

# Labour Force 2007

## National Institute of Statistics Ministry of Planning

Phnom Penh, January 2010

Report based on the Cambodia Socio-Economic Survey

## Foreword

It is my pleasure to introduce one of a series of reports on the Cambodia Socio-Economic Survey (CSES) 2007. The CSES 2007 is the sixth socio-economic survey conducted by the National Institute of Statistics (NIS) at the Ministry of Planning. From 2007 and onwards the CSES is conducted annually and will contribute to the development of the living standards of people in Cambodia.

The CSES 2007 provides main indicators on the living conditions in Cambodia and covers many areas, e.g. health, housing conditions, labour force and victimization. The Royal Government of Cambodia (RGC) will benefit from the results by using the data to monitor the National Strategic Development Plan (NSDP) and to develop effective policies for reducing poverty in Cambodia. Users such as researchers, analysts and NGO's can also benefit from the results to better understand the Cambodian socio-economic situation.

The survey was planned, designed and conducted by the staff of NIS with overall technical and management assistance provided by Statistics Sweden. The CSES 2007 will be the starting point for NIS to produce results annually on the living conditions in Cambodia and meet the data needs of many users.

The CSES is part of a capacity building project financed by the Swedish International Development Cooperation Agency (Sida). On behalf of the Royal Government of Cambodia, I would like to take the opportunity to thank Sida for the financial support. I would also like to express my gratitude to Statistics Sweden for the technical assistance in planning, designing and conducting the CSES and for assisting NIS in the preparation of this report.

Chhay Than

Senior Minister Minister of Planning

Ministry of Planning Phnom Penh January, 2010

## Preface

This is one of a series of reports on the Cambodia Socio-Economic Survey (CSES) 2007 produced by the National Institute of Statistics (NIS) of the Ministry of Planning. The results in this report cover the area of labour force. Results from other subject matter areas of the CSES 2007, such as education, housing, victimization and health are released in separate reports.

Since 2007, NIS conducts the socio-economic survey annually. Previous surveys were undertaken in 1993/94, 1996, 1997, 1999, and 2004. The main objective of the CSES is to collect statistical information about living conditions of the Cambodian population and the extent of poverty. The survey can be used for identifying problems and making decisions based on statistical data.

The CSES is a very comprehensive survey which provides statistical data to be used for various purposes. The main user is the Royal Government of Cambodia (RGC) as the survey supports monitoring the National Strategic Development Plan (NSDP) by different socio-economic indicators. Other users are university researchers, analysts, international organizations e.g. the World Bank and NGO's. The primary data files are made available for research and analysis according to the procedures specified in the 2005 Statistics Law.

The Swedish International Development Cooperation Agency (Sida) sponsors the NIS for conducting the CSES while Statistics Sweden provides technical assistance. I am much obliged to both Sida and Statistics Sweden for their support. Furthermore, I wish to place on record my deep appreciation of the work carried out by the NIS staff, staff of provincial planning offices, the staff of the Ministry of Planning, and all who work with dedication and enthusiasm to sustain the survey quality. I also extend my thanks to all the participating households and individuals.

Responsible at NIS for this report is Mr. Long Chinta, Deputy Director General.

H. E. San Sy Than

Director General National Institute of Statistics, January 2010 Ministry of Planning

# Content

Foreword	1
Preface	3
Content	4
1 Introduction	5
Information to the reader	5
2 Demographic characteristics	6
3 Results	7
3.1 Definitions	7
3.1 Labour force (currently active population)	11
3.2 Education of labour force	15
3.3 Employment status	16
3.4 Employment by occupation	17
3.5 Employment by Industry	18
4.1 Background and Introduction	20
4.2 Objective of the survey	20
4.3 Sampling	20
4.4 Estimation	21
4.5 Questionnaires	22
4.6 Data collection and field work	22
4.7 Data processing	23
4.8 Comparability	23
4.9 Definitions	24
4.10 Confidentiality	24
4.11 Contact person	24
Annex 1. Module on Economic activity the last seven days	25
For more information	29

# 1 Introduction

In this report results of the subject matter area labour force from the Cambodia Socio-Economic Survey (CSES) 2007 are presented. The tabulations and comments to the results have been produced by the subject matter staff at NIS in cooperation with consultants from Statistics Sweden. Five rounds of the CSES have been conducted between 1993 and 2004. Since 2007 the CSES runs annually. The CSES is a household survey with questions to households and the household members. In the household questionnaire there are a number of modules with questions relating to the living conditions, e.g. housing conditions, education, health, expenditure/income and victimization.

There are no comparisons with previous CSES in this report. The first rounds had a different survey design than the surveys conducted in 2004 and 2007. The sampling design in CSES 2004 and 2007 was the same, where the sample selected for the 2007 survey is a subsample of the sample used in 2004. However, comparisons between the published results of CSES 2004 in September 2005<sup>1</sup> and the results in this report should be made with caution. For further information on the problems with comparability see section 4.8.

The CSES 2007 was conducted from October 2006 to December 2007. The monthly sample size was 300 households. In this report all estimates presented are based on the 12 month samples (3,600 households), i.e. the calendar year 2007.

In CSES 2007 some changes have been introduced in the household questionnaire compared to 2004.

In section 2 some basic results on the demography in Cambodia are presented and in section 3 results of the subject matter area labour force from CSES 2007 are presented. In section 4 the methodology of the survey is described.

### Information to the reader

As the results in this report are estimated values, all percentages and numbers are rounded off. A '0' (zero) means that there is a value. Therefore some tables with percentage do not sum up to 100 percent. In the tables the symbol (–) is used and means few or no observations in the cell.

All statistical surveys contain errors and the results from surveys are not the target values but estimates of them. There are many types of errors in a survey, e.g. measurement errors, coverage errors, non-response, data processing errors and in sample surveys there is also sampling errors. When conducting a survey it is important to minimize the total error so that accurate estimates can be produced. NIS has put a large effort in the work of minimizing the errors but recommends the reader to be aware of the possibility of deviations from the exact values.

<sup>&</sup>lt;sup>1</sup> National Institute of Statistics (2005). Cambodia Socio-Economic Survey 2004, Summary Subject Matter Report. September 2005.

# 2 Demographic characteristics

After 1980 there was a 15-year period with high fertility and strong population increase. After 1995 there has been a rapid decline in fertility and mortality. According to the population projections<sup>2</sup> the Cambodian population was predicted to be 13 million in 2004 and 15 million in 2010. According to the final results from the General Population Census 2008<sup>3</sup>, published in September 2009, the Cambodian population was estimated to 13.395 million. The tables below show the estimated population and estimated number of households in different censuses and surveys.

In urban areas the estimated population in CSES 2007 was about 2.583 million compared to the final results from the Population Census 2008 which estimated the urban population to 2.614 million. In rural areas the estimated population was about 10.647 million in CSES 2007 and in the Population Census 2008 it was estimated to about 10.781 million people, see Table 1.

Table 1. Estimated Population by urban and rural.

In thousands		
	CSES	Population
	2007	Census 2008
Cambodia	13,230	13,395
Urban	2,583	2,614
Rural	10,647	10,781

In Table 2 results from four different surveys or censuses are presented. The results are from different years and that explains the differences in the results. Also, the results are based on censuses or sample surveys with different errors.

#### Table 2. Estimated Population by sex.

In thousands				
	Census	Cambodian	CSES	Population
	1998	Inter-censal	2007	Census 2008
		Population		
		Survey 2004 <sup>4</sup>		
Total	11,437	12,824	13,230	13,395
Women	5,926	6,627	6,815	6,879
Men	5,511	6,197	6,414	6,516

In Table 3 the estimated numbers of households are presented from CSES 2007 and final results from the Population Census 2008.

## Table 3. Estimated number of householdsby urban and rural.

In thousands		
	CSES	Population
	2007	Census 2008
Cambodia	2,799	2,817
Urban	512	506
Rural	2,287	2,311

<sup>3</sup> National Institute of Statistics (2009). General Population Census of Cambodia 2008, National Report on Final Census Results, August, 2009.

<sup>4</sup> National Institute of Statistics (2004). Cambodia Inter-Censal Population Survey 2004, General Report. November, 2004.

<sup>&</sup>lt;sup>2</sup> Neupert, R.F. (2005). New Demographic Estimates and Updated Projections for Cambodia. UNDP.

# 3 Results

The special demographic phenomena that Cambodia experienced in the seventies and in the eighties gives Cambodia a unique labour market in the 2000s. Between the population census in 1998 and 2008 the population increased from 11.4 million to 13.4 million, an average annual increase of 1.5 percent<sup>5</sup>.

Cambodia has a very young population. In 2008 about one third (34 percent) of the population was below 15 years. According to the Population Census 2008 the dependency ratio was 61 percent. The dependency ratio is defined as the number of children (0-14 years) and elderly (65 and over) divided by the number of people aged 15-64 years, i.e. the dependency ratio is a ratio between those typically not in the labour force (the dependent part) and those typically in the labour force.

In this report results on labour force participation (economically active) are presented. The labour force consists of those with employment and those who are unemployed (seeking and available for work). In CSES 2007 the population 10 years and over, is adopted as the population of working age though international comparison often focus on the age group 15–64 (or 15-74).

Results on the economically active population based on the Cambodian Population Census 2008 were released in September 2009. The results in this report are different from the results presented in the census report due to different concepts for measuring economic activity (see section 3.1 below).

## 3.1 Definitions

Figure 1 below shows the relation between the working age population, in the labour force (economically active) and not in the labour force (economically inactive).

### Figure 1. The labour force in relation to the working age population



<sup>&</sup>lt;sup>5</sup> National Institute of Statistics (2009). General Population Census of Cambodia 2008, National Report on Final Census Results, August, 2009.

### Working age population

In CSES 2007 the *working age population* is defined as the population 10 years and over. For comparison with international statistics some of the tables also show the working age population 15-64 years.

### Economically active population

The *economically active population* comprises all persons who furnish the supply of labour for the production of economic goods and services as defined by the United Nations systems of national accounts and balances during a specified time-reference period. According to these systems the production of economic goods and services includes all production and processing of primary products whether for the market, for barter or for own consumption, the production of all other goods and services for the market and, in the case of households which produce such goods and services for the market, the corresponding production for own consumption.

The international manual<sup>6</sup> for labour statistics uses two concepts of the economically active population.

1) The usually active population measured in relation to a long reference period, such as one year

2) The *currently active population* or equivalently the "labour force", measured in relation to a short reference period of one week or one day.

In the CSES 2007 the concept "currently active population" is used with reference period "the past seven days". In the recently published results from the Population Census 2008<sup>7</sup> the concept "usually active population" with reference period "the last 12 months" is used.

### Economically inactive population

The *economically inactive population* comprises all persons in the working age population who were not "economically active", as defined above.

The persons not in the labour force, or equivalently, *population not currently active*, comprises all persons who neither were employed nor unemployed during the brief reference period and hence not currently active because of attendance at educational institutions, engagement in household duties, retirement or old age, or other reasons such as infirmity or disablement, which may be specified.

### The labour force (the currently active population)

The labour force (i.e. the currently active population) comprises all persons who are *employed* or *unemployed*.

### Employed

All persons who worked at least one hour during the reference period, the past seven days, or had a job/economic activity from which they were temporary absent are *employed*. Unpaid family workers are included in employed.

### Unemployed

According to the international definition<sup>8</sup> the unemployed comprises all persons who during the reference period, the past seven days, were without work, were currently available for work and were actively seeking work. All three criteria must be fulfilled simultaneously.

<sup>&</sup>lt;sup>6</sup> International Labour Office (1990). Surveys of economically active population, employment, unemployment and underemployment. An ILO manual on concepts and methods. ILO, Geneva, 1990. ISBN 92-2-106516-2

<sup>&</sup>lt;sup>7</sup> National Institute of Statistics (2009). General Population Census of Cambodia 2008, National Report on Final Census Results, August, 2009.

<sup>&</sup>lt;sup>8</sup> International Labour Office (1990). Surveys of economically active population, employment, unemployment and underemployment. An ILO manual on concepts and methods. ILO, Geneva, 1990. ISBN 92-2-106516-2

### Labour force participation rate

The *labour force participation rate* is defined as the working age population that is either employed or unemployed as a percentage of the total population in the same age group, i.e. the labour force as a percentage of the total population in the same age group.

### **Employment rate**

The *employment rate* is defined as the share of the employed population in relation to the working age population.

### Unemployment rate

The *unemployment rate* is defined as the share of the unemployed population in relation to the labour force.

### Occupation

*Occupation* refers to the kind of work done during the reference period, the last seven days. Information on occupation provides a description of a person's job. To classify this information, the International Standard Classification of Occupations, ISCO-88<sup>9</sup>, has been used.

### Industry

Industry refers to the kind of economic activity of the workplace or enterprise where a person worked during the reference period, the last seven days. Employment by industry constitutes of 21 main industries in CSES 2007. The International Standard Industrial Classification of All Economic Activities, ISIC Rev.4, was used in the 2007 survey. In the revised classification some industries have been changed and comparisons with results from previous surveys can not be made.

The main industries have been grouped into three sectors for which results are presented:

- Agricultural sector (section A in ISIC, Rev.4) (Primary);
   Agriculture, hunting and forestry
- Industrial sector (sections B-F in ISIC, Rev.4) (Secondary);
  - Mining and quarrying,
  - Manufacturing,
  - Electricity, gas, steam and air conditioning supply,
  - Water supply; sewerage, waste management and remediation activities,
  - Construction
  - Service sector (sections G-U in ISIC, Rev.4) (Tertiary),
    - Wholesale and retail trade; repair of motor vehicles etc.,
    - Transportation and storage,
    - Accommodation and food service activities,
    - Information and communication,
    - Financial and insurance activities,
    - Real estate activities,
    - Professional, scientific and technical activities,
    - Administrative and support service activities,
    - Public administration and defence; compulsory social security,
    - Education,
    - Human health and social work activities,
    - Arts, entertainment and recreation,
    - Other service activities,

<sup>&</sup>lt;sup>9</sup> http://www.ilo.org/global/What\_we\_do/Statistics/classifications/lang--en/index.htm.

- Activities of households as employers,
- Activities of extraterritorial organizations and bodies.

### Status in employment

Status in employment refers to the status of an economically active person with respect to his or her employment. That is, whether he or she is an employer, own-account worker, employee, unpaid family worker or other.

### Main and secondary occupation

In CSES two occupations can be reported for the reference period, the main occupation and the secondary occupation. In this report occupation, industrial sector and employment status are based on the main occupation.

### **Highest level of education**

The respondents were asked the following question: "What is the highest level ... successfully completed?"

The response alternatives were aggregated to the classification of educational attainment used in the 1998 Population Census, i.e.

- No or only some education:
  - Pre-school/Kindergarten,
  - No class completed/Never attended school
- Primary school not completed:
- Class one to five completed
- Primary school completed:
  - Class six to eight completed
- Lower secondary school completed:
  - Class nine to eleven completed,
  - Lower secondary school certificate
- Upper secondary school completed:
  - Class twelve completed,
  - Upper secondary school certificate,
  - Technical/vocational pre-secondary diploma/certificate
- Post-secondary education:
  - Technical/vocational post-secondary diploma/certificate,
  - College/university undergraduate,
  - Bachelor degree (B.A., BSc),
  - Masters degree (M.A., MSc),
  - Doctorate degree (PhD)
- Other

## 3.1 Labour force (currently active population)

In Table 4 below, the labour force participation rate, i.e. the labour force in relation to the working age population (10 years and over) is presented. Table 4 also shows the employment rate and unemployment rate. Employment rate is the share of the employed in relation to the working age population and unemployment rate is the unemployed in relation to the labour force.

The labour force participation rate in Cambodia was about 75 percent, about 70 percent for women and about 81 percent for men. These rates were higher in other rural areas than in Phnom Penh and other urban areas. About 78 percent of the total population in other rural areas were in the labour force compared to about 61 percent in Phnom Penh and about 67 percent in other urban areas.

Table 4 also shows the differences in participation rates between women and men. More men than women are in the labour force in all geographical domains. In other rural areas the difference in rates are lower than in Phnom Penh and other urban areas. In other rural areas about 74 percent of the women and about 83 percent of the men were in the labour force compared to about 55 percent and 68 percent respectively in Phnom Penh. In other urban areas about 60 percent of the women were in the labour force compared to 74 percent of the men.

The employment rate in relation to the working age population (10 years and over) was about 75 percent. In all Cambodia the differences between women and men was about 10 percentage points with an employment rate of about 70 percent for women and about 80 percent for men. Other rural areas had the highest employment rate with about 78 percent, followed by other urban areas with about 65 percent and Phnom Penh with 60 percent. The employment rate was higher for men than for women in all geographical domains.

According to the international definition the total unemployment rate in Cambodia is very low. About 1 percent of the labour force was unemployed in 2007. In Phnom Penh and other urban areas the unemployment rates are somewhat higher than in other rural areas, see Table 4.

		Phnom	Other	Other
	Cambodia	Penh	urban	rural
Total population	13,230,000	1,310,000	1,356,000	10,564,000
	13,230,000	1,310,000	1,350,000	10,504,000
Total working age population	10,454,000	1,128,000	1,089,000	8,237,000
• •				, ,
Labour force	7,844,000	687,000	728,000	6,429,000
Labour force participation	on rate			
Both Sexes	75	61	67	78
Women	70	55	60	74
Men	81	68	74	83
Employment rate <sup>10</sup>				
Both Sexes	75	60	65	78
Women	70	54	58	73
Men	80	67	73	83
Unemployment rate				
Both Sexes	1	2	2	0
Women	1	2	3	0
Men	1	2	2	0

#### Table 4. Population and Labour Force, by sex and geographical domain, 2007. Percent

<sup>&</sup>lt;sup>10</sup> i.e. the share of the employed population in relation to the working age population.

Table 5 shows the labour force participation rate for women and men in different age groups. The highest rates for both women and men are in the age group 35–44 years with about 85 percent and 97 percent respectively.

In the youngest age groups 10-14 years and 15-19 years women and men have about the same rates, about 44 and 70 percent in the age groups respectively. From 20 years and over the participation rates for women are lower than for men in all age groups. The largest difference between women and men is in the age group 25-34 years where about 81 percent of the women and about 97 percent of the men are in the labour force.

Women stop participate in the labour force earlier than men. In the age group 55–64 years about 68 percent and from 65 years and over only about 26 percent participate in the labour force. Men continue to participate also after 65 years of age, about 61 percent are in the labour force in the age group 65 and over. See Table 5 and Figure 2.

For international comparison the labour force participation rate is presented also for the age group 15–64. In the age group 15–64 the rates are higher than in the age group 10 and over since the labour force participation rates in the youngest and oldest age groups are low.

	• •		•
Labour force participation rate	Women	Men	Total
Total 10-	70	81	75
10-14	44	44	44
15-19	70	71	71
20-24	80	89	84
25-34	81	97	89
35-44	85	97	91
45-54	81	96	88
55-64	68	88	77
65-	26	61	40
15-64	78	90	84

Table 5. Labour force participation rate by age group and sex, 2007. Percent

Figure 2. Labour force participation rate (10 years and over) by age group and sex, 2007. Percent



Age group

Table 6 shows the labour force participation rate in different age groups by geographical domains. The highest rates in all three geographical domains are in the age group 35–44 years. In Phnom Penh about 83 percent, in other urban areas about 92 percent and in other rural areas about 91 percent are in the labour force in that age group.

The geographical differences are large in the young age groups. In the age group 10-14 about half of the children in other rural areas are in the labour force, compared to Phnom Penh with about one out of ten. In the age group 15-19 years the labour force participation rate in other rural areas is as high as about 78 percent, compared to Phnom Penh with about 31 percent.

After 65 years of age only 26 percent are in the labour force in Phnom Penh and about 41 percent in other rural and 38 percent in other urban areas. Other rural areas have higher participation rates in the labour force compared to Phnom Penh in all age groups.

Table 6 also shows the age group 15–64. As can be seen the labour force participation rates are higher when the working age population is defined as the age group 15–64 compared to the working age population defined as 10 years and over. Still other rural areas has the highest labour force participation rate.

Age	Phnom	Other	Other
group	Penh	urban	rural
Total 10-	61	67	78
10-14	10	27	50
15-19	31	54	78
20-24	67	77	88
25-34	80	87	90
35-44	83	92	91
45-54	81	89	88
55-64	64	69	80
65-	26	38	41
15-64	73	82	88

 Table 6. Labour force participation rate (10 years and over),

 by age group and geographical domain, 2007. Percent

Table 7 shows the labour force participation rates for women and men in different age groups and geographical domains. Women in Phnom Penh and other urban areas have lower participation rates in the labour force compared to other rural areas in all age groups. The same pattern cannot be seen for men. When men are young more men in other rural areas are in the labour force compared to Phnom Penh and other urban areas.

Men have higher labour force participation rates than women in almost all age groups and geographical domains. However in Phnom Penh women have a somewhat higher labour force participation rate than men in the age group 15–19 years, 36 and 26 percent respectively.

The oldest age group (65 years and over) in other urban areas have the highest differences in labour force participation rate between women and men. The labour force participation rate for men is about 40 percentage points higher than for women, about 62 percent for men and about 22 percent for women. The same pattern can be seen in other rural areas where men had about 37 percentage points higher labour force participation rate than women, about 64 percent and about 27 percent respectively. In Phnom Penh the difference is much lower, about 18 percentage points differences between women and men.

As seen in Tables 5 and 6 above the labour force participation rates are higher in the age group 15–64 years compared to the age group 10 years and over. But the pattern is still the same. Men have higher labour force participation rates than women in all geographical domains.

Table 7. Labour force participation rate (10 years and over), by age,
geographical domain and sex 2007. Percent

	Phnom Penh		Phnom Penh Other urban		Other rural	
Age group	Women	Men	Women	Men	Women	Men
Total 10-	55	68	60	74	74	83
10-14	9	11	25	29	51	49
15-19	36	26	53	55	77	79
20-24	68	66	71	82	83	93
25-34	69	92	80	93	83	98
35-44	69	99	85	99	87	97
45-54	68	96	78	100	84	96
55-64	53	78	63	77	71	92
65-	17	36	22	62	27	64
15-64	62	77	73	84	82	92

## 3.2 Education of labour force

Table 8 shows the labour force participation rate by age group and level of education. About 59 percent of the labour force had "no or only some education/primary school not completed". In the lowest age group 10–14 years almost all persons in the labour force have lower level of education. The reason is that children start in secondary school and over at a higher age.

Age Group	No or only some education	Primary not completed	Primary completed	Lower secondary completed	Upper secondary completed	Post secondary education	Other	Total
Labour								
force	1,421,000	3,241,000	1,907,000	785,000	321,000	143,000	25,000	7,844,000
Total 10-	18	41	24	10	4	2	0	100
10-14	7	72	20	1	-	-	-	100
15-19	5	38	42	14	1	0	-	100
20-24	13	32	29	15	6	4	-	100
25-34	19	37	23	11	7	3	-	100
35-44	22	40	20	10	6	2	-	100
45-54	27	44	17	8	2	2	-	100
55-64	30	43	15	7	3	1	-	100
65-	46	32	17	3	-	-	_	100

Table 8. Labour force participation rate (10 years and over), by age and level of education, 2007. Percent

In Table 9 the labour force participation rate for women and men is shown by age group and level of education. When looking at the whole labour force, 10 years and over, women have lower education than men. Of all women in the labour force (10 years and over) about 68 percent have not completed primary school compared to about 53 percent of all men in the labour force. It is the same in all age groups except for the youngest, 10–14 years.

When the working age population is defined as the age group 15–64 years the shares are somewhat different as the lowest age group is not included. Of all women and men in the labour force respectively there seem to be higher shares with "primary school completed" and "secondary or higher".

Table 9. Labour force participation rate (10 years and over), by age, level of education and sex, 2007.
Percent

Age group	No or o some edu	,	Primary s not comp		Primary school completed		Secondary or higher		5		Total	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Total 10-	25	11	43	42	21	27	12	20	0	-	100	100
10-14	5	7	71	74	23	19	2	1	-	-	100	100
15-24	11	6	34	30	33	38	22	27	0	-	100	100
25-54	29	15	43	37	18	24	11	24	-	-	100	100
55-	62	17	28	43	6	25	4	15	-	-	100	100
15-64	24	11	39	35	22	29	14	25	0	-	100	100

## 3.3 Employment status

Table 10 shows the employed population (10 years and over) by employment status. The employment status is based on main occupation. In all Cambodia the share of the employed population who worked as own account worker/self-employed was about 36 percent. An even higher share worked as unpaid family workers, about 41 percent. In other rural areas about 44 percent were unpaid family workers compared to about 23 percent in Phnom Penh and about 26 percent in other urban areas. The share of own account worker/self-employed in other urban and other rural areas were almost the same with about 36 percent and about 37 percent. In Phnom Penh the share of own account worker/self-employed population lower, about 27 percent. Of all employed in Cambodia about 23 percent were paid employees. About half of the employed population in Phnom Penh were paid employees (about 50 percent). This is a higher share than in other urban and other rural areas, where about 37 percent respectively were paid employees.

by geographical domain, 20	07. Percent			
	Cambodia	Phnom	Other	Other
		Penh	urban	rural
Employed population,				
number	7,775,000	674,000	711,000	6,390,000
Total percent	100	100	100	100
Paid employee	23	50	37	19
Employer Own account	0	0	0	0
worker/self-employed	36	27	36	37
Unpaid family worker	41	23	26	44
Other/Don't know	0	0	0	0

Table 10. Employment status for main occupation (10 years and over), by geographical domain, 2007. Percent

Table 11 shows that women are more often unpaid family workers than men. Men are more often own account worker/self-employed. In all Cambodia about 52 percent of all employed women were unpaid family worker compared to 30 percent of all employed men. About 43 percent of the men were own account worker/self-employed compared to about 28 percent for women. The share of women who were unpaid family worker and the share of men who were own account worker/self-employed are the highest in other rural areas, about 56 percent of employed women were unpaid family worker and about 46 of all men were own account worker/self-employed. In Phnom Penh and other urban areas the share of employed women who were own account worker/self-employed were about the same as the share for men. However, more women than men were unpaid family workers in both these geographical domains.

In all Cambodia about 20 percent of all employed women were paid employees compared to about 27 percent of the men. Phnom Penh had the highest share of paid employees for both women and men, about 44 percent and about 56 percent respectively. In other urban areas about 26 percent of the employed women were paid employee and about 46 percent of the men .

Table 11. Employment status for main occupation 10 years and over
by geographical domain and sex, 2007. Percent

	Cam	Cambodia Phnom Penh		n Penh	Other	urban	Other rural	
	Women	Men	Women	Men	Women	Men	Women	Men
Employed population, number	3,799,000	3,976,000	323,000	351,000	323,000	388,000	3,153,000	3,237,000
Total percent	100	100	100	100	100	100	100	100
Paid employee	20	27	44	56	26	46	16	22
Employer Own account worker/	0	0	0	0	0	0	0	0
self-employed	28	43	27	27	35	37	28	46
Unpaid family worker	52	30	29	17	38	17	56	33
Other/Don't know	0	0	0	0	0	0	0	0

### 3.4 Employment by occupation

Table 12 presents employed population (aged 10 years and over) by main occupation.

In Cambodia more than half of the employed population had a main occupation as agricultural and fishery workers (54 percent). In other rural areas about 63 percent have that occupation while only about 1 percent have it in Phnom Penh.

About 13 percent had a main occupation as service worker and shop and market sales worker. The highest share was in Phnom Penh with 34 percent compared to other rural areas with only 8 percent. Elementary occupation is the third largest main occupation and occupies 10 percent. There are no major geographical differences for that type of occupation.

The shares of the occupations "Legislators, senior officials and managers", "Professionals" and "Technicians and associate professionals" are generally low in Cambodia. In total about 6 percent have those occupations, but in Phnom Penh about 23 percent worked as "Legislators, senior officials and managers", "Professionals" and "Technicians and associate professionals".

Primary occupation	Cambodia	Phnom	Other	Other
		Penh	urban	rural
Legislators, senior officials and managers	1	2	3	1
Professionals	3	13	5	1
Technicians and associate professionals	2	8	5	1
Clerks	2	10	4	1
Service workers and shop and market sales workers Skilled agricultural and	13	34	24	8
fishery workers	54	1	28	63
Craft and related trades workers Plant and machine	9	10	12	8
operators and assemblers	8	12	7	7
Elementary occupations	10	8	12	10
Armed forces	0	2	1	0
Occupation not adequately described	0	0	0	0
Total	100	100	100	100

 Table 12. Employed Population (10 years and over) by main occupation and geographical domain, 2007. Percent.

Table 13 shows that in other rural areas about 62 percent of the women and 63 percent of the men had a main occupation as skilled agricultural and fishery worker. In other rural areas the distribution of women and men in different occupations was almost the same except for service worker and shop and market sales worker where more women than men were occupied. In other urban areas about 30 percent of the employed women and about 26 percent of the employed men were skilled agricultural and fishery workers.

As mentioned previously, about one third of all employed in Phnom Penh were service workers and shop and market sales workers (about 34 percent, see Table 12). Men in Phnom Penh have a very differentiated labour market, but service workers and shop and market sales workers is the most common main occupation with about 23 percent of all men. Women in Phnom Penh have a much higher share of service workers and shop and market sales worker compared to men. About 47 percent had that type of occupation as main occupation. The shares of service workers and shop and market sales workers were higher for women compared to men in all geographical domains.

Table 13 also shows that Phnom Penh had the highest shares of Professionals. About 13 percent of all women in Phnom Penh and about 14 percent of all men.

## Table 13. Employed Population (10 years and over), by main occupation, geographical domain and sex, 2007. Percent.

	Tota	al	Phnom	Penh	Other u	rban	Other r	ural
	Women	Men	Women	Men	Women	Men	Women	Men
Legislators, senior officials and								
managers	0	1	-	3	-	3	-	1
Professionals	2	3	13	14	5	5	1	2
Technicians and associate			_		_			
professionals	1	3	5	10	2	8	1	1
Clerks	1	2	8	12	3	5	1	1
Service workers and shop and market sales workers	16	7	47	23	36	14	11	5
Skilled agricultural and fishery workers	54	54	1	1	30	26	62	63
Craft and related trades workers	7	11	8	13	6	16	7	10
Plant and machine operators and assemblers	7	8	8	15.	3	10	7	8
Elementary occupations	10	10	9	8	13	11	10	10
Armed forces	_	1	_	3	_	2	-	C
Occupation not adequately described	-	_	_	_	_	_	_	-
Total	100	100	100	100	100	100	100	100

## 3.5 Employment by Industry

In Table 14 employment by industrial sector is presented. Industrial sector is based on industry for the main occupation.

About 60 percent of the employed in Cambodian work in the agricultural sector. Other rural areas have the highest shares of employed working in the agricultural sector, while Phnom Penh have the highest share working in the service sector (see Table 14).

## Table 14. Employed population 10 years and over by industrial sector(main occupation) and geographical domain, 2007. Percent.

· · · ·				
Industrial sector	Cambodia	Phnom	Other	Other
(main occupation)		Penh	urban	rural
Employed population,	7 775 000	074 000	744 000	0 000 000
number	7,775,000	674,000	711,000	6,390,000
Total paraant	100	100	100	100
Total percent	100	100	100	100
Agriculture (Primary)	60	1	32	70
Industry (Secondary)	14	14	15	14
Services (Tertiary)	26	85	53	16

The results in Table 15 show that in most cases there are no or very small differences between women and men in the three sectors. In other urban areas a higher share of men were employed in the industry sector than women, about 19 percent for men compared to about 10 percent for women. In the service sector the relation is the opposite. More women than men in other urban areas are employed in the service sector.

Industrial sector	Cambodia		Phnom Penh		Other urban		Other rural	
(main occupation)	Women	Men	Women	Men	Women	Men	Women	Men
Employed population, number	3,799,000	3,976,000	323,000	351,000	323,000	388,000	3,153,000	3,237,000
Total percent	100	100	100	100	100	100	100	100
Agriculture (Primary)	61	60	1	1	34	31	70	69
Industry (Secondary)	15	14	15	12	10	19	14	14
Services (Tertiary)	25	26	84	86	56	50	16	17

## Table 15. Employed population 10 years and over by industrial sector(main occupation), geographical domain and sex, 2007. Percent.

# 4 About the Cambodia Socio-Economic Survey

## 4.1 Background and Introduction

The Cambodia Socio-Economic Survey (CSES) has been conducted by the National Institute of Statistics (NIS) in 1993/94, 1996, 1997, 1999 and 2004. Since 2007 NIS conducts the CSES annually. The CSES is a household survey covering many areas relating to poverty and living conditions. Questions are asked for the household and for the household members.

The CSES is a sample survey and the sample used in 2007 is a subsample of the sample used in 2004.

In the 2004 survey the diary method for collecting data about household expenditure/consumption and household income was introduced. As the recall method has been used in the previous rounds it was decided to include also the recall modules. Both methods are retained in the annual CSES.

The following main areas have been surveyed in the previous survey rounds and in the annual CSES as well:

Level and structure of household expenditure/consumption, including poverty

Household production and cash income-earning activities by the labour force

Education and literacy

Health and access to medical care

Housing and amenities

Family and social relations, including gender and vulnerability issues.

In CSES 2007 some changes have been introduced in the household questionnaire.

## 4.2 Objective of the survey

The main objective of the survey is to collect statistical information about living conditions of the Cambodian population and the extent of poverty. The survey can be used for identifying problems and making decisions based on statistical data.

The main user is the Royal Government of Cambodia (RGC) as the survey supports monitoring the National Strategic Development Plan (NSDP) by different socio-economic indicators. Other users are university researchers, analysts, international organizations e.g. the World Bank and NGO's. The World Bank has published a report on poverty profile and social indicators using CSES 2007 data<sup>11</sup>.

## 4.3 Sampling

The sampling design in the CSES survey is a three-stage design. In stage one a sample of villages is selected, in stage two an Enumeration Area (EA) is selected from each village selected in stage one, and in stage three a sample of households is selected from each EA selected in stage two. The sampling designs used in the three stages were:

*Stage 1*: A stratified systematic  $\pi ps^{12}$  sample of villages was selected. Strata were defined by provinces and the urban/rural classification of villages. The size measure used in the systematic  $\pi ps$  sampling was the number of households in the village according to the population census 1998.

<sup>&</sup>lt;sup>11</sup> World Bank (2009). Poverty profile and trends in Cambodia, 2007 - Findings from the Cambodia Socio-Economic Survey (CSES). Report No. 48618-KH.

<sup>&</sup>lt;sup>12</sup> Systematic sampling with probabilities proportional to size.

Stage 2. One EA was selected by Simple Random Sampling (SRS), in each village selected in stage 1.

Stage 3. In each selected EA a sample of households was selected by systematic sampling.

The design described above was used for the CSES 2004 survey.<sup>13</sup> In 2007, a subsample of the villages, or EAs, in the 2004 sample was selected by SRS. The villages and EAs surveyed in 2007 were thus included in the sample in both years. In each selected EA a sample of households was selected by systematic sampling. The selected households in 2007 are not necessarily the same as those included in the sample in 2004.

The selection of households in stage three was done in field by first listing the households in the selected EA, and then selecting a systematic sample of households. Selected households were observed during one calendar month. The allocation of the households over the months in 2007 was done so that each village in the 2007 sample was observed in the same calendar month as in 2004.

The sample size in 2007 was 360 villages or 3,600 households, compared to the sample for the 2004 survey of 720 villages or 12,000 households.

Some provinces were excluded, due to cost and other reasons, in the sample for 2007. The estimates are however, adjusted for the under coverage error caused by excluding those provinces.

### 4.4 Estimation

Totals and ratios such as means or proportions are estimated for the total population or for subgroups of the population, i.e. domains of study. The domains are defined by, for instance, age groups or sex. In the CSES 2007 the sample size is not large enough for a detailed breakdown on e.g. provinces. Means and proportions are estimated by first estimating totals and then calculating the ratio of two estimated totals.

In order to estimate population totals or totals in domains from a sample, weights are needed. An estimator of a population total of a variable is the sum of the weighted variable values for the observed sample units.

The weights are determined by the sampling design, design weights, and adjusted for nonresponse and other imperfections such as undercoverage or, adjusted to improve the precision of estimates. In CSES 2007, the design weights were adjusted using preliminary data on the number of persons and households from the population census 2008 and also the Neupert population projections<sup>14</sup>.

<sup>&</sup>lt;sup>13</sup> National Institute of Statistics (2005). Cambodia Socio-Economic Survey 2004. Technical report on Survey Design and Implementation. September, 2005.

<sup>&</sup>lt;sup>14</sup> National Institute of Statistics (2005). Cambodia Inter-Censal Population Survey 2004. Demographic Estimates and Revised Population Projections. June, 2005.

## 4.5 Questionnaires

Four different questionnaires or forms were used in the CSES 2007:

### 1. Household listing form

The listing of households was used for sampling households, see section 4.3.

### 2. Village questionnaire

The village questionnaire was responded by the village leader or a representative of the village leader. The questions are about economy and infrastructure, crop production, health, education, retail prices, rental and sales prices of land etc.

### 3. Household questionnaire

The household questionnaire was responded by the head of the household, spouse of the head of the household or of another adult household member.

The household questionnaire includes questions about housing conditions, crop production and other agricultural activities, liabilities, durable goods, construction activities and income from other sources than economic activity.

The household questionnaire also includes questions for each household member about education and literacy, migration, current economic activity and employment, health, smoking, HIV/AIDS awareness, and victimization. Some of these questions were responded by the head of household/spouse and some were responded by each household member.

The questions in the first part of the household questionnaire are posed during the initial visit to the household. This part includes questions about e.g. the household member's age, sex, marital status, relation to head of household, and questions about household expenditure/consumption of food and non-food items.

During a survey month different questions have been asked different weeks according to the following:

- Week 1. Questions about education, migration, and housing
- Week 2. Questions about economic activity, agricultural and non-agricultural business, household liabilities and other incomes.
- Week 3. Questions about construction, durable goods, and child health
- Week 4. Questions about current economic activities, health and victimization

### 4. Diary sheet

The diary sheet on daily household expenditure, including value of own production, and income have been filled in during the entire month.

## 4.6 Data collection and field work

The fieldwork started in October 2006 and finished in the end of December 2007. The results in this report are based on data from the calendar year 2007, i.e. only 12 of the 15 survey months are included in the estimation.

Supervisors and enumerators were recruited by NIS and trained for the field work. The training took place at NIS in Phnom Penh. A comprehensive field manual was used during the training and the field work.

Each fieldwork team consisted of one supervisor and three enumerators. For each selected village one enumerator was assigned as responsible and carried out interviews of ten households in the village.

Altogether 30 enumerators and 10 supervisors, divided into 10 teams carried out the fieldwork at the same time. Two groups of teams were formed and alternated monthly so that each interviewer and supervisor worked in the field every second month.

For a given month the team arrived in the village 2–3 days before the first day of the month for preparatory tasks like discussing with village authorities, filling in the Household listing form and sampled the households to be interviewed.

The supervisor was the leader of the team and was responsible for the coordination of the interviews, collaboration with local authorities, and checking of the questionnaires during the interview month. If errors were found in the responses the enumerator was required to re-interview. The supervisor was also responsible for the village questionnaire and the interview of the village leader or representative of the village leader.

Any survey of the CSES dimensions needs a comprehensive system of quality management and monitoring. The CSES management group within NIS therefore is using a careful monitoring scheme. The monitoring team included four NIS staff including top ranked NIS officers. The supervision took place during the last two weeks of the interview month.

Before going to the villages the teams were briefed and introduced to adjustments of the interviewing procedure that had to be made as a result of monitoring activities and feed-back from the data processing.

### 4.7 Data processing

The data processing was done at NIS in Phnom Penh using the SQL data management system that verifies the data entry operation. A team of data editors, data coders and data entry staff was formed. The data editors were checking the questionnaires before the data entry and also took care of errors to ensure that entered data were consistent with the collected data in the questionnaires or diaries. Before the data entry the coders also put relevant codes in the questionnaire and diary.

### 4.8 Comparability

Comparisons of the results from the 2007 CSES with previous surveys, CSES 1993/94, 1996, 1997 and 1999, are not recommended due to differences in the survey design.

The CSES 2004 was conducted from November 2003 to January 2005, and the 2007 survey from October 2006 to December 2007. The monthly sample sizes were 1,000 households in the 2004 survey and 300 households in the 2007 survey. Concerning CSES 2004 the, results presented in 2005<sup>15</sup> were based on both the 12 months and the 15 months samples, whereas in this report all estimates presented are based on the 12 month sample, i.e. the calendar year 2007.

The weights used in the reports from CSES 2004 are adjusted by using the preliminary population projections<sup>16</sup> which give over estimated population counts. The weights in CSES 2007 are adjusted by using the preliminary result from 2008 Population Census. A recalculation of the weights in CSES 2004 will be made for the coming analyses to obtain higher comparability between CSES 2004 and the surveys conducted from 2007 and onwards.

<sup>&</sup>lt;sup>15</sup> National Institute of Statistics (2005). Cambodia Socio-Economic Survey 2004, Summary Subject Matter Report, September 2005.

<sup>&</sup>lt;sup>16</sup> Neupert R.F.(2005). New Demographic Estimates and Updated Projections for Cambodia. UNDP.

## 4.9 Definitions

### **Geographical domains**

The geographical domains used in this report are

- Phnom Penh
- other urban
- other rural,

where Phnom Penh includes both urban and rural areas.

### Age

Age is defined as completed years at the initial visit to the household.

### Household

The survey covers private households with one or more persons. Nomadic households are included in principal. Households excluded from the survey are:

People living in institutions such as long term hospitals, prisons, monasteries, military quarters.

Diplomatic and UN households in the country.

Armed forces in military bases.

A household is defined as a group of persons, or a single person, who usually live together and have a common arrangements for food, such as using a common kitchen or a common food budget. The persons may be related to each other or may be non-relatives, including servants or other employees, staying with the employer.

## 4.10 Confidentiality

The Statistics Law Article 22 specifies matters of confidentiality. It explicitly says that all staff working with statistics within the Government of Cambodia "shall ensure confidentiality of all individual information obtained from respondents, except under special circumstances with the consent of the Minister of Planning. The information collected under this Law is to be used only for statistical purposes."

## 4.11 Contact person

Contact person for this report is Mr. Long Chinta, Economic Statistics Department.

## Annex 1. Module on Economic activity the last seven days

### 13. CURRENT ECONOMIC ACTIVITY

Respondents: all household members aged 5 years and older

WEEK 4

#### A ACTIVITY STATUS DURING THE PAST 7 DAYS

Please provide information on all members aged 5 years and older who usually reside in this household. Try to interview each member personally

		Did[NAME] do any			Y STATUS DURIN			IE ENIANAET -P-1	
<b>ABER</b>		work at all, even one hour, during the past 7 days (worked on farm, private or public sector, own account or in a business belonging to someone else in your	did not work even for one hour during the past 7 days, did [NAME] have a job from which he/she was temporarily absent? (e.g.: absent due to holiday or	[NAME] work in total in the past 7 days?	Is this the number of hours that [NAME] wants to work per week, or would[NAME] prefer to work more or less hours?		Was[NAME] available for work during the past 7 days?	If[NAME] did not work and did not have a job, was he/she actively seeking work during the past 7 days?	
ID NUMBER	RESPON- DENT	household etc.)?	illness)		1=Same (=>>14)	available 3 = Other reasons Codes 1-3 =>> 12	4 1/		
					2=Less (=>> 12) 3=More (=>> 12)		1 = Yes 2 = No		
		1 = Yes (=>> 5)	1 = Yes		3-MOIC (->> 12)		-	1=Yes (=>>11) 2=No	
		2 = No	2 = No <b>(=&gt;&gt; 8)</b>					2-110	
				HOURS					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
01									
02									
03									
04									
05									
06									
07									
08									
09									
10									
11									
12									
13									
14									
15									

#### **13. CURRENT ECONOMIC ACTIVITY**

#### Respondents: all household members aged 5 years and older

WEEK 4

#### A ACTIVITY STATUS DURING THE PAST 7 DAYS (CONTINUED)

Please provide information on all members aged 5 years and older who usually reside in this household. Try to interview each member personally

	ACTIVITY	STATUS DU			, <b>,</b>	If more hours (co	de '3') in Col. 6 or (code '1') in Col. 8	How many
ER	Why did [NAME] not work and not actively seek work during the past 7 days? 1 = Believes no work is available	eek work during the past 7 days? 1=Applied to advertisement 2=Contacted potential employers 3=Enquired with friends relatives etc. 4=Employment agency 5=Tried to start own business but failed			How many hours does[NAME] want to work per week?	or activily seeking Col. 9 th	occupations did [NAME] have in the past 7 days?	
ID NUMBER	4 = Permanent disabled 5 = Illness/desease/injured 6 = Too young, too old, retired 7 = Student 8 = Housekeeping, caring for children, elderly or disabled 9 = Other reasons Codes 1-9 =>> 12	6=Other (specify)		Write '0' if none	How long has [NAME] been unemployed/ or working less hours than he/she wants to? Leave it blank if don't know months and years		Write '0' if none If has a job =>> Part B Otherwise =>> Next Person	
		En	iter up to 3 coo	les	HOURS	MONTHS	YEARS	
(1)	(10)	(11a)	(11b)	(11c)	(12)	(13a)	(13b)	(14)
01								
02								
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
12								
13								
14								

13. E	. MAIN	OCCUPATION	IS DURING	THE F	PAST 7	DAYS

13. B. M	13. B. MAIN OCCUPATIONS DURING THE PAST 7 DAYS								
	<b>(Wr</b> i Wha days	ite specific occupation in col. 2a) at was[NAME]'s secondary occupation durir s? ite specific occupation in col. 2a)	ng the past 7	In what kind of economic activity, like agriculture, r construction, trade or service, did[NAME] work days?	nanufacturing, in the past 7				
		Note: beggar and sex worker are occu	NIS	Industry description	NIS				
	_	Occupation description	OCCUP. CODE	Industry description	ISIC CODE				
(1)	-	(2a)	(2b)	(3a)	(3b)				
01	1° 2°								
02	1º								
02	2°								
0.0	1º								
03	2°								
0.4	1º								
04	2°								
05	1º								
05	2°								
06	1º								
00	2°								
07	1°								
07	2°								
08	1º								
	2°								
09	1°								
	2°								
10	1°								
	2°								
11	1º								
	2°								
12	1º								
	2°								

### 13. B. MAIN OCCUPATIONS DURING THE PAST 7 DAYS (CONTINUED)

WEEK 4

ID NUMBER	How many hours did [NAME] work in this primary/secondary occupation in the past 7 days? HOURS	How many days did[NAME] work in the past month? DAYS	What was[NAME]'s employment status? 1=Paid employee 2=Employer 3=Own account worker /self-employed 4=Unpaid family worker 5=Other(specify)	Under what type of employer did[NAME] work? 1 = Government 2 = State enterprise 3 = Private enterprise 4 = Joint venture 5 = Foreign govt, international organization and NGO 6 = Local NGO 7 = Self-employed farm 8 = Non-farm self-employed 9 = Domestic servant 10 = Other (specify)	Ask only if paid employee (code '1') in Col 6.: How much did[NAME] earn salary /wages from this activity last month? Write "0" if nothing RIELS
(1)				(7)	
(1)	(4) 1°	(5)	(6)	(7)	(8)
01	2°				
02	1°				
02	2°				
	1°				
03	2°				
	1°				
04	2°				
	2 1°				
05	2°				
0/	1°				
06	2°				
07	1°				
07	2°				
00	1°				
08	2°				
	1°				
09	2°				
10	1°				
10	2°				
11	1°				
	2°				
12	1°				
12	2°				

## For more information

INTERNET	www.nis.gov.kh is the NIS web site for official statistics produced by NIS and other institutions and ministries within the Royal Government of Cambodia. The web site is the best place to start for access to summary data from the latest publications, and information about the NIS and other statistical units of the Royal Government.
Reference Library	A range of NIS reference publications are available for use by data users at the NIS Data User Service Center.
Information Service	The NIS staff at the Data Users Service Center can assist users in addressing their data requirements. NIS publications are available for sale and subscriptions services can be arranged. Special data services are also available, on a user pays basis.
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