Cambodia - Cambodia Socio-Economic Survey 2012

National Institute of Statistics

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Overview

Identification

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KHM-NIS-CSES-2012-v1.0

Version

VERSION DESCRIPTION
Version 1.0. - Edited data for internal use only

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2013-07

Overview

ABSTRACT
The Cambodia Socio-Economic Survey (CSES) asks questions to a country wide sample of households and household members about housing conditions, education, economic activities, household production and income, household level and structure of consumption, health, victimization, etc. There are also questions related to people in the labour force, e.g. labour force participation.

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. The CSES aims to estimate household income and consumption/expenditure as well as a number of other household and individual characteristics.

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 . In this regard, the CSES continues to serve all stakeholders involved as essential instruments in order to assist in diagnosing the problems and designing their most effective policies. The CSES micro data at NIS is available for research and analysis by external researchers after approval by Senior Minister of Planning. The interesting research questions that could be put to the data are many; NIS welcomes new research based on CSES data.

General Objectives:

CSES 2012 will continue the work started through CSES 2004 and the annual CSES 2007 and 2008 and would primarily aim at producing information needed for planning and policy making for reduction of poverty in Cambodia. Reduction of poverty has been given high priority in Cambodia's National Strategic Development Plan (NSDP 2009-2013). In addition to this, the survey data help in various other ways in developmental planning and policy making in the country. They would also prove useful for the production of National Accounts in Cambodia.

A long-term objective of the entire project is to build national capability in NIS for conducting socio-economic surveys and for

utilizing survey data for planning for national development and social welfare.

Specific Objectives:

Among specific objectives, the following deserve special mention:

1) Obtain data on infrastructural facilities in villages, especially facilities for schooling and health care and associated problems.

2) Obtain data on retail prices of selected food, non-food and medicine items prevailing in the villages.

3) Collect data on utilization of education, housing and land ownership

4) Collect data on household assets and outstanding loans.

5) Collect data on household's construction activities.

6) Collect information on maternal health, child health/care.

7) Collect information on health care seeking and expenditure of the household members related to illness, injury and disability.

8) Collect information on economic activities including the economic activities for children aged between 5 and 17 years.

9) Collect information on victimization by the household

10) Collect information on the presence of the household members.

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS
Households

Individuals

Scope

NOTES
Briefly the CSES rounds have all made it possible to report sets of indicators on 8 main areas of social concern:

1. Demographic characteristics

2. Housing

3. Agriculture

4. Education

5. Labour Force

6. Health and Nutrition

7. Victimization

8. Household Income and Consumption

TOPICS

Topic	Vocabulary	URI
Agriculture & Rural Development	World Bank	
Food (production, crisis)	World Bank	
Land (policy, resource management)	World Bank	
Coal	World Bank	
Electricity	World Bank	
Oil & Gas	World Bank	
Migration & Remittances	World Bank	
Health	World Bank	
HIV/AIDS	World Bank	
Malaria	World Bank	
Mental Health	World Bank	
Nutrition	World Bank	
Tuberculosis	World Bank	
Infrastructure	World Bank	
Transport	World Bank	
Water	World Bank	
Poverty	World Bank	
Private Sector Development	World Bank	
Public Sector	World Bank	
Children & Youth	World Bank	
Gender	World Bank	
Urban Development	World Bank	

Coverage

GEOGRAPHIC COVERAGE (1)
National

GEOGRAPHIC COVERAGE (2)
Phnom Penh / Other Urban / Other Rural

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
Royal Governmnet of Cambodia	RGC	Funding

OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Statistics Sweden	SCB	Technical Assistance (TA)

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Mao Vannoeun	MVN	National Institue of Statistics	Archivist
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Sampling

Sampling Procedure

The sampling design in the CSES 2012 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 random sample of PSUs was selected from each stratum. The sampling method was systematic PPS (PPS=sampling with probability proportional to size). The size measure used was the number of households in the PSU according to the sampling frame.

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 10 households was selected. The selection of households was done in the field by the supervisors/interviewers. All households in selected EAs were listed by the enumerator. The sample of households was then selected from the list by systematic sampling with a random start (the start value controlled by NIS).

For the details of sample selection please refer to the document "Process Description: Design and Select the Sample for CSES 2012"

Response Rate

The CSES 2012 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

Sampling weights were computed for every stage. First stage weights (W1) were assigned to selected villages. With the PPS procedure employed villages were selected with different probabilities. Large villages are over-represented in the sample and, small villages are under-represented. In the calculattion of results (estimates) from the sample it must be ensured that there is compensate for this misrepresentation. The way to do that is to assign sampling weights to the selected villages (PSUs). The over-represented large villages should be down-weighted and the under-represented small villages should be up-weighted.

The second stage sampling weights W2 are calculated as the number of households in the village (according to the chairman) over the number of sampled households (10).

The household sampling weights (Wprel) are calculated by multiplying W1 by W2. All the sampled households in the village get the same household weight. These weights were then calibrated.

For a detailed discussion of the calculation of weights please refer to the document "Process Description: Design the Estimation Procedure and Calculate Sampling Weights for CSES 2012".

Questionnaires

Overview

Three 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, HIV/AIDS awareness, and victimization.

The interviewer is responsible for filling up Form 1 and Form 3 to respondents. . For Form 2, the supervisors will be asked to canvass this form. In case that the supervisors are absent for any reason, the interviewers may be also asked to help fill up this form (Form 2).

Data Collection

Data Collection Dates

Start	**End**	**Cycle**
2012-01-01	2012-12-29	N/A

Data Collection Mode

Face-to-face [f2f]

Data Collection Notes

For the CSES 2012 a new CSES survey sample and questionnaire design was implemented. The data collection and field work have therefore been monitored closely. especially in the beginning of the year. The changes caused only minor problems in the data collection. The fieldwork operations and logistics have been running very well. A training on sub-national level for all supervisors and enumerators was held in the beginning of the year. The training was paid for by local cost. Now NIS has its own capacity to carry out the out the data collection process, but is financially supported diretly by Sida. The L T As have participated in a few fieldtrips to learn more about the data collection and to check whether the work is carried out as planned. The Subject Matter Staff (SMS) have also participated more in the field work than previous years. As a result, the enumerators' undrstanding of the questions ha improved and at the same time tha SMS has received information about possible questionnaire improvements. All these activities will lead to better quality in the data collection.

Interviewers and supervisors were initially divided into teams of five persons (one supervisor and four interviewers), making in total 50 teams for the fieldwork. Each month, 25 teams were working in the field with a workload of 10 households per interviewer. In urban areas, 4 PSUs were allocated to one team while in rural areas, 2 PSUs were allocated. The fieldwork plan was designed in order to gather around 60 households monthly per team.

For a given month, the team arrived in the village three days before the first day of the month to tend to preparatory tasks like discussing with village authorities, filling out the Household Listing Form, and thereafter sample those households to be interviewed.

The Village Form was filled out by the supervisor.

The Household Questionnaire had 16 sections that were filled out by the interviewer during the first visit to the household, and in the following four weeks according to the following scheme:

FIRST VISIT: Initial visit
WEEK 1: Education and literacy, Housing
WEEK 2: Household economic activities, Household liabilities, Household income from other sources, and other expenditures (partial non-food recall)
WEEK 3: Durable goods and other expenses, Construction activities in the past 12 months, Nutrition, Fertility and child care, Mortality
WEEK 4: Health check of children, Current economic activity, Health, HIV/AIDS, Victimization

Once the month ended, the team went back to the NIS headquarters in Phnom Penh.

Questionnaires from the same PSU was delivered to the Data Management team by the supervisor in a packet including all of the documents used and produced in the fieldwork, including maps, enumeration lists, questionnaires, diaries, etc. Before going to the villages, teams were briefed and introduced to minor adjustments of the interviewing procedure that had to be made as a result of monitoring activities and feed-back from the data processing.

The fieldwork started in Janury 2010 and was scheduled to end in December 2010.

Fifty (50) supervisors and 200 enumerators were recruited by NIS and trained for the fieldwork. The training took place in Phnom Penh and lasted three weeks for supervisors and two weeks for enumerators. Before the start of each fieldwork month, there were briefing and retraining sessions. Each fieldwork team included one supervisor and four enumerators. In

urban areas one enumerator was responsible for one PSU and for interviewing 10 households, while in rural areas two enumerators were responsible for one PSU and for interviewing 20 households. In all, 125 enumerators and supervisors, divided into 25 teams, were carrying out the fieldwork at the same time. Two such team groups were formed and each team group alternated monthly.

Enumerator and Supervisor training

Initial training was provided during nine days for a group of 20-30 staff (not all were attending all the time). This training included a translation into Khmer of selected parts of the questionnaire, and a field test in a village outside Phnom Penh where the participants performed test interviews in 16 households. The experiences from this exercise were followed up during the course. The course also included general aspects on survey methodology and ways of controlling for errors. Many of the findings from this training served as input to later stages.

Prior to the start of the fieldwork intensive interviewer and supervisor training was carried out. The 200 interviewers and 50 supervisors recruited were split into two groups, each consisting of 100 interviewers and 25 supervisors. The two groups later alternated so that the first group did their fieldwork during odd survey months (i.e. November, January, March ...) while the second group covered the even survey months (i.e. February, April ...).

The training was designed with this in mind. Training of the first group was provided in English by a WB consultant and simultaneously interpreted in Khmer by the appointed NIS officer. The second group was trained by NIS only.

Common was that the supervisors were first trained during one week, and then jointly with their interviewers for two weeks. Before all fieldwork months the group in turn was gathered at the NIS to walk through the questionnaire and manuals in order to correct errors that were detected during the briefing sessions or the monitoring operations, and to learn how to handle any changes that were introduced to the survey instruments.

Questionnaires

Three different questionnaires or forms were used in the survey:

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Data Collectors

Name	Abbreviation	Affiliation
National Institute of Statistics	NIS	Ministry of Planning

Supervision

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.

In general, a supervisor is assigned to supervise several enumerators during the field operations. The major duties and responsibilities of a supervisor in relation to your work as enumerator are the following:
1. Your supervisor is responsible for ensuring that all the enumerators under him/her do the listing and enumeration work satisfactorily in time. He/she plans and organises the work in his/her area of supervision and sees to it that everything is conducted efficiently and completely.
2. Your supervisor is required to check your work as enumeration proceeds to make sure that you have done your work correctly and have followed the standard procedures laid down by the NIS. He will check all the questionnaires filled by you. You must show and submit your work to him/her and report to him/her the progress of your work and avoid committing the same errors again.
3. As part of his/her supervisory functions, your supervisor will visit the enumeration area assigned to you to check that you have completely covered your area in the listing operation. He may observe you when you are interviewing some respondents. He/she will also re-interview some of the households you have interviewed to check whether the information you have obtained are valid.
4. The supervisor may provide to you all necessary field supplies and questionnaires etc. As soon as you complete the enumeration, you must return all unused supplies and materials to him/her. Otherwise, you will not be given clearance to collect your final service fee payment at the end of your work.
The supervisor serves as a link between you and higher officials of the NIS. Just as he/she informs you of the instructions from NIS officials, you must inform him/her of any problem or difficulty that you experience. Seek his/her advice on how to deal with problems in the field as often as needed. He may help you establish contact with village leaders, commune leaders, and other representatives of the village.

Please refer to Technical Douments for details.

Data Processing

Data Editing

The NIS team commenced their work of checking and coding and coding in begining of February after the first month of fieldwork was completed. Supervisors from the field delivered questionaires to NIS. Sida project expert and NIS Survey Manager helped in solving relevant matters that become apparent when reviewing questionires on delivery.

Other Processing

In late 2006 and begining of 2007 a new system for data processing and storage were indroduced for the Cambodia Socio Econonic Survey (CSES). It includes a relational database system for storing CSES data in SQL format and application fromework developed in-house for data-entry. Since NIS staff already was familiar with Visual Basic and Microsoft SQL Server data base software the tranisition from previous data processing was also implemented to host the new CSES system and facilitate for concurrent data-entry.

The application and storage platform developed in 2006 and supervised by stastistics Sewden consultancy has since been used consecutively for all CSES data processing from 2007 and onwards.

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 were computed. Since most of the estimates from the survey are in the form of weighted ratios, thus variances for ratio estimates are computed.

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.