



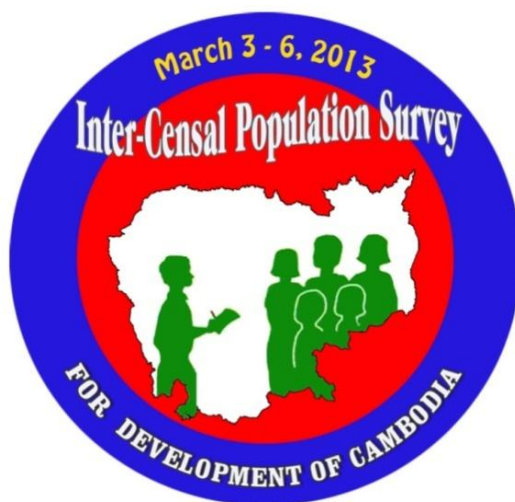
KINGDOM OF CAMBODIA

Nation - Religion – King

CAMBODIA INTER- CENSAL POPULATION SURVEY 2013

Analysis of the Survey Results Report 9

Housing and Household Amenities



**National Institute of Statistics, Ministry of Planning
Phnom Penh, Cambodia**

**Sponsored by
United Nations Population Fund
Japan International Cooperation Agency**

March 2014



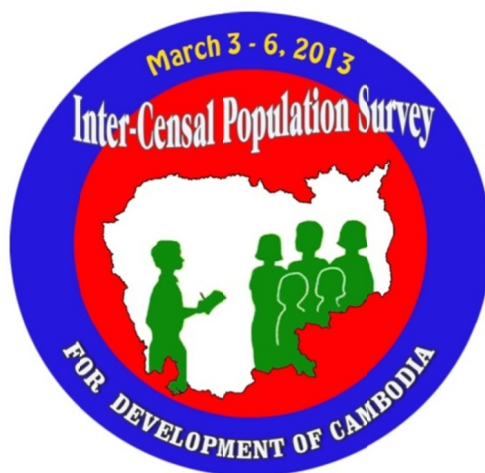
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FOREWORD

I have great pleasure in presenting this report containing the analysis of the results of the Cambodia Inter-censal Population Survey (CIPS), conducted by the National Institute of Statistics (NIS) with 3 March 2013 as the reference date. This survey was taken between two censuses, the 2008 census and the proposed 2018 census. This survey (CIPS 2013) corresponds to CIPS 2004 which was conducted after the 1998 Population Census.

From the point of view of the sample size (about 28,650 households in 955 Enumeration Areas which were the primary sampling units), CIPS 2013 is bigger than CIPS 2004. Moreover CIPS 2013 was designed to provide data for each of the 24 provinces of Cambodia unlike the previous survey which grouped smaller provinces for presenting the results. The database created by the present survey could be useful on an interim basis until the next population census is conducted in 2018.

CIPS 2013 is a follow-up of the successful 2008 Population Census, whose results were widely disseminated within the Ministries and among a large body of data users and the public, and the final results of CIPS 2013 was analyzed and released in the General Report on 20 November 2013.

This report is one of the 13 in-depth analytical reports which analyze in more detail the results of CIPS 2013.

More than a thousand staff members of the NIS and Provincial Planning Offices were trained for conducting the survey. Their services will be utilized to train in turn a large number of enumerators and supervisors who will be recruited for the next Census. CIPS 2013 may therefore be called the harbinger of the next Population Census in Cambodia due in the year 2018. The National Institute of Statistics emphasizes the importance of close collaboration with international development partners and national counterparts to ensure transfer of knowledge to improve analytical methodologies, and to plan and organize national reports. This emphasis will facilitate the long term sustainability of demographic analysis in the country.

On behalf of the Ministry of Planning, I wish to place on record our gratitude to the United Nations Population Fund (UNFPA) for supporting the whole process of CIPS, 2013 including resources and technical assistance program with emphasis on capacity development. Thanks are due to Japan International Cooperation Agency (JICA) for providing technical assistance for mapping villages and Enumeration Areas (EAs), and for participating in analysis and dissemination of the results.

I appreciate the hard work put in by the staff of the NIS under the guidance and supervision of H.E Mrs. Hang Lina, Director General, NIS and the Provincial Planning Offices in making the survey a success as well as in the preparation of this report. I wish to take this opportunity to thank all staff of the National Institute of Statistics as well as all survey field staff who took part and contributed to the success of the Cambodia Inter-censal Population Survey, 2013. We are also thankful to technical advisers for the survey: Mr. Nott Rama Rao, Dr.Gouranga Das Varma, Mr.Gregory Martin, Mr. Fumihiko Nishi, Mr.Akihiko Ito, and Mr. Akihito Yamauchi.

We are pleased to present to line-ministries, international agencies, non-government organization, policy makers, programme implementers, development planners, and researchers this publication with a plethora of useful information. We hope to receive feedbacks and comments to improve our subsequent publications.

Ministry of Planning
March 2014

Chhay Than
Senior Minister
Minister of Planning

PREFACE

The The Cambodia Inter-censal Population Survey, 2013 was conducted not only to obtain the much-needed demographic data following the census, but also to serve as a means to train the staff of the NIS and Provincial Planning Offices in demographic data collection. We are happy to record that the survey achieved both objectives.

This report contains in-depth analysis on Housing and Household Amenities in Cambodia based on the results of CIPS, 2013. A statistical profile at the national level and separate profiles for individual provinces are being prepared. At the same time, more in-depth analytical reports on the results of the Survey are being prepared.

Our special thanks are due to H.E.Chhay Than, Honorable Senior Minister, Minister of Planning, Cambodia whose keen interest in the census and in the survey was always a source of inspiration and encouragement both to the national and international staff of the project.

We sincerely thank the United Nations Population Fund (UNFPA) for supporting the whole process of CIPS, 2013 including resources and technical assistance programs with emphasis on capacity development. Thanks are due to Japan International Cooperation Agency (JICA) for providing technical assistance for mapping villages and Enumeration Area (EAs), and for participating in analysis and dissemination of the results.

The success of the survey was mainly due to the enthusiastic participation of a large number of staff in fieldwork, data processing and other survey activities. To every one of them our thanks are due. The UNFPA and JICA experts closely assisted the NIS and the provincial staff. We are thankful to all of them.

Phnom Penh, Cambodia
March 2014

H.E Hang Lina
Director General
Institute of Statistics

List of Abbreviations and Acronyms

CDHS	Cambodia Demographic and Health Survey
CD-ROM	Compact Disc Read-only Memory
CIPS	Cambodia Inter-censal Population Survey
CMDGs	Cambodia Millennium Development Goals
CSPro	Census and Survey Processing System
DDG	Deputy Director General
DG	Director General
DUSC	Data Users Service Center
EA	Enumeration Area
GIS	Geographic Information System
JICA	Japan International Cooperation Agency
MOP	Ministry of Planning
NGO	Non-governmental organization
NIS	National Institute of Statistics
NSDP	National Strategic Development Plan
PES	Post Enumeration Survey
PSU	Primary Sample Units
QA	Quality Assurance
RGC	Royal Government of Cambodia
RS	Rectangular Strategy
SSU	Secondary Sampling Units
UN	United Nations
UN CensusInfo	United Nation Census Information
UNFPA	United Nations Population Fund
WHO	World Health Organization
WB	World Bank

NIS Personnel and JICA Experts Associated with this Report

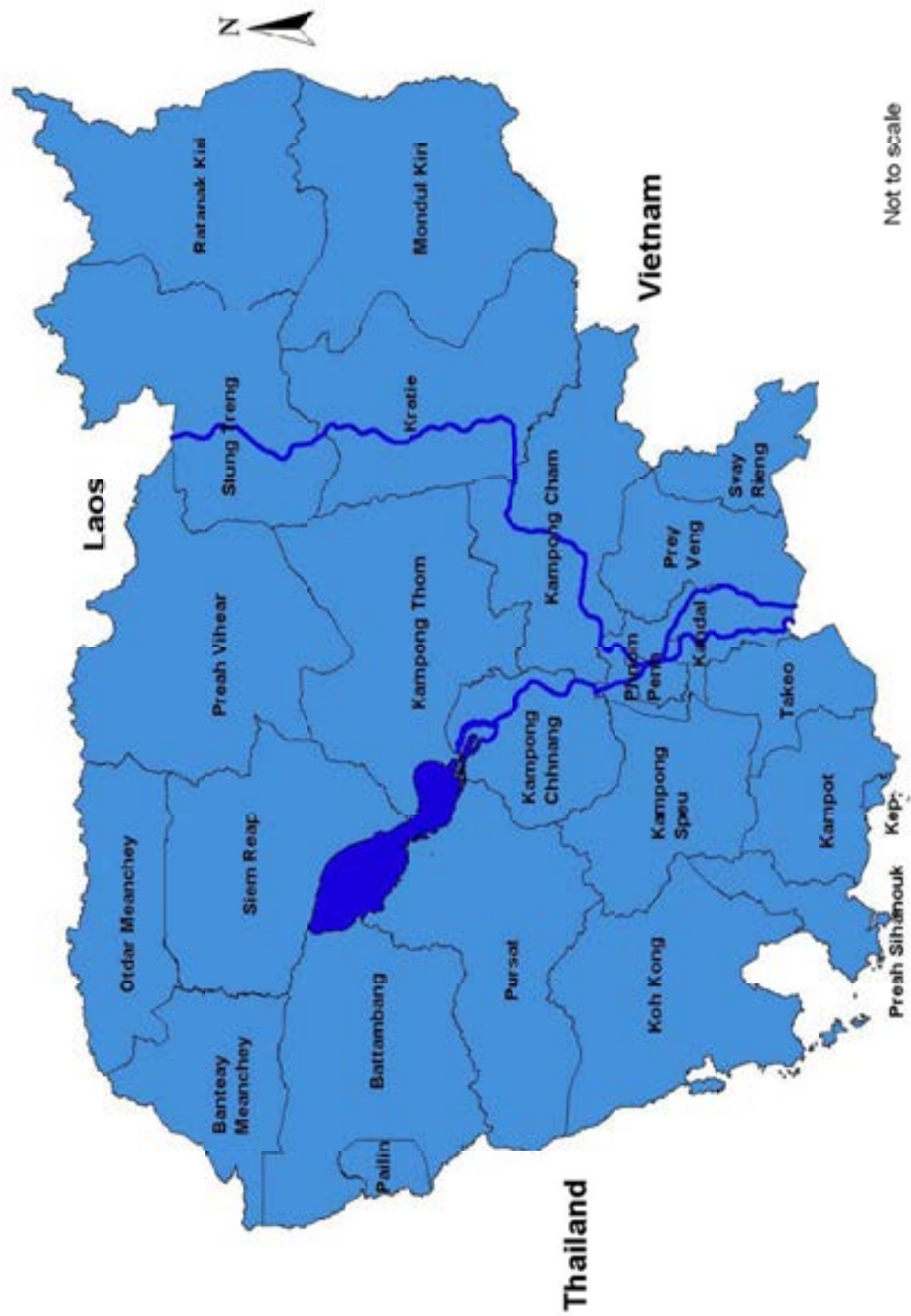
1. NIS

-Mr. Has Bunton	Deputy Director-General, NIS
-Mr. Yem Soung	Adviser, NIS
-Mr. Bouy Somethea	Deputy Director, Department of Demographic Statistics, Census and Survey Department, NIS
-Mr. Seang Rith	Bureau Chief, Department of Demographic Statistics, Census and Survey Department, NIS
-Ms. Chan Serey	Vice-Bureau Chief, Department of Demographic Statistics, Census and Survey Department, NIS

2. JICA

- Mr. Akihiko Ito	JICA Expert
-Mr. Joji Sawada	JICA Expert
- Ms. Jun Konishi	JICA Expert
-Ms. Tomoko Saito	JICA Expert

Cambodia – Provinces Map



Figures at a Glance

Figures at a Glance of the Results of Cambodia Inter-censal Population Survey 2013									
Number of Administrative Areas					Marital Status (%) (Continued)				
Municipality				1	Males	Widowed		5.0	
Provinces				23		Divorced		1.8	
Districts				159		Separated		0.2	
Khans				9					
Cties/Krongs				26		Never Married		35.3	
Communes				1,429		Married		62.5	
Sangkats				204		Widowed		1.3	
Villages				14,119		Divorced		0.8	
Total Population						Separated		0.1	
Both sexes				14,676,591	Females				
Males				7,121,508		Never Married		27.4	
Females				7,555,083		Married		61.3	
Urban Population						Widowed		8.4	
Both sexes				3,146,212		Divorced		2.7	
Males				1,527,479		Separated		0.3	
Females				1,618,734	Singulate Mean Age at Marriage (years old)				
Rural Population					Total	Bth Sexes		25.0	
Both sexes				11,530,379		Males		26.2	
Males				5,594,029		Females		23.7	
Females				5,936,349	Urban	Both Sexes		27.5	
Urban and Rural Composition						Males		29.1	
Urban population (%)				21.4		Females		25.8	
Rural population (%)				78.6	Rural	Both Sexes		24.2	
Population Density						Males		25.4	
Total population per square km				82		Females		23.0	
Population Growth between 2008 and 2013					Adult Literacy Rate (population aged 15 and over)				
Quinquennial growth rate (%)				9.56	Total				
Annual growth rate (%)				1.46		Both sexes		79.7	
Households in Number						Males		86.4	
Total households ¹⁾				3,163,226		Females		73.6	
Normal or regular households				3,163,226	Urban				
Average Size of Normal orRegular households						Both sexes		90.3	
Total				4.6		Males		94.2	
Urban				4.8		Females		86.8	
Rural				4.6	Rural				
Household's Composition by Household's Head						Both sexes		76.5	
Male				72.9		Males		84.1	
Female				27.1		Females		69.7	
Sex Ratio (number of males per 100 females)					Educational Attainment of Literate Population Aged 7+ (%)				
Total				94.3	No educational Level				
Urban				94.4		Both sexes		3.1	
Rural				94.2		Males		2.8	
Age Composition of Population						Females		3.4	
0-14 years old (%)				29.4	Primary	not completed			
15-64 years old (%)				65.6		Both sexes		40.8	
65 and over (%)				5.0		Males		37.5	
Age Dependency Ratio						Females		44.3	
Total				52.4	Primary				
Urban				41.8		Both sexes		29.4	
Rural				55.6		Males		29.4	
Marital Status (%)						Females		29.3	
Both sexes					Lower Secondary				
	Never Married			31.1		Both sexes		21.0	
	Married			61.9		Males		23.4	
Note 1)The survey of institutional households was not conducted in CIPS.									

Note 1) The survey of institutional households was not conducted in CIPS.

Figures at a Glance of the Results of Cambodia Inter-censal Population Survey 2013 (Continued)									
Educational attainment of Literate population aged 7+ (continued) (%)					Labour Force Status (Continued)				
Females				18.5	Employment Rate (%)				
Secondary/Diploma					Both sexes				60.8
Both sexes				3.9	Males				62.4
Males				4.5	Females				59.3
Beyond Secondary				3.2	Unemployment Rate (%)				
Both sexes					Both sexes				1.5
Males				1.8	Males				1.4
Males				2.4	Females				1.7
Females				1.3	Not in Labour Force (%)				
Proportion Currently Attending School/Educational Institution					Both sexes				37.7
Aged 5-11					Males				36.2
Both sexes				74.2	Females				39.1
Males				73.2	Labour Force Participation Rate Aged 15-64(%)				
Females				75.2	Both sexes				82.2
Aged 12-14					Males				84.5
Both sexes				88.2	Females				80.0
Males				88.2	Unemployment rate aged 15-64(%)				
Females				88.2	Both sexes				2.3
Aged 15-17					Males				2.1
Both sexes				61.4	Females				2.5
Males				64.1	Employment Rate by Industrial Sectors (%)				
Females				58.7	Primary				64.3
Aged 18-24					Secondary				11.5
Both sexes				21.5	Tertiary				23.8
Males				25.4	Employment Status (% of employed persons aged 5 and over)				
Females				17.6	Employer				0.3
Aged 25 years old and over					Employee				22.0
Both sexes				0.7	Own account worker				39.5
Males				1.0	Unpaid family worker				38.2
Females				0.4	Other				0.1
Percentage of Disabled Population					Percentage of Migrant by Place of Last Residence				
Percentage of Disabled Population by Type of Disability					Total				28.9
Difficulty in Seeing				34.8	Urban				49.4
Difficulty in Speaking				5.4	Rural				23.3
Difficulty in Hearing				9.0	Percentage of Internal Migrants by Migration Stream				
Difficulty in Movement				33.4	Rural to Rural				58.4
Mental				12.2	Rural to Urban				24.5
Mental Retardation				5.2	Urban to Rural				5.1
Mental Illness				7.0	Urban to Urban				12.0
Any Other				3.5	Percentage of Buildings by Nature of Construction				
Multiple Disabilities				1.6	Permanent				
Labour Force Status					Total				73.6
Labour Force Participation Rate Aged 5+(%)					Urban				93.0
Both sexes				62.3	Rural				68.9
Males				63.8					
Females				60.9					

Figures at a Glance of the Results of Cambodia Inter-censal Population Survey 2013 (Continued)									
Educational attainment of Literate population aged 7+ (continued) (%)					Labour Force Status (Continued)				
	Females			18.5	Employment Rate (%)				
	Secondary/Diploma					Both sexes			60.8
	Both sexes			3.9		Males			62.4
	Males			4.5		Females			59.3
	Females			3.2	Unemployment Rate (%)				
	Beyond Secondary					Both sexes			1.5
	Both sexes			1.8		Males			1.4
	Males			2.4		Females			1.7
	Females			1.3	Not in Labour Force (%)				
Proportion Currently Attending School/Educational Institution						Both sexes			37.7
Aged 5-11						Males			36.2
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	Mental Illness			7.0		Urban to Urban			12.0
	Any Other			3.5	Percentage of Buildings by Nature of Construction				
	Multiple Disabilities			1.6		Permanent			
Labour Force Status						Total			73.6
Labour Force Participation Rate Aged 5+(%)						Urban			93.0
	Both sexes			62.3		Rural			68.9
	Males			63.8					
	Females			60.9					

CHAPTER 1 INTRODUCTION

1. Background

The process of formulating a national population policy has been greatly advancing in Cambodia through the availability of population census data and other demographic information. The conduct of the Cambodia Inter-censal Population Survey 2013 (CIPS) in March 2013 was an important step in the creation of a continuous flow of population data that enable Cambodia to prepare plans and programmes of development supported by strong databases. The reference time for CIPS 2013 was the midnight (00 hours) of March 3. It was planned to take place exactly in the middle of the two censuses held in 2008 and 2018. Unlike CIPS 2004, CIPS 2013 was designed to provide estimates up to the provincial level. The target population set for CIPS 2013 was the normal household population (regular households) of Cambodia. People living in institutions, such as hospitals, hostels, police barracks and prisons as well as homeless population were not covered in the survey.

2. Objectives of the Survey

The Cambodia Inter-censal Population Survey 2013 was conducted with the objective of providing information on the following characteristics of the population: Population size and distribution; sex, age and marital status; fertility and mortality; migration status; disabled population; literacy and educational level; employment and unemployment; housing and household amenities; other population and household information.

These fresh data enabled calculation and reliable projection of population size and growth, fertility level, mortality level, volume of migration and related details.

The survey was also intended to train the national staff in sampling, data collection, data processing, analysis and dissemination. The draft questionnaires for CIPS 2013 were more or less on the 2008 General Census pattern. Some modifications, however, were made by adding new questions and amending some of the old questions. Two types of questionnaires were used in CIPS 2013: Form A House-list and Form B Household Questionnaire (see Appendix 2 and 3).

Form A was used to collect information on buildings containing one or more households during the preliminary round preceding the survey night (March 3, 2013). Form B which has five parts, was used for the survey enumeration in the period closely following the reference time.

3. Sampling

The sample design for the survey was a stratified two-stage sampling. The first stage units consisted of Enumeration Areas (EAs) as Primary Sampling Units (PSUs) and the second stage units were the households. The total sample sizes adopted to make reliable estimates at the provincial level were 955 EAs as Primary Sampling Units (PSUs) and 28,650 households as Secondary Sampling Units (SSUs). An EA is a compact unit within a village with about 90 to 100 households. The second stage of sampling was carried out by the supervisor prior to the start of the interviews in the EA. Thirty households were selected by systematic equal probability sampling from a list of households in the EA (or a segment of the EA in the cases where a large EA was segmented and one segment was selected randomly). The selected EAs were located in 924 villages. See Appendix 2 for more details.

This sampling design assures that the survey provides reliable estimates separately for urban and rural areas at the national level, but that at the provincial level it provides reliable estimates only for the total population by sex. The sample fraction varied by stratum and data had to be weighted for proper estimation. The weights also served other purposes including adjustment for non-responses. Estimation was made for the total population including institutional, homeless etc. populations.

4. Organization of the Survey

The Director General of NIS served as the Director of CIPS 2013. The provincial planning directors of each of the 23 provinces and Phnom Penh Municipality served as Coordinators in their respective areas. About a hundred NIS Survey Coordinators were drawn from different divisions of NIS and allotted to provinces at the rate of about eight to nine villages per person. They then acted as technical advisors to all survey staff and were responsible for technical aspects of the survey in the allotted province. Their foremost tasks were to train the supervisors and the enumerators, supervise the fieldwork and ensure proper distribution of CIPS materials and collection of completed records.

The first preliminary work for the survey was mapping of the selected 955 EAs with technical assistance from Japanese International Cooperation Agency (JICA). Trained NIS staff were deputed to draw sketch maps of villages and detailed EA maps.

At the enumeration stage, one enumerator was assigned to every selected EA, and normally the work of three enumerators was monitored and supervised by one supervisor. Enumerators and supervisors were drawn from the cadre of teachers and other civil servants. Preferably those residing within or near the selected villages were appointed by the provincial directors. In all, there were 955 enumerators and 318 supervisors busy in the field during early March 2013. The Senior Minister, Minister of Planning, Secretaries of State, and Under-Secretaries of State also supervised the field activities at a higher level.

A technical consultant appointed by UNFPA undertook a few short-term missions at appropriate stages to provide assistance in questionnaire design, training and overall guidance to the NIS, and to assist in the preparation of the tabulation plan and the reports. A sampling consultant provided guidance on sampling, particularly on estimation procedures and computation of sampling errors. A data processing consultant in his short-term missions gave training to the staff in data processing and guided and supervised the processing of CIPS results.

5. Training of Field Staff

The 100 NIS Survey Coordinators were first intensively trained at the NIS (November-December 2012) by senior officers on updating village/EA maps, sampling, house-listing, interviewing households and filling-in household questionnaires, and on concepts and definitions adopted. The Province Directors (with their Deputy Directors) were trained on CIPS at NIS for one week in January 2013, since they were expected to be closely involved in organizing the survey and making field visits to ensure that the survey was proceeding on track. The training of appointed enumerators and supervisors on all aspects of the survey, especially questionnaires and concepts (including practice), was conducted at the Provincial Headquarters by NIS Survey Coordinators assisted by the Provincial Directors/Deputy Directors for six days (19 to 23 February 2013).

6. Collection of Data and Supervision

For every selected EA, a field listing was organized in order to make a current and complete listing of households located within it. At the first step the enumerator updated the sketch map of the village and EA. Residential and partly residential buildings were numbered using stickers and marked on the map concerned by covering a prescribed path of travel in order to make sure that all buildings in which households resided were located.

During the primary operation of the survey (lasting five days from 26 February to 2 March, 2013) building/structures wholly or partly used for a residential purpose in the selected EAs (955 in all) were listed in the House List (Form A). After the listing operation was completed in an EA, a fixed sample size of 30 households was selected from the house list by the supervisor concerned. This selection was carried out systematically by

computing an interval in each EA and choosing a random start. It was closely supervised by NIS Survey Coordinators to ensure correctness in the selection process.

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

7. Data Processing

The completed records (Form A, Form B, Form I, Form II, Map, and other Forms) were systematically collected from the provinces by NIS Survey Coordinators on the due dates and submitted to the receptionist team at NIS. Training on editing and coding of filled-in forms was conducted for senior staff, who in turn trained other editors and coders. The purpose of the editing process was to remove matters of obvious inconsistency, incorrectness and incompleteness, and to improve the quality of data collected.

In order to capture the data recorded on Form A (House List), Form B (Household Questionnaire) and Form 2 (Enumerator's Summary), three separate data entry applications using CSPro software package were made. CSPro package was used for tabulation as well. The data entry section consisted of 14 keyboard operators working under two supervisors. They were thoroughly trained on data entry procedures and CSPro data entry software in the third week of March 2013.

8. Tabulation and Analysis

At the first instance a quick tabulation of population totals based on Enumerator's Summary was made. This was checked again with reference to the results from the processing of Form B (Household Questionnaire). The Provisional Report was released on 15 August 2013 presenting the population totals, with a brief analysis, in respect of Cambodia and its provinces so as to provide advanced information about the latest estimate of the size of population at the national and sub-national levels.

It was followed by the General Report released on 20 November 2013, touching various aspects of the country's population.

About 78 basic priority tables, which NIS had decided in consultation with data users, were tabulated (see Appendix 4) mostly for both national and provincial levels. The provincial level tables are only for the whole province and not separately for rural and urban areas due to smallness of the sample size. These tables cover most of the topics included in the CIPS 2013 questionnaires, and their cross classifications should satisfy most of the requirements of all sections of data users. Other tables may be produced in the course of in-depth analysis and in the framework of secondary use of micro data of official statistics in future. In parallel with such work, various statistical maps were drawn for presentation and analysis of the results.

In-depth analysis by the NIS analysis team with technical assistance by UNFPA and JICA includes the following topics: (i) Fertility and mortality, (ii) Population growth and change in spatial distribution, (iii) Nuptiality, (iv) Gender and age composition, (v) Disability, (vi) Migration, (vii) Literacy and educational attainment, (viii) Economic activity and employment, (ix) Housing and household amenities, (x) Population Projections, (xi) Women in Cambodia, and (xii) Urbanization and development in Cambodia. A separate report on each topic is being prepared at the time of writing this report, and a workshop may be held to explain the results and demonstrate the use of CIPS results.

For the entire list of publications, see Appendix 5.

9. Publication and Dissemination of the Results

As mentioned earlier, the Provisional Report was released on 15 August 2013, and the General Report on 20 November 2013.

In-depth analytical reports are being compiled and published, and the National Profile containing voluminous Priority Tables will be published toward the end of March 2014. Off-line electronic dissemination products will be mainly in the form of CD-ROM. The project plans to produce a variety of electronic dissemination products based on CD ROMs. These include: a Table Retrieval System, a Community Profile System and a thematic mapping application. Census Info will also be used as a dissemination tool. The NIS maintains a web site (www.nis.gov.kh) for providing information from censuses and various surveys, periodical publications, etc. The salient results of CIPS 2013 is being put on the web site. Seminars for the presentation of the survey results and workshops to train planners in the line Ministries and other data users may be conducted in Phnom Penh and provinces in due course.

10. Quality Assurance

Adequate steps were taken to ensure quality of data at every stage of the Survey. For quality assurance in field work, the importance of collecting quality information was stressed in the training classes for enumerators and supervisors. The need to collect accurate data by gender was also emphasized. For every four enumerators, there was a field supervisor who closely checked the work of every enumerator under him/her. The data processing division initially carried out manual coding and editing of filled-in forms. Computer editing was also carried out to produce clean data sets freed of errors and ready for tabulation. QA was maintained in production of tables also so as to maintain timeliness and security of the tables. In the dissemination of the survey results, accessibility, relevance and user satisfaction will be ensured.

11. Limitations of the Survey

The various estimates presented in this report were derived from a sample of the population. As in any such survey, these estimates are subject to both sampling and non-sampling errors. Although the CIPS 2013 sample was chosen at random, the people who took part in the survey might not necessarily be a representative cross-section of the total population. Like all sample surveys the results of the present survey are estimates of the corresponding figures for the whole population and these results might vary from the true values of the population. Nevertheless the demographic, social and economic indicators produced are broadly comparable with earlier census and survey results so as to serve as a measure of change over time, useful for planning and monitoring.

12. The Present Report

This report titled “Housing and Household Amenities” is No.9 of the series of in-depth analytical reports, presenting the current situations of and improvements in housing and living conditions in Cambodia. Needless to say, the various estimates presented in this report were derived from a sample of the population. As in any sample survey, these estimates are subject to both sampling and non-sampling error as described above.

We wish the information from such analysis will be utilized as a basis for policy making, implementation and monitoring as well as for research and business etc.

13. Terms and Classifications Related to this Report

Terms are basically placed in the order of questions in the Forms

(Form A: House List)

Building/structure

A building is generally a single structure on the ground. It is covered by a roof and usually enclosed within external walls or with common dividing walls with adjacent buildings. In some areas the very nature of construction of houses is such that there may not be any wall. For example a conical roof almost touches the ground and an entrance is also provided and there will not be any wall as such. Such structures should be treated as buildings. Sometimes a building is made up of more than one component unit which are used or likely to be used as dwellings (residences) or as establishments such as shops, business houses, offices, factories, workshops, work sheds, schools, places of entertainment and places of worship, stores, animal sheds, etc. It is also possible that buildings which have component units may be used for a combination of purposes such as shop-cum-residence, workshop-cum-residence, office-cum-residence, etc.

Sometimes a series of different buildings may be found along the street which are joined with one another by common walls on either side looking like a continuous structure. These different units are practically independent of one another and likely to have been built at different time and owned by different persons. In such cases though the whole structure with all the adjoining units apparently appears to be one building, each portion should be treated as a separate building. On the other hand, in case of multi-storied flat, which is occupied by different households, the entire structure is treated as one building.

If there are more than one structure within an enclosed or open compound (premises) belonging to a household, for example, the main house, animal sheds, sitting places, garages etc., or the main residence unit for living and dining, and other units used e.g. for cooking, athletics etc. are treated as only one building.

Floating houses or boats near the bank of a river which are fixed and do not move from place to place are treated as buildings/structures, and so are caves, big steel containers or un-serviceable buses which are fixed to the ground.

Buildings/structures which are wholly used for non-residential purposes are not enumerated, nor are vacant buildings, locked buildings, or buildings under construction with no households.

Dwelling

A dwelling is a room or a set of rooms in a building/structure in which a household resides.

Household

A household is a group of persons who commonly live together and usually take their meals from a common kitchen. A household consists of related persons by blood, of unrelated persons or of both. A cook or a servant living in the house of his/her employer and taking the employer's meals, he/she is part of that household.

If a group of persons who are unrelated to each other live in a building, but do not have their meals from a common kitchen, each such person is treated as a separate Normal Household. The important link in finding out whether there is a household or not, is the existence of a common kitchen. Examples of households of unrelated persons are those in boarding houses, hostels, residential hotels, rescue homes, jails, pagodas, etc. and are called Institutional Households. All institutional households and homeless households were excluded in CIPS 2013.

Predominant Construction Material of Building/ Structure

(a) Wall Material

1. Bamboo/Thatch /Grass/Reeds
2. Earth
3. Wood/Plywood
4. Concrete/Brick /Stone
5. Galvanized Iron/Aluminum/Other metal sheets
6. Asbestos cement sheets

7. Salvaged/Improvised materials

8. Other

(b) Roof Material

1. Bamboo/Thatch /Grass

2. Tiles

3. Wood/Plywood

4. Concrete / Brick/Stone

5. Galvanized Iron/Aluminum/Other metal sheets

6. Asbestos cement sheets

7. Plastic / Synthetic material sheets

8. Other

(c) Floor Material

1. Earth/Clay

2. Wood/Bamboo planks

3. Concrete/Brick/Stone

4. Polished stone

5. Parquet/Polished wood

6. Mosaic/Ceramic tiles

7. Other

Purpose of Building/Structure

1. Residence

2. Residence & shop

3. Residence & workshop

4. Residence & any other establishment (school, office, bank, pagoda etc.)

Head of Household

The head of household is a person who is recognized as such in the household. He or she is generally the person who bears the chief responsibility for the management of the household and takes decisions on behalf of the household. In the absence of *de jure* "Head", the person on whom the responsibility of the managing the affairs of the household falls at the time of house-listing, is regarded as "Head".

Number of Persons Usually Living in the Household

Casual visitors are excluded as they should be considered at their respective places of normal residence. Persons like household helpers, visitors or guests living and having their meals with the family are also considered as usual members of the household if they have been living with the household for six months or more, or if they have no other place of residence. Usual residents absent for six months or more are excluded from the household.

(Form B: Household Questionnaire Part-5: Housing Conditions and Facilities)

Tenure status of dwelling

1. Owner occupied, if the household has a dwelling belonging to either the head or a member of the household for which no rent is being paid. It does not matter whether loans from financial institutions etc. have not been paid back yet.

2. Rent, if the household has been paying rent for its accommodation.

3. Not owner, but rent free, if the household has the accommodations free of charge although the house or building is not the property of the head or any member of this household.

4. Other

Main Source of Light

The type of lighting used in the household most of the time

1. City power

2. Generator

3. Both city power and generator

4. Kerosene

5. Candle

6. Battery
7. Other

Main Cooking Fuel

The kind of fuel used by the household most of the time for cooking.

1. Firewood
2. Charcoal
3. Kerosene
4. Liquefied Petroleum Gas (LPG)
5. Electricity
6. None
7. Other

Toilet Facility within Premises

1. Not available
2. Connected to sewerage
3. Septic tank
4. Pit latrine
5. Other type

Main Source of Drinking Water Supply

The type of the source of drinking water supply used most of the time.

1. Piped water
This refers to supply of drinking water by Municipality or any local body by piped connection. Even though the household may pay to the authorities for water supplied, it should not be treated as water bought, but considered as piped water.
2. Tube/Pipe well
3. Protected dug well
4. Unprotected dug well
5. Rain: Including rain water stored and used
6. Spring, river, stream, lake/pond
Even if arrangements are made to pump water to the premises through pipes using motor pumps, it should not be treated as piped water.
7. Bought
Including water bought by any means like water provided by vendors, water sold in bottles or containers and water from tanker trucks.
8. Other

Location of drinking water source

1. Within the premises
2. Near the premises: Referring to a walking distance of about five minutes.
3. Away: Referring to more than the above distance.

Number of rooms occupied by the household

A room should have four walls with a roof and a doorway. It should be wide and long enough for a person to sleep in. Kitchens, store rooms, bathrooms and toilets are not included as they are not normally usable for living or sleeping. A room which is shared by more than one household will not be counted for any of them.

Availability of separate kitchen within the premises

A kitchen is defined as a space that conforms to the criteria for a room mentioned above in all respects and is equipped for the preparations of the principal meals of the day and intended primarily for the household.

Equipment owned by the household

The following 15 items of utility equipment are asked: Radio/Transistor, Television, Telephone (fixed), Cellar phone, Personal computer, Bicycle, Motorcycle, Refrigerator*, Washer*, Air-conditioner*, Fan*, Car/van, Boat, Big tractor, and Hand tractor (Koyaon).

* not asked in GPCC 2008

Access to the Internet at Home, outside Home and both at home and outside

The current status of the household whether one or more members of the household have access to the Internet at home, outside home and both at home and outside, respectively.

Urban/Rural

Urban areas are designated based on the criteria adopted in the “Reclassification of Urban Areas in Cambodia” (February 2011), which adopted the following criteria for application to every commune so as to determine it as urban:

- (a) Population density exceeding 200 per km²
- (b) Percentage of persons (both sexes) employed in agriculture below 50%*
- (c) Total population of the commune should exceed 2,000.

* In the preceding classification of urban areas adopted in November 2004, criterion (b) reads as follows:

Percentage of male employment in agriculture below 50%

CHAPTER 2 HOUSING

1. Type of Households

The General Population Census of Cambodia 2008 (GPCC 2008) counted 2.82 million normal households in 2008 compared to 2.16 million recorded in GPCC 1998. Then, CIPS 2013 estimated 3.16 million normal households (Table 1). The annual growth rate of the number of normal households in Cambodia was 2.68% from 1998 to 2008, and 2.34% from 2008 to 2013 on average.

Households other than normal households were not enumerated in CIPS 2013, but they were very small in number in GPCC 2008: 0.76% for institutional households, 0.02% for homeless households, 0.02% for boat households, and 0.05% for transient people. In terms of population, people living in households other than normal households recorded 1.49% for institutional households, 0.04% for homeless households, 0.02% for boat households, and 0.05% for transient people. Among them, institutional households may have increased from 2008 to 2013 as they did from 1998 to 2008 with an annual rate of increase of 3.58%, but the remaining kinds of households may have become nil by 2013 judging from continuous social, economic and administrative development in Cambodia during this period.

It is noted that the proportion of normal households living in urban areas shows an increasingly upward trend with a share of from 16.86% in 1998 to 17.83 % in 2008 and 20.80% in 2013.

Table 1. Distribution of Households by Type of Household: Urban/Rural, 2008 and 2013

Type of Household	Number of Households					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	2,841,897	521,710	2,320,187	3,163,226	657,951	2,505,275
Normal or Regular Households	2,817,637	506,579	2,311,058	3,163,226	657,951	2,505,275
Institutional Households	21,588	14,219	7,369			
Homeless Households	658	276	382			
Boat Households	594	96	498			
Transient People	1,420	540	880			
	Percentage					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	100.00	18.36	81.64			
Normal or Regular Households	99.15	17.83	81.32	100.00	20.80	79.20
Institutional Households	0.76	0.50	0.26			
Homeless Households	0.02	0.01	0.01			
Boat Households	0.02	0.00	0.02			
Transient People	0.05	0.02	0.03			
Note: In case of Homeless and Transient Population, the Number of Households is only indicative, as, in certain cases, these populations may have been enumerated in groups.						

2. Buildings and Structures with Households

Table 2 and Figure 1 show the number of buildings and structures with households by type of use (purpose): wholly residential or partly residential. The former are dominant in GPCC 2008 and CIPS 2013. During the five years from 2008 to 2013, the total number of buildings and structures has increased 0.90% annually whereas the average annual increase rate for the decade from 1998 to 2008 is 2.66%. Thus, the increase rate declined for recent five years.

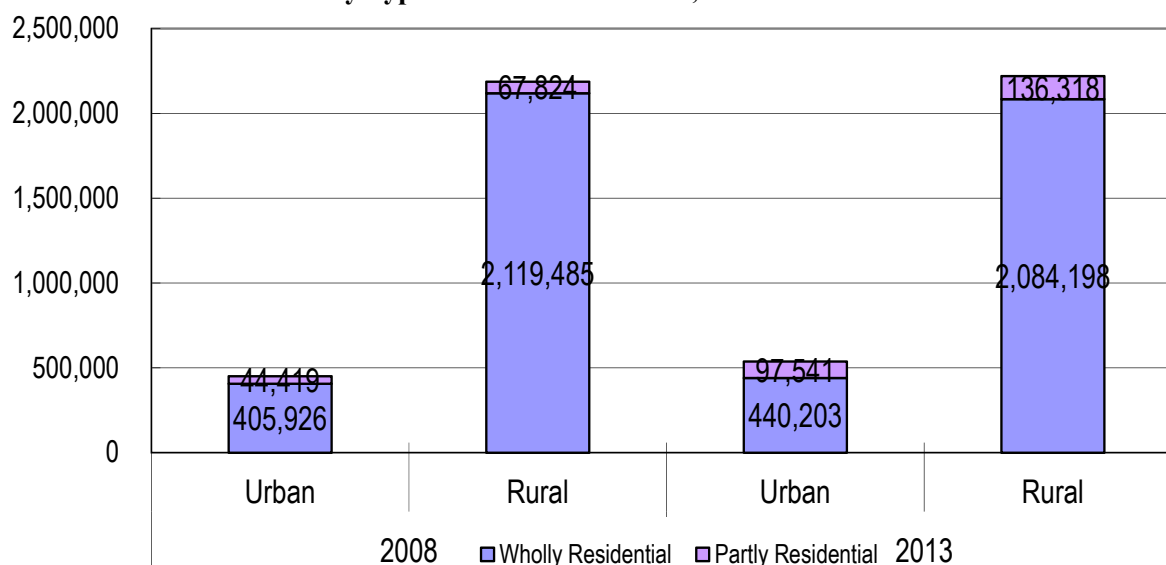
Table 2. Buildings/Structures with Households by Type of Use: Urban/Rural, 2008 and 2013

Type of Use	Number of Buildings/Structures with Households						Average Annual Growth Rate* (%)		
	2008			2013					
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	2,637,654	450,345	2,187,309	2,758,261	537,745	2,220,516	0.90	3.61	0.30
Wholly Residential	2,525,411	405,926	2,119,485	2,524,401	440,203	2,084,198	-0.01	1.63	-0.34
Partly Residential	112,243	44,419	67,824	233,860	97,541	136,318	15.81	17.04	14.98
Residence and shop	82,743	33,096	49,647	198,956	86,801	112,155	19.18	21.27	17.70
Residence and workshop	17,981	6,017	11,964	29,773	7,977	21,796	10.61	5.80	12.75
Residence and any other establishment	11,519	5,306	6,213	5,130	2,763	2,368	-14.94	-12.24	-17.55
Percentage									
	2008			2013					
	Total	Urban	Rural	Total	Urban	Rural			
Cambodia Total	100.0	100.0	100.0	100.0	100.0	100.0			
Wholly Residential	95.7	90.1	96.9	91.5	81.9	93.9			
Partly Residential	4.3	9.9	3.1	8.5	18.1	6.1			
Residence and shop	3.1	7.3	2.3	7.2	16.1	5.1			
Residence and workshop	0.7	1.3	0.5	1.1	1.5	1.0			
Residence and any other establishment	0.4	1.2	0.3	0.2	0.5	0.1			
* Average Annual Growth Rate = $(\sqrt[n]{P_{2013} / P_{2008}} - 1) * 100$									
n = 5, P ₂₀₀₈ = Total Number of Buildings in 2008, P ₂₀₁₃ = Total Number of Buildings in 2013									

By type of use, the wholly residential buildings/structures decreased only slightly, while the partially residential increased greatly at an annual average rate of 15.81% during the five years from 2008 to 2013. Among them, the residence and shop type increased 19.18% annually followed by the residence and workshop type which showed an annual increase rate of 10.61%. On the contrary, the residence and any other establishment type showed a large annual average decrease rate of (-) 14.94%.

As a result, in 2013, the wholly residential occupied 91.5%, 81.9% and 93.9% in the whole country, urban areas and rural areas respectively showing less shares than in 2008 regardless of type of use.

**Figure 1. Number of Buildings/Structures with Households
by Type of Use: Urban/Rural, 2013**



3. Buildings and Structures with Households by Province

Table 3 shows the distribution of buildings and structures with households by province.

Kep province continues to have the smallest share of 0.3% of buildings and structures with households in 2013 to the total of the country followed by Pailin province with 0.4% preceding Mondul Kiri province with 0.5%.

On the other hand, Kampong Cham province continues to be the largest in terms of number of buildings and structures showing 12.8% followed by Phnom Penh (10.3%), Prey Veng province (8.2%), Kandal province (7.5%) and Battambang (7.3%).

Looking at the share in urban areas, Phnom Penh occupies by far the largest (46.9%) followed much behind by Battambang (7.3%), Siem Reap (6.9%), Kampong Cham (6.1%), Banteay Meanchey (5.2%)..

During the 5 years from 2008 to 2013, the shares of provinces remained more or less the same except for Phnom Penh, which gained 2.2 percentage points from 8.1% in 2008, and Kandal, which lost 1.5% points from 9.0%. This is mostly due to boundary changes between these two provinces enforced in 2010, but also due to people's concentration to the capital neighboring areas as the combined share rose from 17.1% to 17.8%.

**Table 3. Distribution of Buildings/Structures with Households by Province:
Urban/Rural, 2008 and 2013**

	Number and Percentage					
Province	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	2,637,654	450,345	2,187,309	2,758,261	537,745	2,220,516
	100.0	100.0	100.0	100.0	100.0	100.0
Province						
Bantey Meanchey	5.1	7.7	4.6	4.9	5.2	4.8
Battambang	7.5	7.5	7.5	7.3	7.3	7.3
Kampong Cham	13.0	5.2	14.7	12.8	6.1	14.4
Kampong Chhnang	3.7	1.7	4.1	3.7	1.9	4.1
Kampong Speu	5.4	2.3	6.1	5.2	2.5	5.9
Kampong Thom	4.9	1.4	5.6	4.9	1.6	5.7
Kampot	4.8	2.1	5.4	4.6	2.3	5.2
Kandal	9.0	7.6	9.3	7.5	4.5	8.2
Koh Kong	0.9	1.6	0.7	0.8	1.6	0.6
Kratie	2.3	1.6	2.4	2.3	1.8	2.5
Mondul Kiri	0.4	0.2	0.4	0.5	0.2	0.5
Phnom Penh	8.1	44.0	0.7	10.3	46.9	1.5
Preah Vihear	1.2	0.4	1.4	1.5	0.5	1.7
Prey Veng	8.1	1.5	9.4	8.2	1.7	9.8
Pursat	3.0	1.1	3.4	3.1	1.2	3.6
Ratanak Kiri	0.9	0.7	0.9	1.0	0.2	1.1
Siemreap	6.4	6.2	6.4	5.9	6.9	5.7
Preah Sihanouk	1.6	3.6	1.1	1.5	3.6	1.1
Stung Treng	0.7	0.7	0.7	0.8	0.7	0.8
Svay Rieng	4.1	0.8	4.8	4.3	0.8	5.1
Takeo	6.7	0.6	8.0	6.8	0.7	8.3
Otdar Meanchey	1.4	0.8	1.5	1.5	0.9	1.6
Kep	0.3	0.2	0.3	0.3	0.2	0.3
Pailin	0.5	0.7	0.5	0.4	0.6	0.4

4. Materials used for Buildings and Structures with Households

The quality of housing is mainly determined by materials used for the construction of buildings and structures with households (referred simply to buildings hereafter). A building consists of three main components: roof, wall and floor. At first we review the status of each of these components of buildings of Cambodia in terms of material, and then study the combined status of some of the components.

(1) Materials for Roof

The materials for roof are classified into “Hard/Permanent”, “Soft/Temporary” and “Other”. The first includes tiles, wood/plywood, concrete/brick/stone, galvanized iron/aluminum/other metal sheets, and asbestos cement sheets, while the second includes bamboo/thatch/grass/reeds, and plastic synthetic sheets.

Table 4. Roof Materials of Buildings/Structures with Households: Urban/Rural, 2008 and 2013

Roof Material	Number of Buildings/Structures					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	2,637,654	450,345	2,187,309	2,758,261	537,745	2,220,516
Hard/Permanent Total	2,052,535	422,902	1,629,633	2,517,518	526,596	1,990,922
Tiles	689,012	59,692	629,320	794,406	100,529	693,877
Wood/Plywood	19,847	4,643	15,204	24,358	4,705	19,654
Concrete/Brick/Stone	97,218	85,176	12,042	107,790	89,114	18,676
Galvanised Iron/Aluminium/Other Metal Sheets	1,107,517	247,666	859,851	1,389,127	298,207	1,090,919
Asbestos Cement Sheets	138,941	25,725	113,216	201,836	34,040	167,796
Soft/Temporary Total	575,433	24,131	551,302	239,937	10,626	229,312
Bamboo/Thatch/Grass/Reeds	573,377	23,315	550,062	239,298	10,619	228,679
Plastic/Synthetic Sheets	2,056	816	1,240	640	7	633
Other Materials	9,686	3,312	6,374	806	523	282
	Percentage					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	100.0	100.0	100.0	100.0	100.0	100.0
Hard/Permanent Total	77.8	93.9	74.5	91.3	97.9	89.7
Tiles	26.1	13.3	28.8	28.8	18.7	31.2
Wood/Plywood	0.8	1.0	0.7	0.9	0.9	0.9
Concrete/Brick/Stone	3.7	18.9	0.6	3.9	16.6	0.8
Galvanised Iron/Aluminium/Other Metal Sheets	42.0	55.0	39.3	50.4	55.5	49.1
Asbestos Cement Sheets	5.3	5.7	5.2	7.3	6.3	7.6
Soft/Temporary Total	21.8	5.4	25.2	8.7	2.0	10.3
Bamboo/Thatch/Grass/Reeds	21.7	5.2	25.1	8.7	2.0	10.3
Plastic/Synthetic Sheets	0.1	0.2	0.1	0.0	0.0	0.0
Other Materials	0.4	0.7	0.3	0.0	0.1	0.0

Table 4 shows the number and percentage of buildings by material for roof. In 2013, nearly 98% of buildings in urban areas and 90% of buildings in rural areas are with roofs made of “Hard/Permanent” materials. There is found a great improvement in roof material in Cambodia as GPCC 2008 reported the corresponding figures as 94% and 75% for urban and rural areas respectively. Thus, only 8.7% of buildings in Cambodia are still with “Soft/Temporary” material for roof, while 21.8% of buildings in Cambodia, especially about a quarter of buildings in rural areas used “Soft/Temporary” material for roof in 2008.

The most commonly used materials for roof in Cambodia (and also commonly both in urban and urban areas) in 2013 are galvanized iron/aluminum/other metal sheets (50.4%), tiles (28.8%), and bamboo/thatch/grass/reeds (8.7%). The last material is a “Soft/Temporary” material, but is still used for roofs for 10.3% of buildings in rural areas in 2013 although showing a large drop from 25.1% recorded in 2008.

(2) Materials for Wall

The materials for wall are also classified into “Hard/Permanent”, “Soft/Temporary” and “Other”. The first includes wood/plywood, concrete/brick/stone, galvanized iron/aluminum/other metal sheets, and asbestos cement sheets, while the second includes bamboo/thatch/grass/reeds, earth, and salvaged/improvised materials.

Table 5 shows the number and percentage of buildings by material for wall. In 2013, 93.4% of buildings in urban areas and 71.3% of buildings in rural areas are with walls made of “Hard/Permanent” materials. There is found a great improvement in wall material in Cambodia as GPCC 2008 reported the corresponding figures as 88.4% and 55.0% for urban and rural areas respectively. The ratio of buildings with “Soft/Temporary” walls are still high in rural areas (28.6%) , hence in the whole Cambodia (24.3%), although a considerable drop is observed from 44.9% in 2008 to 28.6% in 2013 in rural areas, from 11.2% to 6.5% in urban areas, and from 39.1% to 24.3% in the whole Cambodia.

The most commonly used materials for wall in the whole Cambodia in 2013 are wood/plywood (48.8%), bamboo/thatch/grass/reeds (23.3%), and concrete/brick/stone (15.4%). In urban areas, however, concrete/brick/stone is the most commonly used material for walls (50.4%) being followed by wood/plywood (34.6%) and galvanized iron/aluminum/other metal sheets (8.1%), all of which are “hard/Permanent” materials. In contrast, in rural areas, similarly like for the whole Cambodia, wood/plywood occupies more than half being followed by bamboo/thatch/grass/reeds (27.5%), which is a “Soft/Temporary” material. More commonly than in the case of roof materials, bamboo/thatch/grass reeds is still used for walls for 27.5% of buildings in rural areas in 2013 although showing a big drop from 43.5% recorded in 2008.

Table 5. Wall Materials of Buildings/Structures with Households: Urban/Rural, 2008 and 2013

Wall Material	Number of Buildings/Structures					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	2,637,654	450,345	2,187,309	2,758,261	537,745	2,220,516
Hard/Permanent Total	1,600,854	398,044	1,202,810	2,085,946	502,300	1,583,646
Wood/Plywood	1,192,021	169,718	1,022,303	1,345,081	185,953	1,159,127
Concrete/Brick/Stone	303,590	205,694	97,896	425,221	270,935	154,286
Galvanised Iron/Aluminium/Other Metal Sheets	98,902	20,397	78,505	306,571	43,507	263,064
Asbestos Cement Sheets	6341	2235	4106	9,073	1,903	7,169
Soft/Temporary Total	1,031,732	50,615	981,117	669,890	34,726	635,164
Bamboo/T hatch/Grass/Reeds	998,345	46,571	951,774	643,105	32,247	610,859
Earth	27,263	2,186	25,077	19,234	1,782	17,452
Salvaged/Improvised Materials	6,124	1,858	4,266	7,551	697	6,854
Other Materials	5,068	1686	3,382	2,425	720	1,705
Wall Material	Percentage					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	100.0	100.0	100.0	100.0	100.0	100.0
Hard/Permanent Total	60.7	88.4	55.0	75.6	93.4	71.3
Wood/Plywood	45.2	37.7	46.7	48.8	34.6	52.2
Concrete/Brick/Stone	11.5	45.7	4.5	15.4	50.4	6.9
Galvanised Iron/Aluminium/Other Metal Sheets	3.7	4.5	3.6	11.1	8.1	11.8
Asbestos Cement Sheets	0.2	0.5	0.2	0.3	0.4	0.3
Soft/Temporary Total	39.1	11.2	44.9	24.3	6.5	28.6
Bamboo/T hatch/Grass/Reeds	37.8	10.3	43.5	23.3	6.0	27.5
Earth	1.0	0.5	1.1	0.7	0.3	0.8
Salvaged/Improvised Materials	0.2	0.4	0.2	0.3	0.1	0.3
Other Materials	0.2	0.4	0.2	0.1	0.1	0.1

(3) Materials for Floor

The materials for wall are also classified into “Hard/Permanent”, “Soft/Temporary” and “Other”. The first includes cement/brick/stone, polished stone, parquet/polished wood, and mosaic/ceramic tiles, while the second includes earth/clay, and wood/bamboo planks.

Table 6 shows the number and percentage of buildings by material for floor. Unlike for the other two components of a building, we can see only a slight shift from “Soft/Temporary” to “Hard/Permanent” between 2008 and 2013.

However, the difference between urban and rural areas is enormous. In urban areas, nearly two thirds of buildings have hard floors, while more than 80% of buildings have soft floors in rural areas. This is reflecting households’ living style in both areas.

The most commonly used materials for floor in urban areas in 2013 are mosaic/ceramic tiles (32.5%) followed by wood/bamboo planks (28.6%) and cement/brick/stone (24.3%). In rural areas, wood/bamboo planks come first with 71.3% followed by earth/clay (11.3%), and cement/brick/stone (11.0%). The most commonly used materials for floor in urban areas, which are mosaic/ceramic tiles, are at the fourth with only 3.4% in rural areas.

Table 6. Floor Materials of Buildings/Structures with Households: Urban/Rural 2008 and 2013

Floor Material	Number of Buildings/Structures					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	2,637,654	450,345	2,187,309	2,758,261	537,745	2,220,516
Hard/Permanent Total	589,744	278,287	311,457	725,204	341,986	383,218
Cement/Brick/Stone	319,132	99,596	219,536	375,819	130,472	245,347
Polished Stone	61,975	37,329	24,646	68,914	31,115	37,799
Parquet/Polished Wood	38,142	7,090	31,052	30,354	5,543	24,811
Mosaic/Ceramic Tiles	170,495	134,272	36,223	250,117	174,855	75,262
Soft/Temporary Total	2,045,327	171,592	1,873,735	2,029,311	195,333	1,833,978
Earth/Clay	331,702	36,971	294,731	291,606	41,653	249,952
Wood/Bamboo Planks	1,713,625	134,621	1,579,004	1,737,705	153,680	1,584,025
Other Materials	2,583	466	2,117	3,746	426	3,320
Floor Material	Percentage					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	100.0	100.0	100.0	100.0	100.0	100.0
Hard/Permanent Total	22.4	61.8	14.2	26.3	63.6	17.3
Cement/Brick/Stone	12.1	22.1	10.0	13.6	24.3	11.0
Polished Stone	2.3	8.3	1.1	2.5	5.8	1.7
Parquet/Polished Wood	1.4	1.6	1.4	1.1	1.0	1.1
Mosaic/Ceramic Tiles	6.5	29.8	1.7	9.1	32.5	3.4
Soft/Temporary Total	77.5	38.1	85.7	73.6	36.3	82.6
Earth/Clay	12.6	8.2	13.5	10.6	7.7	11.3
Wood/Bamboo Planks	65.0	29.9	72.2	63.0	28.6	71.3
Other Materials	0.1	0.1	0.1	0.1	0.1	0.1

(4) Combined Status of Materials for Roof, Wall and Floor

Table 7 shows the ratios of buildings equipped with permanent materials for roof, wall, and floor separately as well as for roof and wall combined, and for roof, wall and floor combined by province.

We can see a small difference among provinces with respect to roof as the maximum is 99.1, the minimum is 74.1, and the standard deviation is 6.4. In terms of wall, the difference is moderate as the maximum is 96.7, the minimum is 56.8, and the standard deviation is 10.6. But, the difference in floor among provinces is large as the maximum is 74.7, the minimum is only 21.5, and the standard deviation is 15.9. With respect to the combinations of the three materials, “Permanent Roof and Wall” has a similar distribution to “Wall” among provinces with the standard deviation of the same 10.6 as “Wall”, while the entire combination of the three shows a similar distribution to “Floor” with the same 15.9 as “Floor”.

Intuitively, in combining materials, “Roof” does not affect much while “Floor” dominates. However, it should be noted here that “Floor” may not be a good indicator of the quality of buildings: people may prefer soft materials for floor even if they can afford to live in a building with hard roofs and hard walls. This may be one reason why we have not seen a large improvement from “Soft” to “Hard” in materials for floor as mentioned just above in Section 4-(3) of this chapter.

Table 7. Buildings/Structures with Permanent Materials for Roof, Wall and Floor by Urban/Rural, and by Province, 2013

Region	Number of Buildings /Structures	Percentage Distribution of Buildings/Structures with Permanent Materials				
		Permanent Roof	Permanent Wall	Permanent Floor	Permanent Roof and Wall	Permanent Roof, Wall & Floor
Cambodia Total	2,758,261	91.3	75.6	26.3	73.6	24.7
Urban	537,745	97.9	93.4	63.6	93.0	62.7
Rural	2,220,516	89.7	71.3	17.3	68.9	15.5
Province						
Bantey Meanchey	133,805	92.1	81.3	32.6	78.5	27.3
Battambang	202,274	92.1	72.4	32.4	71.3	29.9
Kampong Cham	352,041	90.8	70.6	9.5	68.1	9.1
Kampong Chhnang	100,959	82.9	57.8	13.7	56.4	11.5
Kampong Speu	144,271	92.6	83.7	29.9	81.4	28.1
Kampong Thom	136,143	83.2	68.8	13.8	65.5	11.2
Kampot	126,950	91.3	73.0	25.0	71.8	23.2
Kandal	206,902	98.4	87.2	29.6	86.8	28.4
Koh Kong	21,965	90.7	89.1	34.8	86.5	33.9
Kratie	64,813	82.0	68.6	10.2	64.3	9.3
Mondul Kiri	12,418	88.2	81.2	16.3	79.3	15.5
Phnom Penh	284,330	99.1	96.7	74.7	96.5	74.3
Preah Vihear	41,168	74.1	75.9	18.8	67.8	15.7
Prey Veng	225,765	90.3	56.8	6.1	55.7	5.6
Pursat	85,807	88.3	74.0	20.4	71.9	17.8
Ratanak Kiri	26,546	93.8	87.7	15.4	86.9	14.9
Siemreap	163,687	84.8	71.5	27.8	67.2	24.3
Preah Sihanouk	42,723	96.7	95.3	53.3	94.0	52.5
Stung Treng	21,433	85.9	82.4	21.3	79.0	20.1
Svay Rieng	117,383	93.6	66.1	14.4	65.4	13.7
Takeo	187,013	96.5	71.6	18.2	71.1	17.2
Oddar Meanchey	40,247	75.7	92.2	21.8	73.9	18.1
Kep	7,467	94.6	83.3	48.5	82.6	47.0
Pailin	12,151	91.1	86.0	48.6	83.8	46.3
Maximum		99.1	96.7	74.7	96.5	74.3
Median		90.9	78.6	21.5	72.9	19.1
Minimum		74.1	56.8	6.1	55.7	5.6
Standard Deviation		6.4	10.6	15.9	10.6	15.9
<i>Correlation Coefficient</i>	Roof & Wall	0.30	Roof & Floor	0.49	Wall & Floor	0.71
Note: 1) Permanent Materials for Roof: Tiles, Wood/Plywood, Concrete/Brick/Stone, Galvanised Iron/Aluminium/Other metal sheets and Asbestos Cement sheets						
2) Permanent Materials for Wall: Wood/Plywood, Concrete/Brick/Stone, Galvanised Iron/Aluminium/Other metal sheets and Asbestos Cement sheets						
3) Permanent Materials for Floor: Concrete/Brick/Stone, Polished Stones, Parquet/Polished Wood and Mosaic/Ceramic Tiles						

CHAPTER 3 TENURE AND SIZE OF DWELLINGS

1. Target Type of Households

As mentioned in Section 1 of the preceding chapter, CIPS 2013 did not cover other households than normal/regular households. According to GPCC 2008, institutional households, homeless households, boat households and transient people occupy only 0.76%, 0.02%, 0.02% and 0.05% respectively in terms of number of households, and 1.49%, 0.04%, 0.02% and 0.05% respectively in terms of population.

The households to be analyzed on housing in the following chapters are normal or regular households covering roughly 99% of households, and 98% of people in Cambodia.

2. Tenure Status of Dwellings

In Cambodia, regardless of urban or rural areas, most households live in their own dwellings: 92.9% for the whole country, 83.8% for urban areas, and 95.3% for rural areas (Table 8 below). Adding to these, the ratios for “Rent Free” households of around 3% correspondingly, 96% of households in the whole country, 87% in urban areas and 99% in rural areas do not have to pay rent for their dwellings.

On the other hand, rented dwellings mark relatively small ratios: 3.2% for the whole country, 12.6% for urban areas, and 0.8% for rural areas.

One strange finding is that the owner-occupied dwellings in urban areas lost their share from 86.6% in 1998 to 77.0% in 2008, but gain the share in 2013 to record 83.8%. The reason for this is not immediately known.

Table 8. Distribution of Households by Tenure Status of Dwelling, Urban/Rural, 2008 and 2013

Tenure Status of Dwelling	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
	Number of Households					
Cambodia Total	2,817,637	506,579	2,311,058	3,163,226	657,951	2,505,275
Owner Occupied	2,598,010	390,266	2,207,744	2,940,174	551,517	2,388,657
Rented	114,113	94,312	19,801	102,311	83,205	19,105
Rent Free	96,086	19,622	76,464	100,783	19,128	81,656
Other	9,428	2,379	7,049	19,959	4,101	15,858
	Percentage					
Cambodia Total	100.0	100.0	100.0	100.0	100.0	100.0
Owner Occupied	92.2	77.0	95.5	92.9	83.8	95.3
Rented	4.0	18.6	0.9	3.2	12.6	0.8
Rent Free	3.4	3.9	3.3	3.2	2.9	3.3
Other	0.3	0.5	0.3	0.6	0.6	0.6
Note: Excludes Institutional, Homeless, Boat and Transient Households.						

Table 9 clarifies the relationship between tenure status of dwelling and household size. According to this table, as the size of household increases, so does the owner-occupied dwelling ratio regardless of areas.

In urban areas, the ratio of households occupying rented dwellings is considerably high, especially for 1-2 person households (21.8%), while in rural areas, all the corresponding ratios are 1% or less.

Table 9. Distribution of Households by Tenure of Dwelling and Household Size, Urban/Rural, 2013

Tenure Status of Dwelling	Number of Households by Household Size					Percentages by Household Size				
	Total	1-2 persons	3-5 persons	6-8 persons	9+ persons	Total	1-2 persons	3-5 persons	6-8 persons	9+ persons
Cambodia Total	3,163,226	458,052	1,910,771	697,955	96,449	100.0	100.0	100.0	100.0	100.0
Owner Occupied	2,940,174	406,634	1,773,808	667,884	91,847	92.9	88.8	92.8	95.7	95.2
Rented	102,311	21,791	60,238	17,251	3,030	3.2	4.8	3.2	2.5	3.1
Rent Free	100,783	23,694	65,268	10,433	1,388	3.2	5.2	3.4	1.5	1.4
Other	19,959	5,933	11,457	2,386	183	0.6	1.3	0.6	0.3	0.2
Urban	657,951	82,037	384,506	161,418	29,990	100.0	100.0	100.0	100.0	100.0
Owner Occupied	551,517	58,326	322,972	143,551	26,669	83.8	71.1	84.0	88.9	88.9
Rented	83,205	17,892	47,898	14,671	2,745	12.6	21.8	12.5	9.1	9.2
Rent Free	19,128	4,430	11,878	2,243	576	2.9	5.4	3.1	1.4	1.9
Other	4,101	1,389	1,758	954		0.6	1.7	0.5	0.6	0.0
Rural	2,505,275	376,015	1,526,266	536,536	66,458	100.0	100.0	100.0	100.0	100.0
Owner Occupied	2,388,657	348,308	1,450,836	524,334	65,179	95.3	92.6	95.1	97.7	98.1
Rented	19,105	3,899	12,340	2,581	285	0.8	1.0	0.8	0.5	0.4
Rent Free	81,656	19,264	53,390	8,189	812	3.3	5.1	3.5	1.5	1.2
Other	15,858	4,544	9,699	1,432	183	0.6	1.2	0.6	0.3	0.3
Note: Excludes, Institutional, Homeless, Boat and Transient Households.										

3. Number of Rooms Occupied by Households

A majority of households (66.8%) in Cambodia occupy only one room, 24.0% of households have two rooms, and 6.3% three rooms. Thus, about 97% of Cambodian households occupy up to three rooms. However, there exist about 92,500 households (2.9%) who enjoy having four rooms or more: 1.8% occupy four rooms, 0.5% five rooms, and 0.6% six rooms and more (Figures 2-a, 2-b and 2-c, as well as Table 10).

In urban areas, the ratios by size of dwelling are 45.3% for one-room, 30.1% for two-room, 14.6% for three-room, and 10.0% for four-room and more. When we compare these figures with the corresponding rural figures, the living level in urban areas in terms of size of dwelling can be said much better than that in rural areas.

Figure 2-a. Number of Rooms by Household Size : Total, 2013

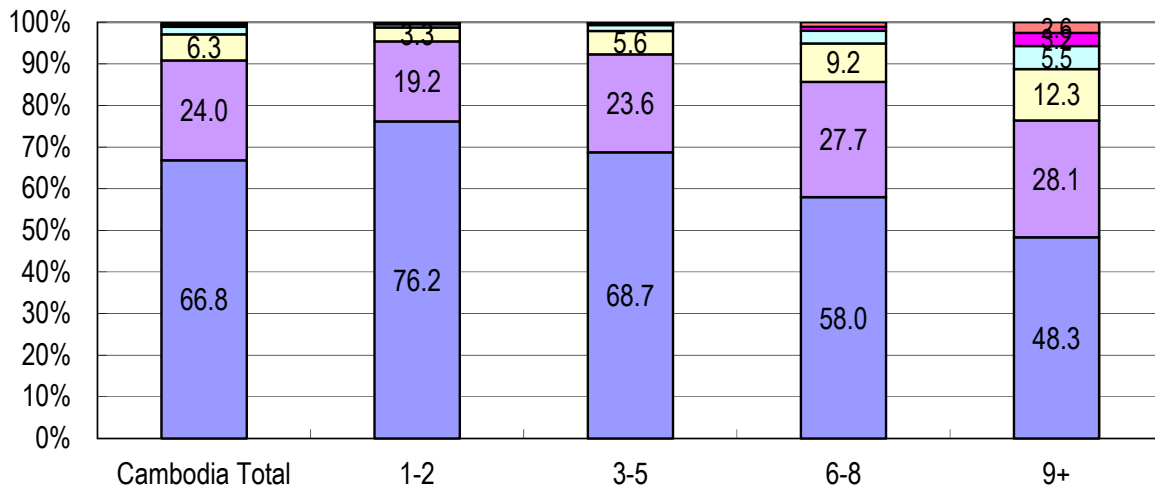


Figure 2-b. Number of Rooms by Size:a Urban, 2013

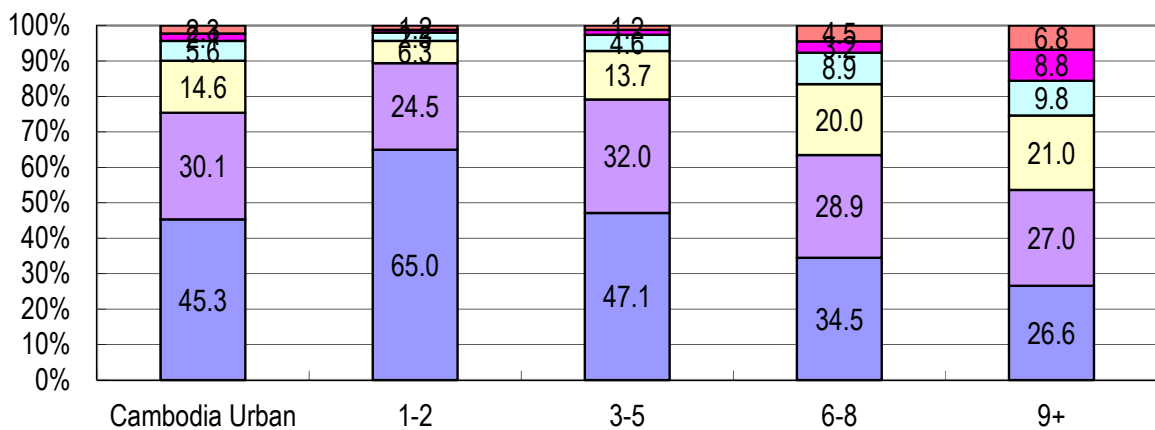
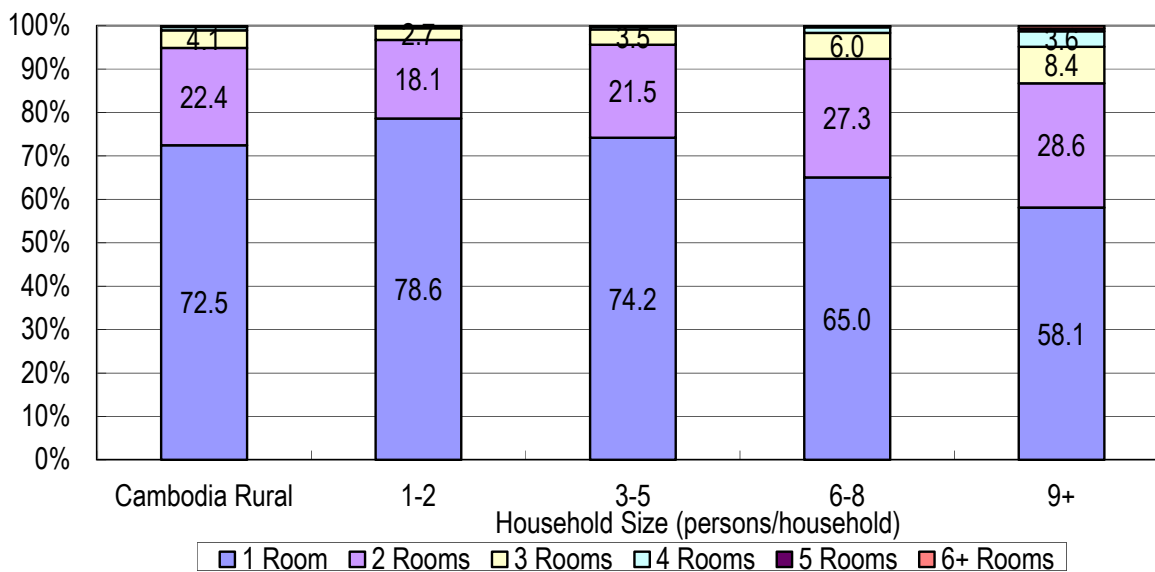


Figure 2-c. Number of Rooms by Size : Rural, 2013



**Table 10. Distribution of Households by Household Size and Number of Rooms Occupied:
Urban/Rural, 2008 and 2013**

Household Size	Number of Rooms Occupied													
	2008							2013						
	Total	1	2	3	4	5	6+	Total	1	2	3	4	5	6+
Cambodia	2,817,637	2,043,925	589,564	124,150	34,617	13,648	11,733	3,163,226	2,113,618	758,981	198,171	57,203	17,185	18,068
1-2	377,045	307,147	56,972	9,021	2,232	836	837	458,052	348,919	88,080	15,337	3,474	835	1,407
3-5	1,574,308	1,175,662	317,298	58,165	14,162	5,024	3,997	1,910,771	1,313,468	450,515	106,526	27,128	6,754	6,380
6-8	736,746	489,221	181,677	44,027	12,736	4,964	4,121	697,955	404,629	193,277	64,407	21,287	6,542	7,813
9+	129,538	71,895	33,617	12,937	5,487	2,824	2,778	96,449	46,603	27,109	11,900	5,314	3,054	2,468
Urban	506,579	293,456	120,757	51,585	20,967	10,562	9,252	657,951	298,210	197,961	96,312	36,846	13,767	14,856
1-2	68,187	52,013	10,440	3,303	1,235	597	599	82,037	53,294	20,063	5,137	1,923	644	976
3-5	264,107	163,306	62,623	23,320	8,117	3,765	2,976	384,506	181,239	123,074	52,541	17,670	5,337	4,646
6-8	136,385	65,010	37,871	18,499	7,837	3,869	3,299	161,418	55,699	46,718	32,337	14,312	5,153	7,200
9+	37,900	13,127	9,823	6,463	3,778	2,331	2,378	29,990	7,980	8,107	6,297	2,941	2,632	2,034
Rural	2,311,058	1,750,469	468,807	72,565	13,650	3,086	2,481	2,505,275	1,815,408	561,020	101,859	20,358	3,418	3,213
1-2	308,858	255,134	46,532	5,718	997	239	238	376,015	295,625	68,017	10,200	1,550	190	432
3-5	1,310,201	1,012,356	254,675	34,845	6,045	1,259	1,021	1,526,266	1,132,229	327,441	53,986	9,459	1,417	1,734
6-8	600,361	424,211	143,806	25,528	4,899	1,095	822	536,536	348,930	146,559	32,070	6,975	1,389	613
9+	91,638	58,768	23,794	6,474	1,709	493	400	66,458	38,624	19,002	5,604	2,373	422	434
Percentage														
	2008							2013						
	Total	1	2	3	4	5	6+	Total	1	2	3	4	5	6+
Cambodia Total	100.0	72.5	20.9	4.4	1.2	0.5	0.4	100.0	66.8	24.0	6.3	1.8	0.5	0.6
H.H. size 1-2	100.0	81.5	15.1	2.4	0.6	0.2	0.2	100.0	76.2	19.2	3.3	0.8	0.2	0.3
3-5	100.0	74.7	20.2	3.7	0.9	0.3	0.3	100.0	68.7	23.6	5.6	1.4	0.4	0.3
6-8	100.0	66.4	24.7	6.0	1.7	0.7	0.6	100.0	58.0	27.7	9.2	3.0	0.9	1.1
9+	100.0	55.5	26.0	10.0	4.2	2.2	2.1	100.0	48.3	28.1	12.3	5.5	3.2	2.6
Urban	100.0	57.9	23.8	10.2	4.1	2.1	1.8	100.0	45.3	30.1	14.6	5.6	2.1	2.3
H.H. size 1-2	100.0	76.3	15.3	4.8	1.8	0.9	0.9	100.0	65.0	24.5	6.3	2.3	0.8	1.2
3-5	100.0	61.8	23.7	8.8	3.1	1.4	1.1	100.0	47.1	32.0	13.7	4.6	1.4	1.2
6-8	100.0	47.7	27.8	13.6	5.7	2.8	2.4	100.0	34.5	28.9	20.0	8.9	3.2	4.5
9+	100.0	34.6	25.9	17.1	10.0	6.2	6.3	100.0	26.6	27.0	21.0	9.8	8.8	6.8
Rural	100.0	75.7	20.3	3.1	0.6	0.1	0.1	100.0	72.5	22.4	4.1	0.8	0.1	0.1
H.H. size 1-2	100.0	82.6	15.1	1.9	0.3	0.1	0.1	100.0	78.6	18.1	2.7	0.4	0.1	0.1
3-5	100.0	77.3	19.4	2.7	0.5	0.1	0.1	100.0	74.2	21.5	3.5	0.6	0.1	0.1
6-8	100.0	70.7	24.0	4.3	0.8	0.2	0.1	100.0	65.0	27.3	6.0	1.3	0.3	0.1
9+	100.0	64.1	26.0	7.1	1.9	0.5	0.4	100.0	58.1	28.6	8.4	3.6	0.6	0.7
Note 1) Excludes Institutional, Homeless, Boat and Transient Households.														
2) 'Not Reported' are excluded from the calculation														

By size of household (number of household members), as the size increases, the distribution of households shifts rightward in terms of size of dwelling (number of rooms occupied by households).

Calculating the increase rates from 2008 to 2013 for each size category of dwelling based on Table 10, very high increase rates could be found for 2-5 rooms in urban areas, and for 3-4 rooms in rural areas, hence for 2-5 rooms in the whole Cambodia. This implies a big improvement in Cambodians' dwelling condition in terms of size of dwelling.

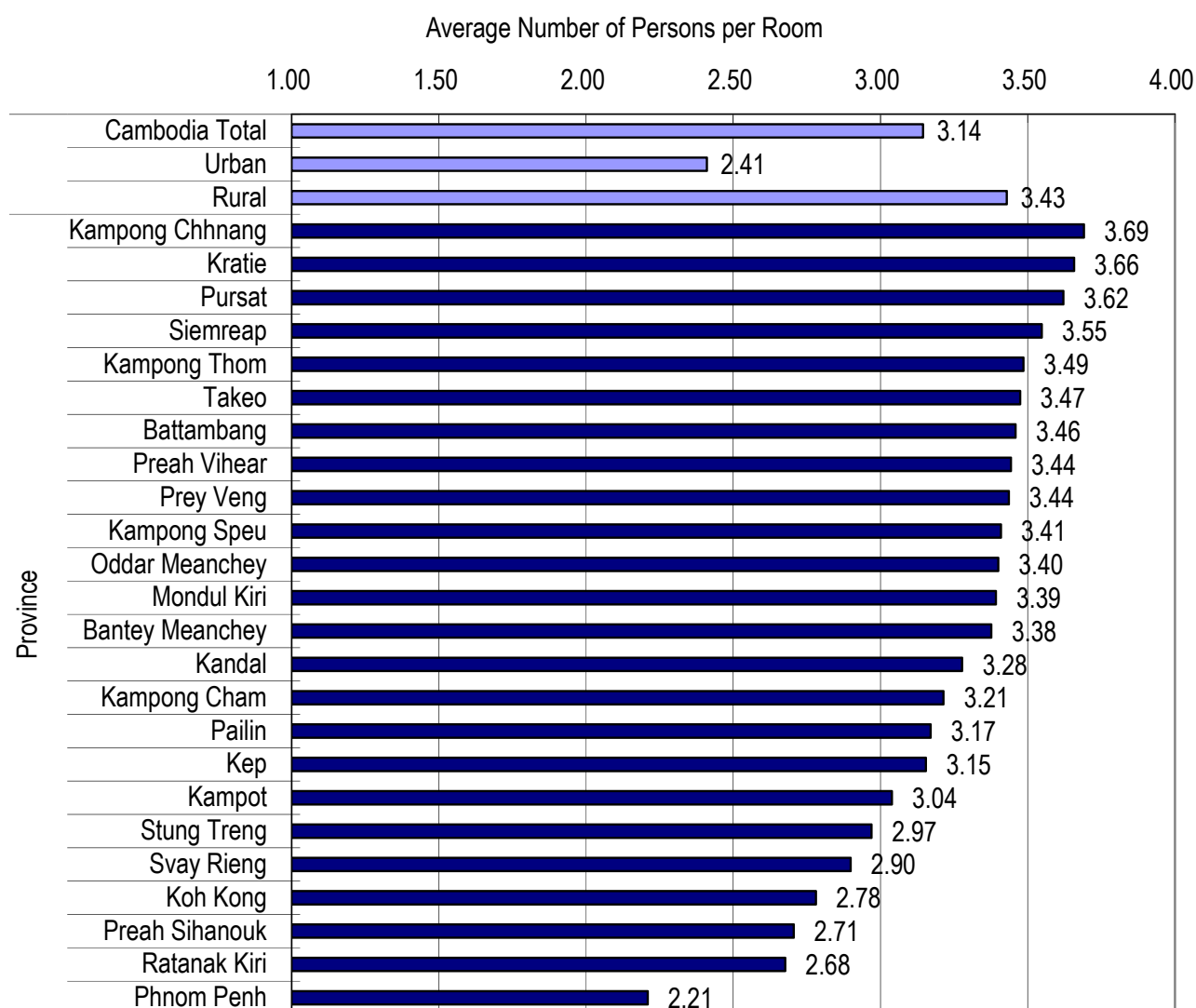
Table 11. Average Household Size and Average Number of Rooms by Province, 2008 and 2013

	2008*		2013*			
Region	Average Household Size	Average Number of Rooms per Household**	Average Household Size	Average Number of Rooms per Household**	Average Number of Persons per Room**	Improvement in Size per Person (%)
Cambodia Total	4.68	1.38	4.64	1.48	3.14	8.0
Urban	4.92	1.75	4.78	1.98	2.41	16.4
Rural	4.63	1.29	4.60	1.34	3.43	4.2
Province						
Bantey Meanchey	4.61	1.37	4.52	1.34	3.38	-0.6
Battambang	4.82	1.31	4.87	1.41	3.46	6.2
Kampong Cham	4.52	1.26	4.35	1.35	3.21	11.5
Kampong Chhnang	4.64	1.29	4.70	1.27	3.69	-2.9
Kampong Speu	4.76	1.32	4.78	1.40	3.41	5.9
Kampong Thom	4.67	1.31	4.62	1.33	3.49	2.4
Kampot	4.49	1.22	4.49	1.48	3.04	21.2
Kandal	4.86	1.40	4.68	1.43	3.28	6.2
Koh Kong	4.79	1.64	4.77	1.71	2.78	4.8
Kratie	4.83	1.40	4.71	1.29	3.66	-5.9
Mondul Kiri	4.87	1.62	4.77	1.40	3.39	-11.6
Phnom Penh	5.01	1.86	4.79	2.17	2.21	22.2
Preah Vihear	5.11	1.49	4.88	1.42	3.44	-0.6
Prey Veng	4.16	1.28	4.52	1.32	3.44	-5.5
Pursat	4.72	1.17	4.52	1.25	3.62	11.5
Ratanak Kiri	5.43	1.57	5.08	1.90	2.68	28.9
Siemreap	4.92	1.37	4.87	1.37	3.55	0.9
Preah Sihanouk	4.83	1.58	4.82	1.78	2.71	12.9
Stung Treng	5.20	1.61	4.84	1.63	2.97	8.7
Svay Rieng	4.17	1.31	4.42	1.52	2.90	9.7
Takeo	4.57	1.32	4.61	1.33	3.47	0.0
Oddar Meanchey	4.75	1.39	4.60	1.35	3.40	0.4
Kep	4.92	1.32	4.62	1.46	3.15	18.0
Pailin	4.74	1.54	4.54	1.43	3.17	-3.2
Maximum	5.43	1.86	5.08	2.17	3.69	
Median	4.78	1.37	4.69	1.41	3.38	
Minimum	4.16	1.17	4.35	1.25	2.21	
Note 1) Excludes Institutional Homeless, Boat and Transient Households. * "Not reported" is excluded from calculation						
** Approximate figures; calculated by regarding '8 and More Rooms' as '9 rooms'						

Table 11 shows the average size of household and the average number of rooms per household. The average household size of Cambodia in 2013 is 4.64 persons and the average number of rooms per household is 1.48 rooms, resulting in the average number of persons per room being 3.14 persons.

The average size of household is larger in urban areas (4.78 persons) than in rural areas (4.60 persons) in 2013, but the average number of rooms per household is much larger in urban areas (1.98 rooms) than in rural areas (1.34 rooms), hence the average number of persons per room is much smaller in urban areas (2.41 persons) than in rural areas (3.43 persons) in 2013.

Figure 3. Average Number of Persons per Room by Province: Urban/Rural, 2013



Compared with 2008 figures, the average number of rooms per household increased from 1.38 rooms in 2008 to 1.48 rooms in 2013 for Cambodia total, from 1.75 to 1.98 in urban areas, and from 1.29 to 1.34 for rural areas. By province, 7 provinces showed a decrease, while 17 others showed an increase in terms of size of dwelling, which indicates that the average number of rooms per household increased in most areas throughout the whole Cambodia.

Compared with 2008 figures, the range shifted upward from an interval of 1.17 (Pursat) - 1.86 (Phnom Penh) to the present one of 1.25 (Pursat) - 2.17 (Phnom Penh) indicating an improvement in terms of number of rooms per household throughout Cambodia.

In terms of number of rooms per person, the whole country showed an improvement of 8.0%, urban areas showed a big gain of 16.4%, and rural areas showed a rather small gain of 4.2% when compared with 2008 figures as shown in Table 11. By province, mostly the same 7 provinces that showed a decrease in number of rooms per household showed a loss, but 17 others showed a gain in terms of space available per person.

In terms of number of persons per room, urban areas show 2.41 persons while rural areas has a bigger figure of 3.43 persons, and the whole country has 3.14 persons. By province, Kampon Chhnang is the worst with 3.69 persons per room followed by Pursat (3.62 persons), and Phnom Penh is the best with 2.21 persons per room as shown in Figure 3.

CHAPTER 4 HOUSING CONDITIONS AND AMENITIES

1. Main Sources of Light

The use of City Power as a source of light is advancing quickly in Cambodia. It doubled from 12.6% to 22.5% during ten years from 1998 to 2008, and also nearly doubled from 22.5% to 44.3% during the five years from 2008 to 2013 as seen in Table 12. In rural areas, City Power proliferated even faster: almost tripled from 3.6% to 9.3% during the inter-censal ten years, and has more than tripled from 9.3% to 32.2% during recent five years between GPCC 2008 and CIPS 2013. In urban areas, the proliferation rate has slowed down, but the ratio of households with City Power reached 90.5% in 2013, some 7% gain from 82.5% in 2008 (Table 12 and Figure 4).

Table 12. Distribution of Households by Main Source of Light: Urban/Rural, 2008 and 2013

Main Source of Light	Number of Households					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Total	2,817,637	506,579	2,311,058	3,163,226	657,951	2,505,275
City power	633,151	418,067	215,084	1,402,219	595,241	806,978
Generator	48,502	9,410	39,092	69,188	7,688	61,500
Both City Power and Generator	61,869	13,436	48,433	48,660	15,190	33,470
Kerosene	1,088,127	37,509	1,050,618	460,424	13,537	446,887
Candle	11,445	1,909	9,536	21,809	1,501	20,308
Battery	959,643	25,490	934,153	1,150,770	24,614	1,126,156
Other Sources	14,900	758	14,142	10,155	179	9,976
	Percentage					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Total	100.0	100.0	100.0	100.0	100.0	100.0
City power	22.5	82.5	9.3	44.3	90.5	32.2
Generator	1.7	1.9	1.7	2.2	1.2	2.5
Both City Power and Generator	2.2	2.7	2.1	1.5	2.3	1.3
Kerosene	38.6	7.4	45.5	14.6	2.1	17.8
Candle	0.4	0.4	0.4	0.7	0.2	0.8
Battery	34.1	5.0	40.4	36.4	3.7	45.0
Other Sources	0.5	0.1	0.6	0.3	0.0	0.4
Note: Excludes Institutional, Homeless, Boat and Transient Households.						

Battery still keeps a large share in urban areas (45.0%), hence in the whole country (36.4%), showing even increases of 4.6 points and 2.3 points for rural areas and the whole country respectively, although it marks only 3.7% in urban areas (a decrease of 1.3 points from 2008).

Contrary to City Power, Kerosene has been decreasing sharply in Cambodia. Its share dropped by half from 89.3% (1998) to 45.5% (2008), and declined further nearly to one third (17.8%) during recent five years.

Taking differences of shares between 2008 and 2013, we could say that the loss of Kerosene (-24.1 points) has been absorbed or substituted by gains of City Power (including Generator; 21.2 points) and of Battery (2.3 points) at the national level (Table 13).

Figure 4. Main Source of Light: Urban/Rural, 2004, 2008, 2013

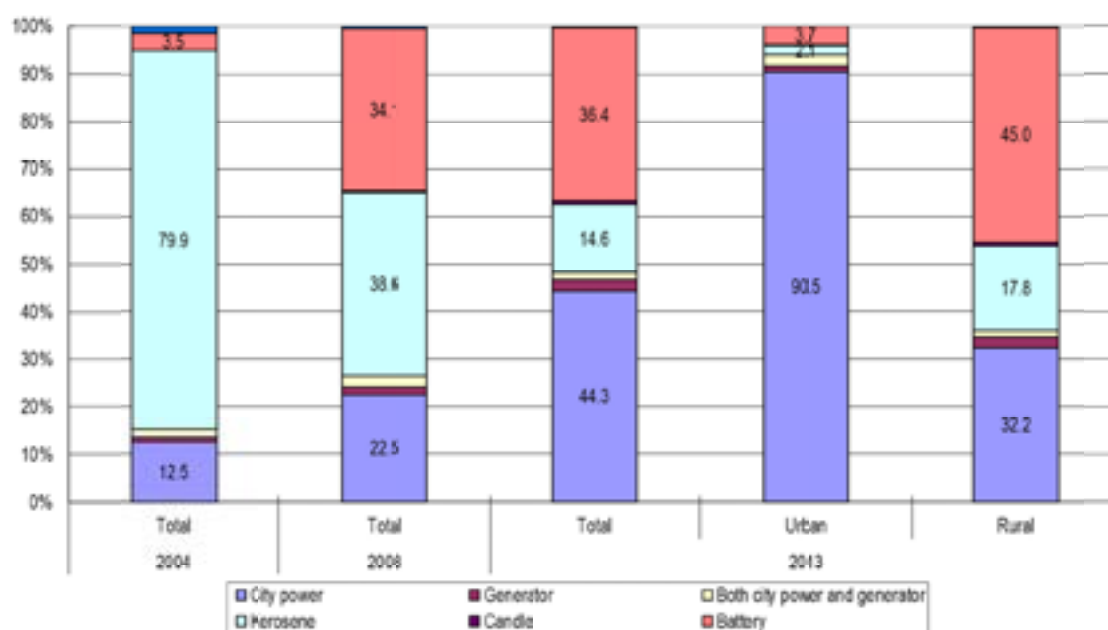


Table 13 shows the ratios of households using the three leading sources of light: City Power (including Both City Power and Generator), Kerosene and Battery.

First of all, there still exists a large difference among provinces for City Power and Battery in 2013 although they increased during recent five years. On the contrary, Kerosene decreased greatly during recent five years, and the range of the ratio of use is 0.9% - 36.9% in 2013, much narrower than 1.7% - 71.1% in 2008.

Taking differences between 2008 and 2013, the ratio of use of Kerosene decreased greatly in all the 24 provinces, while that of City Power increased in all the 24 provinces, especially by more than 10 points in 18 provinces, and that of Battery decreased only in four provinces, namely in Kandal (-33.0 points), Takeo (-18.1 points), Preah Sihanouk (-4.0 points) and Phnom Penh (-2.5 points).

Calculating correlation coefficients among the three sources, needless to say, they are all negative, and have rather large values between City Power and Kerosene, and between City Power and Battery, indicating steady development to electrification in Cambodia (Table 13 and Figure 5).

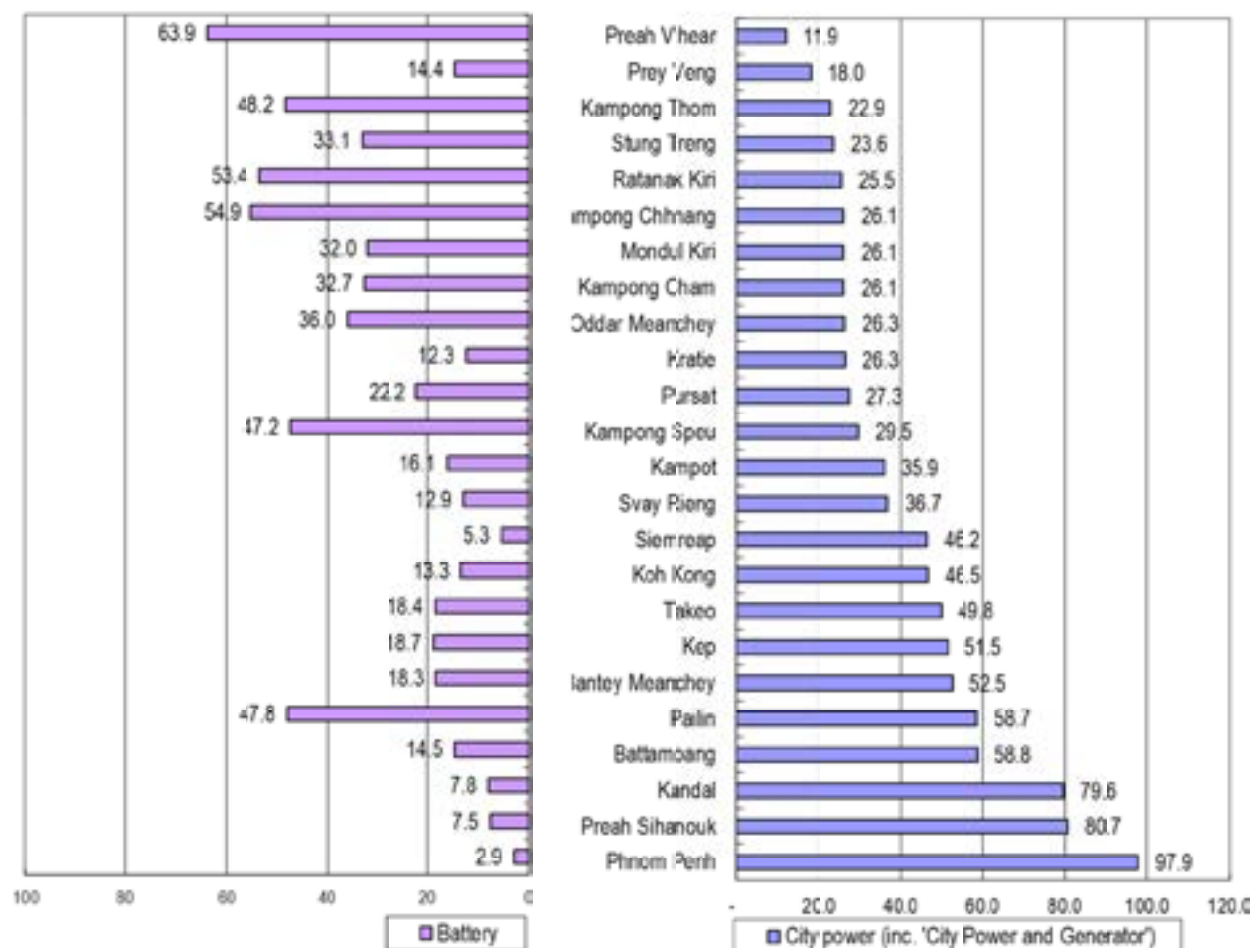
Table 13. Ratios of Households Using Leading Sources of Light by Province, 2008 and 2013

Region	Total	2008			Total	2013			Difference { (2013) - (2008) }		
		City Power (inc. 'and generator')	Kerosene	Battery		City Power (inc. 'and generator')	Kerosene	Battery	City Power (inc. 'and generator')	Kerosene	Battery
	(Number)	(Percentage)			(Number)	(Percentage)			(Percent point)		
Total	2,817,637	24.7	38.6	34.1	3,163,226	45.9	14.6	36.4	21.2	-24.1	2.3
Urban	506,579	85.2	7.4	5.0	657,951	92.8	2.1	3.7	7.6	-7.4	-5.0
Rural	2,311,058	11.4	45.5	40.4	2,505,275	33.5	17.8	45.0	22.1	-27.6	4.5
Province											
Bantey Meanchey	144,658	28.2	50.8	18.3	161,423	52.5	14.1	27.5	24.3	-36.7	9.2
Battambang	209,702	23.1	55.3	18.7	230,304	58.8	15.6	22.0	35.7	-39.8	3.3
Kampong Cham	368,114	16.3	34.5	47.2	403,628	26.1	15.3	53.6	9.8	-19.2	6.4
Kampong Chhnang	100,801	10.8	54.6	33.1	111,355	26.1	22.9	47.8	15.2	-31.7	14.7
Kampong Speu	149,270	10.0	40.4	48.2	157,982	29.5	11.2	57.3	19.5	-29.2	9.2
Kampong Thom	133,878	11.1	54.9	32.0	149,404	22.9	27.8	47.8	11.8	-27.1	15.8
Kampot	129,646	11.6	54.1	32.7	136,148	35.9	18.3	44.2	24.3	-35.8	11.5
Kandal	255,029	34.0	14.8	47.8	238,435	79.6	3.4	14.8	45.6	-11.4	-33.0
Koh Kong	24,166	43.4	42.8	7.8	25,658	46.5	33.0	11.0	3.0	-9.8	3.2
Kratie	65,323	13.1	48.8	36.0	73,050	26.3	19.8	48.1	13.3	-29.1	12.1
Mondul Kiri	12,270	20.5	53.2	13.3	15,251	26.1	27.3	34.8	5.6	-25.9	21.5
Phnom Penh	250,597	92.9	1.7	2.9	352,702	97.9	0.9	0.5	5.0	-0.8	-2.5
Preah Vihear	33,115	9.5	55.3	14.4	48,242	11.9	21.5	58.6	2.3	-33.8	44.1
Prey Veng	226,312	7.0	28.2	63.9	255,960	18.0	11.5	69.3	11.0	-16.7	5.4
Pursat	83,412	15.4	71.1	12.3	96,284	27.3	27.0	43.2	11.9	-44.0	30.9
Ratanak Kiri	27,485	17.1	55.9	12.9	36,178	25.5	16.5	39.5	8.5	-39.4	26.6
Siemreap	179,754	21.5	57.9	18.4	189,708	46.2	32.4	20.7	24.6	-25.5	2.3
Preah Sihanouk	44,656	54.2	33.0	7.5	51,955	80.7	13.3	3.5	26.5	-19.7	-4.0
Stung Treng	20,922	18.5	59.5	5.3	25,359	23.6	36.9	23.3	5.1	-22.6	18.0
Svay Rieng	114,758	11.1	32.7	54.9	130,972	36.7	6.5	55.9	25.7	-26.2	0.9
Takeo	183,742	10.9	34.5	53.4	200,099	49.8	11.0	35.3	38.9	-23.5	-18.1
Oddar Meanchey	38,398	15.5	58.2	22.2	50,266	26.3	16.9	51.7	10.8	-41.3	29.5
Kep	7,193	16.6	64.1	16.1	8,378	51.5	28.2	16.9	34.8	-35.9	0.9
Pailin	14,436	39.8	38.0	14.5	14,483	58.7	5.8	27.3	18.9	-32.2	12.8
Maximum	368,114	92.9	71.1	63.9	403,628	97.9	36.9	69.3			
Minimum	7,193	7.0	1.7	2.9	8,378	11.9	0.9	0.5			
Standard Deviation	94,221	18.7	15.8	17.5	105,779.5	21.4	9.5	18.3			
Correlation	City Power vs. Kerosene		-0.61		City Power vs. Kerosene		-0.50				
Coefficient	Kerosene vs. Battery		-0.33		Kerosene vs. Battery		-0.03				
	Battery vs. City Power		-0.51		Battery vs. City Power		-0.83				

Note: Excludes Institutional, Homeless, Boat and Transient Households.

The correlation coefficient between City Power and Battery is relatively high with (-) 0.83 in 2013 as shown in Table 13. Looking at Figure 5 below, irregular provinces might be Pailin, Siem Reap, Kampong Speu, Kratie and Prey Veng.

Figure 5. Proportion of Households Using Battery and City Power by Province, 2013



2. Main Cooking Fuel

According to Table 14, use of Firewood for cooking is still popular in the whole country of Cambodia with 77.9% in 2013, followed by Liquefied Petroleum Gas (LPG) with 12.1%, and Charcoal with (8.4%). In rural areas, the share of Firewood is by far the largest with nearly 90%, followed by Charcoal (5.6%) and LPG (3.7%). In contrast, in urban areas, LPG is the most popular type of fuel for cooking, while Firewood still occupies 33.3%, and Charcoal is used by 19.0% of households. Also see Figure 6.

Chronologically, LPG occupied only 1.7% in Cambodia in 1998, but it expanded to 7.9% by 2008, and continued to grow to occupy 12.1% in 2013. In rural areas, the share of LPG has been jumping from 0.3% to 1.5% and further to 3.7% although still very low. On the other hand, in urban areas, LPG expanded from 8.8% to 37.3% during 1998-2008, and reached 44.4% in 2013 although the growth rate has become much lower during recent five years.

Electricity is seldom used for cooking in Cambodia although its share has been increasing from nil to 1.2% in the whole country (from 0.2% to 3.1% in urban areas) during the 15 years of 1998-2013.

Table 14. Distribution of Households by Type of Fuel for Cooking: Urban/Rural, 2008 and 2013

Type of Fuel for Cooking	Number of Households					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Total	2,817,637	506,579	2,311,058	3,163,226	657,951	2,505,275
Firewood	2,355,884	175,962	2,179,922	2,465,016	218,819	2,246,198
Charcoal	210,567	129,471	81,096	265,659	124,969	140,690
Kerosene	9,732	1,839	7,893	3,548	379	3,169
Liquefied Petroleum Gas (LPG)	222,621	188,915	33,706	384,166	292,226	91,940
Electricity	10,684	7,699	2,985	37,403	20,097	17,306
None	6,156	2,001	4,155	3,814	977	2,837
Other	1,993	692	1,301	3,621	485	3,136
	Percentage					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Total	100.0	100.0	100.0	100.0	100.0	100.0
Firewood	83.6	34.7	94.3	77.9	33.3	89.7
Charcoal	7.5	25.6	3.5	8.4	19.0	5.6
Kerosene	0.3	0.4	0.3	0.1	0.1	0.1
Liquefied Petroleum Gas (LPG)	7.9	37.3	1.5	12.1	44.4	3.7
Electricity	0.4	1.5	0.1	1.2	3.1	0.7
None	0.2	0.4	0.2	0.1	0.1	0.1
Other	0.1	0.1	0.1	0.1	0.1	0.1
Note: Excludes Institutional, Homeless, Boat and Transient Households.						

Figure 6. Type of Fuel for Cooking: Urban/Rural, 1998, 2008 and 2013

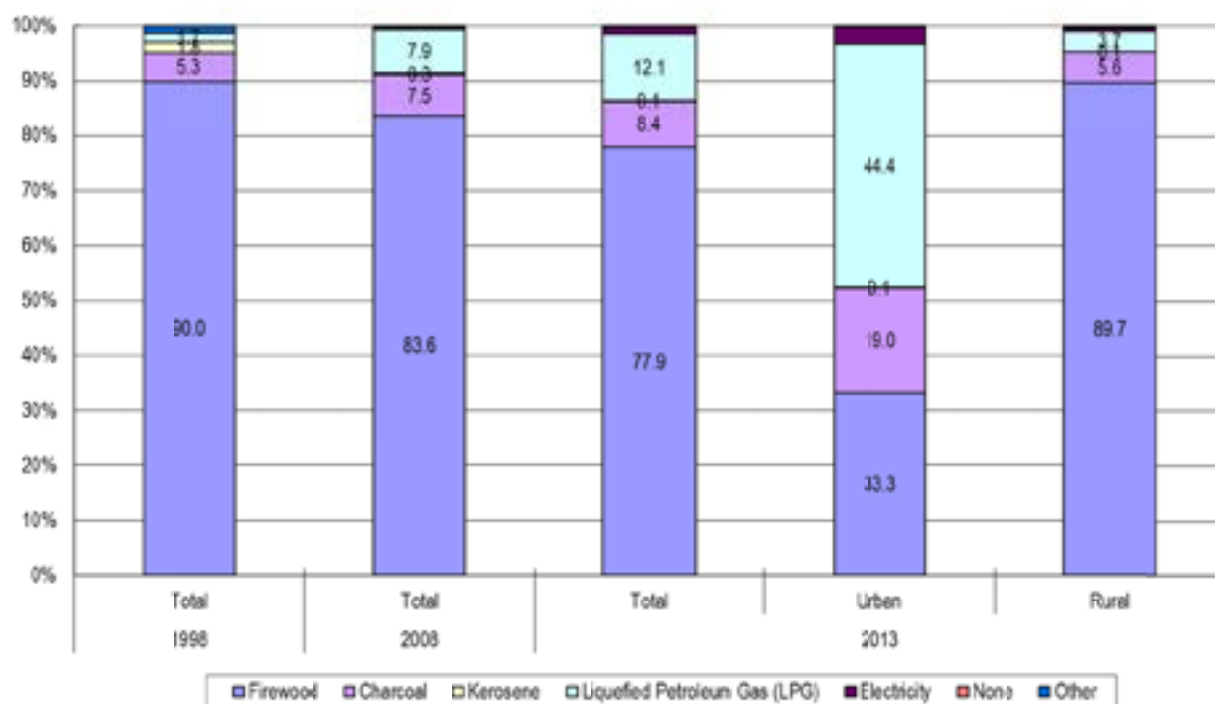


Table 15 shows the distribution of households by type of fuel for cooking by province.

More than two thirds of households continue to use Firewood for cooking in 19 provinces both in 2008 and 2013, and other 5 provinces also mark high ratios of using Firewood. The only exceptional is Phnom Penh recording 18.0% in 2008, and 20.3% in 2013.

The use of Charcoal also maintains a certain share, and generally speaking, its share is relatively high in provinces where relatively low shares are observed for Firewood in 2008 and to some extent in 2013.

LPG is used by almost two thirds of households in Phnom Penh. The share of LPG is still low in other provinces, exceeding a 10% level only in 4 provinces headed by Preah Sihanouk (23.4%).

Taking differences between 2008 and 2013, the ratio of use of Firewood decreased in all 24 provinces, while that of LPG increased in 22 provinces, and decreased only slightly in 2 provinces. The use of Charcoal also increased in 19 provinces, and slightly decreased in 4 provinces leaving Phnom Penh as an exceptional case where it lost (-) 13.3 points from 2008.

Calculating correlation coefficients among the three types, negative high values are observed between Firewood and Charcoal, and between Firewood and LPG. On the other hand, positive low values are found between Charcoal and LPG.

Tentatively summing up these statistical findings, energy transformation in the kitchen in Cambodia seems to move from Firewood to LPG, and also from Charcoal to LPG.

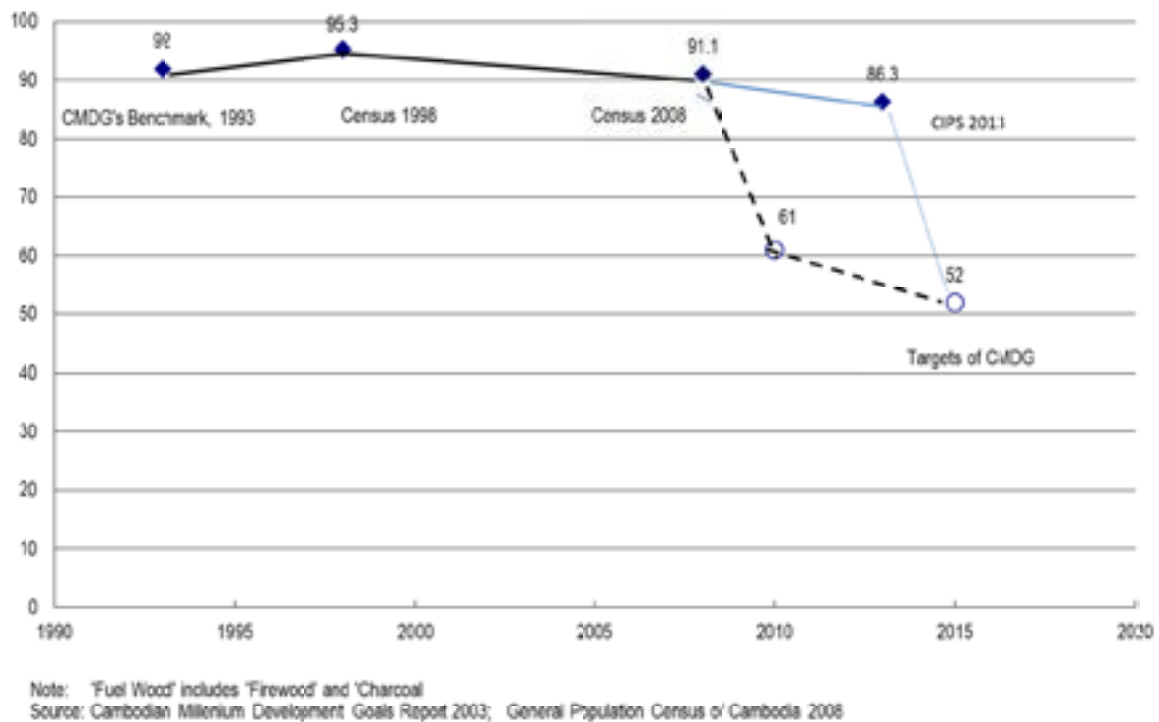
Table 15. Distribution of Households by Type of Fuel for Cooking by Province, 2008 and 2013

			2008				2013			Difference {(2013) - (2008)}	
Region	Total	Firewood	Charcoal	Liquefied Petroleum Gas (LPG)	Total	Firewood	Charcoal	Liquefied Petroleum Gas (LPG)	Firewood	Charcoal	Liquefied Petroleum Gas (LPG)
	(Number)	(Percentage)			(Number)	(Percentage)			(Percent point)		
Total	2,817,637	83.6	7.5	7.9	3,163,226	77.9	8.4	12.1	-5.7	0.9	4.2
Urban	506,579	34.7	25.6	37.3	657,951	33.3	19.0	44.4	-1.5	-6.6	7.1
Rural	2,311,058	94.3	3.5	1.5	2,505,275	89.7	5.6	3.7	-4.7	2.1	2.2
Province											
Banteay MeanChey	144,658	76.9	17.4	4.4	161,423	66.8	25.0	4.2	-10.1	7.5	-0.2
Battambang	209,702	83.2	12.9	2.9	230,304	77.1	14.9	5.8	-6.1	2.0	2.9
Kampong Cham	368,114	95.6	1.5	2.2	403,628	92.3	3.1	3.5	-3.3	1.6	1.2
Kampong Chhnang	100,801	93.1	5.1	1.2	111,355	84.6	10.8	3.8	-8.5	5.6	2.6
Kampong Spueu	149,270	95.6	2.0	1.7	157,982	92.1	3.0	3.5	-3.5	1.1	1.9
Kampong Thom	133,878	94.3	4.0	1.1	149,404	92.8	5.2	1.4	-1.5	1.2	0.4
Kampot	129,646	91.0	6.4	1.8	136,148	81.6	8.5	7.4	-9.4	2.0	5.7
Kandal	255,029	88.0	5.0	6.0	238,435	85.1	3.8	10.2	-2.9	-1.2	4.2
Koh Kong	24,166	53.6	32.5	12.2	25,658	49.6	31.5	17.0	-4.1	-1.0	4.8
Kratie	65,323	93.0	5.0	1.2	73,050	89.1	6.2	4.0	-4.0	1.2	2.8
Mondul Kiri	12,270	89.8	4.1	4.9	15,251	86.5	4.1	8.3	-3.4	0.0	3.4
Phnom Penh	250,597	18.0	23.1	56.5	352,702	20.3	9.8	66.3	2.3	-13.3	9.9
Preah Vihear	33,115	93.1	5.5	0.8	48,242	89.0	8.7	1.7	-4.1	3.2	0.9
Prey Veng	226,312	96.8	1.1	1.3	255,960	96.2	0.9	2.7	-0.6	-0.2	1.3
Pursat	83,412	93.4	4.2	1.3	96,284	89.9	7.9	1.9	-3.5	3.7	0.6
Ratanak Kikri	27,485	90.6	5.4	3.0	36,178	84.6	4.6	10.3	-6.0	-0.8	7.2
Siem Reap	179,754	86.4	5.0	7.4	189,708	80.4	12.1	6.4	-6.1	7.2	-1.1
Preah Sihanouk	44,656	52.4	34.2	11.3	51,955	36.6	37.7	23.4	-15.8	3.5	12.1
Stung Treng	20,922	88.7	9.1	1.5	25,359	81.7	11.1	5.8	-7.0	2.0	4.3
Svay Rieng	114,758	95.5	0.9	2.8	130,972	91.9	0.7	7.1	-3.6	-0.2	4.3
Takeo	183,742	95.8	1.6	2.1	200,099	92.0	2.4	4.4	-3.8	0.8	2.3
Otdar Meanchey	38,398	81.4	15.6	1.6	50,266	68.7	27.2	2.5	-12.8	11.6	0.9
Kep	7,193	93.8	2.7	1.9	8,378	86.6	3.2	7.6	-7.2	0.5	5.8
Pailin	14,436	65.8	22.6	9.4	14,483	49.7	34.5	13.9	-16.1	11.8	4.5
Maximum	368,114	96.8	34.2	56.5	403,628	96.2	37.7	66.3			
Minimum	7,193	18.0	0.9	0.8	8,378	20.3	0.7	1.4			
Standard Deviation	94,221	18.3	9.6	11.0	105,779.5	19.3	10.9	12.9			
Correlation Coefficient	Firewood vs. Charcoal		-0.85		Firewood vs. Charcoal		-0.73				
	Charcoal vs. LPG		0.51		Charcoal vs. LPG		0.21				
	LPG vs. Firewood		-0.89		LPG vs. Firewood		-0.82				
Note: Excludes Institutional, Homeless, Boat and Transient Households.											

One of the targets of Cambodian Millennium Development Goal 7 (CMDG 7) is to decrease the fuel wood dependency to 61% in 2010 and 52% in 2015, which is defined as the percentage of households who use Firewood and Charcoal for cooking.

From 1998 to 2008, it decreased from 95.3% to 91.1%, and has further declined to 86.3% by 2013. However, the present situation seems far from achieving the CMDG target values as seen in Figure 7.

Figure 7. Trend in Fuel Wood Dependency in Cambodia versus Cambodian Millennium Development Goal 7 (CMDG 7) Target



3. Main Sources of Drinking Water Supply

Table 16 presents how Cambodian households obtain drinking water. On average, Tube/Pipe Well tops with 29.5%, followed by Piped Water (19.8%), “Spring, River, etc.”(18.7%), Unprotected Dug Well (14.3%), “Bought” (8.6%), Protected Dug Well (6.2%), and so on in 2013. It means about 35% of Cambodian households still obtain unprotected drinking water (from “Spring, River, etc.”, unprotected Dug Well, Rain, and Other), although this is a great improvement from about 46% in 2008, and 71% in 1998.

In urban areas, piped water occupies 63.7% followed by Tube/Pipe Water (14.7%), and “Bought” (9.2%) in 2013. Thus, almost 90% of urban households enjoy drinking protected water in 2013. It should be noted that the corresponding ratio was already high: about 88% in 2008.

In rural areas, about 57% of households at most drink protected water, while the corresponding ratio is about 47% in 2008.

Generally speaking, Cambodian households’ condition in drinking water is steadily improving.

Table 16. Distribution of Households by Main Source of Drinking Water Supply: Urban/Rural, 2008 and 2013

Main Source of Drinking Water Supply	Number of Households					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Total	2,817,637	506,579	2,311,058	3,163,226	657,951	2,505,275
Piped Water	389,803	287,497	102,306	627,739	418,793	208,946
Tube/Pipe Well	755,652	74,460	681,192	933,949	96,644	837,305
Protected Dug Well	147,120	19,193	127,927	195,977	12,051	183,925
Unprotected Dug Well*	581,942	22,926	559,016	452,994	18,631	434,363
Rain	26,897	2,605	24,292	44,913	10,810	34,103
Spring, River, etc	650,082	31,503	618,579	592,119	40,064	552,055
Bought	230,177	65,666	164,511	270,967	60,386	210,581
Other	35,964	2,729	33,235	44,569	572	43,997
Main Source of Drinking Water Supply	Percentage					
	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Total	100.0	100.0	100.0	100.0	100.0	100.0
Piped Water	13.8	56.8	4.4	19.8	63.7	8.3
Tube/Pipe Well	26.8	14.7	29.5	29.5	14.7	33.4
Protected Dug Well	5.2	3.8	5.5	6.2	1.8	7.3
Unprotected Dug Well*	20.7	4.5	24.2	14.3	2.8	17.3
Rain	1.0	0.5	1.1	1.4	1.6	1.4
Spring, River, etc	23.1	6.2	26.8	18.7	6.1	22.0
Bought	8.2	13.0	7.1	8.6	9.2	8.4
Other	1.3	0.5	1.4	1.4	0.1	1.8
Note: Excludes Institutional, Homeless, Boat and Transient Households.						

4. Locations of Main Source of Drinking Water

In some developing countries, it is hard work for women and children to fetch drinking water. Figure 8 shows the shares of locations of drinking water sources by household size. Here, we cannot recognize much difference among household sizes in both urban and rural areas.

Figure 8. Share of Locations of Drinking Water Sources by Household Size

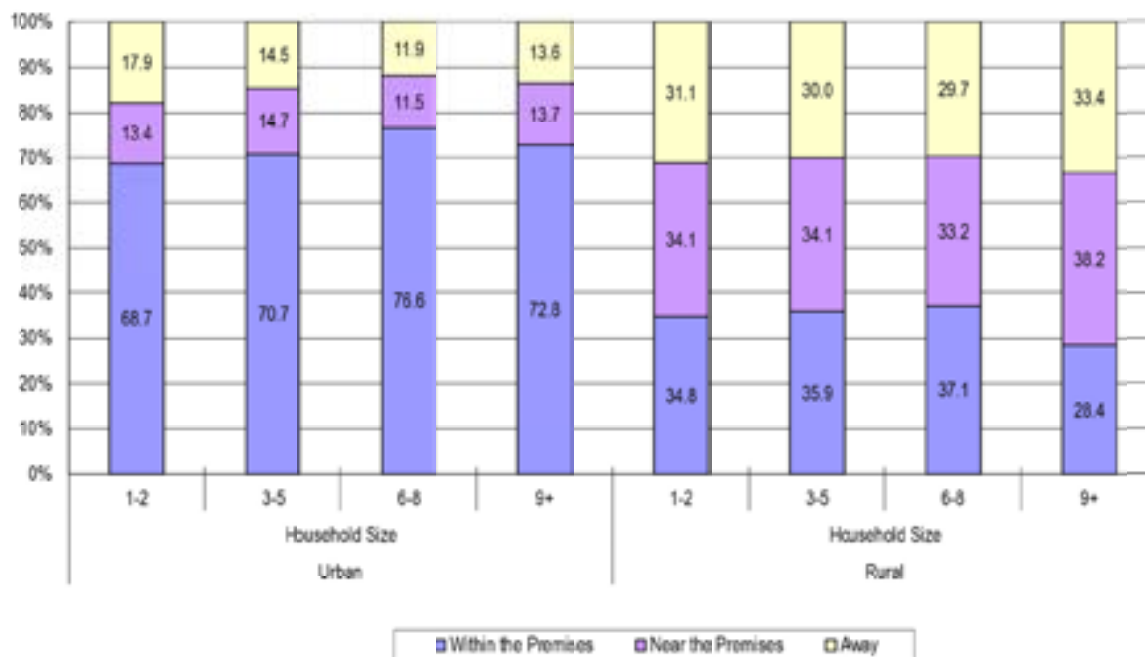


Figure 9 shows the share of locations of drinking water sources for Cambodian households classified by main source.

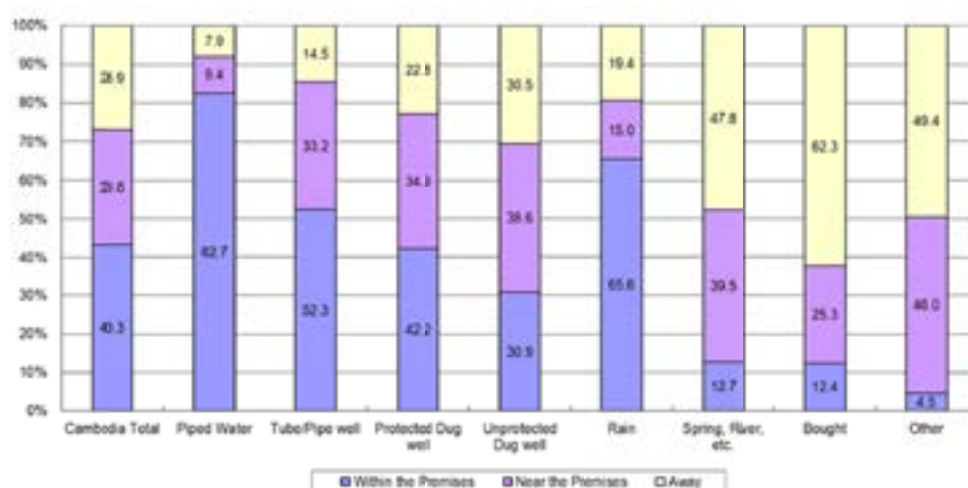
As a whole, 43.3% of households in Cambodia obtain drinking water within the premises, and 29.8% near the premises, but 26.9% of households have to spend five minutes or longer to get drinking water.

In urban areas, 72.0% of households have drinking water supply facilities within the premises, only 14.2% have to go way from home. In rural areas, about one third of households can obtain drinking water within the premises, and another one thirds near the premises, leaving about 30% of households with drinking water supply away from the premises.

Compared with 2008 figures, we can see steady improvements in the condition of obtaining drinking water all over the country. For example, in 2008, the ratio of households obtaining drinking water within the premises is 36.2%, followed by “Near the premises” (31.5%), and “Away”(32.3%).

By main source of drinking water, “Away” has large shares in “Bought”, “Spring, River, etc.”, and Unprotected Dug Well in both urban and rural areas, while “Near the premises” has large shares in Tube/Pipe Well, Protected Dug Well and Unprotected Dug Well. The share of “Within the premises” is the highest for Piped Water, followed by Tube/Pipe Well, Protected Dug Well and Unprotected Dug Well.

Figure 9. Locations of Drinking Water by Main Source of Drinking, Cambodia Total, 2013



Urban and Rural, 2013

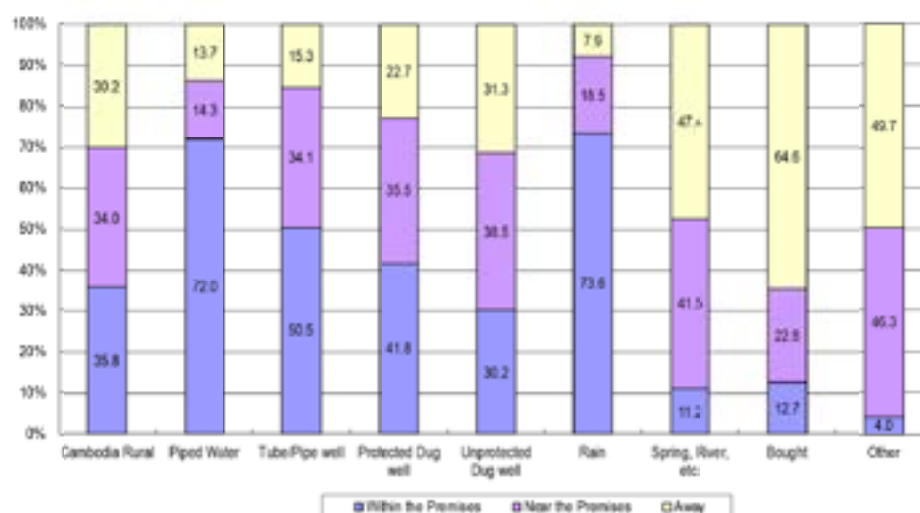
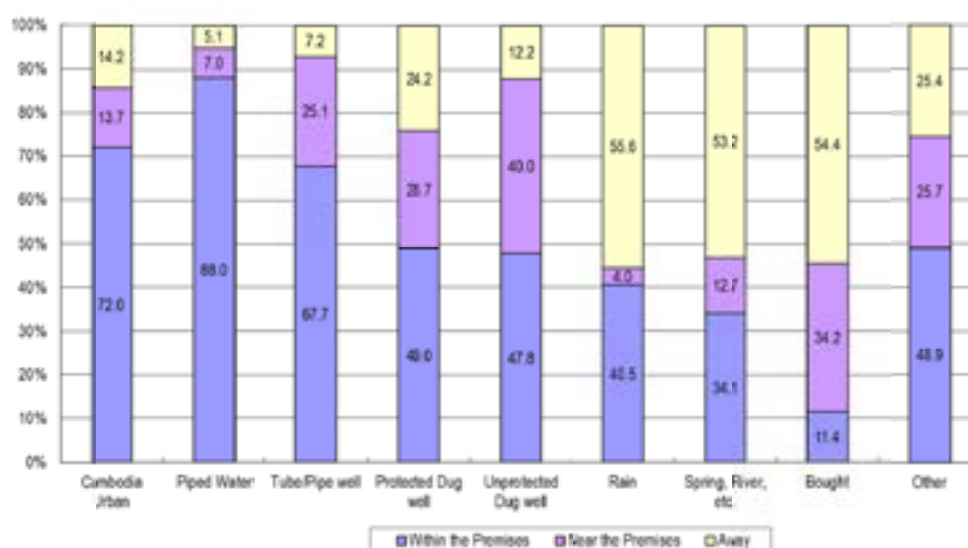


Table 17. Distribution of Households by Main Source of Drinking Water and Location of Drinking Water: Province, 2013

Region	Number	Main Source of Drinking Water (%)								Location of Drinking Water (%)		
		Piped Water	Tube/Pipe Well	Protected Dug Well	Unprotected Dug Well	Rain	Spring, River, etc.	Bought	Other	Within Premises	Near Premises	Away
Total	3,163,226	19.8	29.5	6.2	14.3	1.4	18.7	8.6	1.4	43.3	29.8	26.9
Urban	657,951	63.7	14.7	1.8	2.8	1.6	6.1	9.2	0.1	72.0	13.7	14.2
Rural	2,505,275	8.3	33.4	7.3	17.3	1.4	22.0	8.4	1.8	35.8	34.0	30.2
Province												
Banteay MeanChey	161,423	10.7	9.7	1.6	7.2	7.2	46.6	15.5	1.4	32.5	29.8	37.7
Battambang	230,304	18.4	15.6	2.9	20.3	3.5	26.3	10.6	2.4	34.1	30.6	35.3
Kampong Cham	403,628	12.0	42.5	11.7	20.2	0.4	3.8	7.8	1.5	48.8	37.3	13.9
Kampong Chhnang	111,355	2.0	34.6	6.2	23.8	1.1	16.6	13.4	2.4	40.7	26.0	33.2
Kampong Spueu	157,982	9.4	32.0	7.2	4.8	1.1	28.2	17.1	0.1	17.1	33.6	49.3
Kampong Thom	149,404	6.9	18.1	13.9	47.7	0.4	8.2	3.1	1.7	35.3	39.1	25.7
Kampot	136,148	10.7	12.9	3.6	19.6	3.6	44.3	3.8	1.4	15.0	41.9	43.1
Kandal	238,435	35.3	10.9	5.4	4.2	0.4	20.8	21.3	1.8	38.2	35.8	26.0
Koh Kong	25,658	28.2	4.8	13.1	36.9	1.3	6.1	8.5	1.1	41.2	19.5	39.3
Kratie	73,050	27.8	22.1	4.3	10.8	0.2	20.8	13.6	0.3	36.4	31.4	32.2
Mondul Kiri	15,251	1.4	32.3	23.4	11.9	0.2	26.9	3.8	0.1	19.3	27.4	53.3
Phnom Penh	352,702	79.4	3.5	0.3	0.3	2.6	6.6	7.3	0.1	81.5	8.5	10.1
Preah Vihear	48,242	6.5	47.7	9.7	13.9	0.1	19.4	2.6	0.2	23.8	35.4	40.8
Prey Veng	255,960	7.0	70.1	2.5	1.4	0.1	14.2	0.7	4.1	54.8	30.5	14.7
Pursat	96,284	14.5	18.2	5.5	19.3	1.2	34.6	6.3	0.4	29.5	39.3	31.2
Ratanak Kikri	36,178	7.2	11.2	23.9	15.1	0.1	38.0	3.2	1.3	28.0	39.1	32.9
Siem Reap	189,708	1.5	46.2	8.5	36.1	0.1	4.9	1.5	1.4	46.3	26.4	27.3
Preah Sihanouk	51,955	40.0	12.9	13.0	25.5	0.4	3.1	5.1	0.1	54.4	25.2	20.4
Stung Treng	25,359	15.0	15.5	3.7	6.4	0.0	57.5	1.7	0.0	25.7	35.8	38.4
Svay Rieng	130,972	5.8	91.2	0.4	0.3	0.1	1.7	0.0	0.5	75.1	19.3	5.6
Takeo	200,099	4.5	30.8	8.5	12.3	0.9	32.4	10.0	0.6	28.0	31.8	40.2
Otdar Meanchey	50,266	2.2	20.7	7.4	9.5	0.9	35.6	19.3	4.4	13.5	24.6	61.8
Kep	8,378	1.3	16.6	11.1	30.4	2.4	31.7	6.1	0.6	20.1	34.4	45.5
Pailin	14,483	20.9	11.5	2.1	4.7	2.1	39.4	19.0	0.2	21.4	33.2	45.3
Maximum	403,628	79.4	91.2	23.9	47.7	7.2	57.5	21.3	4.4	81.5	41.9	61.8
Minimum	8,378	1.3	3.5	0.3	0.3	-	1.7	-	-	13.5	8.5	5.6
Standard Deviation	105,780	17.1	20.6	6.2	12.3	1.6	15.4	6.3	1.2	17.2	7.5	13.5
Note: Excludes Institutional, Homeless, Boat and Transient Households.												

Discrepancy among provinces is very large both in main source of drinking water and in location of drinking water as seen in Table 17. The ratio of Piped Water is nearly 80% in Phnom Penh, but is less than 40% in other provinces, and less than 10% in 12 provinces. Tube/Pipe Well is remarkably high in Svay Rieng and Prey Veng. Coincidentally, in these three provinces just mentioned, the ratio of “Within the Premises” is high.

On the other hand, Unprotected Dug Well occupies a large share of 48% in Kampong Thom, and the share of “Spring, River, et.” is high in Stung Treng (58%), Banteay Meanchey (47%), and Kampot (43%) .

The ratio of “Away” is the highest in Otdar Meanchey (62%) followed by Mondul Kiri, Kampong Supeu, Kep and Pailin with more than 45%.

It is noted here that the conditions regarding main sources of drinking water supply reported in CIPS 2013 are found very similar to those of GPCC 2008 in terms of provincial difference although they are improving as a whole.

5. Toilet Facilities

51.3% of Cambodian households do not have toilet facilities within their premises. This ratio was very high with 85.5% in 1998, decreased to 66.3% in 2008, and further decreased to the above figure in 2013 (Table 18).

In 2008, about one fifth of households had not toilet facilities in urban areas, and about four fifths had not toilet facilities in rural areas. In 2013, only one eighth has not toilet facilities, while three eighths still have not them in rural areas. There still exists a large gap between urban and rural areas, although narrowing steadily (Figure 10).

With respect to type of toilet facility, “Connected to sewerage” is slightly lower than Septic Tank in the whole country both in 2008 and 2013. Comparing urban areas with rural areas in this respect, an interesting contrast is observed: “Connected to sewerage” is much larger than Septic Tank in urban areas, and vice versa in rural areas both in 2008 and 2013 (Table 18 and Figure 11).

Table 18. Distribution of Households by Availability and Type of Toilet facility: Urban/Rural, 2008 and 2013

Availability and Type of Toilet Facility	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
	Number of Households					
Total	2,817,637	506,579	2,311,058	3,163,226	657,951	2,505,275
Households without Toilet	1,867,946	93,904	1,774,042	1,623,573	82,308	1,541,265
Households with Toilet	949,691	412,675	537,016	1,539,653	575,643	964,010
Connected to sewerage	380,456	231,624	148,832	681,027	351,217	329,811
Septic Tank	406,161	164,897	241,264	751,857	211,981	539,877
Pit latrine	138,416	12,854	125,562	83,094	7,932	75,161
Other	24,658	3,300	21,358	23,675	4,513	19,162
	Percentage					
Total	100.0	100.0	100.0	100.0	100.0	100.0
Households without Toilet	66.3	18.5	76.8	51.3	12.5	61.5
Households with Toilet	33.7	81.5	23.2	48.7	87.5	38.5
Connected to sewerage	13.5	45.7	6.4	21.5	53.4	13.2
Septic Tank	14.4	32.6	10.4	23.8	32.2	21.5
Pit latrine	4.9	2.5	5.4	2.6	1.2	3.0
Other	0.9	0.7	0.9	0.7	0.7	0.8
Note: 1) Excludes Institutional, Homeless, Boat and Transient Households.						

Figure 10. Availability of Toilet Facility: Urban/Rural, 2008 and 2013

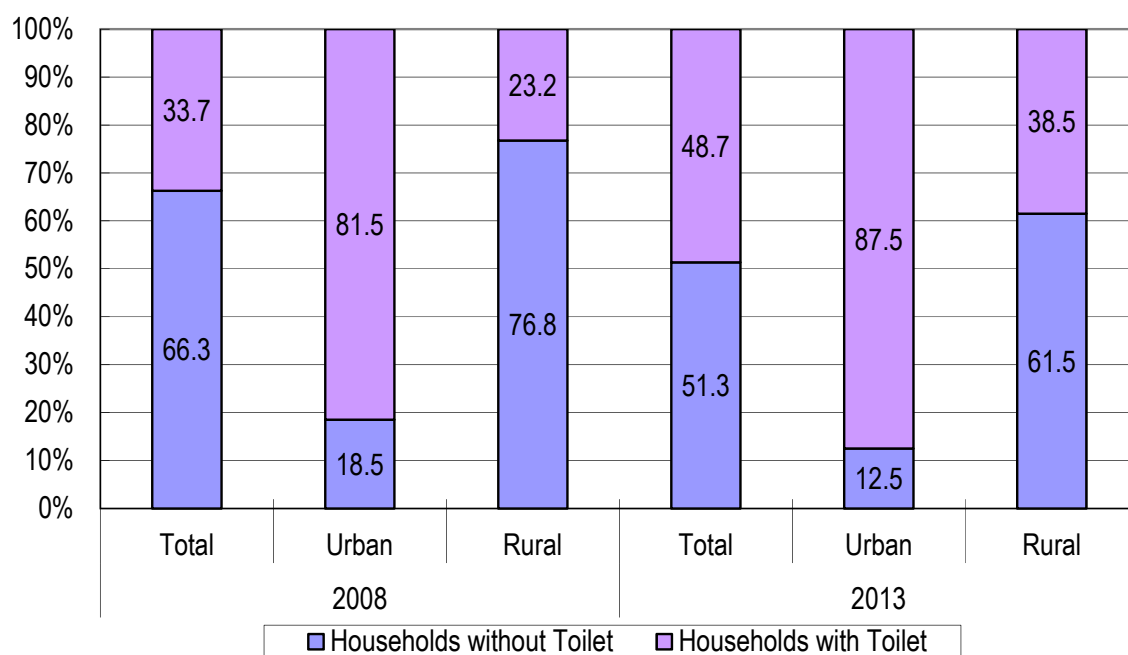


Figure 11. Availability and type of Toilet Facility: Urban/Rural, 2013

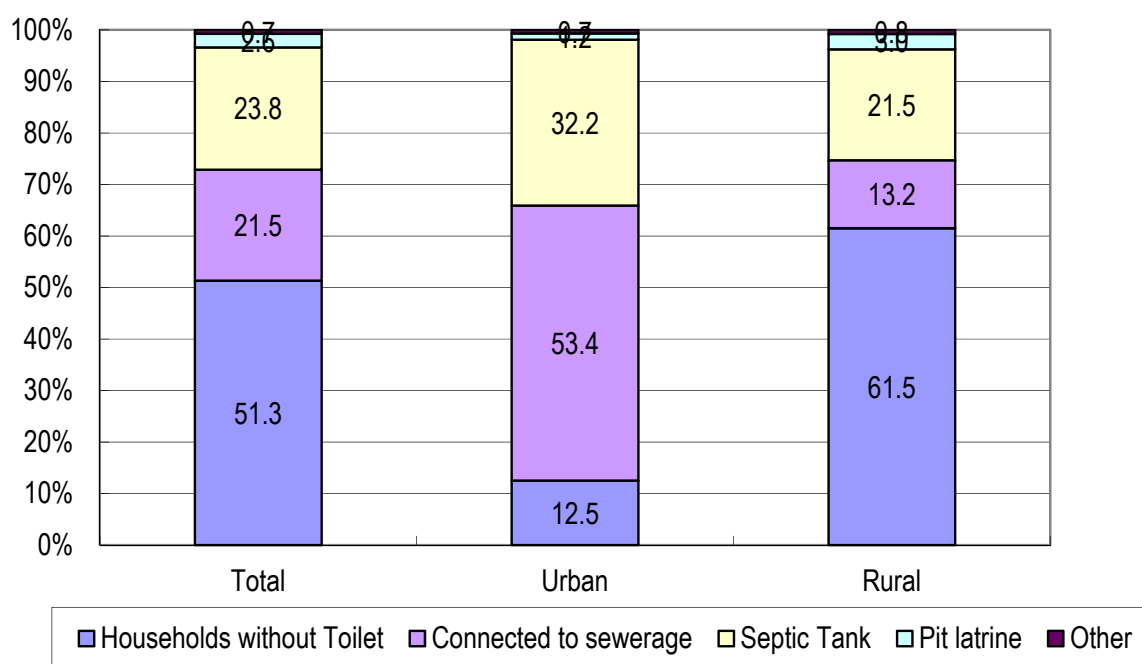


Table 19 shows the relationship between tenure status of dwelling and availability of toilet facility. According to this table, households living in rented dwellings have much higher ratios of having toilet facilities than those living in owner-occupied or rent free dwellings. As observed in Chapter 3, the ratio of households residing in rented dwellings is very small: 3.2% in the whole country, 12.6% in urban areas, and only 0.8% in rural areas. Thus, it is conjectured that rented dwellings on average are of better quality equipped with good facilities such as toilet facility, and are only affordable by few relatively wealthy households in Cambodia, which is a different finding from those in most countries.

**Table 19. Distribution of Households by Tenure Status of Dwelling and Toilet Facility:
Urban/Rural, 2013**

Availability and Type of Toilet Facility	Number of Households					Percentage				
	Tenure Status of Dwelling					Tenure Status of Dwelling				
	Total	Owner Occupied	Rented	Rent Free	Other	Total	Owner Occupied	Rented	Rent Free	Other
Total	3,163,226	2,940,174	102,311	100,783	19,959	100.0	100.0	100.0	100.0	100.0
Households without Toilet	1,623,573	1,548,072	9,360	53,965	12,176	51.3	52.7	9.1	53.5	61.0
Households with Toilet										
Connected to Sewerage	681,027	596,294	64,477	17,845	2,412	21.5	20.3	63.0	17.7	12.1
Septic Tank	751,857	696,498	23,573	27,369	4,417	23.8	23.7	23.0	27.2	22.1
Pit Latrine	83,094	77,352	3,639	1,234	869	2.6	2.6	3.6	1.2	4.4
Other	23,675	21,958	1,262	371	84	0.7	0.7	1.2	0.4	0.4
Urban	657,951	551,517	83,205	19,128	4,101	100.0	100.0	100.0	100.0	100.0
Households without Toilet	82,308	72,624	2,824	4,199	2,661	12.5	13.2	3.4	22.0	64.9
Households with Toilet										
Connected to Sewerage	351,217	283,751	59,500	6,931	1,035	53.4	51.4	71.5	36.2	25.2
Septic Tank	211,981	186,499	17,175	7,901	405	32.2	33.8	20.6	41.3	9.9
Pit Latrine	7,932	4,756	3,103	74	0	1.2	0.9	3.7	0.4	0.0
Other	4,513	3,887	604	22	0	0.7	0.7	0.7	0.1	0.0
Rural	2,505,275	2,388,657	19,105	81,656	15,858	100.0	100.0	100.0	100.0	100.0
Households without Toilet	1,541,265	1,475,448	6,535	49,766	9,515	61.5	61.8	34.2	60.9	60.0
Households with Toilet										
Connected to Sewerage	329,811	312,543	4,977	10,914	1,377	13.2	13.1	26.0	13.4	8.7
Septic Tank	539,877	509,999	6,398	19,468	4,012	21.5	21.4	33.5	23.8	25.3
Pit Latrine	75,161	72,596	537	1,160	869	3.0	3.0	2.8	1.4	5.5
Other	19,162	18,071	658	348	84	0.8	0.8	3.4	0.4	0.5
Note: Excludes Institutional, Homeless, Boat and Transient Households.										

Table 20. Distribution of Households by Availability and Type of Toilet Facility: Province, 2008 and 2013

		2008				2013				
Region	Total Number of Households	Toilet Facility Availability		Total Number of Households	Toilet Facility Availability		Type of Toilet Facility			
		Households without Toilet	Households with Toilet		Households without Toilet	Households with Toilet	Connected to Sewerage	Septic Tank	Pit Latrine	Other
		%	%		%	%	%	%	%	%
Total	2,817,637	66.3	33.7	3,163,226	51.3	48.7	21.5	23.8	2.6	0.7
Urban	506,579	18.5	81.5	657,951	12.5	87.5	53.4	32.2	1.2	0.7
Rural	2,311,058	76.8	23.2	2,505,275	61.5	38.5	13.2	21.5	3.0	0.8
Province										
Banteay MeanChey	144,658	65.0	35.0	161,423	44.1	55.9	31.2	22.3	2.4	0.1
Battambang	209,702	56.0	44.0	230,304	41.8	58.2	18.9	35.5	2.7	1.0
Kampong Cham	368,114	74.4	25.6	403,628	60.6	39.4	18.4	16.8	4.0	0.3
Kampong Chhnang	100,801	81.2	18.8	111,355	64.7	35.3	10.5	20.9	0.9	3.0
Kampong Spueu	149,270	82.5	17.5	157,982	62.1	37.9	8.9	27.9	0.9	0.2
Kampong Thom	133,878	72.2	27.8	149,404	62.3	37.7	11.3	19.8	5.3	1.3
Kampot	129,646	73.8	26.2	136,148	60.5	39.5	6.3	29.4	3.1	0.7
Kandal	255,029	54.2	45.8	238,435	41.8	58.2	17.1	40.2	0.9	-
Koh Kong	24,166	61.4	38.6	25,658	55.5	44.5	15.8	23.7	2.1	2.8
Kratie	65,323	73.9	26.1	73,050	63.8	36.2	9.9	18.2	5.9	2.2
Mondul Kiri	12,270	83.4	16.6	15,251	70.0	30.0	8.7	18.0	3.0	0.3
Phnom Penh	250,597	9.3	90.7	352,702	7.1	92.9	71.8	19.7	1.3	-
Preah Vihear	33,115	89.2	10.8	48,242	80.3	19.7	8.2	10.2	1.4	-
Prey Veng	226,312	83.2	16.8	255,960	65.4	34.6	3.7	25.4	3.5	2.0
Pursat	83,412	81.6	18.4	96,284	64.4	35.6	14.1	18.3	2.9	0.3
Ratanak Kikri	27,485	78.9	21.1	36,178	72.2	27.8	9.6	10.5	5.9	1.7
Siem Reap	179,754	72.9	27.1	189,708	62.5	37.5	13.0	24.2	0.2	0.0
Preah Sihanouk	44,656	50.4	49.6	51,955	26.6	73.4	29.8	40.3	1.1	2.2
Stung Treng	20,922	67.0	33.0	25,359	61.5	38.5	14.6	20.4	3.4	0.1
Svay Rieng	114,758	78.7	21.3	130,972	53.9	46.1	20.3	21.2	4.5	0.1
Takeo	183,742	76.3	23.7	200,099	56.2	43.8	20.7	17.6	3.7	1.8
Otdar Meanchey	38,398	78.6	21.4	50,266	65.2	34.8	20.0	14.1	0.4	0.2
Kep	7,193	73.9	26.1	8,378	56.5	43.5	12.9	27.6	2.9	0.1
Pailin	14,436	60.7	39.3	14,483	47.2	52.8	10.4	41.1	1.3	-
Maximum	368,114	89.2	90.7	403,628	80.3	92.9	71.8	41.1	5.9	3.0
Minimum	7,193	9.3	10.8	8,378	7.1	19.7	3.7	10.2	0.2	-
Standard Deviation	94,221	16.1	16.1	105,780	15.1	15.1	13.2	8.5	1.6	1.0
Note: Excludes Institutional, Homeless, Boat and Transient Households.										

By province, according to Table 20 above, the availability of toilet facilities advanced in all 24 provinces during the five years from 2008 to 2013. However, it still marks below 50% in 18 provinces in 2013, the worst being recorded in Preah Vihear (80.3%), Ratana Kiri (72.2%) and Mondul Kiri (70.0%). On the other hand, Phnom Penh is by far the best in availability of toilet facility with 92.9%, followed by Preah Sihanouk (73.4%), Kandal (58.2%), and Bttambang (58.2%). The two rankings just shown for 2013 were almost the same for 2008.

6. Households with Key Amenities

The availability of improved source of drinking water, toilet facility, and electricity has a great impact on the living standard of the population of Cambodia.

Thus, tallying the number of households who make use of all of these three key amenities and Combined Amenities of these three key amenities, we can observe how the living standard of Cambodian households has been improving.

Table 21 presents the ratio of households making use of Improved Water Source, “With Toilet Facility” and Electricity (see the footnotes for details) as well as of Combined Amenities.

Combined Amenities stand at 25.7% for the whole country in 2013, increasing by 8.3 percentage points from 17.4% in 2008, after having advanced by 9.4 percentage points from 8.0% in 1998. In urban areas, this ratio has been higher marking 73.3% in 2013, 72.5% in 2008, and 42.9% in 1998, while in rural areas, it has been lower, recording 13.2% in 2013, 5.3% in 2008, and only 0.9% in 1998. In rural areas, the availability of Combined Amenities is still low, but is advancing fast: 6 times from 1998 to 2008, and 2.5 times during recent five years, while in urban areas it has reached a kind of saturation point these years after a great advance of nearly 30% points from 1998 to 2008. However, more advancement may be feasible in urban areas as each of the three amenities reached the 80% level already.

By province, there still exists great discrepancies for key amenities as well as for Combined Amenities. With respect to Combined Amenities, Phnom Penh is by far the highest in availability with 82.1%, followed far behind by Preah Sihanouk (57.0%) and Kandal (33.0%).

Calculating correlation coefficients among key amenities, “With Toilet Facility” and Electricity have a strong positive relationship with 0.9, while there is found little relationship in other combinations. Between Combined Amenities and key amenities, Improved Water Source has little relationship, while the other two have a strong relationship with Combined Amenities as shown in Table 21.

Table 21. Distribution of Households by Availability of Key Amenities: Urban/Rural, Province

Region	2013					Difference { (2013) - (2008)}			
	Total	Improved	With	Electricity ¹⁾	Combined ⁴⁾	Improved	With	Electricity ³⁾	Combined ⁴⁾
	1)	Water Source ²⁾	Toilet Facility		Amenities	Water Source ²⁾	Toilet Facility		Amenities
	(Number)		(Percentage)				(Percent point)		
Total	3,163,226	57.0	48.7	48.1	25.7	10.2	15.8	23.4	8.3
Urban	657,951	81.8	87.5	93.9	73.3	6.1	6.7	8.8	0.8
Rural	2,505,275	50.5	38.5	36.0	13.2	10.0	16.2	24.6	7.8
Province									
Banteay Meanchey	161,423	29.3	55.9	57.1	14.8	1.2	21.3	28.9	-3.0
Battambang	230,304	40.4	58.2	60.9	28.9	8.4	15.4	37.8	14.5
Kampong Cham	403,628	66.6	39.4	29.5	16.8	28.1	14.6	13.3	8.4
Kampong Chhnang	111,355	43.8	35.3	28.8	13.7	0.8	17.5	17.9	7.0
Kampong Speu	157,982	49.7	37.9	30.8	13.7	10.7	20.7	20.7	8.2
Kampong Thom	149,404	39.3	37.7	23.6	9.2	16.3	11.2	12.5	4.0
Kampot	136,148	30.9	39.5	36.2	14.7	6.8	13.8	24.6	7.5
Kandal	238,435	51.9	58.2	81.4	33.0	13.0	13.1	47.4	13.5
Koh Kong	25,658	47.4	44.5	55.2	26.7	12.8	10.0	11.8	0.1
Kratie	73,050	54.5	36.2	29.0	17.1	16.7	12.2	15.9	8.5
Mondul Kiri	15,251	57.4	30.0	36.0	15.2	14.4	13.8	15.6	5.5
Phnom Penh	352,702	85.8	92.9	98.4	82.1	0.8	2.6	5.5	-4.0
Preah Vihear	48,242	63.9	19.7	15.0	9.4	17.9	9.6	5.4	4.0
Prey Veng	255,960	79.6	34.6	18.4	8.3	-6.2	19.0	11.4	4.3
Pursat	56,284	39.3	35.6	28.8	15.4	15.9	19.0	13.4	8.2
Ratanak Kiri	36,178	42.4	27.8	40.1	17.1	7.3	9.8	23.1	4.8
Siemreap	169,708	56.2	37.5	46.5	24.2	3.6	11.0	25.0	7.5
Preah Sihanouk	51,955	66.2	73.4	82.4	57.0	17.3	24.9	28.3	20.6
Stung Treng	25,359	34.3	38.5	35.2	17.2	3.4	6.9	16.7	6.2
Svay Rieng	130,972	97.4	46.1	37.3	24.1	4.3	25.6	26.3	16.2
Takeo	200,099	44.7	43.8	53.4	14.0	8.5	20.9	42.5	9.0
Oddar Meanchey	50,266	31.2	34.8	30.2	6.0	-10.6	14.3	14.7	-2.4
Kep	8,378	31.3	43.5	54.1	15.9	10.3	19.6	37.5	10.7
Pailin	14,483	36.7	52.8	63.1	21.8	11.2	15.0	23.3	-1.1
Maximum	403,628	97.4	92.9	98.4	82.1	28.1	25.6	47.4	20.8
Minimum	8,378	29.3	19.7	15.0	6.0	-10.6	2.6	5.4	-4.0
Standard Deviation	105,780	17.8	15.1	20.8	16.2	8.3	5.5	10.9	5.9
	Water vs. Toilet		0.3	Water vs. Combined		0.5			
Correlation	Toilet vs. Electricity		0.9	Toilet vs. Combined		0.9			
Coefficient	Water vs. Electricity		0.1	Electricity vs. Combined		0.8			
Note: 1) Excludes Institutional, Homeless, Boat and Transient Households.									
2) 'Improved Water Source' consists of Piped Water, Tube Pipe Well, Protected Dug Well and Rain.									
3) 'Electricity' consists of 'City Power', 'Generator', 'City Power and Generator'									
4) 'Combined Amenities' represents those households which own all of 'Improved Water Source', 'Toilet Facility' and 'Electricity'.									

7. International Comparison

Figure 22 the accessibility to “Improved Water Source” and “Improved Sanitation” in Cambodia for 2013 and in the other ASEAN countries for 2006 or 2004.

We can notice that Cambodia is still behind the other ASEAN countries except Lao PDR even compared with their old status recorded in 2006 or 2004.

Table 22. Comparison of Cambodia with ASEAN Countries in Access to Improved Water Source and Improved Sanitation

Country	Improved Water Source	Improved Sanitation	Notes
Cambodia	(2013)	(2013)	
Total	57.0	48.7	Percentage to Total Households
Urban	81.8	87.5	Id.
Rural	50.5	38.5	Id.
ASEAN Countries	(2006)	(2004)	Percentage to Total Population
Indonesia	80	55	Id.
Lao PDR	60	30	Id.
Malaysia	99	94	Id.
Myanmar	80	77	Id.
Philippines	97	72	Id.
Singapore*	100	100	Id.
Thailand	98	99	Id.
Vietnam	92	61	Id.

* Estimates cover urban areas only

Note: 'Improved Sanitation' data for Cambodia is represented by the percentage of 'households with Toilet Facility'.

Data source of 'Improved Water' for ASEAN Countries: UNDP (2009), 'Human Development Report 2009'

Data source of Sanitation for ASEAN Countries: UNDP (2008), 'Human Development Report 2007-2008'

Data source for Cambodia: General Population Census of Cambodia 2008

CHAPTER 5 OWNERSHIP OF SELECTED EQUIPMENT

1. Household Equipment

Household equipment which was enumerated both in GPCC 2008 and CIPS 2013 is grouped into three categories: information and communication equipment, transportation equipment, and tools for economic activities. In CIPS 2013, Refrigerator, Washing Machine, Air-conditioner, and Fan were newly enumerated, and they could be classified as livingware equipment.

As shown in Table 23-1, in the category of information and communication equipment, Television and Cell Phone show a noteworthy diffusion especially in urban areas with more than 90%, and even in rural areas with 59% and 78% respectively as shown in Figure 13 and Table 23. On the contrary, Radio/Transistor decreased from 41% to 33%, and Telephone remain very low with 13% although it advanced from 2008 (only 1%). If you refer to Table 12 on the use of City Power etc. in urban areas, the diffusion rate of Television (90.2%) is within that of City Power (90.5%), but in rural areas, that of Television (59.1%) exceeds that of City Power (32.2%). This means Battery (45.0%) is also used to watch the television in rural areas.

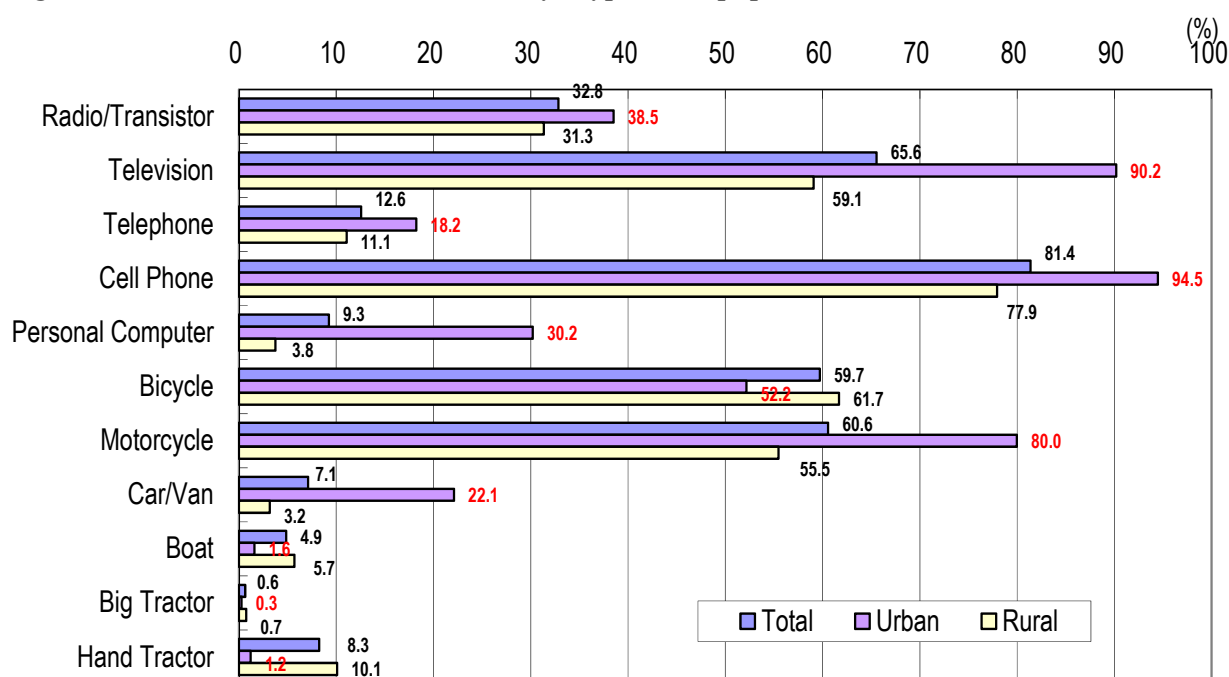
30% of urban households possess Personal Computer while only 4% do so in rural areas, indicating that home computerization is progressing in Cambodia (the corresponding ratios were 16% for urban areas and only 1% for rural areas in 2008).

In the category of transportation equipment, the most noteworthy equipment is Motor Cycle, which marks 80% in urban areas and 56% in rural areas, advancing from 67% and 39% respectively recorded in 2008. On the contrary, Bicycle decreased from 67% to 62% during recent five years in rural areas although more diffused than Motor Cycle here. Car/Van is still not popular with 3.2% in rural areas although having increased 0.9 percentage points during recent five years, but is becoming increasingly popular with 22.1% in urban areas having jumped 6.3 percentage points from 2008.

On the other hand, Boat, which is not popular in urban areas, slightly decreased from 6.1% to 5.7% in rural areas during recent five years. With the development of ground transportation systems including roads and bridges, Boat seems to be less used in rural areas.

Mechanization of farming is still very low in Cambodia judging from the ratios of possession of Big Tractor and Hand Tractor (0.7% and 10.1% respectively). However, it should be noted that these figures showed a large jump from 0.4% and 3.7% respectively in terms of rate of increase during recent five years (Table 23-1).

Figure 13. Distribution of Households by Type of Equipment Owned: Urban/Rural, 2013



In the category of livingware equipment, Refrigerator, Air-conditioner and Fan, which are desirable in a hot climate country, are possessed by 32.5%, 17.2% and 82.9% of urban households, respectively, and Washing Machine, which saves housework a lot, is owned by 17.6% of urban households. In contrast, the diffusion ratios of these livingware items are very low in rural areas except Fan, which is possessed by 15.5% of rural households (Table 23-2). This is partly due to constraints in availability of electricity, which is a little more than 30% in rural areas as we have seen in Table 12.

By number of units of household equipment owned according to Tables 23-1 and 23-2, the proportion of households owning two or more units of equipment in urban areas is high for Cell Phone (72%), Television (21%), Motor Cycle (32%), Bicycle (16%) and Fan (55%). A similar tendency is observed for Cell Phone, Bicycle, Motor Cycle and Fan in rural areas although lower in ratio of possession: 27%, 14%, 9% and 5% respectively. But, only 1.5% of rural households own Television unlike urban households, which is due to space constraints as we see in Section 3-3.

Table 23-1. Distribution of Households by Type of Equipment Owned: Urban/Rural, 2013

	(Percentage to Total Households)						2008	(% point)
Type of Equipment	Households	Number of Units of Equipment Owned					Households	Difference
	Owning the Equipment	1	2	3	4	5+	Owning the Equipment	(2013-2008)
Cambodia Total (Number of Households;		3,163,226)						
Radio/Transistor	32.8	31.8	0.9	0.1	0.0	0.0	40.8	-8.0
Television	65.6	60.1	4.1	0.9	0.3	0.2	58.4	7.1
Telephone	12.6	12.2	0.2	0.0	0.0	0.0	1.1	11.4
Cell Phone	81.4	44.8	19.4	8.4	4.4	4.3	37.3	44.0
Personal Computer	9.3	7.1	1.5	0.5	0.1	0.1	3.7	5.6
Bicycle	59.7	45.2	11.1	2.7	0.5	0.2	63.8	-4.1
Motorcycle	60.6	47.2	10.0	2.5	0.5	0.3	44.2	16.4
Car/Van	7.1	6.0	0.8	0.2	0.0	0.1	4.8	2.3
Boat	4.9	4.2	0.4	0.1	0.1	0.1	5.3	-0.4
Big Tractor	0.6	0.5	0.1	0.0	0.0	0.0	0.4	0.3
Hand Tractor	8.3	8.0	0.2	0.0	0.0	0.0	3.2	5.0
Cambodia Urban (Number of Households;		657,951)						
Radio/Transistor	38.5	35.7	2.4	0.3	0.1	0.0	50.3	-11.8
Television	90.2	69.5	14.7	4.0	1.2	0.8	80.8	9.4
Telephone	18.2	17.5	0.5	0.1	0.1	0.0	3.4	14.8
Cell Phone	94.5	23.0	27.6	17.9	11.8	14.3	76.2	18.3
Personal Computer	30.2	21.6	5.9	1.9	0.2	0.6	15.8	14.4
Bicycle	52.2	36.7	11.2	3.3	0.7	0.3	50.5	1.7
Motorcycle	80.0	48.0	21.4	7.7	1.8	1.0	67.2	12.7
Car/Van	22.1	18.1	2.9	0.9	0.1	0.1	16.2	6.0
Boat	1.6	1.1	0.3	0.2	0.0	0.0	1.8	-0.2
Big Tractor	0.3	0.2	0.1	0.0	0.0	0.0	0.2	0.0
Hand Tractor	1.2	1.1	0.1	0.0	0.0	0.0	0.9	0.3
Cambodia Rural (Number of Households;		2,505,275)						
Radio/Transistor	31.3	30.8	0.5	0.0	0.0	0.0	38.7	-7.4
Television	59.1	57.6	1.3	0.1	0.0	0.0	53.5	5.6
Telephone	11.1	10.8	0.2	0.0	0.0	0.0	0.6	10.4
Cell Phone	77.9	50.6	17.3	5.9	2.5	1.7	28.8	49.1
Personal Computer	3.8	3.2	0.4	0.1	0.0	0.0	1.0	2.8
Bicycle	61.7	47.4	11.1	2.5	0.5	0.1	66.7	-5.0
Motorcycle	55.5	47.0	7.0	1.2	0.2	0.1	39.1	16.4
Car/Van	3.2	2.8	0.3	0.1	0.0	0.0	2.3	0.8
Boat	5.7	5.0	0.5	0.1	0.1	0.1	6.1	-0.4
Big Tractor	0.7	0.6	0.1	0.0	0.0	0.0	0.4	0.3
Hand Tractor	10.1	9.8	0.2	0.0	0.0	0.0	3.7	6.4
Note: Excludes Institutional, Homeless, Boat and Transient Households.								

Table 23-2. Number of Households by Type of Equipment Owned: Urban/Rural, 2013

		Number of Households				
Type of Equipment	Households owning the equipment	Number of Units of Equipment Owned				
		1	2	3	4	5+
Cambodia Total (Number of Households;		3,163,226)				
Refrigerator	8.1	7.5	0.5	0.1	0.0	0.0
Washing Machine	4.1	4.1	0.1	0.0	0.0	0.0
Air-Conditioner	4.0	2.3	1.0	0.3	0.2	0.2
Fan	34.1	18.0	8.4	4.5	1.9	1.3
Cambodia Urban (Number of Households;		657,951)				
Refrigerator	32.5	30.1	1.8	0.3	0.2	0.0
Washing Machine	17.6	17.3	0.3	0.0	0.0	0.0
Air-Conditioner	17.2	9.8	4.6	1.2	0.7	0.8
Fan	82.9	27.7	25.6	16.8	7.7	5.2
Cambodia Rural (Number of Households;		2,505,275)				
Refrigerator	1.5	0.1	0.0	0.0	0.0	0.0
Washing Machine	0.6	0.0	0.0	0.0	0.0	0.0
Air-Conditioner	0.4	0.1	0.0	0.0	0.0	0.0
Fan	15.5	3.9	1.2	0.4	0.3	0.0
Note: Excludes Institutional, Homeless, Boat and Transient Households.						

2. Accessibility to the Internet

In the ICT era, Cambodia's households have little accessibility to the Internet as shown in Table 24. Only 174,904 (5.5%) out of 3,163,226 Cambodian households have access to the Internet. There is a large difference between urban and rural areas in terms of Internet accessibility. 21.7% of urban households have access to the Internet, while only 1.3% of rural households do so, resulting in a situation where the urban households whose share is 20.8% occupy 81.6% in Internet accessibility.

By type of access to the Internet in urban areas, in 2008, Outside Home Only was by far the highest with 3.9% followed by Home Only (0.7%) and Home and Outside Home (0.2%), but in 2013, Home Only reached nearly 11% followed by Home and Outside Home (6.3%) and Outside Home Only (4.5%), indicating rapid diffusion of PCs etc. among households.

Compared with 2008 figures, there is observed a large jump in Internet accessibility from 2008 to 2013: about five times in ratio of accessibility, and nearly six times in actual number of households accessible to the Internet in the whole country.

Table 24. Distribution of Households by Type of Internet Access: Urban/Rural, 2008 and 2013

Type of Internet Access	2008			2013			(%)
(Number)	Total	Urban	Rural	Total	Urban	Rural	Urban Share
Total	2,817,637	506,579	2,311,058	3,163,226	657,951	2,505,275	20.8
Home and Outside Home	1,542	1,128	414	49,273	41,758	7,514	84.7
Home Only	4,545	3,322	1,223	83,360	71,371	11,988	85.6
Outside Home Only	25,507	19,547	5,960	42,272	29,553	12,719	69.9
Access Total	31,594	23,997	7,597	174,904	142,683	32,221	81.6
Neither Home Nor Outside Home	2,787,585	483,710	2,303,875	2,988,322	515,268	2,473,054	17.2
(Percentage)	Total	Urban	Rural	Total	Urban	Rural	
Total	100.0	100.0	100.0	100.0	100.0	100.0	
Home and Outside Home	0.1	0.2	0.0	1.6	6.3	0.3	
Home Only	0.2	0.7	0.1	2.6	10.8	0.5	
Outside Home Only	0.9	3.9	0.3	1.3	4.5	0.5	
Access Total	1.1	4.7	0.3	5.5	21.7	1.3	
Neither Home Nor Outside Home	98.9	95.5	99.7	94.5	78.3	98.7	
Note: Excludes Institutional, Homeless, Boat and Transient Households.							

CHAPTER 6 SUMMARY AND CONCLUSIONS

This report is concerned with housing characteristics and household amenities. The main objective of this analysis is to assess the quality of housing and the degree of accessibility to household amenities of Cambodian households. In Chapter 1 of this report, the quality of buildings/structures has been dealt with along with their use. In Chapters 2-5, household amenities and household equipment have been discussed. In all chapters, many changes or improvements due to socio-economic development in Cambodia between 2008 and 2013 have been observed.

Chapter 2. Housing

(Households) CIPS 2013 estimated 3.16 million normal households. The annual growth rate of the number of normal households in Cambodia was 2.68% from 1998 to 2008, and 2.34% from 2008 to 2013 on average.

It is noted that the proportion of normal households living in urban areas shows an increasingly upward trend with a share of from 16.86% in 1998 to 17.83 % in 2008 and 20.80% in 2013.

(Buildings/structures) The total number of buildings and structures is 2.76 million, and has increased 0.90% annually whereas the average annual increase rate for the decade from 1998 to 2008 was 2.66%. Thus, the increase rate declined for recent five years.

By type of use, the wholly residential buildings/structures decreased only slightly, while the partially residential increased greatly at an annual average rate of 15.81% during the five years from 2008 to 2013. Thus, the share of the wholly residential buildings dropped from 97% to 92%.

By province, due to people's concentration to the capital neighboring areas as the combined share of Phnom Penh and Kandal rose from 17.1% to 17.8% during recent five years.

(Materials of Buildings) Nearly 98% of buildings in urban areas and 90% of buildings in rural areas are with roofs made of "Hard/Permanent" materials in 2013. There is found a great improvement in roof material in Cambodia as GPCC 2008 reported the corresponding figures as 94% and 75%.

In 2013, 93.4% of buildings in urban areas and 71.3% of buildings in rural areas are with walls made of "Hard/Permanent" materials. There is found a great improvement in wall material in Cambodia.

As to floor materials, only a slight shift from "Soft/Temporary" to "Hard/Permanent" was observed between 2008 and 2013. However, the difference between urban and rural areas is enormous. In urban areas, nearly two thirds of buildings have hard floors, while more than 80% of buildings have soft floors. It should be noted, however, that "Hard/Permanent floor" may not be a good indicator of housing quality.

We can see a small difference among provinces with respect to Hard/Permanent floor with the standard deviation of 6.4. In terms of Hard/Permanent wall, the difference is moderate as the standard deviation is 10.6. But, the difference in Hard/Permanent floor among provinces is quite large.

Chapter 3. Tenure and Size of Dwelling

(Tenure Status of Dwelling) In Cambodia, regardless of urban or rural areas, most households live in their own dwellings: 92.9% for the whole country, 83.8% for urban areas, and 95.3% for rural areas. Adding to these, the ratios for "Rent Free" households of around 3% correspondingly, most of Cambodian households do not have to pay rent for their dwellings.

(Size of Dwelling) A majority of households (66.8%) in Cambodia occupy only one room, 24.0% of households have two rooms, and 6.3% three rooms. Thus, about 97% of Cambodian households occupy up to three rooms.

Compared with GPCC 2008 figures, very high increase rates could be found for 2-5 rooms in urban areas, and for 3-4 rooms in rural areas, hence for 2-5 rooms in the whole Cambodia.

The average size of household is larger in urban areas (4.78 persons) than in rural areas (4.60 persons) in 2013, but the average number of rooms per household is much larger in urban areas (1.98 rooms) than in rural areas (1.34 rooms), hence the average number of persons per room is much smaller in urban areas (2.41 persons) than in rural areas (3.43 persons) in 2013.

The living level in urban areas in terms of size of dwelling can be said much better than that in rural areas.

In terms of number of rooms per person, the whole country showed an improvement of 8.0%, urban areas showed a big gain of 16.4%, and rural areas showed a rather small gain of 4.2% when compared with 2008 figures. This implies a big improvement in Cambodians' dwelling condition in terms of size of dwelling.

Chapter 4. Housing Conditions and Amenities

(Main Sources of Light) The use of City Power as a source of light is advancing quickly in Cambodia. It doubled from 12.6% to 22.5% during ten years from 1998 to 2008, and also nearly doubled from 22.5% to 44.3% during the five years from 2008 to 2013. In rural areas, City Power proliferated even faster: tripled from 9.3% to 32.2%.

Taking differences of shares between 2008 and 2013, we could say that the loss of Kerosene (-24.1 points) has been absorbed or substituted by gains of City Power (including Generator; 21.2 points) and of Battery (2.3 points) at the national level.

There still exists a large difference among provinces for City Power and Battery in 2013 although they increased during recent five years. On the contrary, Kerosene decreased greatly.

Taking differences between 2008 and 2013, the ratio of use of Kerosene decreased greatly in all the 24 provinces, while that of City Power increased in all the 24 provinces, especially by more than 10 points in 18 provinces.

Negative high correlation coefficients between City Power and Kerosene, and between City Power and Battery indicates steady development to electrification in Cambodia.

(Main Cooking Fuel) Firewood for cooking is still popular in the whole country (77.9%), especially in rural areas (89.7%). In contrast, in urban areas, LPG is the most popular type of fuel for cooking (44.4%), while Firewood still occupies 33.3%, and Charcoal is used by 19.0% of households.

Taking differences between 2008 and 2013, the ratio of use of Firewood decreased in all 24 provinces, while that of LPG increased in 22 provinces, and decreased only slightly in 2 provinces. The use of Charcoal also increased in 19 provinces, and slightly decreased in 4 provinces leaving Phnom Penh as an exceptional case where it lost (-) 13.3 points from 2008. Chronologically, LPG occupied only 1.7% in Cambodia in 1998.

Calculating correlation coefficients among the three types of fuel, negative high values are observed between Firewood and Charcoal, and between Firewood and LPG. Tentatively summing up, energy transformation in the kitchen seems to move from Firewood to LPG, and also from Charcoal to LPG.

(Main Sources of drinking Water Supply) About 35% of Cambodian households still obtain unprotected drinking water in 2013, although great improvements are observed from about 46% in 2008, and 71% in 1998.

In urban areas, piped water occupies 63.7% followed by Tube/Pipe Water (14.7%), and “Bought” (9.2%) in 2013. Thus, almost 90% of urban households enjoy drinking protected water. In rural areas, about 57% of households at most drink protected water, still leaving the other 43% to unprotected water.

In urban areas, 72.0% of households obtain water within the premises, and in rural areas, one thirds can obtain water within the premises and another one thirds near the premises. Compared with 2008 figures, steady improvements are observed in the condition of obtaining drinking water all over the country, although discrepancy among provinces is very large both in main source of drinking water and in location of drinking water

(Toilet Facilities) 51.3% of Cambodian households do not have toilet facilities within their premises. This ratio was very high with 85.5% in 1998, decreased to 66.3% in 2008, and further decreased to the above figure in 2013.

In 2008, about one fifth of households had not toilet facilities in urban areas, and about four fifths had not them in rural areas. In 2013, only one eighth has not toilet facilities, while three eighths still have not them in rural areas. There still exists a large gap between urban and rural areas.

By province, the availability of toilet facilities advanced in all 24 provinces during the five years from 2008 to 2013. However, it still marks below 50% in 18 provinces in 2013.

(Combined Amenities of Improved Source of Drinking Water, Toilet Facility, and Electricity)

Combined Amenities stand at 25.7% for the whole country in 2013, increasing by 8.3 percentage points from 17.4% in 2008, after having advanced by 9.4 points from 8.0% in 1998. In urban areas, this ratio has been higher marking 73.3% in 2013, 72.5% in 2008, and 42.9% in 1998, while in rural areas, it has been lower, recording 13.2% in 2013%, 5.3% in 2008, and only 0.9% in 1998.

The correlation coefficient between “With Toilet Facility” and Electricity have a strong positive relationship with 0.9, while there is found little correlation in other combinations.

Chapter 5. Ownership of Selected Equipment

(Household Equipment) In the category of Information and Communication equipment, Television and Cell Phone show a noteworthy diffusion especially in urban areas with more than 90%.

In the category of transportation equipment, the most noteworthy equipment is Motor Cycle, which marks 80% in urban areas and 56% in rural areas in 2013, advancing from 67% and 39% respectively recorded in 2008. On the contrary, Bicycle decreased from 67% to 62% during recent five years in rural areas although more diffused than Motor Cycle

With the development of ground transportation systems including roads and bridges, Boat seems to be less used in rural areas, decreasing slightly from 6.1% to 5.7% during recent five years.

Mechanization of farming is still very low in Cambodia judging from the ratios of possession of Big Tractor and Hand Tractor (0.7% and 10.1% respectively). However, it should be noted that these figures showed a large jump from 0.4% and 3.7% respectively during recent five years.

In the category of livingware equipment, Refrigerator, Air-conditioner and Fan, which are desirable in a hot climate country, are possessed by 32.5%, 17.2% and 82.9% of urban households, respectively, and Washing Machine, which saves housework a lot, is owned by 17.6% of urban households. In rural areas, the diffusion of these livingware is very low except for Fan (15.5%), partly due to constraints in availability of electricity, which is a little more than 30%.

(Accessibility to the Internet) Only 174,904 (5.5%) out of 3,163,226 Cambodian households have access to the Internet. There is a large difference between urban and rural areas in terms of Internet accessibility. 21.7% of urban households have access to the Internet, while only 1.3% of rural households do so, resulting in a situation where the urban households whose share is 20.8% in number in the whole country occupy 81.6% in Internet accessibility.

Compared with 2008 figures, there is observed a large jump in Internet accessibility from 2008 to 2013: about five times in ratio of accessibility, and nearly six times in actual number of households accessible to the Internet in the whole country.

In conclusion,

we have seen many aspects of living conditions of Cambodian households: materials for buildings and structures, tenure status of dwellings, size of dwellings, and housing conditions such as main sources of light, main cooking fuels and main sources of drinking water, as well as possession of household equipment for information and communication, transportation, agricultural work and home living, and Internet accessibility.

With no exceptions among these aspects, and regardless of urban and rural areas, we have seen considerable improvements during the five years from 2008 to 2013. However, there exist large differences between urban and rural areas and among provinces, and plenty room for improvement in every aspect. Such issues could be solved through socio-economic development of Cambodia under sound governance.

ANNEX TABLES

- Annex Table 1. Number of Households and Population by Urban/Rural and Provinces, Cambodia, 2008 and 2013
- Annex Table 2. Number of Buildings/Structures with Households by Provinces: Urban/Rural, 2008 and 2013
- Annex Table 3. Number of Buildings/Structures with Permanent Materials of Roof, Wall and floor: Urban/Rural, Provinces, 2008 and 2013
- Annex Table 4. Number of Households by Main Source for Lighting: Province, 2008 and 2013
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- Annex Table 7. Number of Households by Location of Drinking Water and Household Size: Urban/Rural, 2013
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- Annex Table 9. Number of Households by Availability and Type of Toilet Facility: Province, 2008 and 2013
- Annex Table 10. Number of Households by Availability of Better Amenities: Urban/Rural and Provinces, 2008 and 2013
- Annex Table 11. Number of Households by Type of Assets Owned: Urban/Rural, 2013
Table 11-1 GPCC 2008 Items Table 11-2 CIPS 2013 New Items

Annex Table 1. Number of Households and Population by Urban/Rural and Provinces, Cambodia, 2008 and 2013												
Province	Number of Households						Population					
	2008			2013			2008			2013		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	2,817,637	506,579	2,311,058	3,163,226	657,951	2,505,275	13,181,162	2,490,657	10,690,505	14,676,591	3,146,212	11,530,378
Bante Meanchey	144,658	37,174	107,484	161,423	35,290	126,133	667,559	175,120	492,439	729,569	151,401	578,168
Battambang	209,702	35,671	174,031	230,304	49,116	181,188	1,011,460	174,930	836,530	1,121,019	236,746	884,272
Kampong Cham	368,114	25,056	343,058	403,628	34,552	369,076	1,665,361	114,315	1,551,046	1,757,223	151,872	1,605,351
Kampong Chhnang	100,801	8,294	92,507	111,355	11,631	99,724	467,518	41,357	426,161	523,202	59,510	463,692
Kampong Speu	149,270	10,564	138,706	157,982	14,119	143,863	710,548	53,467	657,081	755,465	72,925	682,540
Kampong Thom	133,878	6,677	127,201	149,404	9,421	139,984	625,168	31,041	594,127	690,414	51,001	639,412
Kampot	129,646	9,816	119,830	136,148	13,964	122,185	581,992	46,995	534,997	611,557	68,973	542,584
Kandal	255,029	36,329	218,700	238,435	30,089	208,346	1,239,086	182,430	1,056,656	1,115,965	143,397	972,568
Koh Kong	24,166	7,395	16,771	25,658	9,929	15,730	115,850	35,661	80,189	122,263	46,480	75,783
Kratie	65,323	7,439	57,884	73,050	10,987	62,064	315,692	35,049	280,643	344,195	48,954	295,241
Mondul Kiri	12,270	938	11,332	15,251	1,515	13,736	59,748	4,495	55,253	72,680	7,095	65,584
Phnom Penh	250,597	233,218	17,379	352,702	317,432	35,270	1,255,062	1,171,827	83,235	1,688,044	1,510,327	177,717
Preah Vihear	33,115	2,061	31,054	48,242	3,711	44,530	169,189	10,067	159,122	235,370	16,551	218,819
Prey Veng	226,312	7,009	219,303	255,960	10,007	245,954	940,696	32,107	908,589	1,156,739	48,679	1,108,060
Pursat	83,412	5,389	78,023	96,284	7,886	88,398	393,783	24,944	368,839	435,596	38,335	397,262
Ratanak Kiri	27,485	3,746	23,739	36,178	1,618	34,559	149,315	18,775	130,540	183,699	8,443	175,255
Siem Reap	179,754	34,169	145,585	189,708	45,537	144,171	884,672	169,084	715,588	922,982	242,538	680,444
Preah Sihanouk	44,656	18,353	26,303	51,955	25,931	26,024	215,741	85,785	129,956	250,180	124,113	126,067
Stung Treng	20,922	3,243	17,679	25,359	4,907	20,451	108,738	15,951	92,787	122,791	21,773	101,018
Sway Rieng	114,758	3,562	111,196	130,972	5,146	125,826	478,566	16,261	462,305	578,380	22,812	555,568
Takeo	183,742	2,688	181,054	200,099	3,699	196,400	839,334	13,108	826,226	923,373	20,635	902,738
Oddar Meanchey	38,398	3,608	34,790	50,266	5,961	44,305	182,232	18,071	164,161	231,390	28,063	203,327
Kep	7,193	962	6,231	8,378	1,188	7,190	35,401	4,618	30,783	38,701	5,627	33,074
Pailin	14,436	3,218	11,218	14,483	4,316	10,168	68,451	15,199	53,252	65,795	19,962	45,833

(*) Excludes Institutional Homeless Boat and Transient Households, and population of those households

Annex Table 2. Number of Buildings/Structures with Households by Provinces: Urban/Rural, 2008 and 2013

	Number of Buildings/Structures with Households					
Province	2008			2013		
	Total	Urban	Rural	Total	Urban	Rural
Cambodia Total	2,637,654	450,345	2,187,309	2,758,261	537,745	2,220,516
Province						
Bantey Meanchey	135,354	34,491	100,863	133,805	28,183	105,622
Battambang	198,577	33,789	164,788	202,274	39,356	162,919
Kampong Cham	344,091	23,345	320,746	352,041	32,634	319,407
Kampong Chhnang	97,421	7,831	89,590	100,959	10,463	90,496
Kampong Speu	142,924	10,182	132,742	144,271	13,385	130,886
Kampong Thom	127,995	6,333	121,662	136,143	8,845	127,298
Kampot	126,689	9,321	117,368	126,950	12,504	114,445
Kandal	237,190	34,342	202,848	206,902	24,194	182,708
Koh Kong	23,108	6,998	16,110	21,965	8,568	13,397
Kratie	60,021	6,992	53,029	64,813	9,460	55,353
Mondul Kiri	10,689	937	9,752	12,418	1,131	11,287
Phnom Penh	214,043	198,082	15,961	284,330	252,074	32,256
Preah Vihear	31,930	1,982	29,948	41,168	2,892	38,276
Prey Veng	212,552	6,663	205,889	225,765	8,956	216,809
Pursat	79,828	5,020	74,808	85,807	6,305	79,503
Ratanak Kiri	22,451	3,279	19,172	26,546	1,255	25,291
Siem Reap	167,827	28,013	139,814	163,687	37,189	126,498
Preah Sihanouk	41,093	16,264	24,829	42,723	19,308	23,414
Stung Treng	19,366	3,008	16,358	21,433	3,963	17,470
Svay Rieng	108,974	3,383	105,591	117,383	4,161	113,222
Takeo	177,998	2,651	175,347	187,013	3,665	183,349
Otdar Meanchey	36,857	3,441	33,416	40,247	4,722	35,525
Kep	6,888	939	5,949	7,467	1,054	6,413
Pailin	13,788	3,059	10,729	12,151	3,477	8,674

Annex Table 3. Number of Buildings/Structures with Permanent Materials of Roof, Wall and floor: Urban/Rural, Provinces, 2008 and 2013

Region	Number of Buildings/Structures with Permanent Materials									
	2008					2013				
	All Buildings /Structures	Permanent Roof	Permanent Wall	Permanent Floor	Permanent Roof and Wall	Permanent Roof, Wall & Floor	All Buildings /Structures	Permanent Roof	Permanent Wall	Permanent Floor
Cambodia Total	2,637,654	2,052,535	1,600,854	589,744	1,502,814	513,015	2,758,261	2,517,518	2,085,946	725,204
Urban	450,345	422,902	398,044	278,287	389,462	267,619	537,745	526,596	502,300	341,986
Rural	2,187,309	1,629,633	1,202,810	311,457	1,113,352	245,396	2,220,516	1,990,922	1,583,646	383,218
Province										
Bantey Meanchey	135,354	105,299	84,826	33,712	77,431	26,164	133,805	123,189	108,839	43,617
Battambang	198,577	147,285	111,610	52,961	103,087	42,640	202,274	186,393	146,454	65,552
Kampong Cham	344,091	270,918	200,314	39,419	189,583	35,096	352,041	319,661	248,573	33,554
Kampong Chhnang	97,421	64,228	40,369	12,202	38,163	7,856	100,959	83,663	58,391	13,845
Kampong Speu	142,924	110,666	96,636	26,585	90,060	22,918	144,271	133,624	120,751	43,115
Kampong Thom	127,995	81,981	70,518	15,662	62,087	10,979	136,143	113,229	93,631	18,741
Kampot	126,689	100,158	74,446	24,022	71,764	20,093	126,950	115,923	92,717	31,677
Kandal	237,190	211,962	158,155	55,991	155,143	51,128	206,902	203,616	180,519	61,302
Koh Kong	23,108	19,049	19,334	6,175	17,846	5,527	21,965	19,921	19,568	7,645
Kratie	60,021	37,188	33,218	6,084	29,312	5,172	64,813	53,121	44,432	6,586
Mondul Kiri	10,689	7,129	6,845	1,697	6,132	1,431	12,418	10,955	10,088	2,027
Phnom Penh	214,043	207,518	206,685	169,811	203,268	165,813	284,330	281,750	274,986	212,436
Preah Vhear	31,930	18,404	18,859	4,407	15,333	3,198	41,168	30,505	31,259	7,749
Prey Veng	212,552	161,230	84,716	10,998	82,921	9,413	225,765	203,878	128,247	13,718
Pursat	79,828	54,426	46,827	11,715	42,142	8,105	85,807	75,778	63,497	17,548
Ratanak Kiri	22,451	14,825	13,914	5,276	13,157	4,495	26,546	24,913	23,275	4,086
Siem Reap	167,827	116,479	94,814	40,451	84,320	29,685	163,687	138,758	117,114	45,428
Preah Sihanouk	41,093	35,328	34,916	15,423	32,721	14,280	42,723	41,313	40,703	22,758
Stung Treng	19,366	12,346	11,884	2,620	10,530	2,242	21,433	18,411	17,671	4,567
Svay Rieng	108,974	86,805	44,831	12,974	44,084	11,065	117,383	109,861	77,543	16,893
Takeo	177,998	154,910	104,832	28,733	103,014	25,654	187,013	180,447	133,935	34,071
Oddar Meanchey	36,857	19,443	28,789	6,494	18,358	4,233	40,247	30,479	37,088	8,764
Kep	6,888	5,801	4,478	2,534	4,377	2,368	7,467	7,066	6,219	3,623
Pailin	13,788	9,157	9,034	3,798	7,981	3,460	12,151	11,064	10,445	5,903
Note: 1) Permanent Materials of Roof are consists of Tiles, Wood/Plywood, Concrete/Brick/Stone, Galvanised Iron/Aluminium/Other metal sheets and Asbestos Cement sheets										
2) Permanent Materials of Wall are consists of Wood/Plywood, Concrete/Brick/Stone, Galvanised Iron/Aluminium/Other metal sheets and Asbestos Cement sheets										
3) Permanent Materials of Floor are consists of Concrete/Brick/Stone, Polished Stones, Parquet/Polished Wood and Mosaic/Ceramic Tiles										

Annex Table 4. Number of Households by Main Source for Lighting: Province, 2008 and 2013											
Region	2008			2013			Differential {(2013) - (2008)}				
	Total	City Power (inc. 'and generator')	Kerosene	Battery	Total	City Power (inc. 'and generator')	Kerosene	Battery	City Power (inc. 'and generator')	Kerosene	Battery
Total	2,817,637	695,020	1,088,127	959,643	3,163,226	1,450,880	460,424	1,150,770	755,860	-627,703	191,127
Urban	506,579	431,503	37,509	25,490	657,951	610,431	13,537	24,614	178,928	-23972	-876
Rural	2,311,058	263,517	1,050,618	934,153	2,505,275	840,448	446,887	1,126,156	576,931	-603731	192,003
Province											
Banteay Meanchey	144,658	40,827	73,519	26,482	161,423	84,797	22,830	44,384	43,970	-50689	17,902
Battambang	209,702	48,507	116,053	39,309	230,304	135,383	35,895	50,730	86,876	-80158	11,421
Kampong Cham	368,114	59,857	127,157	173,653	403,628	105,289	61,840	216,438	45,432	-65317	42,785
Kampong Chhnang	100,801	10,920	55,085	33,342	111,355	29,029	25,551	53,250	18,109	-29534	19,908
Kampong Speu	149,270	14,995	60,357	71,890	157,982	46,645	17,686	90,591	31,650	-42671	18,701
Kampong Thom	133,878	14,890	73,449	42,837	149,404	34,177	41,508	71,485	19,287	-31941	28,648
Kampot	129,646	15,091	70,191	42,353	136,148	48,872	24,983	60,201	33,781	-45208	17,848
Kandal	255,029	86,689	37,730	121,850	238,435	189,744	8,064	35,186	103,055	-29666	-86,664
Koh Kong	24,166	10,492	10,354	1,883	25,658	11,920	8,473	2,829	1,428	-1881	946
Kratie	65,323	8,546	31,903	23,524	73,050	19,244	14,445	35,144	10,698	-17458	11,620
Mondul Kiri	12,270	2,513	6,523	1,637	15,251	3,977	4,158	5,308	1,464	-2365	3,671
Phnom Penh	250,597	232,871	4,359	7,372	352,702	345,299	3,328	1,733	112,428	-1031	-5,639
Preah Vihear	33,115	3,159	18,314	4,779	48,242	5,731	10,394	28,257	2,572	-7920	23,478
Prey Veng	226,312	15,778	63,867	144,503	255,960	45,984	29,412	177,313	30,206	-34455	32,810
Pursat	83,412	12,817	59,269	10,290	96,284	26,299	26,016	41,600	13,482	-33253	31,310
Ratanak Kiri	27,485	4,693	15,370	3,536	36,178	9,235	5,979	14,282	4,542	-9391	10,746
Siem Reap	179,754	38,717	104,084	33,013	189,708	87,624	61,441	39,246	48,907	-42643	6,233
Preah Sihanouk	44,656	24,193	14,723	3,354	51,955	41,904	6,915	1,809	17,711	-7808	-1,545
Stung Treng	20,922	3,873	12,445	1,117	25,359	5,985	9,363	5,920	2,112	-3082	4,803
Svay Rieng	114,758	12,684	37,489	63,053	130,972	48,079	8,458	73,150	35,395	-29031	10,097
Takeo	183,742	20,024	63,430	98,100	200,099	99,628	21,990	70,555	79,604	-41440	-27,545
Otdar Meanchey	38,398	5,937	22,357	8,517	50,266	13,220	8,491	25,986	7,283	-13866	17,469
Kep	7,193	1,197	4,611	1,156	8,378	4,312	2,363	1,418	3,115	-2248	262
Pailin	14,436	5,750	5,488	2,093	14,483	8,503	839	3,956	2,753	-4649	1,863
Note: Excludes Institutional, Homeless, Boat and Transient Households											

Note: Excludes Institutional, Homeless, Boat and Transient Households

Annex Table 5. Number of Households by Main Source of Cooking: Province, 2008 and 2013												
Region	2008				2013				Differential {(2013) - (2008)}			
	Total	Firewood	Charcoal	Liquefied Petroleum Gas (LPG)	Total	Firewood	Charcoal	Liquefied Petroleum Gas (LPG)	Firewood	Charcoal	Liquefied Petroleum Gas (LPG)	
Total	2,162,086	1,946,789	113,700	37,627	3,163,226	2,465,016	265,659	384,166	518,227	151,959	346,539	
Urban	364,581	229,263	89,819	32,059	657,951.06	218,819	124,969	292,226	-10,444	35,150	260,167	
Rural	1,797,505	1,717,526	23,881	5,568	2505275.19	2,246,198	140,690	91,940	528,672	116,809	86,372	
Province												
Banteay MeanChey	110,994	100,613	8,484	571	161,423	107,885	40,281	6,720	7,272	31,797	6,149	
Battambang	146,661	135,560	6,385	944	230,304	177,611	34,203	13,443	42,051	27,818	12,499	
Kampong Cham	311,151	301,024	2,992	1,764	403,628	372,534	12,516	14,080	71,510	9,524	12,316	
Kampong Chhnang	81,201	77,819	1,539	332	111,355	94,172	12,008	4,275	16,353	10,469	3,943	
Kampong Spueu	114,959	111,190	1,257	390	157,982	145,558	4,806	5,597	34,368	3,549	5,207	
Kampong Thom	105,583	100,938	1,763	313	149,404	138,573	7,726	2,165	37,635	5,963	1,852	
Kampot	104,498	97,724	4,118	360	136,148	111,120	11,554	10,129	13,396	7,436	9,769	
Kandal	203,357	196,177	3,540	1,320	238,435	202,965	8,988	24,340	6,788	5,448	23,020	
Koh Kong	21,401	14,707	5,783	559	25,658	12,725	8,093	4,366	-1,982	2,310	3,807	
Kratie	48,761	46,452	1,500	196	73,050	65,061	4,524	2,922	18,609	3,024	2,726	
Mondul Kiri	5,615	5,482	28	10	15,251	13,191	622	1,265	7,709	594	1,255	
Phnom Penh	167,758	72,365	57,607	27,406	352,702	71,548	34,467	233,864	-817	-23,140	206,458	
Preah Vihear	21,007	20,676	182	49	48,242	42,934	4,208	835	22,258	4,026	786	
Prey Veng	192,735	177,256	2,381	791	255,960	246,296	2,267	6,795	69,040	-114	6,004	
Pursat	67,022	63,585	1,256	394	96,284	86,564	7,610	1,860	22,979	6,354	1,466	
Ratanak Kikri	16,646	16,019	268	48	36,178	30,595	1,654	3,711	14,576	1,386	3,663	
Siem Reap	125,387	120,461	1,776	500	189,708	152,472	22,977	12,073	32,011	21,201	11,573	
Preah Sihanouk	30,075	21,408	7,532	567	51,955	19,031	19,567	12,178	-2,377	12,035	11,611	
Stung Treng	14,126	13,367	618	64	25,359	20,710	2,809	1,471	7,343	2,191	1,407	
Svay Rieng	97,796	87,382	624	432	130,972	120,416	968	9,358	33,034	344	8,926	
Takeo	153,863	147,988	1,547	522	200,099	184,091	4,873	8,825	36,103	3,326	8,303	
Oldar Meanchey	12,208	11,891	187	28	50,266	34,508	13,681	1,243	22,617	13,494	1,215	
Kep	5,282	5,086	75	15	8,378	7,256	266	640	2,170	191	625	
Pailin	4,000	1,619	2,258	52	14,483	7,200	4,992	2,010	5,581	2,734	1,958	
Note: Excludes Institutional, Homeless, Boat and Transient Households.												

Annex Table 6. Numbern of Households by Location and Main Source of Drinking Water: Urban/Rural, 2013									
				Number of Households					
				Main Source of Drinking Water					
Location of Drinking Water	Total	Piped Water	Tube/Pipe well	Protected Dug well	Unprotected Dug well	Rain	Spring, River, etc.	Bought	Other
Cambodia Total	3,163,226	627,739	933,949	195,977	452,994	44,913	592,119	270,967	44,569
Within the Premises	1,370,861	518,877	488,682	82,780	140,012	29,462	75,446	33,575	2,025
Near the Premises	942,013	59,006	310,193	68,436	174,645	6,733	233,928	68,557	20,514
Away	850,353	49,856	135,074	44,760	138,337	8,717	282,745	168,834	22,030
Urban	657,951	418,793	96,644	12,051	18,631	10,810	40,064	60,386	572
Within the Premises	473,853	368,422	65,437	5,911	8,897	4,376	13,653	6,877	280
Near the Premises	90,378	29,108	24,290	3,219	7,461	428	5,088	20,638	147
Away	93,720	21,263	6,917	2,922	2,272	6,007	21,324	32,870	145
Rural	2,505,275	208,946	837,305	183,925	434,363	34,103	552,055	210,581	43,997
Within the Premises	897,008	150,455	423,245	76,870	131,115	25,087	61,793	26,698	1,745
Near the Premises	851,634	29,898	285,903	65,217	167,184	6,306	228,840	47,919	20,367
Away	756,633	28,593	128,157	41,839	136,064	2,710	261,422	135,964	21,885
				Percentage					
				Main Source of Drinking Water					
Location of Drinking Water	Total	Piped Water	Tube/Pipe well	Protected Dug well	Unprotected Dug well	Rain	Spring, River, etc.	Bought	Other
Cambodia Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Within the Premises	43.3	82.7	52.3	42.2	30.9	65.6	12.7	12.4	4.5
Near the Premises	29.8	9.4	33.2	34.9	38.6	15.0	39.5	25.3	46.0
Away	26.9	7.9	14.5	22.8	30.5	19.4	47.8	62.3	49.4
Urban	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Within the Premises	72.0	88.0	67.7	49.0	47.8	40.5	34.1	11.4	48.9
Near the Premises	13.7	7.0	25.1	26.7	40.0	4.0	12.7	34.2	25.7
Away	14.2	5.1	7.2	24.2	12.2	55.6	53.2	54.4	25.4
Rural	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Within the Premises	35.8	72.0	50.5	41.8	30.2	73.6	11.2	12.7	4.0
Near the Premises	34.0	14.3	34.1	35.5	38.5	18.5	41.5	22.8	46.3
Away	30.2	13.7	15.3	22.7	31.3	7.9	47.4	64.6	49.7
(*) Excludes Institutional, Homeless, Boat and Transient Households.									

Annex Table 7. Number of Households by Location of Drinking Water and Household Size: Urban/Rural, 2013

Location of Drinking Water	Number of Households				
	Total	Household size			
		1-2 persons	3-5 persons	6-8 persons	9+ persons
Cambodia Total					
Total	3,163,226	458,052	1,910,771	697,955	96,449
Within the Premises	1,370,861	187,297	820,034	322,813	40,717
Near the Premises	942,013	139,204	576,750	196,588	29,471
Away	850,353	131,551	513,987	178,554	26,261
Cambodia Urban					
Total	657,951	82,037	384,506	161,418	29,990
Within the Premises	473,853	56,355	272,016	123,660	21,823
Near the Premises	90,378	11,030	56,631	18,615	4,103
Away	93,720	14,653	55,859	19,144	4,064
Cambodia Rural					
Total	2,505,275	376,015	1,526,266	536,536	66,458
Within the Premises	897,008	130,942	548,018	199,154	18,894
Near the Premises	851,634	128,174	520,120	177,973	25,368
Away	756,633	116,899	458,128	159,410	22,197
Location of Drinking Water	Percentage				
	Total	Household size			
		1-2 persons	3-5 persons	6-8 persons	9+ persons
Cambodia Total					
Total	100.0	100.0	100.0	100.0	100.0
Within the Premises	43.3	40.9	42.9	46.3	42.2
Near the Premises	29.8	30.4	30.2	28.2	30.6
Away	26.9	28.7	26.9	25.6	27.2
Cambodia Urban					
Total	100.0	100.0	100.0	100.0	100.0
Within the Premises	72.0	68.7	70.7	76.6	72.8
Near the Premises	13.7	13.4	14.7	11.5	13.7
Away	14.2	17.9	14.5	11.9	13.6
Cambodia Rural					
Total	100.0	100.0	100.0	100.0	100.0
Within the Premises	35.8	34.8	35.9	37.1	28.4
Near the Premises	34.0	34.1	34.1	33.2	38.2
Away	30.2	31.1	30.0	29.7	33.4
(*) Excludes Institutional, Homeless, Boat and Transient Households.					

Annex Table 8. Number of Households by Main Source of Drinking Water and Location of Drinking Water: Province, 2013

Region	Total Number of Households	Main Source of Drinking Water					Location of Drinking Water					
		Piped Water	Tube/Pipe Well	Protected Dug Well	Unprotected Dug Well	Rain	Spring, River, etc.	Bought	Other	Within Premises	Near Premises	Away
Total	3,163,226	627,739	933,949	195,977	452,994	44,913	592,119	270,967	44,569	1,370,861	942,013	850,353
Urban	657,951	418793.0436	96643.6895	12051.47537	18630.54255	10810.35675	40064.16816	60385.75253	572.03151	473,853	90,378	93,720
Rural	2,505,275	208946.0335	837305.2556	183925.4232	434362.9651	34102.52932	552054.599	210581.0587	43997.32473	897,008	851,634	756,633
Province												
Banteay MeanChey	161,423	17253	15731	2614	11553	11648	75292	25061	2271	52,476	48,093	60,854
Battambang	230,304	42466	35920	6699	46762	8052	60497	24493	5415	78,544	70,465	81,294
Kampong Cham	403,628	48365	171509	47408	81686	1528	15400	31493	6238	196,951	150,577	56,100
Kampong Chhnang	111,355	2176	38529	6927	26467	1196	18463	14900	2697	45,343	28,998	37,014
Kampong Spueu	157,982	14810	50551	11443	7627	1755	44511	27076	208	26,941	53,158	77,883
Kampong Thom	149,404	10307	27012	20795	71324	553	12197	4632	2585	52,668	58,348	38,389
Kampot	136,148	14604	17540	4951	26705	4925	60322	5163	1939	20,431	56,981	58,736
Kandal	238,435	84092	25881	12816	9934	1045	49620	50809	4238	91,079	85,282	62,075
Koh Kong	25,658	7237	1234	3355	9471	326	1561	2192	282	10,582	5,002	10,075
Kratie	73,050	20333	16161	3158	7925	139	15196	9945	193	26,596	22,908	23,547
Mondul Kiri	15,251	221	4929	3568	1810	34	4103	574	11	2,947	4,182	8,122
Phnom Penh	352,702	280117	12310	1077	960	9106	23260	25606	266	287,448	29,805	35,449
Preah Vihear	48,242	3149	22997	4658	6703	25	9377	1244	90	11,468	17,077	19,697
Prey Veng	255,960	17801	179366	6437	3641	243	36272	1760	10441	140,317	77,997	37,647
Pursat	96,284	13955	17488	5252	18630	1146	33326	6077	409	28,426	37,804	30,053
Ratanak Kikri	36,178	2590	4066	8647	5461	38	13747	1156	474	10,143	14,143	11,892
Siem Reap	189,708	2813	87587	16046	68427	125	9316	2807	2587	87,741	50,091	51,876
Preah Sihanouk	51,955	20779	6698	6737	13232	197	1634	2644	34	28,242	13,113	10,601
Stung Treng	25,359	3814	3942	950	1622		14594	437		6,523	9,090	9,745
Svay Rieng	130,972	7541	119424	511	398	124	2291		684	98,327	25,265	7,381
Takeo	200,099	9080	61617	16952	24652	1775	64866	19939	1219	56,075	63,552	80,472
Otdar Meanchey	50,266	1101	10399	3736	4774	438	17910	9695	2213	6,805	12,384	31,077
Kep	8,378	107	1389	927	2543	198	2654	512	50	1,687	2,883	3,809
Pailin	14,483	3030	1669	311	687	298	5711	2752	26	3,102	4,815	6,566

Note: Excludes Institutional, Homeless, Boat and Transient Households.

Annex Table 9. Number of Households by Availability and Type of Toilet Facility: Province, 2008 and 2013

Region	2008				2013					
	Total Number of Households	Toilet Facility Availability		Total Number of Households	Toilet Facility Availability		Connected to Sewerage	Type of Toilet Facility		
		Households without Toilet	Households with Toilet		Households without Toilet	Households with Toilet		Septic Tank	Pit Latrine	Other
Total	2,817,637	1,867,946	949,691	3,163,226	1,623,573	1,539,653	681,027	751,857	83,094	23,675
Urban	506,579	93,904	412,675	657,951	82,308	575,643	351,217	211,981	7,932	4,513
Rural	2,311,058	1,774,042	537,016	2,505,275	1,541,265	964,010	329,811	539,877	75,161	19,162
Province										
Banteay MeanChey	144,658	94,024	50,634	161,423	71,161	90,262	50,312	35,962	3,873	115
Battambang	209,702	117,528	92,174	230,304	96,294	134,010	43,630	81,662	6,310	2,408
Kampong Cham	368,114	274,008	94,106	403,628	244,455	159,173	74,178	67,733	15,982	1,280
Kampong Chhnang	100,801	81,892	18,909	111,355	72,037	39,318	11,678	23,278	1,038	3,324
Kampong Spueu	149,270	123,170	26,100	157,982	98,065	59,917	14,116	44,146	1,410	244
Kampong Thom	133,878	96,648	37,230	149,404	93,086	56,319	16,916	29,550	7,902	1,950
Kampot	129,646	95,700	33,946	136,148	82,402	53,746	8,557	40,079	4,182	928
Kandal	255,029	138,353	116,676	238,435	99,652	138,783	40,739	95,862	2,182	-
Koh Kong	24,166	14,833	9,333	25,658	14,247	11,412	4,048	6,090	547	726
Kratie	65,323	48,292	17,031	73,050	46,615	26,436	7,225	13,330	4,282	1,600
Mondul Kiri	12,270	10,238	2,032	15,251	10,670	4,581	1,332	2,739	461	49
Phnom Penh	250,597	23,327	227,270	352,702	25,158	327,544	253,293	69,613	4,638	-
Preah Vihear	33,115	29,532	3,583	48,242	38,735	9,507	3,943	4,901	662	-
Prey Veng	226,312	188,295	38,017	255,960	167,443	88,517	9,406	65,110	8,939	5,062
Pursat	83,412	68,100	15,312	96,284	62,016	34,268	13,602	17,630	2,778	257
Ratanak Kikri	27,485	21,691	5,794	36,178	26,136	10,042	3,488	3,817	2,118	618
Siem Reap	179,754	131,039	48,715	189,708	118,584	71,125	24,689	45,901	446	89
Preah Sihanouk	44,656	22,501	22,155	51,955	13,798	38,157	15,463	20,961	595	1,139
Stung Treng	20,922	14,011	6,911	25,359	15,598	9,760	3,710	5,164	853	32
Svay Rieng	114,758	90,344	24,414	130,972	70,641	60,331	26,648	27,735	5,852	97
Takeo	183,742	140,153	43,589	200,099	112,432	87,667	41,403	35,220	7,394	3,649
Otdar Meanchey	38,398	30,190	8,208	50,266	32,783	17,483	10,058	7,105	222	98
Kep	7,193	5,319	1,874	8,378	4,733	3,645	1,084	2,314	240	8
Pailin	14,436	8,758	5,678	14,483	6,832	7,652	1,508	5,953	190	-
Note: Excludes Institutional, Homeless, Boat and Transient Households.										

Note: Excludes Institutional, Homeless, Boat and Transient Households.

Annex Table 10. Number of Households by Availability of Better Amenities: Urban/Rural and Provinces, 2008 and 2013

Region	2008					2013					Difference {(2013) - (2008)}				
	Total Households ¹⁾	Improved Water Source ²⁾	with Toilet Facility	Electricity ³⁾	Combined ⁴⁾ Amenities	Total Households ¹⁾	Improved Water Source ²⁾	with Toilet Facility	Electricity ³⁾	Combined ⁴⁾ Amenities	Improved Water Source ²⁾	with Toilet Facility	Electricity ³⁾	Combined ⁴⁾ Amenities	
Cambodia Total	2,817,637	1,319,472	925,033	695,020	490,528	3,163,226	1,802,578	1,539,653	1,520,068	812,239	483,106	614,620	825,048	321,711	
Urban	506,579	383,755	409,375	431,503	367,216	657,951	538,299	575,643	618,120	482,082	154,544	166,268	186,617	114,866	
Rural	2,311,058	935,717	515,658	263517	123,312	2,505,275	1,264,279	964,010	901,948	330,157	328,562	448,352	638,431	206,845	
Province															
BanteyMeanchey	144,658	40,582	50,091	40,827	25,731	161,423	47,246	90,262	92,224	23,884	6,664	40,171	51,397	-1,847	
Battambang	209,702	67,119	89,753	48,507	30,133	230,304	93,137	134,010	140,262	66,454	26,018	44,257	91,755	36,321	
Kampong Cham	368,114	141,540	91,490	59,857	30,584	403,628	268,811	159,173	119,200	67,617	127,271	67,683	59,343	37,033	
Kampong Chhnang	100,801	43,410	17,937	10,920	6,724	111,355	48,829	39,318	32,029	15,221	5,419	21,381	21,109	8,497	
Kampong Speu	149,270	58,320	25,647	14,995	8,270	157,982	78,559	59,917	48,606	21,640	20,239	34,270	33,611	13,370	
Kampong Thom	133,878	30,713	35,500	14,890	6,991	149,404	58,667	56,319	35,244	13,768	27,954	20,819	20,354	6,777	
Kampot	129,646	31,247	33,231	15,091	9,395	136,148	42,019	53,746	49,348	20,057	10,772	20,515	34,257	10,662	
Kandal	255,029	99,423	115,095	86,689	49,629	238,435	123,833	138,783	194,111	78,645	24,410	23,688	107,422	29,016	
Koh Kong	24,166	8,356	8,340	10,492	6,439	25,658	12,152	11,412	14,162	6,852	3,796	3,072	3,670	413	
Kratie	65,323	24,652	15,665	8,546	5,591	73,050	39,791	26,436	21,184	12,463	15,139	10,771	12,638	6,872	
Mondul Kiri	12,270	5,271	1,988	2,513	1,188	15,251	8,752	4,581	5,498	2,316	3,481	2,593	2,985	1,128	
Phnom Penh	250,597	212,993	226,223	232,871	215,949	352,702	302,610	327,544	347,101	289,684	89,617	101,321	114,230	73,735	
Preah Vihear	33,115	15,238	3,334	3,159	1,766	48,242	30,828	9,507	7,225	4,517	15,590	6,173	4,066	2,751	
Prey Veng	226,312	194,170	35,357	15,778	9,057	255,960	203,846	88,517	47,007	21,217	9,676	53,160	31,229	12,160	
Pursat	83,412	19,507	13,877	12,817	5,954	96,284	37,842	34,268	27,682	14,814	18,335	20,391	14,865	8,860	
Ratanak Kiri	27,485	9,659	4,939	4,693	3,376	36,178	15,341	10,042	14,520	6,193	5,682	5,103	9,827	2,817	
Siem Reap	179,754	94,457	47,683	38,717	30,004	189,708	106,571	71,125	88,251	45,845	12,114	23,442	49,534	15,841	
Preah Sihanouk	44,656	21,869	21,691	24,193	16,281	51,955	34,411	38,157	42,834	29,621	12,542	16,466	18,641	13,340	
Stung Treng	20,922	6,465	6,607	3,873	2,286	25,359	8,706	9,760	8,935	4,350	2,241	3,153	5,062	2,064	
Svay Rieng	114,758	106,845	23,434	12,684	9,027	130,972	127,600	60,331	48,880	31,570	20,755	36,897	36,196	22,543	
T akeo	183,742	66,423	42,115	20,024	9,220	200,099	89,424	87,667	106,929	27,982	23,001	45,552	86,905	18,762	
Oldar Meanchey	38,398	16,028	7,852	5,937	3,254	50,266	15,674	17,483	15,158	3,034	-354	9,631	9,221	-220	
Kep	7,193	1505	1,723	1,197	372	8,378	2,620	3,645	4,534	1,334	1,115	1,922	3,337	962	
Pailin	14,436	3,680	5,461	5,750	3,307	14,483	5,308	7,652	9,144	3,162	1,628	2,191	3,394	-145	
3) Electricity consists of 'City Power', 'Generator', 'City Power and Generator'															
4) 'Combined Amenities' represents the households with 'Improved Water Source', 'Toilet Facility' and 'Electricity'															

Note: 1) Excludes Institutional, Homeless, Boat and Transient Households.

2) 'Improved Water Source' consists of Piped Water, Tube Pipe Well, Protected Dug Well and Rain.

3) 'Electricity' consists of 'City Power', 'Generator', 'City Power and Generator'.

4) 'Combined Amenities' represents the households with 'Improved Water Source', 'Toilet Facility' and 'Electricity'.

Annex Table 11-1. Number of Households by Type of Equipment Owned: Urban/Rural, 2013						
Type of Equipment	Households Owning the Equipment	Number of Households				
		Number of Units of Equipment Owned				
		1	2	3	4	5+
Cambodia Total (Number of Households;		3,163,226)				
Radio/Transistor	1,038,759	1,006,974	27,456	2,575	1,103	650
Television	2,073,579	1,899,611	129,733	29,442	9,314	5,479
Telephone	397,206	386,840	7,856	755	957	798
Cell Phone	2,574,181	1,418,172	613,775	265,667	139,978	136,589
Personal Computer	292,716	223,068	48,124	15,620	1,839	4,066
Bicycle	1,888,762	1,429,507	352,643	84,621	17,074	4,916
Motorcycle	1,915,909	1,492,759	317,641	80,476	16,302	8,731
Car/Van	224,928	189,116	25,507	7,091	1,557	1,656
Boat	153,483	132,897	13,495	3,726	1,634	1,731
Big Tractor	20,436	16,595	3,214	627	0	0
Hand Tractor	261,134	253,577	7,023	377	0	157
Cambodia Urban (Number of Households;		657,951)				
Radio/Transistor	253,399	235,070	15,506	1,856	706	261
Television	593,421	457,347	96,440	26,096	8,208	5,330
Telephone	119,926	115,336	3,254	560	504	271
Cell Phone	621,598	151,218	181,380	117,661	77,326	94,012
Personal Computer	198,748	142,265	38,967	12,338	1,522	3,657
Bicycle	343,331	241,757	73,432	21,886	4,387	1,869
Motorcycle	526,193	316,026	141,128	50,742	11,865	6,433
Car/Van	145,449	118,968	19,175	5,602	799	905
Boat	10,508	7,260	1,864	1,127	0	258
Big Tractor	1,767	1,007	504	257	0	0
Hand Tractor	7,971	7,123	847	0	0	0
Cambodia Rural (Number of Households;		2,505,275)				
Radio/Transistor	785,360	771,904	11,950	719	397	389
Television	1,480,158	1,442,264	33,293	3,346	1,106	149
Telephone	277,279	271,504	4,601	195	452	527
Cell Phone	1,952,583	1,266,954	432,394	148,007	62,652	42,577
Personal Computer	93,968	80,803	9,157	3,282	316	409
Bicycle	1,545,431	1,187,750	279,212	62,735	12,687	3,047
Motorcycle	1,389,716	1,176,733	176,512	29,734	4,438	2,298
Car/Van	79,479	70,148	6,333	1,489	759	750
Boat	142,975	125,637	11,632	2,599	1,634	1,473
Big Tractor	18,669	15,588	2,711	370	0	0
Hand Tractor	253,163	246,454	6,175	377	0	157
Note: Excludes Institutional, Homeless, Boat and Transient Households.						

Annex Table 11-2. Number of Households by Type of Assets Owned: Urban/Rural, 2013						
			Number of Households			
Type of Asset	Households having the asset	Number of assets Household having				
		1	2	3	4	5+
Cambodia Total (Number of Households;				3,163,226)		
Refrigerator	255,870	236,789	14,612	2,856	1,549	64
Washing Machine	130,865	128,274	2,488	0	55	47
Air-Conditioner	126,508	74,101	32,879	8,727	5,481	5,321
Fan	1,079,408	570,220	266,285	141,544	60,242	41,118
Cambodia Urban (Number of Households;				657,951)		
Refrigerator	213,743	198,090	11,954	2,149	1,549	0
Washing Machine	115,929	113,853	1,991	0	55	30
Air-Conditioner	113,325	64,764	30,555	8,061	4,624	5,321
Fan	545,501	182,029	168,156	110,370	50,990	33,957
Cambodia Rural (Number of Households;				2,505,275)		
Refrigerator	42,128	38,699	2,658	706	0	64
Washing Machine	14,935	14,421	497	0	0	17
Air-Conditioner	13,183	9,337	2,323	666	857	0
Fan	533,907	388,191	98,129	31,174	9,252	7,161
Note: Excludes Institutional Homeless Boat and Transient Households.						

APPENDICES

Appendix 1 Sampling Design for CIPS 2013

(Sampling frame)

The sampling frame used for 2013 CIPS was the complete list of all EAs of the 2008 General Population Census of Cambodia. The list was updated to reflect administrative changes since the last census up to September 2011. The main administrative change was the relocation of the boundary between Kandal and Phnom Penh provinces with the result that 20 communes were shifted from Kandal to Phnom Penh. Taking into account all changes, some geographic areas were recoded for construction of a revised and updated sampling frame for use in the two-stage sample design for CIPS 2013.

(Stratification)

In order to obtain reliable estimates for each province, the sampling frame was stratified by province. Within a province a further stratification by urban and rural was done.

(Sample size and sample allocation)

With a margin of error of 2.8% at a confidence level of 95%, sampling of households was done assuming a simple random sampling design. An approximately almost equal number of households, about 1,200 households were allocated to each province as shown in the table below.

(Sampling design)

The sample design was a stratified two-stage sampling design with Enumeration Areas (EAs) as Primary Sampling Units (PSUs), and households as Secondary Sampling Units (SSUs).

Number of Sample Households for Cambodia and provinces

Province	Total households	Sample households	Sample PSUs	C. V. for total population
Cambodia	2,817,637	28,650	955	0.011
Banteay Meanchey	144,658	1,230	41	0.053
Battambang	209,702	1,230	41	0.038
Kampong Cham	368,114	1,230	41	0.038
Kampong Chhnang	100,801	1,200	40	0.054
Kampong Speu	149,270	1,230	41	0.047
Kampong Thom	133,878	1,200	40	0.057
Kampot	129,646	1,200	40	0.050
Kandal	255,029	1,230	41	0.034
Koh Kong	24,166	1,170	39	0.052
Kratie	65,323	1,200	40	0.041
Mondul Kiri	12,270	1,110	37	0.060
Phnom Penh	250,597	1,230	41	0.040
Preah Vihear	33,115	1,170	39	0.046
Prey Veng	226,312	1,230	41	0.030
Pursat	83,412	1,200	40	0.042
Ratanak Kiri	27,485	1,170	39	0.086
Siem Reap	179,754	1,230	41	0.071
Preah Sihanouk	44,656	1,200	40	0.077
Stung Treng	20,922	1,170	39	0.058
Svay Rieng	114,758	1,200	40	0.037
Takeo	183,742	1,230	41	0.032
Otdar Meanchey	38,398	1,200	40	0.049
Kep	7,193	1,050	35	0.022
Pailin	14,436	1,140	38	0.037

Coefficient of variation is for the total population calculated using CIPS 2013 actual data.

For more details, see "Cambodia-Inter-censal Population Survey 2013 Final Report".

Appendix 2 CIPS 2013 Form A House List



STRICTLY CONFIDENTIAL
Identification Particulars

Draft as on 21/02/2012

Royal Government of Cambodia
Cambodia Inter-Censal Population Survey, 2013



FORM A HOUSELIST

Page Number:
 Total Number of pages used for the EA:

Khet Municipality		Srok / Khand Krong		Kham / Sangkat		Phum/Motdel		Sample EA No.		No. of Households in EA																																									
Name		Code		Name		Code		Name		Code																																									
Building / Structure and Household Particulars <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="3">List No.</th> <th rowspan="3">Building/Structure Number</th> <th rowspan="3">Predominant Construction Material of Building/Structure*</th> <th colspan="4">Purpose of Building/Structure</th> <th rowspan="3">Household No.</th> <th colspan="3">Particulars of Head of Household</th> <th colspan="3">Number of Persons Usually Living in the Household</th> <th rowspan="3">Remarks</th> <th rowspan="3">Serial No. of Household</th> </tr> <tr> <th rowspan="2">1. Residence</th> <th rowspan="2">2. Residence & Shop</th> <th rowspan="2">3. Residence & Workshop</th> <th rowspan="2">4. Residence & any other establishment (specify)</th> <th rowspan="2">Sex</th> <th rowspan="2">Name</th> <th rowspan="2">Males</th> <th rowspan="2">Females</th> <th rowspan="2">Persons</th> </tr> <tr> <th>1 = Male</th> <th>2 = Female</th> <th>(Enter Code)</th> </tr> </thead> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Wall</th> <th colspan="2">Roof</th> <th colspan="2">Floor</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th> </tr> </thead> </table>												List No.	Building/Structure Number	Predominant Construction Material of Building/Structure*	Purpose of Building/Structure				Household No.	Particulars of Head of Household			Number of Persons Usually Living in the Household			Remarks	Serial No. of Household	1. Residence	2. Residence & Shop	3. Residence & Workshop	4. Residence & any other establishment (specify)	Sex	Name	Males	Females	Persons	1 = Male	2 = Female	(Enter Code)	Wall		Roof		Floor		1	2	3	4	5	6
List No.	Building/Structure Number	Predominant Construction Material of Building/Structure*	Purpose of Building/Structure				Household No.	Particulars of Head of Household			Number of Persons Usually Living in the Household				Remarks	Serial No. of Household																																			
			1. Residence	2. Residence & Shop	3. Residence & Workshop	4. Residence & any other establishment (specify)		Sex	Name	Males	Females						Persons																																		
												1 = Male	2 = Female	(Enter Code)																																					
Wall		Roof		Floor																																															
1	2	3	4	5	6																																														
1	2	3	4	5	6	7	8	9	10	11	12	13	14																																						
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7																																																			
8																																																			
9																																																			
0																																																			
(**Count the number of entries and give total)						**Total																																													

***KEY TO CODES**

Wall Material (Column 3)

- Bamboo / Thatch / Grass / Reeds
- Earth
- Wood / Plywood
- Concrete / Brick / Stone
- Galvanised Iron / Aluminium / Other metal sheets
- Asbestos cement sheets
- Salvaged / Improved materials
- Other (specify)

Roof Material (Column 4)

- Bamboo / Thatch / Grass
- Tiles
- Wood / Plywood
- Concrete / Brick / Stone
- Galvanised Iron / Aluminium / Other metal sheets
- Asbestos cement sheets
- Plastic / Synthetic material sheets
- Other (specify)

Floor Material (Column 5)

- Earth / Clay
- Wood / Bamboo planks
- Concrete / Brick / Stone
- Polished stone
- Parquet / Polished wood
- Mosaic / Ceramic tiles
- Other (specify)

Name of Enumerator:

Signature: _____

Day: ____ / Month: ____ / Year: ____

Name of Supervisor:

Signature: _____

Day: ____ / Month: ____ / Year: ____

Appendix 3 CIPS 2013 Form B Household Questionnaire



ROYAL GOVERNMENT OF CAMBODIA
Ministry of the Royal Palace

STRICTLY CONFIDENTIAL

FORM B HOUSEHOLD QUESTIONNAIRE PART 1



ROYAL GOVERNMENT OF CAMBODIA
Ministry of the Royal Palace

Draft as on 20/02/2012

Identification Particulars		Khanh/Khant/Krong		Kham/Sangkat		Phum/Mondul		Commune Area No.		Building No.		Household No.		Name of Head of Household		No. of Household Selected (Copy from col. 14 of Form A)	

Statement 1.1 : Usual Members Present on Survey Night									
SL No.	Full Name	Relationship to Head of Household (Write in words)	Sex 1 = Male 2 = Female (Enter code)	Relationship to Head of Household (Write in words)	Sex 1 = Male 2 = Female (Enter code)	Full Name	Relationship to Head of Household (Write in words)	Sex 1 = Male 2 = Female (Enter code)	Usual Residence Within Cambodia Give name of district and write name of province within brackets Outside Cambodia Give name of country
1	2	3	4	3	4	2	3	4	5
1									
2									
3									
4									
5									
6									
7									
8									
9									
0									

Statement 1.2 : Usual Members Absent on Survey Night									
SL No.	Full Name	Relationship to Head of Household (Write in words)	Sex 1 = Male 2 = Female (Enter code)	Age	Location on Survey Night Within Cambodia Give name of district and write name of province within brackets Outside Cambodia Give name of country	How long Absent (in completed months). Write 0 for less than 1 month			
1	2	3	4	5	6	8			
1									
2									
3									
4									
5									

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Number of Form B used for the Household

Enumerator:

Supervisor:

Name

Signature

Day Month Year

Day Month Year

FORM B: HOUSEHOLD QUESTIONNAIRE PART 2: INDIVIDUAL PARTICULARS

Sl. No.	For all persons				For persons aged 6-14	For all persons	For other than Never Married	For all persons					Reason for Migration	
	Full Name of the person	Relationship	Sex	Age				Mother	Whether living with even mother	Marital status	Age at first marriage	Religion		Birth Place
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Names of Usual Members (Present and Visitors)	Relationship to Head of Household	1. Male 2. Female	Age in completed years 00: Less than 1 year 01: 1 year 02: 2 years 03: 3 years 04: 4 years 05: 5 years 06: 6 years 07: 7 years 08: 8 years 09: 9 years 10: 10 years 11: 11 years 12: 12 years 13: 13 years 14: 14 years 15: 15 years 16: 16 years 17: 17 years 18: 18 years 19: 19 years 20: 20 years 21: 21 years 22: 22 years 23: 23 years 24: 24 years 25: 25 years 26: 26 years 27: 27 years 28: 28 years 29: 29 years 30: 30 years 31: 31 years 32: 32 years 33: 33 years 34: 34 years 35: 35 years 36: 36 years 37: 37 years 38: 38 years 39: 39 years 40: 40 years 41: 41 years 42: 42 years 43: 43 years 44: 44 years 45: 45 years 46: 46 years 47: 47 years 48: 48 years 49: 49 years 50: 50 years 51: 51 years 52: 52 years 53: 53 years 54: 54 years 55: 55 years 56: 56 years 57: 57 years 58: 58 years 59: 59 years 60: 60 years 61: 61 years 62: 62 years 63: 63 years 64: 64 years 65: 65 years 66: 66 years 67: 67 years 68: 68 years 69: 69 years 70: 70 years 71: 71 years 72: 72 years 73: 73 years 74: 74 years 75: 75 years 76: 76 years 77: 77 years 78: 78 years 79: 79 years 80: 80 years 81: 81 years 82: 82 years 83: 83 years 84: 84 years 85: 85 years 86: 86 years 87: 87 years 88: 88 years 89: 89 years 90: 90 years 91: 91 years 92: 92 years 93: 93 years 94: 94 years 95: 95 years 96: 96 years 97: 97 years 98: 98 years 99: 99 years 100: 100 years	1. Mother's name (mother of the person alive) 2. Mother's name (mother of the person dead) 3. Mother's name (mother of the person alive) 4. Mother's name (mother of the person dead) 5. Mother's name (mother of the person alive) 6. Mother's name (mother of the person dead) 7. Mother's name (mother of the person alive) 8. Mother's name (mother of the person dead) 9. Mother's name (mother of the person alive) 10. Mother's name (mother of the person dead) 11. Mother's name (mother of the person alive) 12. Mother's name (mother of the person dead) 13. Mother's name (mother of the person alive) 14. Mother's name (mother of the person dead) 15. Mother's name (mother of the person alive) 16. Mother's name (mother of the person dead) 17. Mother's name (mother of the person alive) 18. Mother's name (mother of the person dead) 19. Mother's name (mother of the person alive) 20. Mother's name (mother of the person dead) 21. Mother's name (mother of the person alive) 22. Mother's name (mother of the person dead) 23. Mother's name (mother of the person alive) 24. Mother's name (mother of the person dead) 25. Mother's name (mother of the person alive) 26. Mother's name (mother of the person dead) 27. Mother's name (mother of the person alive) 28. Mother's name (mother of the person dead) 29. Mother's name (mother of the person alive) 30. Mother's name (mother of the person dead) 31. Mother's name (mother of the person alive) 32. Mother's name (mother of the person dead) 33. Mother's name (mother of the person alive) 34. Mother's name (mother of the person dead) 35. Mother's name (mother of the person alive) 36. Mother's name (mother of the person dead) 37. Mother's name (mother of the person alive) 38. Mother's name (mother of the person dead) 39. Mother's name (mother of the person alive) 40. Mother's name (mother of the person dead) 41. Mother's name (mother of the person alive) 42. Mother's name (mother of the person dead) 43. Mother's name (mother of the person alive) 44. Mother's name (mother of the person dead) 45. Mother's name (mother of the person alive) 46. Mother's name (mother of the person dead) 47. Mother's name (mother of the person alive) 48. Mother's name (mother of the person dead) 49. Mother's name (mother of the person alive) 50. Mother's name (mother of the person dead) 51. Mother's name (mother of the person alive) 52. Mother's name (mother of the person dead) 53. Mother's name (mother of the person alive) 54. Mother's name (mother of the person dead) 55. Mother's name (mother of the person alive) 56. Mother's name (mother of the person dead) 57. Mother's name (mother of the person alive) 58. Mother's name (mother of the person dead) 59. Mother's name (mother of the person alive) 60. Mother's name (mother of the person dead) 61. Mother's name (mother of the person alive) 62. Mother's name (mother of the person dead) 63. Mother's name (mother of the person alive) 64. Mother's name (mother of the person dead) 65. Mother's name (mother of the person alive) 66. Mother's name (mother of the person dead) 67. Mother's name (mother of the person alive) 68. Mother's name (mother of the person dead) 69. Mother's name (mother of the person alive) 70. Mother's name (mother of the person dead) 71. Mother's name (mother of the person alive) 72. Mother's name (mother of the person dead) 73. Mother's name (mother of the person alive) 74. Mother's name (mother of the person dead) 75. Mother's name (mother of the person alive) 76. Mother's name (mother of the person dead) 77. Mother's name (mother of the person alive) 78. Mother's name (mother of the person dead) 79. Mother's name (mother of the person alive) 80. Mother's name (mother of the person dead) 81. Mother's name (mother of the person alive) 82. Mother's name (mother of the person dead) 83. Mother's name (mother of the person alive) 84. Mother's name (mother of the person dead) 85. Mother's name (mother of the person alive) 86. Mother's name (mother of the person dead) 87. Mother's name (mother of the person alive) 88. Mother's name (mother of the person dead) 89. Mother's name (mother of the person alive) 90. Mother's name (mother of the person dead) 91. Mother's name (mother of the person alive) 92. Mother's name (mother of the person dead) 93. Mother's name (mother of the person alive) 94. Mother's name (mother of the person dead) 95. Mother's name (mother of the person alive) 96. Mother's name (mother of the person dead) 97. Mother's name (mother of the person alive) 98. Mother's name (mother of the person dead) 99. Mother's name (mother of the person alive) 100. Mother's name (mother of the person dead)	1. Never married 2. Married (a. currently married) 3. Widowed 4. Divorced 5. Separated 6. Remarried 7. Other (Specify)	Age at first marriage 00: Less than 1 year 01: 1 year 02: 2 years 03: 3 years 04: 4 years 05: 5 years 06: 6 years 07: 7 years 08: 8 years 09: 9 years 10: 10 years 11: 11 years 12: 12 years 13: 13 years 14: 14 years 15: 15 years 16: 16 years 17: 17 years 18: 18 years 19: 19 years 20: 20 years 21: 21 years 22: 22 years 23: 23 years 24: 24 years 25: 25 years 26: 26 years 27: 27 years 28: 28 years 29: 29 years 30: 30 years 31: 31 years 32: 32 years 33: 33 years 34: 34 years 35: 35 years 36: 36 years 37: 37 years 38: 38 years 39: 39 years 40: 40 years 41: 41 years 42: 42 years 43: 43 years 44: 44 years 45: 45 years 46: 46 years 47: 47 years 48: 48 years 49: 49 years 50: 50 years 51: 51 years 52: 52 years 53: 53 years 54: 54 years 55: 55 years 56: 56 years 57: 57 years 58: 58 years 59: 59 years 60: 60 years 61: 61 years 62: 62 years 63: 63 years 64: 64 years 65: 65 years 66: 66 years 67: 67 years 68: 68 years 69: 69 years 70: 70 years 71: 71 years 72: 72 years 73: 73 years 74: 74 years 75: 75 years 76: 76 years 77: 77 years 78: 78 years 79: 79 years 80: 80 years 81: 81 years 82: 82 years 83: 83 years 84: 84 years 85: 85 years 86: 86 years 87: 87 years 88: 88 years 89: 89 years 90: 90 years 91: 91 years 92: 92 years 93: 93 years 94: 94 years 95: 95 years 96: 96 years 97: 97 years 98: 98 years 99: 99 years 100: 100 years	1. Hindu 2. Muslim 3. Christian 4. Other (Specify)	Place of Birth of the person 1. In this village, write code 1 2. In another village, give name of the district of the village and village code 1 and village code 2 3. Outside India, give name of the country.	Where has the person been living before? 1. In this village, write code 1 2. In another village, give name of the district of the village and village code 1 and village code 2 3. Outside India, give name of the country.	How long has the person lived in this village? 00: Less than 1 year 01: 1 year 02: 2 years 03: 3 years 04: 4 years 05: 5 years 06: 6 years 07: 7 years 08: 8 years 09: 9 years 10: 10 years 11: 11 years 12: 12 years 13: 13 years 14: 14 years 15: 15 years 16: 16 years 17: 17 years 18: 18 years 19: 19 years 20: 20 years 21: 21 years 22: 22 years 23: 23 years 24: 24 years 25: 25 years 26: 26 years 27: 27 years 28: 28 years 29: 29 years 30: 30 years 31: 31 years 32: 32 years 33: 33 years 34: 34 years 35: 35 years 36: 36 years 37: 37 years 38: 38 years 39: 39 years 40: 40 years 41: 41 years 42: 42 years 43: 43 years 44: 44 years 45: 45 years 46: 46 years 47: 47 years 48: 48 years 49: 49 years 50: 50 years 51: 51 years 52: 52 years 53: 53 years 54: 54 years 55: 55 years 56: 56 years 57: 57 years 58: 58 years 59: 59 years 60: 60 years 61: 61 years 62: 62 years 63: 63 years 64: 64 years 65: 65 years 66: 66 years 67: 67 years 68: 68 years 69: 69 years 70: 70 years 71: 71 years 72: 72 years 73: 73 years 74: 74 years 75: 75 years 76: 76 years 77: 77 years 78: 78 years 79: 79 years 80: 80 years 81: 81 years 82: 82 years 83: 83 years 84: 84 years 85: 85 years 86: 86 years 87: 87 years 88: 88 years 89: 89 years 90: 90 years 91: 91 years 92: 92 years 93: 93 years 94: 94 years 95: 95 years 96: 96 years 97: 97 years 98: 98 years 99: 99 years 100: 100 years	Reason for Migration 01: Transfer of work place 02: In search of employment 03: Education 04: Marriage 05: Family moved 06: Left land, lost house 07: Natural calamities 08: Insecurity 09: Repatriation in return after displacement 10: Other (Specify)		

Codes for column 3
Relationship to Head of Household
1: Head
2: Wife - Husband
3: Son - Daughter
4: Step child
5: Adopted - Foster child
6: Father - Mother
7: Sibling
8: Grand child
9: Niece/nephew
10: Son Daughter-in-law
11: Brother Sister-in-law
12: Father-in-law
13: Other Relative
14: Servant
15: Non-Relative including Neighbour

Codes for column 10
Mother Tongue
01: Hindi
02: Urdu
03: Punjabi
04: English
05: Bengali
06: Gujarati
07: Marathi
08: Telugu
09: Kannada
10: Malayalam
11: Odia
12: Assamese
13: Bodo
14: Santhali
15: Other (Specify)

Codes for column 11
Duration of Stay
01: Less than 1 year
02: 1 year to less than 2 years
03: 2 years to less than 3 years
04: 3 years to less than 4 years
05: 4 years to less than 5 years
06: 5 years to less than 6 years
07: 6 years to less than 7 years
08: 7 years to less than 8 years
09: 8 years to less than 9 years
10: 9 years to less than 10 years
11: 10 years to less than 11 years
12: 11 years to less than 12 years
13: 12 years to less than 13 years
14: 13 years to less than 14 years
15: 14 years to less than 15 years
16: 15 years to less than 16 years
17: 16 years to less than 17 years
18: 17 years to less than 18 years
19: 18 years to less than 19 years
20: 19 years to less than 20 years
21: 20 years to less than 21 years
22: 21 years to less than 22 years
23: 22 years to less than 23 years
24: 23 years to less than 24 years
25: 24 years to less than 25 years
26: 25 years to less than 26 years
27: 26 years to less than 27 years
28: 27 years to less than 28 years
29: 28 years to less than 29 years
30: 29 years to less than 30 years
31: 30 years to less than 31 years
32: 31 years to less than 32 years
33: 32 years to less than 33 years
34: 33 years to less than 34 years
35: 34 years to less than 35 years
36: 35 years to less than 36 years
37: 36 years to less than 37 years
38: 37 years to less than 38 years
39: 38 years to less than 39 years
40: 39 years to less than 40 years
41: 40 years to less than 41 years
42: 41 years to less than 42 years
43: 42 years to less than 43 years
44: 43 years to less than 44 years
45: 44 years to less than 45 years
46: 45 years to less than 46 years
47: 46 years to less than 47 years
48: 47 years to less than 48 years
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69: 68 years to less than 69 years
70: 69 years to less than 70 years
71: 70 years to less than 71 years
72: 71 years to less than 72 years
73: 72 years to less than 73 years
74: 73 years to less than 74 years
75: 74 years to less than 75 years
76: 75 years to less than 76 years
77: 76 years to less than 77 years
78: 77 years to less than 78 years
79: 78 years to less than 79 years
80: 79 years to less than 80 years
81: 80 years to less than 81 years
82: 81 years to less than 82 years
83: 82 years to less than 83 years
84: 83 years to less than 84 years
85: 84 years to less than 85 years
86: 85 years to less than 86 years
87: 86 years to less than 87 years
88: 87 years to less than 88 years
89: 88 years to less than 89 years
90: 89 years to less than 90 years
91: 90 years to less than 91 years
92: 91 years to less than 92 years
93: 92 years to less than 93 years
94: 93 years to less than 94 years
95: 94 years to less than 95 years
96: 95 years to less than 96 years
97: 96 years to less than 97 years
98: 97 years to less than 98 years
99: 98 years to less than 99 years
100: 99 years to less than 100 years

Codes for column 16
Reason for Migration
01: Transfer of work place
02: In search of employment
03: Education
04: Marriage
05: Family moved
06: Left land, lost house
07: Natural calamities
08: Insecurity
09: Repatriation in return after displacement
10: Other (Specify)

FORM B HOUSEHOLD QUESTIONNAIRE PART 3 : FERTILITY INFORMATION OF FEMALES AGED 15 AND OVER LISTED IN COLUMN 2 OF PART 2

FERTILITY INFORMATION												
Sl. No.	Full Name of woman	Sl. No. in col.1 of Part 2	Age of woman at the time of birth of first child	Number of Children Born (Give number in two digits like 01, 02,.....10, 11. If None, write 00)				Particulars of Births in the last 12 months to women aged 15-49 years				
				How many Children have been born alive to the woman ?	How many of them are living ?	How many of them have died ?	Any child born alive to the woman during the last 12 months ? (Give actual number like 1,2 under the appropriate column. If none write 0) (If no child was born to the woman in the last 12 months put dash (-) in Col.(4),(5) below)		State who initiated her during the delivery (Enter Code from list below)	Did she get the birth of this child registered with the civil authority? Yes = 1 No = 2 (Enter code)		
(1)	(2)	(3)	(4)	(5)		(6)		(7)		(8)	(9)	(10)
				(a) Male	(b) Female	(a) Male	(b) Female	(a) Male	(b) Female			
1												
2												
3												
4												
5												
6												
7												
8												
9												
0												

Codes for Column 9

1. Doctor
2. Nurse
3. Midwife
4. Traditional Birth Attendant (TBA)
5. Other
6. None

FORM B HOUSEHOLD QUESTIONNAIRE PART 4 : DEATH IN HOUSEHOLD
Deaths in Household in the last 12 months: Total Number of Deaths

--	--

PARTICULARS OF THE DECEASED									
Sr. No.	Name of Deceased	Sex 1. Male 2. Female (Enter Code)	Relationship to Head of Household (Use Code given for col.3 of Part 2)	Age at Death Write the age in total years completed at the time of death 00: Less than 1 year 01: 1 year to less than 2 years 02: 2 years to less than 3 years 03: 3 years to less than 4 years 04: 4 years to less than 5 years 05: 5 years to less than 6 years 06: 6 years to less than 7 years 07: 7 years to less than 8 years 08: 8 years to less than 9 years 09: 9 years to less than 10 years 10: 10 years and over	What was the cause of death? (Enter Code from the list below)	Has this death been reported with the civil authority? 1. Yes 2. No	For women aged 15-49 years who died: Did the woman die while pregnant, during delivery or within 42 days after giving birth? 1. Yes 2. No	State where the death took place (Enter Code from the list below)	State who attended to her before death (Enter Code from the list below)
1									
2									
3									
4									
5									
6									
7									
8									
9									
0									

Codes for column 4: Relationship to Head of Household

1. Head
2. Wife / Husband
3. Son / Daughter
4. Step child
5. Adopted / Foster child
6. Father / Mother
7. Sibling
8. Grand child
9. Niece / nephew
10. Son / Daughter-in-law
11. Brother / Sister-in-law
12. Father / mother-in-law
13. Other Relative
14. Servant
15. Non-Relative including boarder

Codes for col. 6: Cause of Death

ILLNESS	ACCIDENT	NOT KNOWN
01. Fever	12. Land mine	05. Don't know
02. Diarrhoea	13. Road Accident	
03. Tuberculosis	14. Drowning	
04. Heart disease	15. Other accident (Specify.....)	
05. Dengue fever		
06. Malaria		
07. Tetanus		
08. HIV/AIDS		
09. Pregnancy complication		
10. Delivery complication		
11. Other illness (Specify.....)		

Codes for Col. 8(b): Place of Death

1. Hospital
2. Health Center
3. Home
4. Other

Codes for Col. 8(c): Attender

1. Doctor
2. Nurse
3. Midwife
4. Traditional Birth Attendant (TBA)
5. Other (Specify.....)
6. None

FORM B HOUSEHOLD QUESTIONNAIRE PART 5 : HOUSING CONDITIONS AND FACILITIES
(Enter Code in the box below)

On what basis does this household occupy this dwelling?	Main Source of light	Main Cooking Fuel	Toilet facility within premises	Main Source of drinking water supply	Location of Drinking water source	No. of rooms occupied by household (exclude kitchen, bathroom, toilet and storeroom)	Availability of separate kitchen within premises
1	2	3	4	5	6	7	8
1 : Owner occupied 2 : Rent 3 : Not owner, but rent free 4 : Other (specify) :	1 : City power 2 : Generator 3 : Both city power and generator 4 : Kerosene 5 : Candle 6 : Battery 7 : Other (specify) :	1 : Firewood 2 : Charcoal 3 : Kerosene 4 : Liquefied Petroleum Gas (LPG) 5 : Electricity 6 : None 7 : Other (specify) :	1 : Not available 2 : Available private at the codes 2 to 5: 3 : Septic tank 4 : Pit latrine 5 : Other type of toilet (specify) :	1 : Piped water 2 : Tube / pipe well 3 : Protected dug well 4 : Unprotected dug well 5 : Rain 6 : Spring, river, stream, lake/pond 7 : Borehole 8 : Other (specify) :	1 : Within the premises 2 : Near the premises 3 : Away	1 : One Room 2 : Two Rooms 3 : Three Rooms 4 : Four Rooms 5 : Five Rooms 6 : Six Rooms 7 : Seven Rooms 8 : Eight Rooms and above	1 : Yes 2 : No
(Enter Code)	(Enter Code)	(Enter Code)	(Enter Code)	(Enter Code)	(Enter Code)	(Enter Code)	(Enter Code)

INFORMATION ON OWNERSHIP OF SOME FACILITIES BY THE HOUSEHOLD (Under each item write "00" in the square if not available, or give the actual number if available)

Radio Transistor	Television	Telephone (Fixed phone)	Cell phone	Personal Computer	Bicycle	Motorcycle	Refrigerator	Washing Machine	Air Conditioner	Fan	Car/Van	Boat
9	10	11	12	13	14	15	16	17	18	19	20	21

Tractor
22
(a) Big tractor
(b) Hand tractor (Koyasa)

State whether the household accesses the Internet

At home	Outside home	At home and Outside home
23	24	25
1 : Yes 2 : No 	1 : Yes 2 : No 	1 : Yes 2 : No
(Enter Code)	(Enter Code)	(Enter Code)

Appendix 4 List of Priority Tables of CIPS 2013 Results

The List of Priority Tables for CIPS is drawn from the corresponding List of 2008 Census with some revisions, additions and deletions in view of the various changes in the questionnaires. The following List contains the old Tables, the new Tables and the revised Tables as indicated.

Table No. Title

(i) A Series. General Population Tables	
1. A1	Population by Single Years of Age and Sex.
2. A2	Population by Marital Status, 5-year Age Group and Sex.
3. A3	Population by Mother Tongue, 5-year Age Group and Sex.
4. A3A	Population by Mother Tongue (Minority Languages), 5-year Age Group and Sex.
5. A4	Population by Religion, 5-year Age Group and Sex.
6. A5	Population by Relationship to Head of Household, 5-year Age Group and Sex.
7. A6	Population by Place of Enumeration (classified by Total, Urban and Rural), Place of Birth and Sex.
(ii) B Series. Literacy and Education Tables	
8. B1 (Revised)	Population aged 7 and over by Literacy in any language, Level of Education, Usual Activity Status, Age Group and Sex.
9. B1A	Population aged 7 and over by Language Literacy, Age Group and Sex.
10. B2 (Revised)	Population aged 5 and over Attending School/Educational Institution by Literacy, Level of Education, Age Group and Sex.
11. B3 (New).	Population aged 7 and Over by Completed Level of Education, Main Subject of Study and Sex
(iii) C Series. Economic Tables	
12. C1	Population by Usual Activity Status, 5-year Age Group and Sex.
13. C2	Employed Persons aged 5 and over by Status in Employment, 5-year Age Group and Sex.
14. C3	Employed Persons aged 5 and over by Sector of Employment, 5-year Age Group and Sex.
15. C4	Unemployed Persons aged 5 and over by Status in last Employment, 5-year Age Group and Sex.

16. C5 Economically Active Population aged 5 and over by Secondary Economic Activity, 5-year Age Group and Sex.
17. C6 Economically Inactive Population aged 5 and over by Secondary Economic Activity, 5-year Age Group and Sex.
18. C7 Employed Persons aged 5 and over by Employment Status, 5-year Age Group and Sex.
19. C8 Economically Active Population aged 5 and over by Industrial Section, Major Group of Occupation and Sex.
20. C9 Economically Inactive Population aged 5 and over by Functional Categories, 5-year Age Group and Sex.
21. C10 Employed Population aged 5 and over by Industrial Section, 5-year Age Group and Sex.
22. C11 Employed Population aged 5 and over by Major Group of Occupation, Age Groups and Sex.
23. C12 Employed Population aged 5 and over by Main Status in Employment, Industry and Sex.
24. C13 Employed Population aged 5 and over by Main Status in Employment, Occupation and Sex.
25. C14 Employed Population aged 5 and over by Literacy in any language, Level of Education, Occupation and Sex.
26. C15 Employed Females aged 5 and over by Industrial Sections and Marital Status.
27. C16 Employed Females aged 5 and over by Occupational Group and Marital Status.
28. C17 Employed Population aged 5 to 20 by School Attendance, Single Year of Age and Sex.
(iv) D Series. Migration Tables
29. D1 Migrants classified by Place of Last Residence, Duration of Residence in Place of Enumeration and Sex.
30. D2 Migrants from other Provinces classified by Province of Enumeration, Province of Previous Residence, Duration of Stay and Sex.
31. D3 Migrants by Place of Last Residence, Reason for Migration, Duration of Residence and Sex.
32. D4 Migrants Economically Active Population aged 5 and over by Place of Last Residence, Industrial Section and Sex.
33. D5 Migrants Economically Active Population aged 5 and over by Place of Last Residence, Major Group of Occupation and Sex.
34. D6 Migrants from Place of Last Residence aged 7 and over by Educational Level, Usual Activity Status, 5-year Age Group and Sex.
35. D7 Migrants in the previous five years by 5-year Age Group and Sex.
(v) E Series. Disability Tables
36. E1 (Revised) Physically/Mentally Disabled Persons by 5-year Age Group and Sex.
37. E2 (Revised) Physically/Mentally Disabled Persons by Category of Disability, Marital Status and Sex.
38. E3 (Revised) Physically/Mentally Disabled Persons by Literacy in any language, Level of Education, 5-year Age Group and Sex.

39. E3A (Revised) Physically/Mentally Disabled Persons by Category of Disability, Literacy in any Language, Level of Education and Sex.
40. E4 (Revised) Physically/Mentally Disabled Persons by Main Activity, 5-year Age Group and Sex.
41. E4A (Revised) Physically/Mentally Disabled Persons by Category of Disability, Main Activity and Sex.
(vi) F Series. Fertility Tables
42. F1 Females aged 15 to 49 bearing children during last year by 5-year Age Group, Educational level and Births during last year by Birth order.
43. F2 Females aged 15 to 49 bearing children during last year by 5-year Age Group, Usual Activity Status and Births during last year by Birth order.
44. F3 Females aged 15 and over by Parity, Total Children Ever Born, 5-year Age Group and Educational Level.
45. F4 Females aged 15 and over by Parity, Total Children Ever Born, 5-year Age Group and Usual Activity Status.
46. F5 Females aged 15 and over by Number of Surviving Children, 5-year Age Group and Educational level.
47. F6 Females aged 15 and over by Number of Surviving Children, 5-year Age Group and Usual Activity Status.
48. F7 Females aged 15 to 49 bearing children during last year by 5-year Age Group and Type of Assistance during Delivery.
49. F8 (New) Registration of Birth in the last year by Educational Level of Mother
50. F9. (New) Ever Married Females Aged 15 and above by Age at First Marriage and Current Age
51. F10. (New) Ever Married Females Aged 15 and above by Age at First Marriage and by Number of Children Ever Born
52. F11. (New) Ever Married Females Aged 15 and above by Age at First Marriage and Number of Children Ever Born
53. F12. (New) Ever Married Females Aged 15 and above by Parity, Total Children Ever Born, Age at First Marriage
54. F13. (New) Children Living with Own Mother by Age and Age of Mother
55. F14. (New) Females Aged 15 and above Living with Own Children by Parity, Total children Ever Born and Age
56. F15. (New) Ever Married Females Aged 15 and above by Age at First Child Birth and Current Age
57. F16. (New) Ever Married Females Aged 15 and above by Age at First Child Birth and Number of Children Ever Born
58. F17. (New) Ever Married Females Aged 15 and above by Age at First Child Birth and Number of Children
59. F18. (New) Ever Married Females Aged 15 and above by Parity, Total Children Ever Born, Age at First Child
60. F19. (New) Ever Married Population by Age at First Married and Sex of Respondent
(vii) G Series. Mortality Tables
61. G1 Population, Number of Deaths in Households in the last year by broad Age Group and Sex.

62. G2 Deaths in Households in the last year by Cause of Death, broad Age Group and Sex.
63. G3 Maternal Deaths by Type of Assistance, Place of Death and 5-year Age Group.
64. G4. (New) Number of Deaths in Households in the Year by Death Registration, Broad Age Groups and Sex
(viii) H Series. Household and Housing Amenity Tables
65. H1 Buildings/Structures with Households by Type of Use.
66. H2 Buildings/Structures (Residential + Partly Residential) by Predominant material of Roof, Wall and Floor.
67. H3 Households by Tenure Status of Dwelling, Household Size and Number of Rooms Occupied.
68. H4 Households by Size of Households, Number of Economically Active Members and Sex of Head of Household
69. H5 Head of Households (aged 10 and over) by Usual Activity Status, 5-year Age Group and Sex.
70. H6 Households by Main source of Light used and Household Size.
71. H7 Households by Type of Fuel used for Cooking and Household Size.
72. H8 Households classified by Main source of Drinking Water, Location of Source and Household Size.
73. H9 Households by Tenure Status of Dwelling and Toilet Facility Category.
74. H10 Households and Population (in 10,000's) by Tenure Status of Dwelling, Availability of Electric Power and Toilet Facility.
75. H11 Households classified by Source of Drinking Water, Availability of Electric Power and Toilet Facility.
76. H12 (Revised) Households by Type and Number of Assets owned.
77. H13 (Revised) Households by Household Size and Access to Internet.
78. H14 (New) Households with Separate Kitchen by Household Size and Number of Rooms Occupied

Note: The lowest level of presentation of all tables is Province except for Tables D2 and D3 which are presented at National Level

Appendix 5 List of Publications of CIPS 2013 Results

No.	Title	No. of Volumes	Date of Publication
Preliminary Results			
1	National Report (Provisional Report)	1	Aug. 2013
2	Wall Maps/Charts		Aug. 2013
Final Results			
1	National Report (Final Report)	1	Nov. 2013
2	Provincial Report	24	March 2014
Analytical Reports			
1	Estimates of Fertility and Mortality	1	March 2014
2	Spatial Distribution and Growth of Population	1	December 2013
3	Sex and Age Structure	1	December 2013
4	Nuptiality	1	March 2014
5	Disability	1	December 2013
6	Migration	1	April 2014
7	Literacy and Educational Attainment	1	March 2014
8	Economic Activity and Employment	1	April 2014
9	Housing and Household Amenities	1	March 2014
10	Family and Household	1	March 2014
11	Population Projections of Cambodia	1	June 2014
12	Gender in Cambodia	1	April 2014
13	Population Aging in Cambodia	1	April 2014
National Tables			
1	National Profile	1	March 2014
Provincial Tables			
1	Provincial Profile	24	March 2014
Statistical Maps			
1	Statistical Atlas	1	March 2014
2	Wall Maps/Charts		November 2013

** The above publications are published in both English and Khmer, and by both report and electrical media in principle.*



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