

Cambodia - Cambodia Socio-Economic Survey 1999

National Institute of Statistics

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Overview

Identification

ID NUMBER

KHM-NIS-CSES-1999-v01

Version

VERSION DESCRIPTION

- v1.0: Edited, anonymous dataset for public distribution (Only one version is v1.0 of dataset for NIS as well as for public distribution).

PRODUCTION DATE

2000-05

Overview

ABSTRACT

The main objective of CSES 1999 was to, supplement the data base generated through CSES 1997, fill critical data gaps in a number of topics, and meet the data needs for analyzing and monitoring poverty, and support the anti-poverty programmes and interventions of the Royal Government of Cambodia. Accordingly, the scope of the survey was determined to canvass detailed information on household income and consumption, employment and earnings, labour utilization, child labour, and other current data needed to compile socio-economic indicators in several subject areas. Establishing and strengthening the capacity of NIS to conduct large scale household surveys and thereby institutionalize CSES as a national survey program was an important objective of the project.

The scope of the survey with respect to items of information collected at village level and household level are follows

I. Village Level Information

1. Demographic Information

2. Economy and Infrastructure

3. Education

4. Health and Immunization

5. Retail Prices and wages

6. Rain Fall and Natural Disasters

I. Household Information

1. Demographic Characteristics

2. Education

3. Labour Force Characteristics based on short and long reference periods

4. Child Activities

5. Health

6. Housing and Environment

- 7. Household Consumption Expenditures
- 8. Household Assets and Liabilities
- 9. Fertility, Mortality and Child Care
- 10. Household Income

KIND OF DATA

Sample survey data [ssd]

UNITS OF ANALYSIS

- Individual
- Household

Scope

NOTES

The scope of the survey was determined in consultation with the line ministries of the RGC, international organizations and non-government organizations in Phnom Penh. The topics investigated were basic demographic characteristics; migration and disability; education and school enrolment; health and immunization; employment, wages and earnings; child labour; household and housing characteristics; household consumption; household economic activities and land ownership; household income; village economy and infrastructure and access to basic services.

The scope of the survey with respect to items of information collected at village level and household level are as follows:

I. Village Level Information

1. Demographic Information

- a. Total number of households
- b. Population by broad age groups c. Ethnic composition d. Migration
- e. Recruitment of children for work outside the village

2. Economy and Infra-structure

- a. Income earning activities in order of importance
- b. Total area and irrigated area of agricultural lands and paddy lands c. Major crops that are grown and new crops that were introduced
- d. Major non-agricultural enterprises that are functioning and new enterprises that were established
- e. Village amenities (roads, electricity, piped water supply etc.)
- f. Availability of economic services (market, bank, agricultural services etc.)
- g. On going development projects

3. Education

- a. Information on primary, lower and upper secondary schools
- b. Major problems with primary, lower and upper secondary schools

4. Health and Immunization

- a. Type of health services
- b. Major health problems
- c. Maternity services
- d. Immunization services

e. Community health

5. Retail Prices and Wages

- a. Food prices
- b. Non food prices
- c. Medicine prices
- d. Wage rates of agricultural and non-agricultural labor

6. Rainfall and Natural Disasters

- a. Total amount and distribution pattern of rainfall during the past cropping season
- b. Number and type of natural disasters

II. Household Information

1. Demographic Characteristics

- a. Relationship to household head
- b. Sex
- c. Age
- d. Marital status e. Disability
- f. Internal migration g. Ethnicity
- h. Language fluency

2. Education

- a. Literacy
- b. Educational attainment
- c. Current school attendance
- d. Dropouts and reasons for dropping out
- e. Costs of schooling
- f. Distance to school

3. Labour Force Characteristics based on short and long reference periods

- a. Activity status during the past week and past 12 months
- b. Employment in weeks during each calendar month
- c. Unemployment in weeks during each calendar month
- d. Duration economically inactive
- e. Reasons for economically inactive status
- f. Primary and secondary occupation during the past 12 months
- g. Industrial attachments in primary and secondary occupations
- h. Employment status in primary and secondary occupations
- i. Duration employed in weeks in primary and secondary occupations
- j. Average duration of work in days per week and hours per week
- k. Average monthly wages and earnings from self-employment
- l. Average daily wage rates
- m. Employment data on occupations other than the primary and secondary occupations
- n. Duration for which additional employment was sought

4. Child Activities

- a. School attendance and reasons for not attending school
- b. Household chores engaged in and duration in hours per week
- c. Types of household chore⁸ performed
- d. Employment for family gain
- e. Age at which child was first employed
- f. Reasons for employment
- g. Age at which child was employed under an employer who is not a household member
- h. Main place of work
- i. Frequency of night work
- j. Illness or injury related to work
- k. Type of illness or injury resulting from work in past 12 months

5. Health

- a. Incidence of illness and symptoms
- b. Consultation with health provider
- c. Hospitalization
- d. Impact of illness on a person's work
- e. Expenses related to treatment

f. Sale of household assets to meet health expenses

g. Smoking habits

6. Housing and Environment

a. Area of housing unit/dwelling

b. Year of construction

c. Type of construction materials used (wall, floor, roof)

d. Source of lighting

e. Distance to and source of drinking water

f. Toilet facilities

g. Fuel used for cooking

7. Household Consumption Expenditure

(Purchased, own produce, perquisites, gifts etc.)

a. Food beverages and tobacco

b. Clothing and foot wear

c. Housing and utilities

d. House furnishing and household operation

e. Medical care

f. Transport and communication

g. Recreation and entertainment

h. Education

i. Personal care and effects

j. Miscellaneous

k. Change in household consumption expenditure

8. Household Assets and Liabilities

a. Area and value of residential lands/buildings by occupancy status.

b. Area and value of farm lands by occupancy status.

c. Livestock owned

d. Consumer durables

e. Capital items owned by households

f. Outstanding loans

g. Physical assets of farming and non-farming activities

9. Fertility, Mortality and Child care

- a. Age at marriage
- b. Number of children ever born
- c. Death by sex and cause
- d. Breast-feeding practices
- e. Infant-foods and other supplementary foods f. Immunization

10. Household Income

- a. Main source of income
- b. Employment income from wages and salaries in primary and secondary occupations
- c. Remuneration in kind and as tips, commissions, bonuses etc
- d. Earnings from self-employment
- e. Type of economic activities including nature of industries and main products
- f. Household members who were responsible for the economic activity and others who participated as unpaid family workers.
- g. Farm land owned and operated by the household
- h. Cost of cultivation of crops
- i. Production of crops
- j. Inputs and outputs of livestock raising activities, fishing, forestry and hunting
- k. Non-farming activities of the household including mining, manufacturing, construction, trade, services etc.
- l. Cost and revenue of non-farming activities
- m. Other income and receipts including transfers, remittances and assistance received by households
- n. Problems of non-farming household economic activities.

TOPICS

Topic	Vocabulary	URI
basic demographics		
migration [14.3]	CESSDA	http://www.nesstar.org/rdf/common
disability	CESSDA	http://www.nesstar.org/rdf/common
school enrolment		
HEALTH [8]	CESSDA	http://www.nesstar.org/rdf/common
immunization		
LABOUR AND EMPLOYMENT [3]	CESSDA	http://www.nesstar.org/rdf/common
wages and earnings		
child labour		
housing [10.1]	CESSDA	http://www.nesstar.org/rdf/common

household characteristics		
household consumption		
household economic activities		
household income		
village economy		
village infrastructure		
village access to basic services		
EDUCATION [6]	CESSDA	http://www.nesstar.org/rdf/common

Coverage

GEOGRAPHIC COVERAGE (1)

The sample was designed to provide estimates of the indicators at :

National (24 provinces)

GEOGRAPHIC COVERAGE (2)

Phnom Penh, Other Urban and Other Rural

GEOGRAPHIC COVERAGE (3)

Plain, Tonle Sap, Coastal, and Plateau/Mountain

GEOGRAPHIC UNIT

Village

UNIVERSE

Select sample households from non-institutional households (All regular residents in Cambodia) in Cambodia.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Institute of Statistics	Ministry of Planning

OTHER PRODUCER(S)

Name	Affiliation	Role
United Nations Development Program		Technical Assistance
World Bank		Project Execution

FUNDING

Name	Abbreviation	Role
United Nations Development Program	UNDP	Funding

OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
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Ms. Dominique Ait Ouyahia-MacAdams	United Nations Development Program	Technical Assistance
Dr. Su Yong Song	World Bank	Support in resolving issues that arose in the survey
Mr. R.B.M. Korale, Statistical Experts and Consultants	United Nations Development Program	Provided technical direction and supervision in survey planning and implementation, for training Cambodian statisticians in survey design, implementation and survey processing; report writing
Mr. Matthew Varghese	World Bank	Administrative support

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Mao Chhem	MC	National Institute of Statistics	Archivist
Saint Lundy	SL	National Institute of Statistics	Reviewer
Saint Lundy, Chao Pheav	SL, CP	National Institute of Statistics	Reviewer

DATE OF METADATA PRODUCTION

2009-09-28

DDI DOCUMENT VERSION

Version 1.3 (June 2010). Edits made on the original DDI document and variable descriptions.

Version 1.2 (February 2010). Edits made on variable descriptions.

Version 1.1 (October 2009). This version contains revisions on the original DDI document.

DDI DOCUMENT ID

DDI-KHM-NIS-CSES-1999-v1.3

Sampling

Sampling Procedure

A two stage stratified sampling design with the villages as the first stage units (PSU's) and households as the second stage units (SSU's) was used in the sampling strategy which was based on the method of inter-penetrating sub-samples. A truncated frame which excluded 4.5% of the villages was used because of the difficulty of conducting field work for security reasons in the excluded villages. The survey covered all non-institutional households including one person households. CSES 1999 sampled 6,000 households distributed in 600 villages in the country. The survey was conducted in two rounds to capture seasonal changes in the characteristics studied. The sampling design provided for estimates to be prepared for the urban and rural sectors and the capital city of Phnom Penh as well as for the four ecological zones of the Plain, Tonle Sap Lake, Coastal and Plateau and Mountain Regions. The design is not self-weighting and weights were used in the preparation of survey estimates.

Although CSES 1997 was successful operationally, improvements in the sampling design were considered essential while retaining the main features of the design which has been briefly outlined earlier. The inclusion of such topics as employment, child labor, per capita expenditure of households, health, and education expenditure demonstrated that the sample size should be adequate to produce statistically reliable estimates for the main stratification. The approximate computation of sampling errors of some key estimates in CSES 1997 that sampled 6,000 households showed that the relative errors were in the range of 3 % to 10% or a margin of error twice as much. It was thus necessary to reduce the sampling errors and it was evident that the sampling errors of estimates of the same variables canvassed in CSES 1999 as well as those which had similar prevalence rates would be high. Thus, it was clear that the sample size in fact should be raised above 6,000 households to produce nationally and sectorally representative and statically reliable estimates in respect of some of the key variables in the core questionnaire and in the income and employment module. Because of financial and administrative constraints, it was not feasible to increase the total number of households to be sampled. Therefore it was necessary to resort to the other options available that of improving the precision of the estimates by adopting a more efficient sampling design and attempting to lower the sampling errors.

When compared with the sampling designs that were adopted in surveys conducted earlier in Cambodia, a more efficient and improved sampling strategy was adopted in CSES 1999. The new sampling strategy has provided for estimates for the urban and rural sector, and the capital city of Phnom Penh as well as for the different ecological zones. The method of interpenetrating sub-samples has also provided for the preparation of separate estimates for ecological zones of the country from independent sub-samples enabling checks on the quality of data collected and on the precision of the estimates. Apart from these major innovations, the sampling procedures for the selection of villages which were the primary sampling units (PSU's) and households which formed the secondary sampling units (SSU's) were also improved by adopting circular systematic sampling with probability proportional to size (CSSPPS) techniques.

The sampling design of CSES 1997 followed the sampling strategy adopted in the two socio-economic surveys conducted earlier namely SESC 1993/94 and SESC 1996. The designs in these surveys were based on the division of the country into three domains Phnom Penh, other urban and rural areas so that separate estimates can be prepared for the capital city, and urban and rural sectors. These surveys used truncated frames that had excluded provinces, communes and villages in which data collection was difficult for security or other reasons. From each domain a specified number for villages were selected as first stage units (PSUs) and the second stage units (SSUs) which were households were selected after a pre-listing of households in the sample PSUs.

CSES 1999 sampled 6,000 households from 600 sample villages distributed in all 24 provinces in the country. The survey covered both urban and rural areas of Cambodia. Approximately 4% of the villages were excluded in 14 provinces because of difficulties of conducting field work for security reasons. The number of households sampled from each village was restricted to 10 to reduce the cluster effect and improve the precision of the estimates.

Estimates for round one and round two are provided separately for certain characteristics in addition to the estimates from both rounds of the survey. The estimates provided in the report are for the truncated frame used in the survey that excluded 4.2% of the villages because of the difficulty of conducting fieldwork for security reasons. In respect of a few key variables extrapolated estimates were prepared which covered the excluded areas of the country in addition to the truncated frame used in the survey.

Response Rate

Non-responding households were replaced. The need to adjust the weights for non-response did not arise as completed questionnaires from all sampled villages and households were retrieved achieving a 100% response rate.

Weighting

The sampling design used in CSES 1999 is not self-weighting. Therefore it was necessary to calculate the weights or inflation factors applicable to both villages and households of each sampled village, before the data for villages or households were aggregated. The weights for estimation of the aggregates were computed (or the villages and households in the 10 domains into which the country is divided. The need to adjust the weights for non-response did not arise as completed questionnaires from all sampled villages and households were retrieved achieving a 100% response rate. Inflation factors were checked for each domain by comparison of the sum of the weighting factors of all sampled households which constitute an estimated total number of households in the domain against the total number of households for the domain in the sampling frame. The weighting factors (named WEIGHT in the data files) with the corresponding identifiers of villages and households were fed as an input into the computer to be merged with the data files.

Questionnaires

Overview

As in CSES 1997, four questionnaires were used in CSES 1999 for data collection. These include:

CSES Form 1: household listing sheet was used to record all households in the village or part thereof selected for household enumeration. The current list of households was necessary for sampling households and also as an input to derive household weights.

CSES Form 2: Village Questionnaire canvassed data on village population, physical and social infrastructure, development programmes and institutions at the village level and village level prices and unskilled wage rates

CSES Form 3: Core Questionnaire canvassed data on demographic characteristics, education, health and immunization, household and housing characteristics; and household consumption.

CSES Form 4: Income and Employment Module canvassed detail information on employment, wages and earnings; child labour; all types of household economic activities; household assets and household income.

Data Collection

Data Collection Dates

Start	End	Cycle
1999-01	1999-03	Round 1
1999-06	1999-09	Round 2

Data Collection Mode

Face-to-face [f2f]

Data Collection Notes

Field enumerators and supervisors were drawn from the NIS, MOP and the provincial planning and statistics offices. In all, 93 enumerators and supervisors were trained in Phnom Penh from 6th to 19th December 1998 by the Project staff supported by senior NIS staff. A comprehensive manual was prepared for the use of the field staff and live interviews were conducted through field visits to provide hands on experience. The enumeration and supervisory staff were re-trained for one week from May 24 to 29, 1999 before they were re-deployed on fieldwork. Selected enumerators were specially trained before they were deployed on re-interviews.

Data collection was carried out through visits to the sampled household where several members of the household were interviewed by enumerators. The fieldwork on Round 1 was conducted between January and March 1999 and on Round 2 between June and September 1999. The complexity of the survey required revisits to households to correct incorrect entries and to clarify doubtful responses through the re-interview of more than 2,000 of the 6,000 sampled households. These field control procedures made it possible for the survey to produce adequately comprehensive and complete data on income and expenditure in which under declaration of income and incomplete consumption data are issues frequently encountered in many household surveys.

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Data Collectors

Name	Abbreviation	Affiliation
National Institute of Statistics	NIS	Ministry of Planning
Ministry of Planning	MOP	Ministry of Planning
Provincial Departments	MOP, PD	Ministry of Planning

Supervision

Interviewing was conducted by teams of interviewers. Each team comprised 4 interviewers and a supervisor. A monitor is assigned to control the 5 provinces.

In general, a Supervisor is assigned to supervise several enumerators during field operations. The major duties and responsibilities of a supervisor in relation to enumerators are the following:

1. (S)he is responsible for ensuring that all the enumerators under himself/herself do the listing and enumeration work satisfactorily in time, planning and organizing the work in his/her area of supervision and seeing to it that everything is conducted efficiently and completely.
2. (S)he must check work as enumeration proceeds to make sure that they have done their work correctly and have followed the standard procedures laid down by the NIS. He/she will check all the questionnaires filled by enumerators. Enumerators must show and submit their work to supervisor and report to the supervisor the progress of their work and avoid committing the same errors again.
3. As part of supervisory functions, the enumerators' supervisor will visit the enumeration area assigned to them to check that enumerators have completely covered their area in the listing operation. The supervisor may observe enumerators when they are interviewing some respondents. (S)he will also re-interview some of the households that enumerators have interviewed to check whether the information they have obtained are valid.
4. The supervisor may provide to his/her enumerators all necessary field supplies and questionnaires etc. As soon as enumerators complete the enumeration, they must return all unused supplies and materials to him/her. Otherwise, enumerators will not be given clearance to collect their final service fee payment at the end of their work.
5. The supervisor serves as a link between himself/herself and higher officials of the NIS. Just as supervisor informs enumerators of the instructions from NIS officials, supervisor must inform NIS officials of any problem or difficulty that he/she experiences. Enumerators must seek their supervisor's advice on how to deal with problems in the field as often as needed. Supervisor may help enumerators to establish contact with village leaders, commune leaders, and other representatives of the village.

Enumerators must cooperate with the supervisor if they prepare a time schedule for meeting him/her, checking his/her work etc.

Data Processing

Data Editing

Data processing was carried out at the NIS on a net-worked computer system with 16 microcomputers and peripherals. 35 NIS staff were trained as editors and coders, key entry and supervisory staff. Completed questionnaires were checked, edited and coded by trained editors before the data was keyed in. IMPS (Integrated Micro Processing System) software developed and supported by the US Bureau of the Census was used for data processing. The data entry and verification system designed for the survey provided for on-line editing. A number of edit programs were prepared to eliminate duplicate records and range edits and consistency checks were used in data cleaning and validation. The tabulations presented in this report were extracted after cleaning the data files.

Other Processing

Coding is a part of the manual editing process that quantifies the descriptive answers to questions that are not pre-coded (Manual editing and coding only but not use any software) . The questionnaires used for the CSES 1999 have a number of questions for which descriptive answers should be recorded (see external resource of "Instructions For Manual Processing"). Descriptive information collected in the survey that should be coded before entering the data into computer are listed below.

Form 1 (Listing Schedule)

Principal economic activity of the building/premises/household - Section IV, Col.10

Form 2 (Village Questionnaire)

Crop Codes in Qs. 7 and 7.1

Enterprise code in Qs. 8 and 8.1

District and province codes in Q.81

Form 3 (Core Questionnaire)

District and Province where he/she was living five years ago - Col. 17 and Col. 19 under Q.1 (page 3)

Occupation and industry - Col.11b, Col.12b, Col.19b, Col.20b, Q.3 under Section III

Form 4 (Income and Employment Module)

Occupation and Industry - cols. 13c, 14b, of Q.1 of Section IA

Industry - col. 2c of Q.2 of Section 1B

Crop code - col. 3b of Q. 6 of section C

Data Appraisal

Estimates of Sampling Error

The approximate computation of sampling errors of some key estimates in CSES 1997 that sampled 6,000 households showed that the relative errors were in the range of 3 % to 10% or a margin of error twice as much. It was thus necessary to reduce the sampling errors and it was evident that the sampling errors of estimates of the same variables canvassed in CSES 1999 as well as those which had similar prevalence rates would be high (Please see in the report of external resources)