The Project on
Working Towards a Nationwide
Commune-Based Poverty Monitoring System
(CBPMS) in Cambodia, Phase II: Consolidation and Expansion

Technical Report
Submitted to the CBMS International Network Coordinating Team
of the Angelo King Institute for Economic and Business Studies
De La Salle University-Manila, Philippines
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1. Project Background

The Community-Based Poverty Monitoring System (CBPMS) was successfully pilot-tested in Cambodia from 2003 to 2005 by the Cambodia Development Resource Institute (CDRI) in collaboration with the National Institute of Statistics and the Seila programme. It provided valuable results, which satisfactorily describe the different facets of poverty in the six (6) communes of two different provinces. The pilot project has successfully promoted the connection between the communes, provincial, and national level planning processes through the use of CBPMS data. The project has developed the capacity of local authorities to implement the CBPMS in their localities. To meet the long-term objective of creating a sustainable system to locally monitor poverty reduction over time, the project will put emphasis on institution and capacity building at the local level and leadership by the National Institute of Statistics (NIS) under the Ministry of Planning (MOP).

The CBPMS experience in combination with the qualitative method of identification of poor households by other NGOs provided the MOP with the basis for establishing a national system of identifying poor households. The MOP has established a “Working Group on Poor Household Identification” (WGPHI) of which CDRI and NIS are members. The working group has been studying a set of indicators that best predict the poverty status of the households with the objective to establish a simple, statistically sound tool that can be implemented to identify poor households nationwide to serve the targeting purpose. It is envisaged that the CBPMS will further contribute to this process. After proposing the second phase, the two processes could be merged. Currently, the working group is still in the process of finding a set of proxy indicators. There is a possibility that the CBPMS can test the draft instrument adopted by the WGPHI.

NIS has taken over the management responsibility from CDRI to gradually expand the coverage with the same amount of funding. There are two parts of the current project or Phase II. The first part is to repeat the implementation of the CBPMS in the six-piloted communes that consisted of some 12,000 households and which were located in two districts of two provinces. The six communes would be provided with the minimal funding at the rate of $0.70 per household in order to replicate the work done of 2004. There was a strong emphasis on capacity building in the first phase. It is expected that the communes will have the capacity to repeat the exercise with minimal technical support from the provincial and district offices. This part is the consolidation of Phase I and to prove that the CBPMS can be done efficiently when it is implemented by the local resources whose capabilities were developed and enhanced by the capacity building training/exercises done during the first phase.

The second part of the project is to expand the coverage to cover twelve communes in one district of the poorest provinces. The identified province is Kampong Thom, which was estimated to be one of the three poorest provinces by the national socio-economic survey in 2004. Poverty rate in this province was 53%. There are six communes (Banteay Stung, Kampong Chen Cheung, Msar Krorng, Preah Damrei, Rung Roeung, Trea) with a total of 9,408 household was chosen from the Stung District, with a total of 21,512 households living in 12 communes in the second part of this project.
2. **Project Objectives**

The general objective is to build up a census commune database methodology for poverty monitoring and development planning at the commune level and to strengthen the local capacity of the province, the district staff and especially the commune councillors in survey methods and data processing, analysis and use.

- To provide relevant information regarding the individual and household, especially on demography, education, occupation, disability, health, housing characteristics, water and sanitation, power, expenditure, disaster, property, social security, and death.
- To provide detailed information for the commune-based poverty monitoring and analysis.
- To provide practical, scientifically generated data to commune councils for their effective planning, monitoring and evaluation of development projects.
- To produce Commune Poverty Monitoring Reports based on the CBMS results.
- To build capacity of the selected commune councils in survey methods and data processing, analysis and use.
- To promote the link between commune and provincial/national level planning processes in utilizing CBMS data.
- To cement the link between PMATU and NIS and commune councils and to eventually prepare for a nation-wide CBMS.
- To promote a firm process of decentralization which the Government and donors has high commitment on.

3. **Activities**

3.1. **Meetings with all targeting provinces, districts and communes**

Meeting(s) with Advisory Team Member(s) and Provincial and District Planning partners was made to find the effective methodology to be used and to explain/discuss the objectives of the CBPMS 2006 phase II Project.

*At Battambang Province*

There were several participants, three from Provincial Planning Department including Director of the Department, one from the district facilitator, three to four commune councillors from each commune including the commune chief, deputy commune chiefs and secretaries of the commune chief (in accordance to the decentralization policy, each commune has to have a secretary to assist the commune chief and to do other communal works including assisting the project).

*At Kratie Province*

Approximately, there were 15 participants gathered in a separate meeting. There were four from the Planning Department including the Deputy Director of the Department, the bureau chief of statistics, one district facilitator, three to four commune councillors from each province including the commune chief and secretaries of the commune chief.

*At Kampong Thom Province*

Stung district in Kampong Thom province is the new site selected for phase II of CBPMS. Thirteen (13) communes among 138 villages located in the whole district were selected for the project. In total, 47 participants joined in the meeting, 6 from the Planning Department including the Director and Deputy of the Department of Planning, the deputy governor of the district, one bureau chief of planning in the district, and several were commune councillors from each commune including the commune chiefs and secretaries of the commune were also present in the meeting.

The former enumerators in pilot CBPMS phase I in Battambang and Kratie province were also gathered to join the meeting. The enumerators in phase I shall be used as the resource persons in this phase.
3.2. Meeting Objectives
- To establish partnerships at provincial and commune levels in the selected districts and communes to complete the project.
- To introduce the full project to the new selected district in Kampong Thom province
- To introduce census procedure and working team formulation
- To discuss for being able to come up with the process of enumerator selection
- Other matters

Discussions and consultations were made among the advisory team and all relevant partners of this project such as finding the most effective methodology and updating questionnaires towards reliable and good-quality data to make sure that the CBPMS data is useful in formulating local development program. The goals, objectives and activities of this project were introduced to the provincial planning departments, deputy governors of districts, district planning officers, commune chiefs, deputy commune chiefs, commune councillors, secretaries of communes and some enumerators.

The data collection procedures were discussed to find out what issues/problems were encountered and later, the data collected were analyzed to find out if these were adequate enough to be used for planning for the development of the Stung district.

Directors of Planning Department in Battambang and Kratie provinces expressed their intention to cooperate to make this project a success because they find the previous CBPMS tool useful in local commune development. They feel that this project will also be of help in planning for improvements in the district level and in the provincial level as well. As a matter of fact, the Director from Battambang requested that two more communes, which are considered poor and flooded, be considered and selected for this CBPMS phase II.

The female Deputy Governor of Stung district reported that the lack of statistical data and socio-economic indicators such as poverty measurement, demographic indicators, literacy measurement, etc., makes planning in their district difficult. For example, if there is a plan to build a school, the need for education data is very important. Therefore, this CBPMS will provide this needed information for the district especially for local development. The Deputy Governor realized the importance of the project and thus promised full cooperation and support during its implementation.

The Planning Director and the commune chief in Kampong Thom stressed that the CBPMS project is not only gaining data for local development plans, but also building up local capacity/capabilities or local human resources. The team visited the target areas including the areas surrounding the Tonle Sap Lake and learned / observed about the way of living and major occupations of the people.

3.3. Issues found regarding discussion
Some villages are situated far apart, and travelling is difficult for both enumerators and supervisors. In the case of Stung district, where some villages are flooded and some have no permanent roads, the enumerators and supervisors spent more time and money in travelling alone. In the flooded area(s), the means of transportation is the use of the boat which is relatively expensive.

Local authorities such as the commune councillors and village chiefs were involved in the election for commune councillors in April 2007, the first of which was in 2002. Classes started at the middle of October 2006. And our intention was to employ school teachers as enumerators for the project.
3.4. Research Activities

3.4.1. Selection of site

A total of 21,512 households in three districts of three provinces were selected for the CBPMS sites. The sites under Phase I (six communes) were also selected for Phase II. Three communes (Prek Norint, Samrong Khnong, and Prek Luong) were chosen from Ek Phnom district of Battambang province; three communes in Snuol district of Kratie province. Six communes (Banteay Stung, Kampong Chen Cheung, Msar Krong, Preah Damrei, Rung Roeung and Trea) were selected from Stung District in Kampong Thom province.

<table>
<thead>
<tr>
<th>Selected Site (Province and Communes)</th>
<th>No of Villages</th>
<th>No of HHs</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Battambang</td>
<td>22</td>
<td>6,329</td>
</tr>
<tr>
<td>Preknorin</td>
<td>05</td>
<td>2,494</td>
</tr>
<tr>
<td>Samraong Khnong</td>
<td>10</td>
<td>2,085</td>
</tr>
<tr>
<td>Prekluong</td>
<td>07</td>
<td>1,750</td>
</tr>
<tr>
<td>B. Kampong Thom</td>
<td>66</td>
<td>9,408</td>
</tr>
<tr>
<td>Banteay Stung</td>
<td>16</td>
<td>1,953</td>
</tr>
<tr>
<td>Kampong Chen Cheung</td>
<td>11</td>
<td>1,348</td>
</tr>
<tr>
<td>Msar Krong</td>
<td>06</td>
<td>1,857</td>
</tr>
<tr>
<td>Preah Damrei</td>
<td>09</td>
<td>1,067</td>
</tr>
<tr>
<td>Rung Roeung</td>
<td>15</td>
<td>965</td>
</tr>
<tr>
<td>Trea</td>
<td>09</td>
<td>2,218</td>
</tr>
<tr>
<td>C. Kratie</td>
<td>21</td>
<td>5,775</td>
</tr>
<tr>
<td>Khsem</td>
<td>07</td>
<td>1,329</td>
</tr>
<tr>
<td>Snuol</td>
<td>06</td>
<td>2,354</td>
</tr>
<tr>
<td>Srechar</td>
<td>08</td>
<td>2,092</td>
</tr>
<tr>
<td>TOTAL (A+B+C)</td>
<td>109</td>
<td>21,512</td>
</tr>
</tbody>
</table>

3.4.2. Instruments Design

The questionnaire(s) were developed and revised based on the last pilot CBPMS. As recommended during the CBMS meeting, Individual Information is adopted to be used in this phase. Items such as marital status, age, sex, literacy level, education, access to school, access to health care, reasons drop out school of children, occupation, child labour, the question on disabilities and fertility and death were added to the questionnaire. To update the instruments, consultations were made with the advisory team. Pre-testing was also used to test the weaknesses of the questionnaire and based on the results, the questionnaire was revised. Finally, four instruments were adopted to be used in CBPMS for data collection to cover the indicators collected from household, village and commune level.

Form A: Household Listing Form is used to record preliminary information of each household and at the same time is used in mapping of each household in the village. This tool will be used in conducting household interview(s) (see Annex 1).

Form B: Household Questionnaire is the tool used to collect data from each household. This questionnaire when summarized will contain the most important data needed for the CBMS report. The household questionnaire is used to list members in the household. Basic information on the characteristics of each person includes sex, age, relationship to the head of the household, education and disabilities, etc. The topics of the household questionnaire covers Demography, Education, Occupation, Disabilities, Health, Fertility information, Housing condition, Energy (source of light, fuel, etc), Source of drinking water and sanitation, Household expenditures,
Household Income, About crises or household disadvantages, Household property, Feeding animal, Agricultural land, Violence, and Security and Order and Mortality (see Annex 2).

Form C: Village questionnaire - The CBMS Village Questionnaire is used to collect information at the village level. The indicators covered are on health services, agricultural land and chemical fertilizer utilities, village infrastructure and social disorder and domestic violence. (see Annex 3).

Form D: Commune Questionnaire which consists of indicators on school information, health services, agricultural land and rice yields, infrastructure, and external assistance at local level (see Annex 4).

Other Forms:
- House Sticker (see Annex 5)
- Controlling form for supervisor (see Annex 6)
- Summation Sheet of Daily Supervision for commune councillor (see Annex 7)
- Daily report form for enumerator (see Annex 8), and
- Age conversion (see Annex 9, Khmer Version)

3.4.3. Enumerators recruitment

Schoolteachers were employed as enumerators in the project. Usually, schoolteachers were employed to conduct the population census and to administer the general election in Cambodia as well. The schoolteachers would be hired for this purpose for one month. The timing to hire schoolteachers is good for this CBPMS survey since it coincides with the school year break.

Partially, members of the Village Development Committee, which have become part of the voluntary Commune Planning and Budgeting Committee, have been recruited jointly by the commune councils and the Supervisory Team. They were later trained to become enumerators. Those with a good command of quantitative skills will also be trained to be data processor(s).

For the provinces where the survey has been done before, the former enumerators were given priority to join this project Phase II since they were considered experienced and skilful already.

The village chief was not considered for any substantial role in the survey. Village chief has a lot to offer and could play a helpful role without acting as interviewer. As in the pilot phase, the village chiefs assisted the enumerators with regards geographical locations, mapping and arrangement of appointments with the households. Commune councillors act as supervisors, field editors and did manual data processing and analysis as well.

3.4.4. Training Activities

3.4.4.1. Field Operation Training (supervisors and Enumerators)

Training on data collection was conducted for a total of 307 trainees including village chiefs and commune councillor(s). The training took three (3) days, including one day for pre-testing. It was found that schoolteachers absorbed instructions quickly as compared to the non-teachers. Former enumerators in pilot CBPMS were also found to be able to understand quickly. The training was conducted effectively by having three communes in each session for ease in group handling instead of training all the six communes at one time. A session consisted of 75 participants on the average. The speakers used remote microphones so participants can easily hear them. The training was conducted at the classrooms of primary and secondary schools at the local area.

During the pre-testing, the participants were requested to interview each other with the use of the household questionnaire. The respondent acted as a head of household and was made to answer all the questions as read by the interviewer and then vice versa. The exercises using the questionnaires were collected and corrected by lecturers (supervisory members). Feedbacks were
received after each exercise and were discussed during the lecture time. The exercises were done in all of the training sessions of data collection. Participants were given the opportunity to raise ideas, comments and experiences found in the piloted project 2004 (attached with training schedule).

3.4.4.2. Pre-tests
As what has been done during the pilot project, pre-testing of the system instruments was adopted. The trainees spent one day for pre-testing. Each enumerator was requested to interview at least two households, one small and one large, to experience different sizes of households. The pre-testing is aimed to get feedback from the enumerators and possibly rectify any unclear questions or omit questions that are not applicable. During the pre-testing, supervisors and supervisory members visited and observed every enumerator while interviewing the household.

Using the 2004 piloted CBMS questionnaire as the basis and through comments and suggestions from continuous discussions with relevant partners the CBMS phase II questionnaire was readily revised. The revised 2006 CBMS questionnaire contains some individual information which was not done in the year 2004 such as, kinds of disabilities, reasons for dropping out of schoolchildren, etc.

After each session of data collection training, a pre-testing training was conducted to test the trainees on the following capabilities: 1) absorption capability, 2) strength capacity of field supervisors, 3) ability of enumerators to encode, and 4) accuracy in checking of local supervisors. After each pre-testing session, feedbacks were discussed; adjustments and recommendations were made.

On the average, it will take 40 minutes to complete the whole questionnaire. This also depends on the size of the household. If it is large size, it will take almost one hour or can be more than an hour. If a head of household is found absent during the interview, any household member aged above 18 years can represent the head of the household.

Some indicators and sub-indicators were amended after the pre-testing which included Educational Background, on the reason why they dropped out of school, by adding more variables such as being stopped by parents, a case found at the pre-interview when we ask the reason why the children stopped study. Amendments were also done with regards to the reason of disability by adding a variable on domestic violence that causes disability. Moreover, the questions asked were simplified to ease the understanding of ordinary people. All above mentioned issues were raised and collected and put into discussion during the training.

The pre-testing of the questionnaire was to the advantage of the actual census. The questionnaire became error-free and found to be more accurate. The enumerators and supervisors became well versed in interviewing, encoding and checking for errors. Problems and constraints encountered during the pre-testing were easily solved since it was discussed in the presence of advisory team.

3.4.4.2. Manual Editing Training
Manual coding training was conducted for commune councillors who were involved in the project. Interview-questionnaires were checked and verified; the answers coded by the trained commune council members. These commune council members are supervised by the district and provincial CBMS team members and after manual coding is accomplished, the questionnaires are then submitted to the provincial leader for computer machine processing.

Manual editing tools have been developed. Manual editing is divided into three parts: (i) the enumerators check all questions and answers for every interview questionnaire in their village, (ii) data was checked by the commune councillors (supervisor during data collection) in their commune by using the instruction manual for editing data, and (iii) although the field supervisors had checked the questionnaires, preliminary checking were carried out at the districts by the district and the provincial CBMS team member before the questionnaires were accepted. Manual
editing and coding at commune level were conducted by 3 manual editors and supervisors in each commune who were trained by the project staff. A detailed instruction manual for manual editing and coding was prepared for the guidance of the editors. Incomplete and doubtful questionnaires were returned to the field enumerators and supervisors who arranged revisits to the households. All completed and checked questionnaires are sent to the provincial planning and statistics department for machine processing (data entry, analysis, and results). The instruction manual for manual editing and coding is in Khmer language. All the data and results will be sent to the CBMS network after it is translated into English.

3.4.4.3. Training of data processors
Training of data processors was conducted in two parts: manual editing training at the commune level, and the computerized data processing at the provincial level. At the commune level, all enumerators and supervisors have been trained in manual editing. Simple data editing instruction manual tools were developed. In each commune, the training course has been conducted in two parts, the first one is to give an overall understanding of data processing as a whole, and the second part is to follow up the implementation and to resolve problems as they occurred. It was a valuable method that after explaining and showing examples of data processing, all participants participated and did practice exercises in the data processing, and after the exercises, they raised questions / inquiries / difficulties. It should be noted that data processors with high school education did better than others.

At the provincial level, we selected and trained 10 statistics officials at the provincial planning and statistics office to perform computerised data entry. An application frame in SPSS and Excel spreadsheet was developed and installed for them. It was useful to have involved the statistics officials in this job. Some of them have experience in data entry. However, there were not enough computers with the capacity to install the SPSS program and thus using Excel instead.

4. Computer processing
After manual data cleaning, data entry is done at the provincial level by CBMS team members of the province and the provincial planning and statistics staff. Data entering will take more than one month to be completed. Because of the lack of PCs, the services of few staff in the planning office can be tapped in order to do the data entry. Before entering data, the CBMS team members at the province and the Provincial Planning and Statistics staff will have to undergo training of SPSS software program which includes data entry, data cleaning, and analysis. The CBMS supervisory team members from the central office supervised the data entry and data cleaning. Less than two percent of the questionnaires had errors. In cases where there are errors, the concerned enumerators were requested to re-interview the household. However, errors were mostly related to household income, expenditure and assets.

CBMS team developed tools for data entry. SPSS and Excel spreadsheets (see attached file) that were used for computerised processing were developed by the provincial planning statistics officer. SPSS and Excel were used in the preparation of software data entry, and SPSS was used for cleaning the data to verify the accuracy of the manual processing and data analysis as the results for the commune and district level. The data files created through this system are in SPSS format and the variables in each data file can be identified by using the data dictionary that is based on SPSS.

The input documents were derived from the CBMS questionnaires and the data entry system was designed to input data of each type of questionnaire separately. The household questionnaire (Form B) were created separately in three parts (i) individual data file called individual file (File A), (ii) fertility data file called fertility data file (File B), and (iii) household data file (File C). The listing Form (Form A) and the household questionnaire (Form B) were used to create separate files for each village.
Data entry for computer processing was only done at the provincial level. This cannot be done at the district level due to the lack of manpower, computer facilities and electricity. With the limited number of computers and staff at the provincial level and with the large number of respondents, we decided to send some questionnaires from Kampong Thom province to the NIS for the data entry.

5. Analysis and validation of the survey results
The most challenging effort here was to determine the poverty line for each commune and the proportion of poor households in the village and commune. This was done on the basis of consumption expenditure per capita, which is in line with the adopted national definition. However, based on the CBMS pilot results from the first phase in 2004, 1,500 Riels as the poverty line is adapted for the commune poverty. The inflation that occurred since 2004 to 2006 is the main reason why there was an adjustment in the poverty line. Based on the above result and after consultations with the enumerators and the commune councils, this poverty line was raised to 1,900 Riels (US$0.46) per day per person also in line with the national poverty line. The main argument here is that the intent of this CBMS exercise is not only to estimate poverty at one point in time, but also to measure poverty over time. Therefore, as long as the poverty line is fixed and adjusted by inflation, it can serve the purpose of measuring changes in the number of households’ living standards below the poverty line.

6. Development of Poverty Monitoring Indicators
A set of core indicators for the project is outlined regarding demography, occupation, education, housing, land, water, health, disability, household expenditure, and income, assets, livestock, and domestic violence. It is drawn from consultations with partners and the study of their working documents. A number of variables may duplicate those already contained in the Seila Programme's Village Data Book, which must be filled out by the village chief. Since the CBMS employed a census approach and gave the critical importance of these variables, they will remain in the core set in this census. Comparison and verification against each set of data can be made between the two approaches for quality improvement. From this core set of indicators, a household questionnaire has been designed as shown in the Appendix. The number and complexity of the questions were severely constrained by the fact that data were processed manually and that local enumerator's capacities and experiences were limited.

7. Summary Research Findings
The principle purpose of the project is to provide planners, policy makers and community developers at local level with accurate and reliable data on demographic characteristics, education, occupation, disability, health, housing characteristics, water and sanitation, power, expenditure, disaster, property, violence. The result presented here covers only 12 communes, in which of 3 from Battambang, another 3 from Kratie and the other 6 are from Kampong Thum.

7.1. Demographic Characteristics

7.1.1. Household and population
There were a total of 21,512 households, each of which was composed of 4-5 persons in the average. Total number of population was 102,429. The percentage distribution of the population by gender for each commune, except in one commune of Snuol in Snuol district, indicates that the male almost equals to female. The predominance of the females over males is most pronounced in Rung Roeung commune where there are about 88 males for every 100 females but in Snuol commune, there are about almost equal male and female at 99.8 of males for every 100 females. The overall sex ratio is having 95 males for every 100 females.

7.1.3. Dependency Ratio
The dependency ratio is often used to measure the proportion of children and old people compared to the total population. It is, therefore, a summary indicator of the burden falling on the working age population. The average dependency ratio was 41.1%.

7.1.4. Marital status
About 54.5% of the total population of the 12 communes are married and the rest are widows, widower, divorced, single, separated or lived together without marriage. The commune of Srechar in Snuol district has the highest percentage of married members reaching the percentage of 62.6 percent while the commune of Preknorin has the lowest percentage. The commune of Srechar has the highest percentage of married females while Preknorin and Samraong Khnong have the lowest rate. On the other hand, both communes of Rungroeng in Stoung district and Srechar in Snuol district have the highest percentage of married males while Preknorning and Samraong Khnong have the lowest one.

7.1.5. Household headed by gender
Overall commune, about 80.0% of the household heads are male while only about 20% are female. Although the percentage is low, this still indicates that there are also households in the rural areas that are headed by the female. In the three communes of Snuol district, Kratie province, the percentage of having a male household head is at its highest percentage comparing to the other communes in Battambang and Kampong Thom province which is 96.7%, 88.8% and 88.3% of Khsem, Snuol and Srechar commune respectively. In Banteay Stuang commune, it is found that 28%, the highest percentage compared to other communes, of households are headed by female.

7.2 Education and Literacy
Overall literacy in the population in the 12 communes is 69.2%, among those, literate people are found higher with male than female. 74.3% of male are literate while 64.4% of female is found to be literate. Looking at three communes in Battambang province, their literacy rate was higher than in the other six communes in Kampong Thom and other three communes in Kratie. The highest illiteracy rate of the total population was found in Trea, Srechar, Khsem and Banteay Stung commune at 43.4%, 41.9%, 40.3% and 40.0% respectively.

Adult literacy rate is defined as the percentage of persons aged 15 years and over that can read and write a simple message in any language. Adult literacy rate in the 12 communes is about 80.0%. In all communes, adult literacy rate of male was higher than that of females. In the three communes of Preknorin, Samraong Khnong and Prek loung, adult literacy rate was the highest of 88.7%, 88.4% and 88.8% respectively compared to others.

70.6% of the commune’s household head are literate while 29.4% are illiterate (both sexes). In general, the male literacy rate of household heads (76.1%) is considerably higher than that of female household head (48.7%). Thus, it can be also concluded that there are more illiterate female household head (51.3%) than male household head (23.9%). Literacy rate of household head are higher in Prekluong, Samraong Khnong and Preknorin commune. The lower literacy rate is in Trea and Banteay Stung commune while, illiteracy rate is found higher in Trea and Banteay Stung Commune and lower in Prekluong, Samraong Khnong and Preknorin commune.

7.3. Occupation and Employment
In all of the communes, the two most popular occupations they engage in are being either a farmer or a student. Farming is the most popular occupation for both sexes. Aside from being a farmer, another occupation that is popular to both sexes is being a worker and having their own businesses. Fishing is not very popular simply because within the 12 communes has no or has minimal fishing grounds
Even among the household heads (for both male and female), the most popular occupation that they first engaged in is being a farmer. Farming as an occupation was highest in percentage in Preah Damrei commune (93.6%) and 93.0% in Rung Roeung commune. The lowest in percentage of farming as an occupation is in Samraong Khnong commune near where the town is located.

7.4. Health
About 60.5% of common illness is found from which the household members get affected a cold or normal cold. Malaria disease is noticed at 6.0%, 7.4% of typhoid and dengue fever at 3.7%. Malaria was revealed in Khsem, Srechar and Snuol commune that they are having highest rate; 25.8%, 20.1% and 11.6% respectively compared to other communes.

Enumerated below are the possible places a sick household member could seek medical assistance. The percentages below shows that most household members go to skilled medical professionals (45.4%), to dedicated drug stores (21.7%), and to unskilled medical professional (12.5%), to seek medical assistance. In Prekluong Commune, about 11.9% of the total in the commune, household members never seek medical help when they get sick; they just stay at home.

As a whole, most male and female household members from all the communes (or 75.1%) live 0-2 kilometers away from the Health Care Center, 12.1% live 3-5 kilometers away and 12.9% live 6 or more kilometers away.

7.5. Disability
Disabled household members of the overall communes comprise only 1.9% of the total household members. For Banteay Stung Commune, it has the highest percentage of 3.5% while Prek Luong has the lowest percentage of 3.0% of disabled household.

In most of the communes, leg disability is the highest (26.3%) compared to other types of disability. Similarly, blindness also stands at high percentage in those communes. In Srechar Commune, 37.7% of the disabled household members are leg-disabled while it was found in Snuol Commune that 28.6% is blind.

The first two main reasons for disability are caused by diseases or illness (30.9%) and being disabled since birth (24.1%). Disability caused by a disease is highest in the communes of Msar Krong, Prekluong and Khsem, while disability since birth is highest in the communes of Rung Roeung and Trea at 41.5% and 39.0% respectively. The disability caused by violence is noticed at 1.5% of both sexes. Disability resulted from their respective occupation is at 5.7%.

7.6. Sanitation
7.6.1. Main source of drinking water
As a whole, the main source of drinking water of the household members of the communes is from the dug well except Msar Krong Commune where its main source of drinking water comes from the river or stream. In the rainy season, drinking water got from the rain is 26.5%, whereas the dry season, the main source of drinking water of the household members of the commune is from the dug well (41%). Other sources of drinking water from which the communes can fetch during this season are tube/piped well (15%), river stream/channel (4.7%).
7.6.2. Toilet Use
As seen, about 67.5% of the households have no sanitary toilet. Banteay Stung and Rung Roeung Commune have the highest percentage of not having sanitary toilet facilities. Snoul and Samraong Khnong Commune are having high percentage of having sanitary toilet while Banteay Stung and Rung Roeung have very low rate of using sanitary toilet. Only about 0.8% of households are using public drainage system. And 19.4% of households use the rice fields as toilet.

7.7. Agriculture Land
About 74% of the households have agricultural land that they can till for their living, whereas another 26% has no land to till. 99.0% is found to prove that most households have their agricultural land in Rung Roeung while Samraong Khnong Commune has the highest percentage up to 53.1% of not having agricultural land.

7.8. Social Security
Out of 21,512 households in the study, there were 1,329 households using violence in the family (6.2%), and such percentage reflects the minimal rate of all communes. Only in Trea, Banteay Stung and Preknorning Communes that have the high percentage of committing violence in the family, 13.7%, 12.4% and 10.3% respectively while a total of 93.8% of the respondents say that no domestic violence has occurred in their household.

As a result of this survey, there are only 39 cases (0.2%) of sexual abuse in the 12 communes. The three communes: Srechar, Preknorin and Samraong Khong Communes, have households who are victimized by sexual abuse. In contrast, the data shows that 99.8% was not victimized by sexual abuse.

Approximately, 72.5% of the total household members of the communes think that it is best to consult with the village authority in case a social problem occurs. Likewise, 13.0% says that consulting with their relatives is also a good alternative to do to solve social problems.

7.9. Income and Expenditure

7.9.1. Income
Around 69.4% of the total household members of the communes earn less than 100,000 Riels, 29.6% earns between 100,001 to 400,000 Riels, and only 1.1% earns up to 400,000 Riels per month.

The highest monthly average income per household of Snuol Commune is 424,809 Riels or 104 USD, while the lowest is 93,721 Riels or 23 USD in Preah Damri Commune. On average, the ability to earn per household could earn 59 USD or 241,726 Riels per month.

7.9.2. Expenditure
The highest percentage of daily expense, 5,001 to 10,000 Riels, of the total households in the 12 communes, based on the table below, is 48.2%. There is about 22.1% whose spending is between 10,001-15,000 Riels per day. Only 16.4% that daily spent from 100 to 5,000 Riels of the total household. Also, it is found that 13.3% of the households spent up to 15,001 Riels.

On average, a household paid approximately 2.3USD or about 9,000 Riels per day on food while Kampong Chen Cheung spent 2.6USD or 10,800 Riels per day which is considered as the higher expense compared to other communes. However, the maximum expenditure was 14.1USD or 57,799 Riels per day.
7.10. Expenditure Measurement
In this survey, the poverty rate was assessed through household expenditures. The poverty line was set at US$ 0.46 per person per day in the rural area. These household expenditures represented the value of the following items: rice, other food (meat, fish, eggs, vegetables, oil etc.), sweets and similar items (noodles, cakes, desserts, drinks, refreshments etc.), alcohol, cigarettes, education, health care, other expenses (ceremonies, clothing, soap, water, electricity). The expenditure calculated did not include the production costs.

As a whole, 38.4% of the total households are below the poverty line. The poorest commune among the 12 communes is Khs Tam wherein 55.6% of its residence is considered poor while Srechar Commune has 48.5% of the poor. In contrast, there are only 31.3% of the poor in Samraong Khnong Commune.

8. Publication of CBMS phase II
- Working towards a Nationwide Commune-Based Monitoring System for Cambodia (in Khmer).
- Commune Poverty Profile of each commune.
- Pham plates of each commune.

9. Workshops and Use of CBMS Results
While the commune councils were acting as the owner of the survey, the CBMS results were disseminated through three local workshops in different districts of each selected provinces, Ek Phnom, Snuol and Stung district in Battambang, Kratie and Kampong Thum province respectively. After the results were disseminated in the workshops, the provincial authorities and commune councillors would be responsible for further dissemination the results to the local data users for their community development.

The outcomes from the CBMS provide the basis for the production of a "commune poverty monitoring report", which is the main tool for the commune council members to better monitor and evaluate the impacts of development policies and programmes undertaken in their communities, and to make uninformed decisions about the allocation of resources. A combination of community poverty monitoring reports will also be provided up to the lowest level which are the villages.

The flow of information on data results

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Government

Province

IOs, NGOs

District

Commune council

IOs/NGOs

Village
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More than three hundred participants were invited to attend the workshop. Those who come from government sectors were the representatives from provincial halls, planning departments, district governors, health offices, Seila program, education offices, local police offices, commune councillors within the district and other surrounding, local school directors and other relevant. None governmental organizations were also invited including Promote Health Services, Education Service Sector, Widow Assistance, Handicap Cambodia, Environment Reservation, Orphan Help, Care Cambodia, ACLEDA and AMRT Bank and other relevant, and other organizations who are working to help improve the living standards in their communities.

**Workshop List**

* Attach herewith detail list of participants.

**10. Some Problems encountered during the Study**

During the implementation, there were problems encountered but were able to solve them along the way. Anyone or any group who would like to put up a project like this must be ready to encounter unexpected problems. Such issues are as follows:

- The training period was not enough for some enumerators to acquire the necessary skill.
- The education level of some selected enumerators was too low to meet the work requirement.
- The designed questionnaire have some parts where it is difficult to obtain a true answer (Ex. household income / expenditure)
- The period the interviews was done was not so appropriate (should not be in the rainy and flooded season)
- The announcement to recruit enumerators through local authorities was not widely disseminated
- Data crosschecking could not be done with all relevant institutions (Ex. Type of diseases)
- Some village chiefs did not fully support our work.
- A lot of respondents tried to hide information most especially with regards to their land and household violence
- Many respondents expected to get some donation and assistance from the project.
- Some rich families did not fully cooperate with our enumerators by not providing true information.
- The survey was conducted during the time that coincided with the election campaign period, thus time availability and the cooperation of the village leaders and the commune councillors became limited
- After the election some of the already trained commune councillors were replaced by newcomers, so we needed to build their capacities again
The commune councillors need more development skill in term of knowledge in basic statistics, the methods and uses of statistics especially can easy prepare, read, and interpret simple statistical measurement, table and graph.

11. Lesson Learned

Selection of sites: Selecting the sites, which consist of people’s willingness and capacity in the commune, should be the main determinants.

Designing questionnaires: The questions should be very clear, simple and easy to understand for both interviewers and respondents. They have to be tested and revised before being put to use.

Selection of interviewers: All interviewers should come from the villages (commune in some cases) where they interview and should have at least some interviewing experience, as well as good innumeracy. A better way to select candidates would have been to post a public announcement at the school or in other communal places.

Data collection: The enumerators have to be trained and supervised closely because their experience and knowledge are still limited.

Timing of survey: The survey should be conducted during the non-farming period. In most places, this will be by February and March or August and September.

Data processing: It is necessary to process data manually in the village. Manual data processing is too difficult for certain villages where skill levels are relatively weak. However, one option is to do it using resources from the commune. The other option is to use schoolteachers or qualified high school students in the commune. Training of data processors is also necessary.

Interviewers’ fee: Interviewers were paid 1,000 Riel ($0.25) per household they did and finished interviewing. An interviewer, on the average, takes one hour to interview per household. They are expected to finish about six households per day. However, this number was not applicable for interviewers who interview households located in the remote areas since most of the time is wasted in travelling to the village alone, thus they get to interview only two or three households per day. There is a need to study the possibility of increasing the rate per interview and to give transportation allowance to those who will be assigned to interview households located in remote areas.

The time frame to conduct survey: The surveys should not be conducted in the period close to or during elections. Local commune officers will have less time to assist in the project because they will be busy campaigning during this period. Also, if training is done before the elections, there is a possibility of the need to repeat the training course for the new set of elected commune officers.

The Enumerator: It was found during the project implementation that female enumerators worked more effectively in interviewing households than male enumerators. Female enumerators worked patiently specially during interviews. Most of the household head were female; therefore female enumerators were more welcomed to perform asking household information. Female household heads usually led and managed the household economy such as expenditure, income and other economical situation. From these experiences, with regard to the CBMS question which requires information collection on income and expenditure, both female respondent and enumerator could nicely perform and cooperate.

Training of commune councillor: Since the knowledge of statistics of the commune councillor is very limited, training of basic knowledge of statistics is needed for the commune councillor to be able to use statistics for preparing development planning at the commune level and also for integrated for district planning with line-provincial department of ministry.

12. Refinement of Methodology of Cambodia CBMS

The National Institute of Statistics (NIS) assumes responsibility for undertaking the second Phase of CBPMS and achieving the objectives set above. However, during the course of the implementation, the NIS collaborated with Cambodia Development Resource Institute (CDRI), the World Bank, UNDP, the Ministry of Planning and the Seila/PLG Programme and the Provincial Hall, the National Institute of Statistics at the Provincial Statistical Office of Battembang, Kratie and Kampong Thom provinces, the district offices and commune councils
selected for the project. Capacity building is a priority task for the partners, especially the commune councils concerned.

The primary source of data is the household. It is a census of household at the commune level. Enumerators were required to interview the household head and in case of the head’s absence for the whole period of the survey, the oldest adult person in the house was interviewed. Information from the local governments and at the village or commune level was compiled in addition, to the Commune Database collected by the Seila Programme. Supplemental information was gathered from other sources such as administrative reports, and surveys done by other agencies in the past, if any.

Capable villagers including members of the voluntary Commune Planning and Budgeting Committee were recruited by the commune councils and trained to become enumerators. Criteria were provided to the commune councils in order to recruit the right capable villagers. Announcements for recruiting the enumerators also posted in schools and other communal places to ensure wide outreach to potential capable villagers. Training courses were conducted for three days, including one day for pre-testing of the questionnaire. The payment for enumerators maintained at $0.25 per household or $1.50 per day interviewing six households. This was a ceiling to ensure the quality of interviews.

Those with a good command of quantitative skills will also be trained to be data processors. The Project Management Team will be responsible for training the commune councillors, enumerators and data processors. The training was including classroom training and field testing of a few households for each enumerator. The CBPMS census took approximately one month of full time work.

Rather than applying the usual qualitative methods such as semi-structured interviews and focused group discussions, commune council members who live and work with locals for some time, were requested to write a commentary report providing qualitative aspects of the data. The report was discussed and agreed upon by all the commune council members before being incorporated in the Commune Poverty Monitoring Reports and the project report.

13. Institutionalization of CBMS
The creation of official CBMS office at the NIS has been discussed and agreed by the director general of NIS. The survey/census organizational structure is shown in the following diagram. The NIS General Director functioned as the one responsible for the control and supervision of NIS Staff and the staff from the Provincial Planning and Statistics Services who functioned as supervisors. A senior Statistician functioned as the Project Director while the Statistical Assistants comprised the NIS-CBMS Office project staff. They were responsible for conducting survey design, systems and programming for data processing, technical supervisor during all phases of survey/census operation, conducting training of field staff and preparing of final reports. The NIS set up an Advisory Team, consisting of experienced individuals from key stakeholders namely, the CDRI, the World Bank, and Seila Programme. The Project Advisory Team only provided technical advice and guidance.

The organizational structure of CBMS
The work of the field enumerators was supervised by field supervisors, one field supervisor in each province, one field supervisor in each district and three supervisors in each commune supervising the work of their respective assigned areas. These people edited the completed questionnaires.

The middle level staffs of NIS and Provincial Planning and Statistics Services were engaged as supervisors. The success of the fieldwork depended so much on the recruitment, training and deployment of provincial and local staff. The engagement of the provincial and local staff for fieldwork supervision and enumeration made it possible to enjoin the active cooperation of commune and village workers for the survey/census.

See Annex 11

15. List of Annexes

Annex 1: Household Listing
Annex 2: Household Questionnaire
Annex 3: Village Questionnaire
Annex 4: Commune Questionnaire
Annex 5: House Sticker
Annex 6: Controlling Form for Supervisor (in Khmer)
Annex 7: Summation Sheet of Daily Supervision for Commune Councillor (in Khmer)
Annex 9: Age Conversion (in Khmer version)
Annex 10: Data Processing Forms (form A, B and C)