

# Cambodia - Cambodia Inter-Censal Population Survey 2013, Count People and Households

**National Institute of Statistics**

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## Overview

### Identification

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ID NUMBER  
KHM-NIS-CIPS-2013-v1.0

### Version

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VERSION DESCRIPTION  
Version 1 - Edited data for internal use only.

PRODUCTION DATE  
2013-07-30

### Overview

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ABSTRACT  
The Cambodia Inter-censal Population Survey, 2013 was conducted with the following objectives:

- i. To strengthen the capacity of the staff of NIS and the provincial and district staff in demographic data collection; and
- ii. To provide information to government and data users on population and household characteristics such as household size, age, sex, marital status, literacy and educational characteristics, economic characteristics, fertility, mortality and migration as well as housing and household characteristics and amenities. This should be useful to the government to evaluate the Rectangular Strategy Plan in achieving its intended goals. It will help outline priority goals and strategies to reduce poverty rapidly, and develop Cambodia Millennium Development Goals (CMDG's) and other Socioeconomic Development Goals. It will also be useful to the National Institute of Statistics (NIS) in improving data availability and accessibility and in utilization of data until the 2018 census information is made available.

KIND OF DATA  
Sample survey data [ssd]

UNITS OF ANALYSIS  
Units of Analysis:

1. Individual
2. Household
3. Province

### Scope

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NOTES  
The scope of the Cambodia Inter-Censal Population Survey includes:

1. Sex, age and marital status
2. Births and deaths
3. Literacy/Educational level

4. Economic characteristics
5. Housing and household amenities
6. Other population and household information

Collection of fresh data above will allow for the calculations and reliable projections of:

1. Population size and growth
2. Fertility
3. Mortality
4. Migration

#### TOPICS

Topic	Vocabulary	URI
Cambodia Inter-Censal Population Survey	CIPS	<a href="http://www.nesstar.org/rdf/common">http://www.nesstar.org/rdf/common</a>

#### KEYWORDS

Housing and Population

## Coverage

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#### GEOGRAPHIC COVERAGE (1)

National

#### GEOGRAPHIC COVERAGE (2)

Provincial

#### GEOGRAPHIC UNIT

Individual Provinces

1. Kampong Cham (03)
2. Kampong Chhnang (04)
3. Kampong Speu (05)
4. Kampong Thom (06)
5. Kandal (08)
6. Phnom Penh (12)
7. Prey Veng (14)
8. Pursat (15)
9. Siem Reap (17)
10. Svay Rieng (20)
11. Takeo (21)

Groups of Provinces

12. Banteay Meanchey (01)

Oddar Meanchey (22)

13. Battambang (02)

Pailin (24)

14. Kampot (07)

Kep (23)

15. Koh Kong (09)

Sihanoukville (18)

16. Kratie (10)

Mondul Kiri (11)

Preah Vihear (13)

Ratanak Kiri (16)

Stung Treng (19)

## UNIVERSE

Population and housing units of all regular households in Cambodia excluding special settlements and institutional households

## Producers and Sponsors

## PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Institute of Statistics	Ministry of Planning

## OTHER PRODUCER(S)

Name	Affiliation	Role
United Nations Population Fund		Technical assistance, sponsorship

## FUNDING

Name	Abbreviation	Role
Royal Government of Cambodia	RGC	
Deutsche Gesellschaft für Technische Zusammenarbeit	GTZ	Donor
Sweden International Development Cooperation Agency	SIDA	Donor
United Nations Children's Fund	UNICEF	Donor
Japan International Cooperation Agency	JICA	Donor

## OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Mr. Nott Rama Rao	UNFPA	Technical Adviser
Dr. Hans Pettersson	UNFPA	Sampling Expert

## Metadata Production

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### METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Chan Serey	CSR	NIS	Archivist

### DATE OF METADATA PRODUCTION

2013-07-22

### DDI DOCUMENT VERSION

Version 1.0 (July 2013). Original DDI document.

### DDI DOCUMENT ID

DDI-KHM-NIS-CIPS-2013-v1

## Sampling

### Response Rate

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Response rate is 95 per cent.

### Weighting

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The probability selection and hence the weight, for the four variables (Total households, Total persons, Total males, Total females) is therefore different than the probabilities and corresponding weights for Form B and the four variables for Form A selected as the two stage sampling selection of first and second stage probabilities.

# Questionnaires

## Overview

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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 on

- (i) whether children aged 0-14 living with own mother
- (ii) whether a person's mother is alive and
- (iii) details of deaths in households in the last one year with focus on maternal mortality.

Questions mentioned at (i) and (ii) were intended respectively to estimate fertility (by application of own child method) and mortality (by application of orphan hood method). The questions to be included were carefully considered by a Working Group of Cambodia Inter-Censal Population Survey 2013, whose members were mostly from Ministries, NGOs and International Agencies. The Questionnaires were tested twice in the field (both urban and rural) by NIS staff in November 2012. The purpose of the pre-test was to have a full-dressed rehearsal of the whole process and particularly to test the questions in the field so as to make corrections in wording or definitions and to estimate the time taken for enumeration area mapping, house listing, sampling and enumeration of selected household. Based on the pre-test experience the questionnaires were modified and finalized.

Two types of questionnaires were used in the CIPS 2013: Form A House-list and Form B Household Questionnaire.

The Form A was used to collect information on buildings containing one or more households during the preliminary round preceding survey night (March 3, 2013). The information collected related to: construction material of wall, roof and floor, whether it is a wholly or partly residential building, number of households within the building, name and sex of head of household and number of persons usually living in the household.

The Form B, which has five parts, was used for survey enumeration in the period closely following the reference time.

In Part I, information on usual members of the selected household present on survey night, visitors present as well as usual members absent on survey night, was collected.

Part II was used to collect information on each usual member of the household and each visitor present on survey night. The information collected included: full name, relationship to household head, sex, age, natural mother, child aged 0-14 living with own mother, marital status, age at first marriage, mother tongue, religion, place of birth, previous residence, duration of stay, reason for migration, literacy, full time education and economic characteristics.

Part III was used to collect information on females of reproductive age (15-49) as well as children born to these women.

The information collected in part IV related to household conditions and facilities: main source of light, main cooking fuel used, whether toilet facility is available, main source of drinking water and number of living rooms occupied by household.

Part V was used to record the following information in respect of deaths in the household within the last one year:- name of deceased, sex, relationship to head of household, age at death, whether the death has been registered with the civil authorities or not, the cause of death and maternal mortality information.

## Data Collection

### Data Collection Dates

Start	End	Cycle
2013-03-03	2013-04-03	N/A

### Time Periods

Start	End	Cycle
2013	2013	N/A

### Data Collection Mode

Face-to-face [f2f]

### Data Collection Notes

For every Primary Sampling Unit (PSU) or village, a field listing was organized in order to make a current and complete listing of the households located within selected EAs. At the first step the enumerator would have to draw sketch maps of villages and EA maps. Residential and partly residential buildings, were numbered using stickers 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 operations of the survey (lasting four days from 28 February to 2 March 2013) buildings/structures wholly or partly used for residential purpose in selected EAs (700 in all) were listed in the House List called Form A. After the listing operation had been completed, a fixed sample size of 30 households was selected in each EA by the supervisors. This selection was carried out systematically by computing the sampling interval in each EA and choosing the random start, by using linear sampling. It was closely supervised by NIS SC to ensure correctness in the selection process.

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

## Questionnaires

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## Data Collectors

Name	Abbreviation	Affiliation
National Institute of Statistics	NIS	Ministry of Planning

## Supervision

Supervisor's position in the survey organisation

The supervisor is placed between the enumerator and the Province Survey Officer (PSO) or his nominated staff and is responsible for the work of the enumerator under his charge.

His main task is the supervision of a maximum of three villages and three enumerators who will work directly under him during the survey. He is responsible for completely enumerating all 30 households in the Sample EA of village or PSU allotted to him with the help of enumerators.

It is the supervisor's task to see that enumerators would efficiently carry out their assignment of enumerating all persons living on Survey Night in their EA.

The supervisor may also assist in the training of enumerators. There will be training courses when trainers will train enumerators and supervisors by giving them a series of lectures as well as class and field exercises.

## Data Processing

### Data Editing

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The completed records (Forms A, Form B, Form I, Form II, Map, and other Forms) were systematically collected from the provinces by NIS Survey Coordinators on the due date and submitted to the team receptionist at NIS. NIS Survey Coordinators formed into three teams of two persons were trained from March 7 to 10 to receive and arrange the completed forms and maps for processing after due checking from the field.

Control forms were prescribed by DUC to record every form without any omission. These records were carefully checked, registered and stored in the record room. Editing and coding of the questionnaires were done manually, after which the questionnaires were submitted to the computer section for further processing.

The instruction for editing and coding were revised and expanded. Training on editing and coding was conducted for senior staff, who in turn had to train 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. Coding had to be done very carefully in respect of birthplace and previous place of residence by using the district and province codes, and occupation and industry by using the UN International Standard Classification of Occupation (ISCO) and the International Standard Industrial Classification (ISIC) respectively. For these purposes, NIS utilized staff with sound knowledge and experience of the survey and its concepts. Those who worked as trainers or supervisors were put on this job supplemented by well-trained and tested staff. Editing and Coding was done by two teams (each with six editors and one team leader); so that one of the editors who was trained specifically in occupation/industry coding should do that coding for columns 20 and 22 of part 2 household questionnaire. The work of team members was completely checked by the Team leaders. The training on editing and coding was done from 23 to 26 March. The manual processing commenced on March 29 and was completely done by the end of May 2013.

### Other Processing

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The form A is completely identical to the one used during the 1998 General Census, whereas the main survey questionnaire, Form B, has had a few new questions added on mother alive, whether living with own mother, age at first marriage, registration of birth and a new panel consisting of 9 questions related to Deaths in Households in the last 12 months.

In order to capture the data recorded on Form A and Form B two separate data entry applications needed to be developed. A decision to develop the data entry using CPro software package, and to generate the tabulation using IMPS, had already been taken by NIS. CPro, which stands for Census and Survey Processing System, is a public service system free of cost disseminated by US. Census Bureau. IMPS (Integrated Microcomputer Processing System), has been adopted in many statistical offices, worldwide.

Both methodologies were discussed with senior NIS staff and it was agreed to adopt a mixture of the two approaches. Many NIS staff members received a two-week CPro training course (5 to 14 May 2012). This provided them a thorough insight into the CPro language and good understanding of the kind of edits normally performed in census and survey data processing.

The data entry section consisted of 14 keyboard operators working under two supervisors. They were thoroughly trained on data entry procedures and the CPro data entry software from 20 to 23 April 2013. The questionnaires were keyed-in twice in order to minimize typing errors (i.e. full verification of the data was achieved). Data entry commenced on 26 April and was completed by 30 June 2013.

Computer editing and correction was performed using the CONCOR module of IMPS. After computing the weights the Survey results were tabulated with the CENT and QUICKTAB module of IMPS. Tabulation was completed by the end of August 2014. Multiple backups of the Survey data were made onto Magnetic Optical disks.

# Data Appraisal

## Estimates of Sampling Error

Calculations of sampling errors have been made for some estimates of totals, means and proportions for variables in Form B (annex 3).

The software used for the calculations is STATA 8.0. For the calculations presented here we have assumed that stratification was done on provinces and urban/rural (an implicit<sup>57</sup> stratification on province and urban/rural was used for the sample selection).

In seven of the 45 strata there are only one PSU (EA) selected. This causes a problem for the standard error calculations. It is not possible to get standard errors in these strata. In these strata we have split the sole EA in two parts and defined the parts as two PSUs.

The standard errors are generally rather small for estimates for major domains like urban/rural and men/women. The coefficients of variation (CV)<sup>1</sup> are below 1% in many cases. The coefficients of variation are substantially higher for provincial estimates, especially for provinces with a small sample (e.g. province<sup>19</sup>). Design effects (Deff) have been calculated for some estimates. They are, as expected, quite low for estimates of demographic characteristics. They are considerably higher for estimates of socio-economic characteristics like employment status (also as expected). For the demographic characteristics "age at first marriage" and "marital status" we find design effects below 5 for major domains like men/women and urban/rural. The socio-economic characteristics are typically more "clustered" than the demographic characteristics, this shows up in generally higher design effects. For the major domain estimates we find design effects up to 20 and occasionally very high values of 200 or more. These "freak" values occur when the sample in terms of number of PSUs is small and when the PSU averages (or proportions) show large variation. One example is the design effect of 285 for the estimate of proportion of government employees in urban areas. The proportion is varying substantially between the 102 PSUs in the domain, the range is from 0 % to 75%.