual mortality conditions, especially huge male mortality giving rise to differential mortality between males and females.

In Cambodia the volume of international migration is not so high as to have any marked impact on the sex structure of the population. Internal migration is sex selective, as for example a large number of women from neighboring provinces had moved into Phnom Penh to work in garment factories. Men working in farms in rural areas migrate to towns during lean seasons in search of temporary jobs like general laborers. Hence the current sex ratio varies at province levels (See Provisional Table 2 given earlier in this chapter) mainly due to this factor. These differences will be analyzed in more detail in the final report.

Statement 2.5 Sex Ratio by Residence in 1998, 2008 and 2013, Cambodia

Cambodia	Sex Ratio in 1998, 2008 and 2013       1998     2008     2013						
Total	93.0	94.7	94.3				
Urban	94.9	92.4	94.4				
Rural	92.6	95.3	94.2				

The overall sex ratio in the Cambodian population according to CIPS 2013 is 94.3 as against 94.7 as per the 2008 census which indicates that at the national level the change is not significant. However unlike in 2008 the urban-rural differential in sex ratio is very marginal in 2013.

Laos Otdar Meanchey Ratanak Kiri Preah Vinear **Banteay Meanchey** Stung Treng Siem Reap Battambang Kampong Thom Mondul Kiri Ν **Pursat** Kampong Chimang Kampon Thailand Phnom Penh Kampong Speu Kamba Vietnam evVeng Svay Rieng Preah Sihanouk Sex Ratio 2008 Sex Ratio 2013

Map 3. Sex Ratio in 2008 and 2013 by Province

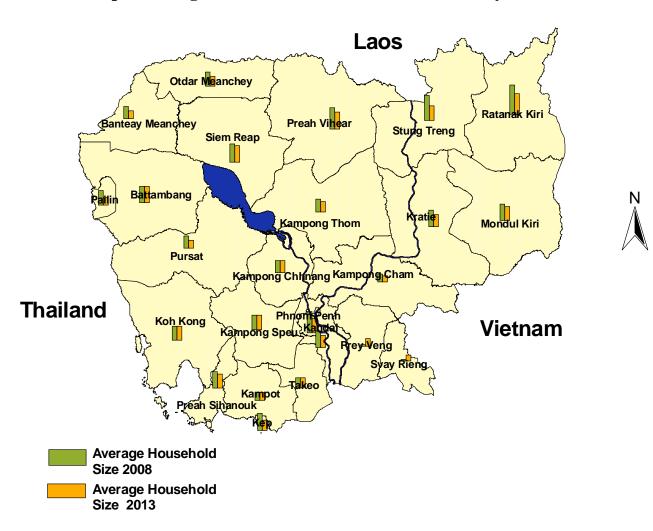
#### 8. Average Household Size

The average size of households had decreased by 0.5 percentage point during 1998-2008 at the national level (Statement 2.6). In the urban areas it had declined by 0.6 point during that decade which is slightly higher than the decrease in the rural areas (0.5 point). In 2013 the average household size has further decreased marginally at the national level. This decreasing trend in the size of households combined with a sizable increase in the number of households in the country (about 2.7 % increase annually, which is higher than the population growth rate) points to a shift from the system of joint and extended family towards nuclear family. The differentials in average household size among the provinces could be seen in Provisional Table 2 presented earlier in this chapter. The average household size varies from 4.4 in Kampong Cham and Svay Rieng to 5.1 in Ratanak Kiri.

Statement 2.6 Changes in Average Household Size during 1998-2013, Cambodia

Cambodia	Average Household Size in			Change duri	ng the Period
	1998	2008 2013		1998-2008	2008-2013
Total	5.2	4.7	4.6	-0.5	-0.1
Urban	5.5	4.9	4.8	-0.6	-0.1
Rural	5.1	4.6	4.6	-0.5	0.0

Map 4 Average Household Sizes in 2008 and 2013 by Province



#### **CHAPTER III**

#### SUMMARY AND CONCLUSIONS

The Cambodia Inter-Censal Population Survey 2013 (CIPS) was conducted in March 2013. The target population set for CIPS 2013 was the normal household population (regular households) of Cambodia. The CIPS 2013 was conducted with the objective of providing information on the size and other characteristics of the population. This survey marks an important step in the creation of a continuous flow of population data that will enable the Royal Government of Cambodia prepare plans and programs of development supported by a strong database. The draft questionnaires for the CIPS 2013 were more or less on the census pattern.

The sample design for the survey was a stratified two-stage sampling. The first stage units consisted of Enumeration Areas (EAs) as the Primary Sampling Units (PSUs) and the second stage units were the households. An EA is a compact area within a village with 90 to 100 households. The total sample sizes adopted to make reliable estimates at provincial level were 955 EAs as Primary Sampling Units (PSUs) and 28,650 households as the Secondary Sampling Units (SSUs). The selected EAs were located in 924 villages. Thirty households were selected from each selected EA by systematic equal probability-sampling from the household list.

The survey provides reliable estimates separately for urban and rural areas at the national level, but at provincial level it provides reliable estimates only for total population by sex. The sample fraction varied by stratum and data had to be weighted to correctly estimate population. The weights also served other purposes, such as helping to correct for non-response. Estimation is made for total population including institutional, homeless etc. population. A note on estimation procedure and sampling errors will be published in the final report.

For every selected enumeration area, there was one enumerator and normally the work of three enumerators was monitored and supervised by one supervisor. In all, there were 955 enumerators and 239 supervisors for the survey. As a preparatory step, mapping of Enumeration Areas was undertaken. The survey was supervised closely by field supervisors and officers of NIS to ensure collection of data of good quality.

This report presents the population totals, with a brief analysis, in respect of Cambodia and its Provinces so as to provide advanced information about the latest estimate of the size of population at the national and sub-national levels. It will be followed by a general report touching the different aspects of the country's population and in-depth analytical reports by topic.

Provisional Tables 1 and 2 presented in this report contain the provisional population totals of Cambodia and its provinces as revealed by CIPS 2013. These two tables form the basis for analysis in the present report. As on 3 March 2013 (the reference date of CIPS 2013), population of Cambodia is estimated to be 14.68 million.

According to the preliminary results, urban population in Cambodia constitutes 21.44 % of total population in 2013. The percentages of urban population were 18.32 in 1998 and 19.51 % in 2008. There is, therefore, an increasing trend in urbanization in Cambodia over the years.

The population density of Cambodia in 2013 is estimated to be 82 per square kilometer. It has increased by 7 points from the population density of 75 as per 2008 Census. Among the natural regions the Plains Region which forms part of nearly 50 % of the country accounts for the highest population density of 288 persons per square kilometer. The plateau and mountain region forming part of about seven percent of the country's area has the lowest density of 25.

With reference to 2008 Census population the annual growth rate works out to 1.83 % during 2008-2013. However it has been shown in the report that the high growth rate figure is due to 2.77 % under enumeration in the 2008 Census. The actual growth rate during 2008-2013 would be in the order of 1.46 % which is only marginally less than the projected rate of 1.54 %.

The annual growth rate of the population of Cambodia is higher than that of Southeast Asia as a whole (1.1 %). Cambodia's population has increased at a rate very much higher than that of Thailand (0.5 %) and marginally higher than the growth rate of Viet Nam (1.0 %) and marginally lower than the growth rate of Lao PDR (1.7 %).

As regards growth rate of population at province levels (Statement 2.3), an in-depth analysis would be made utilizing the data on fertility, mortality and migration that would be available in the final results.

The overall sex ratio in the Cambodian population according to CIPS 2013 is 94.3 as against 94.7 as per the 2008 census which indicates that at the national level the change is not significant. However unlike in 2008 the urban-rural differential in sex ratio is very marginal in 2013.

The average size of households had decreased by 0.5 percentage point during 1998-2008 at the national level (Statement 2.6). In the urban areas it has declined by 0.6 point during the decade which is slightly higher than the decrease in the rural areas (0.5 point). In 2013 the average household size has further decreased marginally at the national level. This decreasing trend in the size of households combined with a sizable increase in the number of households in the country (about 2.7 % increase annually, which is much higher than the population growth rate) points to a shift from the system of joint and extended family towards nuclear family. There are variations in the average household size from province to province as shown in the Provisional Table 2.