

Cambodia - Cambodia Socio-Economic Survey 2008

National Institute of Statistics

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Overview

Identification

ID NUMBER
KHM-NIS-CSES-2008-v1.0

Version

VERSION DESCRIPTION
Version v1.0 - Edited data for internal use only

PRODUCTION DATE
2011-09-16

Overview

ABSTRACT

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 labour force. It is designed to provide information on social and economic conditions of households for policy studies on poverty, household production and final consumption for the National Accounts and weights for the CPI.

The main objective of the survey is to collect statistical information about living standards of the population and the extent of poverty. Essential areas as household production and cash income, household level and structure of consumption including poverty and nutrition, education and access to schooling, health and access to medical care, transport and communication, housing and amenities and family and social relations. For recording expenditure, consumption and income the Diary Method was applied.

Another main objective of the survey is also to collect accurate statistical information about living standards of the population and the extent of poverty as an essential instrument to assist the government in diagnosing the problems and designing effective policies for reducing poverty, and in evaluating the progress of poverty reduction which are the main priorities in the "Rectangular Strategy" of the Royal Government of Cambodia.

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS
Households

Individuals

Scope

NOTES

Poverty reduction is a major commitment by the Royal Government of Cambodia. Accurate statistical information about the living standards of the population and the extent of poverty is an essential instrument to assist the Government in diagnosing the problems, in designing effective policies for reducing poverty and in monitoring and evaluating the progress of poverty reduction. The Millennium Development Goals (MDG) has been adopted by the Royal Government of Cambodia and a National Strategic Development Plan (NSDP) has been developed. The MDGs are also incorporated into the "Rectangular Strategy of Cambodia".

Cambodia is still a predominantly rural and agricultural society. The vast majority of the population get their subsistence in

households as self-employed in agriculture. The level of living is determined by the household's command over labour and resources for own-production in terms of land and livestock for agricultural activities, equipments and tools for fishing, forestry and construction activities and income-earning activities in the informal and formal sector. Data to calculate household production were obtained from the household questionnaire and the diaries as well as data from the labour force module.

Briefly the four earlier CSES rounds have all made it possible to report sets of indicators on 7 main areas of social concern:

1. Demographic characteristics
2. Housing
3. Agriculture
4. Education
5. Labour Force
6. Health and Nutrition
7. Household Income and Consumption

These 7 areas were also covered by corresponding modules in the CSES 2008, together with a diary method as well as a recall method, the other following the module design and variable content of previous

TOPICS

Topic	Vocabulary	URI
Demographic characteristics	CESSDA	http://www.nesstar.org/rdf/common
Housing [10.1]	CESSDA	http://www.nesstar.org/rdf/common
Agriculture	CESSDA	http://www.nesstar.org/rdf/common
EDUCATION [6]	CESSDA	http://www.nesstar.org/rdf/common
Health and Nutrition [8]	CESSDA	http://www.nesstar.org/rdf/common
housing [10.1]	CESSDA	http://www.nesstar.org/rdf/common
Labour Force	CESSDA	http://www.nesstar.org/rdf/common

Coverage

GEOGRAPHIC COVERAGE

National

Urban/Rural

GEOGRAPHIC UNIT

14 Domains:

11 individual provinces:

Bantey Meanchy

Battambang

Kampong Cham

Kampong Speu

Kampong Thom

Kanda

Phnom Penh

Prey Veng

Siem Reap

Svay Rieng

Takeo

3 groups of provinces:

Group 1: Kampong Chhnang, and Pursat; Tonle Sap provinces

Group 2: Kampot, Sihanouk Ville, Kaoh Kong, and Krong Keb; Coastal provinces

Group 3: Kratie, Steung Treng, Rattanakiri, Mondol Kiri, Preah Vihear, Oddor Meanchey, and Krong Pailin; Mountain provinces

UNIVERSE

All resident households in Cambodia

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Institute of Statistics	Ministry of Planning

FUNDING

Name	Abbreviation	Role
Swedish International Development Agency	SIDA	Funding

OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Statistics Sweden	SCB	Technical Assistance (TA)

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Kim Chantharith	KC	NIS	Archivist
Duch Chamroeun	DC	NIS	Archivist
Saint Lundy	SLD	NIS	Archivist

DATE OF METADATA PRODUCTION

2011-09-16

DDI DOCUMENT VERSION

version 1.0 (September 2011) The first documentation of the survey

DDI DOCUMENT ID
DDI-KHM-NIS-CSES-2008-v1

Sampling

Sampling Procedure

The sampling design in the CSES 2008 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.

Stage 1: A stratified systematic pps6 sample of villages was selected. Strata were defined by provinces and the urban/rural classification of villages. The size measure used in the systematic pps sampling was the number of households in the village according to the population census 1998.

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. In 2008, a subsample of the villages, or EAs, in the 2004 sample was selected by SRS. The villages and EAs surveyed in 2008 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 2008 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 2008 was done so that each village in the 2008 sample was observed in the same calendar month as in 2004.

The sample size in 2008 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 2008. The estimates are however, adjusted for the under coverage error caused by excluding those provinces.

Response Rate

The CSES 2008 enjoyed almost a 100 percent response rate. The high response rate together with close and systematic fieldwork supervision by the core group members were a major contribution for achieving high quality survey results.

Weighting

The design weights are used to compensate for differences in the selection probabilities. The weight for the PSU is inversely proportional to its selection probability.

A further adjustment of the weights was done in order to calibrate the weights so that estimates of population totals would agree with projections based on the 1998 Population Census. Weights for households in the household file were adjusted so that estimated number of households agreed with census projections for each zone, urban and rural. Weights for individuals

in the person file were adjusted so that the estimated number agreed with the projected number in each sex and age group in each zone (urban and rural).

Some of the villages are very large. The best procedure would have been to put the very large villages (villages with a size M_{hi} larger than $M_{h/nh}$) in a separate stratum. This was not done. As a result there are a few villages where the inclusion probability exceeds 1.00 and consequently the first stage sampling weight is below 1.00. To rectify this we set the first stage sampling weight (W_1) equal to 1.00 for these villages. When doing so we had to adjust the weights downwards for the other villages in the stratum in order to have the same sum of weights for the stratum as before the adjustment.

The second stage sampling weights W_2 are calculated as the number of households in the village (according to the chairman) over the number of sampled households (10 or 20). There were actually two variables indicating the number of households in the village, one was the number obtained by the interviewer (variable E_HHs) and the other was the number obtained by the supervisor (HHs_Vill).

The household sampling weights (W_{prel}) are calculated by multiplying W_1 by W_2 . All the sampled households in the village get the same household weight. A check of the weights revealed that there were a few extremely low and high weights. These "outliers" will tend to inflate the variance for some estimates. We decided to trim the weights by adjusting the extreme weights towards the center. Weights above 300 were adjusted downwards to 300 and weights below 30 were adjusted upwards to 30. In all only six weights were adjusted. The variation of the weights reflects changes in village sizes between the Census 1998 and the time of the survey. If the current number of households were the same as during the census in all the sample villages there would be no variation at all in the weights. The rather large variation in the weights is by and large a consequence of the long time lag between the census and the survey.

The distribution of the weights for the urban households shows a tendency towards bimodality. Most of the weights are centered around 100 - 120 but there is a cluster of weights around 200 - 220. The reason for this slight abnormality is that the proportional allocation of the sample to strata was not strictly followed. In two urban strata, the sample size was below proportion, resulting in substantially larger sampling weights.

Questionnaires

Overview

Four different questionnaires or forms were used in the survey:

Form 1: Household listing sheets to be used in the sampling procedure in the enumeration areas.

Form 2: Village questionnaire answered by the village leader about economy and infrastructure, crop production, health, education, retail prices and sales prices of agriculture, employment and wages, and recruitment of children for work outside the village.

Form 3: Household questionnaire with questions for each household member, including modules on migration, education and literacy, housing conditions, crop production, household liabilities, durable goods, construction activities, nutrition, fertility and child care, child feeding and vaccination, health of children, mortality, current economic activity, health and illness, smoking and HIV/AIDS awareness.

Form 4: Diary form on daily household expenditure and income

Data Collection

Data Collection Dates

Start	End	Cycle
2006-10	2008-12-31	N/A

Data Collection Mode

Face-to-face [f2f]

Data Collection Notes

The fieldwork started in October 2007 and finished in the end of December 2008. The results in the survey report are based on data from the calendar year 2008.

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.

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Form 4: Diary form on daily household expenditure and income

Data Collectors

Name	Abbreviation	Affiliation
National Institute of Statistics	NIS	Ministry of Planning

Supervision

Monitoring

Any survey of the CSES dimensions needs a comprehensive system for quality management and monitoring. Only then can deviations from the target be tended to in time to avoid shortfalls. Interviewers and supervisors were initially divided into teams of five persons (one supervisor and four interviewers), making in total 50 teams for the fieldwork.

The CSES management group within NIS therefore set up a meticulous monitoring scheme to be implemented from the very beginning. The monitoring team did include at least five NIS staff. Commonly the DG of NIS has spent one week monthly while other top ranked NIS officers have been out for two weeks on average. At times other officials from NIS or the Ministry have participated.

Inspections entailed both announced and unannounced visits. Every team was visited at least twice during their fieldwork periods. The purposes of these visits were several. One important purpose was to get a disciplinary effect on supervisors and enumerators from their knowledge that such inspections must be expected throughout the fieldwork month, including also at the very end of the diary month. Also important was to give feedback and encouragement to fieldworkers and to complement training by advice and suggestions and to sort out any problem that had arisen in the course of fieldwork in the village. Another area of concern was to ensure that the household listing and sampling was done in accordance with the procedures that were devised.

The Supervisor's Role

The supervisor was the leader of the team and was responsible for the coordination of the interviews, collaboration with local authorities, and checking for errors in the interviewed questionnaires. Enumerators were required to re-interview in case of errors found in the questionnaire. The supervisor then brought the final checked questionnaire to NIS. The supervisor was also responsible for the village questionnaire and the interviews of the village chief or representative. In the early stages of survey planning, a Survey Core Group of high-level NIS officers, chaired by the DG, was formed. After assigning supervisors and enumerators to the villages, five core group members had the task of monitoring fieldwork activities in the sampled villages. This supervision was done during two weeks a month. The major tasks were to check the presence of supervisor and enumerators, the status of the fieldwork, and the cooperation between the authorities of the village and the fieldworkers. They also addressed the issue of non-response households and partially filled-out questionnaires. It was found that non-response overall was very low and that the cooperation with local authorities was good. All taken together, the fieldwork was completed in a very satisfying manner.

Data Processing

Other 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.

Data Appraisal

Estimates of Sampling Error

In order to provide a basis for assessing the reliability or precision of CSES estimates, the estimation of the magnitude of sampling error in the survey data shall be computed. Since most of the estimates from the survey are in the form of weighted ratios, thus variances for ratio estimates will thus be presented.

The Coefficients of Variation (CV) on national level estimates are generally below 4 percent. The exception is the CV for total value of assets where there are rather high CVs especially in the urban areas, which should be expected.

The CVs are somewhat higher in the urban and rural domains but still generally below 7 percent. For the five zones, the average CVs are in the range 5 to 13 percent with a few exceptions where the CVs are above 20 percent. For provinces the CVs for food consumption are 9 percent on average.

The sample take within Primary Sampling Units (PSU) was set to 10 households per PSU in the CSES 1999. When data on variances became available, it was possible to make crude calculations of the optimal sample take within PSU. Calculations on some of the central estimates in the CSES 1999 show that the design effects in most cases are in the range 1 to 5.

Intra-cluster correlation coefficients have been calculated based on the design effects. These correlation coefficients are somewhat high. The reason is that the characteristics that are measured tend to be concentrated (clustered) within the PSUs. The optimal sample size within PSUs under different assumptions on cost ratios and intra-cluster correlation coefficients was then calculated. The cost ratio is the average cost for adding a village to the sample divided by the average cost of including an extra household in the sample. In the CSES, it was chosen to adopt a fairly low cost ratio due to the fact that the interview time per household is long. Under this assumption the optimal sample size is probably around 10 households per village for many of the CSES indicators.