Report on the

Cambodia Socio-Economic Survey 1997

National Institute of Statistics
Ministry of Planning
Phnom Penh, Cambodia

Sponsored by
United Nations Development Programme,
Swedish International Development Cooperation Agency
and
The World Bank

FOREWORD

This report presents the survey methodology including sampling design, estimation methods and implementation procedures as well as the survey questionnaires used in the Cambodia Socio-Economic Survey (CSES) 1997. The survey was conducted by the National Institute of Statistics of the Ministry of Planning. The principal objective of the survey was to collect data needed for the measurement of living standards and information required for poverty monitoring and analysis. Provision of data and socio-economic indicators required by a variety of users and the strengthening of the survey taking capability of the National Institute of Statistics to regularly conduct multi-objective large scale household based surveys were the other important objectives. The survey was funded by UNDP and the Swedish International Development Cooperation Agency (SIDA) through the Capacity Development for Socio- Economic Surveys and Planning Project CMB/96/ 019. The World Bank is the executing agency of the Project.

The survey was conducted as a collaborative effort of the Project and the National Institute of Statistics (NIS) of the Ministry of Planning. The survey was planned and designed by the project staff and the staff of the NIS. At the time we embarked on this survey it was accepted as an ambitious project. There were doubts with regard to the capacity of the National Institute of Statistics to undertake a complex multi-objective integrated household survey on living standards measurement sampling 6010 households with detailed household and village questionnaires. The successful completion of the CSES 1997 has provided good hands on experience to the staff of the National Institute of Statistics on aspects of planning, designing and implementing large scale surveys. The survey results including statistical tables are presented in the survey report titled Report on the Cambodia Socio-Economic Survey 1997.

My Ministry gratefully acknowledges the technical assistance provided by UNDP and SIDA for sponsoring the project and the survey, and the World Bank for their participation from the project identification stage itself and sharing the responsibility for project implementation as the project executing agency. A special word of thanks are due to the UNDP Resident Representative Mr. Paul Matthews for extending technical assistance and for the interest he has taken in the project. We would like to record our deep appreciation of the assistance rendered by Mr. Andre Klap, former Deputy Resident Representative, UNDP who took a personal interest in this Project from the project identification stage and extended his support for its successful implementation.

I am grateful to Mr. Nicholas Prescott, Senior Economist, the World Bank, Washington, the Task Manager of the Project for the keen interest he has taken in the Project and the survey programme. His technical advice in addition to his administrative guidance has been most helpful in the timely execution of project activities.

My sincere thanks are due to the statistical experts and consultants led by Mr. R. B. M. Korale, Senior Statistics Adviser, for providing technical direction and training Cambodian statisticians in survey taking and for preparing this survey report. Prof. Anil Deolalikar, Professor of Economics in the University of Washington and consultant to the project took the lead in designing the questionnaires. I am also thankful to Mr. Mathew Varghese, Project Coordinator and project staff for providing administrative support.

I appreciate the dedication and enthusiasm of the staff of NIS, staff of provincial planning departments, and the Ministry of Planning who contributed to the successful completion of the survey. They have worked conscientiously to meet the project deadlines under difficult circumstances and stressful situations.

It is my pleasure and privilege to present this Technical Report on Survey Design and Implementation of CSES 1997 which will be of use to institutions conducting statistical surveys, statisticians, researchers and other data users.

Chhay Than
Acting Minister of Planning

Ministry of Planning,
Phnom Penh.

June 1998

PREFACE

Cambodia Socio- Economic Survey (CSES) 1997 is the first of two surveys sponsored by the Capacity Development for Socio-Economic Surveys and Planning Project. The project is financed by the United Nations Development Programmed and the Swedish International Development Cooperation Agency. The World Bank is the project executing agency.

The survey programmed sponsored by the Project collects data on the various facets of levels of living of the Cambodian people in order to obtain information required for monitoring and analysing poverty as well as for establishing and updating socio-economic indicators required by a number of users. The Cambodia Socio-Economic Survey 1997 is the first multi-objective national household survey conducted in Cambodia. This survey used four questionnaires to collect a variety of data concerning the living standards and socio-economic condition of the Cambodian population. A village questionnaire was used for the first time to collect community level information. CSES 97 focused on the social sector and collected detailed information on education and health service utilization and related household expenditure. The length of the comprehensive questionnaires and the magnitude of the survey which canvassed data from 6010 households and 474 villages made the survey a statistically complex undertaking. We had reservations about the adequacy of the available capacity of the national statistical system while having to undertake work connected with other programs. The staff of the NIS and provincial statistics bureaus responded positively and shared the burden to successfully meet the demands made on them. We are happy that it was possible to achieve the project deadlines of the survey at all stages. CSES 1997 was successfully completed within a short period of 9 months from the commencement of the project in April 1997. The survey results including statistical tables are presented in the survey report titled “Report on the Cambodia Socio-Economic Survey 1997”.

We wish to acknowledge with thanks the technical assistance provided by UNDP and SIDA for sponsoring the project and the survey and the World Bank for their participation from the project identification stage itself and sharing the responsibility for project implementation as the project executing agency.

Special thanks are due to the Governor, National Bank of Cambodia His Excellency Chea Chanto, former Minister of Planning for his interest and personal attention in the survey from its inception which was a source of inspiration and encouragement for the project staff and national staff who worked on the survey. Our thanks are also due to His Excellency Sang Ryvannak, Under Secretary of State Ministry of Planning and National Project Coordinator, who was always available to assist in resolving issues and problems.

We are grateful to Mr. Nicholas Prescott, Senior Economist, the World Bank, Washington, the Task Manager of the Project for the keen interest he has taken in the survey programme and his technical advice on survey design and implementation which made it possible to meet project deadlines and targets.

We would like to place on record our deep appreciation of the work undertaken by Project experts and consultants, and NIS staff and staff of the Ministry of Planning and the provincial planning departments who worked with dedication and enthusiasm to successfully complete the survey. The success of the survey was mainly due to their keen interest and active participation to make the survey a success.

San Sy Than,
Director
National Institute of Statistics

R. B. M. Korale
Senior Statistics Adviser

National Institute of Statistics
Phnom Penh.

June 1998

Chapter 1

SURVEY DESIGN AND IMPLEMENTATION

1.0 Introduction

Cambodia Socio-Economic Survey, 1997 (CSES-1997) was conducted by the National Institute of Statistics (NIS) of the Ministry of Planning. CSES 1997 is the first of two national surveys sponsored by the Capacity Development for Socio-Economic Surveys and Planning Project CMB/96/019 of the Royal Government of Cambodia. The Project is funded by UNDP and the Swedish International Development Agency and executed by the World Bank. The Ministry of Planning (MOP) is the government project implementation agency and NIS is responsible for the survey progamme. The project expert staff in collaboration with the staff of NIS undertook the planning and designing of the survey. CSES 1997 is the first multi-objective household survey conducted in Cambodia, and it was designed as a living standards measurement survey, to obtain primarily, information for poverty monitoring and analysis.

Poverty reduction and eventual eradication has been one of the major goals of the Royal Government of Cambodia and poverty reduction has been accepted as the central theme of the First Socio-Economic Development Plan 1996-2000. The Plan also refers to the fact that poverty and deprivation is widespread and takes many forms. Poverty monitoring and analysis require current, reliable and geographically disaggregatable data. The wide range of characteristics on which information is required demands the establishment of a data base much more detailed and timely than what the national statistics office could deliver without external support. Existing capacity for the collection and analysis of data on living standards is weak. During the past 4 years important groundwork has been laid by the conduct of two large-scale household surveys.

Current information on living standards and poverty is based on ad hoc specialized surveys which were conducted to meet urgent, specific statistical data needs such as the detailed consumer expenditure data required to derive weights to establish consumer price indices or establish base line socio-economic indicators required by different sectoral data users. These data sources were of insufficient detail both in subject matter coverage and geographical disaggregation to serve as a current database for measurement of living standards and poverty. They were inadequate to explore analytically important relationships concerning the incidence, magnitude, nature and causes of poverty.

The survey programmed sponsored through the Project aims at collecting information
on various facets of levels of living of the Cambodian people. CSES-1997 is the first household survey conducted in Cambodia which has used an integrated set of questionnaires

to canvass data on a wide range of socio economic topics for measuring living standards, monitoring poverty and to also elicit data on sectoral and sub-sectoral subjects and topics. The survey was designed to adopt the core and module questionnaire approach. The purposes of the core questionnaire were to support monitoring of changes in key indicators over time and identification of priority areas for geographic targeting of development programmes. To serve these needs the subject matter coverage in the core questionnaire was fixed on a small number of key welfare indicators including per capita consumption expenditure, education enrollment, health care utilization rates, and basic demographic characteristics, housing characteristics and household assets. The core would be implemented without many modifications annually and a rotating sector module will supplement it. The purpose of the modules would be to support in-depth analysis of sectoral issues and policies. The module could be canvassed on a sub-sample of the sample selected for the core but in the CSES 1997 it was decided to admit it to all the sample households considering the spread of items included in the social sector module. CSES 1997 social sector module focussed on education and schooling including education expenditure, and health and morbidity and amounts spent on health care. In addition to the collection of data from sample households, canvassing of a village questionnaire from sample villages was a new feature introduced with the survey. The village questionnaire was designed to collect data on variables which affect all households in the community such as public and private provision of economic infrastructure including roads, land, irrigation, markets and social services including the facilities of education and health and associated problems and on retail prices and wages prevailing in the sample villages.

The work on the survey formally started when the Project became operational at the beginning of April 1997. Some preliminary work relating to the development of draft questionnaires, sampling strategy of the survey was initiated earlier. The Project was scheduled to commence in January 1997, and despite project start up delays, very rapid progress was made in planning, designing and implementing the survey after mid April 1997. The draft questionnaires were reviewed and amended and translated into Khmer and instruction manual for enumerators and supervisors were finalized. Consultation with the Government, donors and NGO's were held at the beginning of May 1997 followed by pretests and accordingly, survey instruments were further improved on the basis of these observations and findings. Training of enumerators and supervisors commenced in the third week of May and continued up to the first week of June 1997. Field work was begun at the end of May and concluded at the end of June 1997. Manual coding and editing was started at the beginning of August and computer processing began in September 1997.

Through this survey, several new procedures and international standard practices were introduced into the NIS household survey data collection and data processing operations including extensive documentation, use of core and module questionnaires in a fully integrated survey, village questionnaire for community information, checking error print out's after consistency edits, and computerized survey data processing in a network environment.

The report describes the planning, designing and implementation of CSES 1997 and summarizes the results, which are of general interest to users. The survey sampled a total of 6010 sample households distributed in 474 villages. The survey provides statistically reliable estimates for the three domains Phnom Penh, other urban and rural areas. The survey design provides for the extraction of estimates for the four geographic zones viz. Plains, Tonle Sap Lake, Coastal and Plateau and Mountain regions of the country. In addition to the estimates based on the truncated frame used in the survey, a computation procedure for deriving extrapolated estimates for Cambodia as a whole including the areas omitted from the frame was prepared and extrapolated estimates for selected items were computed. Data cleaning on some items of data were still ongoing at the time this report was prepared.

1.1 Objectives of CSES 1997

The immediate objective of the Project is the development of institutional capacity of the National Institute of Statistics (NIS) of the Ministry of Planning (MOP) to implement a demand driven multi-purpose living standards household survey based data collection system which produces regular, timely and relevant feed back to government policy makers. The project has provided technical assistance for the conduct of two large scale multi-objective national household surveys, the first one in 1997 and the second to be conducted in 1998/99. The primary objective of Cambodia Socio-Economic Survey (CSES) 1997 was to obtain data for the measurement of living standards in geographic stratification and different segments of the Cambodian society. The other objectives were to provide information needed by a variety of users such as government institutions, donor agencies, non- government organizations; to assist NIS to train its staff in planning, designing and conducting a household based survey system and institutionalize survey taking capability. The expansion of the scope of the survey to meet the data needs of a wide variety of users and thus minimize the duplication of household surveys and promote the acceptance of CSES as the national household survey programme was also an important objective.

Specifically the survey had the following objectives:

- **To provide data required for the measurement of the living standards through a single source of data for a comprehensive and detailed analysis of living standards and poverty in Cambodia.**

- **To provide information on school facilities, schooling and enrollments, cost of of education and related information.**

- **To provide information on health issues, utilization of health facilities and costs incurred on illness and treatment.**

- **To provide information on demographic and economic characteristics of the population such as age sex distribution, marital status, fertility, mortality, literacy, and employment incomes.**

- **To derive information on socio-economic conditions of villages including infrastructure and access to facilities.**

- To establish survey taking capability within NIS for the Institute to conduct multi-objective large scale household based survey programmes.

1.2 Scope and coverage of the Survey

The survey objectives described earlier have by and large determined the scope of the survey. In order to effectively meet the primary and secondary objectives, the survey had to be nation wide and provide statistically reliable estimates for the principal characteristics included in the survey for investigation. The multi–objective survey, which was specifically designed to collect information required for measuring living standards and monitoring poverty, was extensive in both subject matter terms and level of detail. The respondent burden which would result in a lowering of the quality of data and the skills background of the field enumerators and supervisors to admit a set of long and detailed questionnaires were

the main considerations that determined the eventual content of the topics canvassed in the CSES 1997.

The survey used four questionnaires, a house listing form, a village questionnaire, a core questionnaire and a social sector module. The questionnaires were prepared after extensive consultations with the users. The draft questionnaires were prepared in January and February 1997 and they were reviewed in March - May and pre-tested. The core questionnaire and the social sector module were canvassed with all of the sampled households and in that sense the CSES1997 is a fully "integrated" multi-objective survey. A novel feature of the survey was the canvassing of a village questionnaire for the 474 sample villages. Information on the economy and infrastructure of the villages, on the facilities of education and health care and associated problems and on prevailing retail prices and wages were topics canvassed through the village questionnaire.

The main or core questionnaire was designed to collect information on demographic characteristics of households, disabilities of members, their economic activities, education and health care, housing conditions, assets and liabilities, household consumption expenditure, and some aspects of fertility and child care. The social sector module collected further information on availability and utilization of education and health services, specially on costs of schooling and health care, and on dropouts in education, on mortality rates, on free collection of water, firewood and fodder and on breast-feeding, child immunization and nutrition.

The scope of the survey in terms of population groups was restricted to all private households including one person households. The practical problems involved in surveying persons living in collective living quarters such as military installations, hospitals, prisons, hostels, religious institutions required the exclusion of such institutional population. Further, the extension of the available frame to include these institutional "households" would have been time consuming, and it was strictly not within the time scope of the survey.

The need to extend the geographical scope of the survey to cover rural and urban areas and all the regions of the country to increase the usefulness of a survey canvassing data on consumption and expenditure, economic characteristics of villages and households and on health, education and nutrition was understood. However practical considerations made it essential to use a truncated frame that excluded areas that were considered not safe to undertake field work for security reasons. As a result Preah Vihar and Oddar Meancheay provinces and some communes from 15 other provinces were excluded from the frame and a truncated frame was used in the survey. Phnom Penh, which was treated as a separate domain, had 615 villages and they were entirely covered in the truncated frame. The other urban areas had 834 villages and of them 73 villages had to be excised and the coverage had to be restricted to 91.3 % of the villages. In the rural sector 86.3 % of the villages were covered in the truncated frame used in the survey. Details relating to villages excluded from the survey are shown in Table 1.

Table 1
Number of Villages Excluded from Survey Coverage

S. No.	Prov. Code	Name of Province	Other Urban	Rural	Total
1	01	Banteay Meanchey	18	105	123
2	02	Battambang	-	100	100
3	03	Kampong Cham	-	130	130
4	04	Kampong Chhnang	-	92	92
5	05	Kampong Speu	-	429	429
6	06	Kampong Thom	-	99	99
7	07	Kampot	-	58	58
8	08	Kandal	-	7	7
9	09	Koh Kong	-	21	21
10	10	Kratie	3	26	29
11	13	Prea Vihear *	27	170	197
12	15	Pursat	4	118	122
13	17	Siem Reap	-	90	90
14	19	Stung Treng	-	3	3
15	20	Svay Rieng	-	27	27
16	21	Takeo	-	29	29
17	22	Oddar Meanchey *	21	67	88
		Total	73	1571	1644

* Completely excluded from the frame.

1.3 Topics

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

I. Village level information

1. Demographic Information

a. Total number of households
b. Population by broad age groups
c. Ethnic composition
d. Migration

2. Economy and Infra-structure

a. Income earning activities in order of importance
b. Total area and irrigated area of agricultural lands and paddy lands
c. Village amenities (roads, electricity, piped water supply etc.)

d. Availability of economic services (market, bank, agricultural services etc.)
e. On going development projects

3. Education

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

4. Health and Immunization

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

5. Retail Prices and Wages

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

6. Natural Disasters

a. Number and type

II. Household Information

1. Demographic Characteristics

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

2. Education

a. Literacy
b. Educational attainment
c. Current school attendance
d. Costs of schooling
e. Distance to school

3. Economic Characteristics

a. Usual activity in the past 12 months
b. Current activity – past 7 days
c. Occupation
d. Industry
e. Employment status
f. Number of hours worked
g. Primary and secondary occupations
h. Employment Income

4. Health

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

5. Housing and Environment

a. Area of housing unit/dwelling
b. Year of construction
c. Type of construction material used
d. Source of lighting
e. Distance to and source of drinking water
f. Toilet facilities
g. Fuel used for cooking

6. Household Consumption Expenditure

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

a. Food beverages and tobacco
b. Clothing and foot wear
c. Housing and utilities
d. House furnishing and household operation
e. Medical care
f. Transport and communication
g. Recreation and entertainment
h. Education
i. Personal care and effects
j. Miscellaneous

k. Change in household consumption expenditure

7. Household Assets and Liabilities

a. Area and value of residential lands/buildings by occupancy status.
b. Area and value of farm lands by occupancy status.
c. Livestock owned
d. Consumer durables
e. Capital items owned by households
f. Outstanding loans

8. Fertility, Mortality and Child care

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

9. Household's access to water, firewood, and fodder

1.4 Survey Design

1.4.1 Sampling Frame

The sampling frame used in the Cambodia Socio-Economic Survey 1997 was based on the frame developed for the Socio-Economic Survey of Cambodia 1996. The household surveys conducted by NIS had used the nationwide population data file compiled by the United Nations Transitional Authority in Cambodia (UNTAC) prior to holding the general elections in 1993. The initial list contained data on the total number of households, estimated total population, and population 18 years and over broken down by sex together with information on facilities and amenities in each village. This list was updated incorporating data gathered by several agencies including the Municipality of Phnom Penh, reports obtained from the Ministry of Interior, data collected by the Population Census Project of NIS and information obtained from the UNHCR on re-settlement of refugees. Despite these efforts at updating the frame, it must be recorded that the frame would require substantial revision to make it complete. The lack of data from a recent population census or population registers; frequent revision of village level boundaries; and population mobility as a result of unsettled conditions have all contributed to weaknesses in the current village based data on household population. The conduct of the national population census scheduled for March 1998 will make it possible to compile a reliable frame at least in respect of the areas in which field enumeration can be undertaken and reduce the degree of incompleteness in the frame. Until then there is no alternative but to use the available list of villages together with the

reported number of households compiled from earlier mentioned sources as the sampling frame, which was in fact the frame that was used in three large scale household surveys conducted during the past 5 years.

1.4.2 Sampling Design

The sampling design for the CSES 1997 considered several factors including the precision of data required by the users, the capacity of the national statistics office to conduct the survey, and most importantly the time constraint imposed to complete survey field work before the end of July 1997. Taking into account these factors, and specially the experience gained from the two socio-economic surveys conducted in 1993/94 and 1996, including estimates of feasible work loads, a sample of 6000 households to be selected from 474 villages was considered to be sufficient and manageable.

The design also took into consideration the need for separate analyses of three geographical domains, namely Phnom Penh, other urban areas aggregated together, and the rural area. In deciding the sample allocation to the three domains, it was decided that a size of around 1000 households would be adequate for the first two domains and the rest should be allocated to Domain 3 – Rural area, since it was envisaged that more detailed analysis of the poverty groups in this domain would be undertaken. The final allocation of sample is shown in Table 2.

The design had provided for sampling 10 households from each village in urban villages and 15 households from rural villages. Logistical considerations made it necessary to increase

Table 2
Sample Allocation

Domain	Villages	Households
Phnom Penh	120	1,200
Other Urban	100	1,000
Rural	254	3,810
Cambodia	474	6,010

the cluster size to 15 for rural villages, in order to reduce the number of survey teams sent to the rural areas where travel was more difficult.

The stratification adopted would lead to a reduction of sampling errors. In the design both explicit geographical stratification in the form of the three domains and implicit stratification in the form of ordering the villages by region, province, district and commune before systematic sampling are used.

1.4.3 Sample Selection

First Stage Selection

In the first stage the villages or primary sampling units (PSU's) were drawn from each domain. Within the three domains the villages were arranged by geographic codes with the villages grouped within communes and the communes within districts and districts within the provinces providing for some implicit stratification. The villages that had geographic codes also had the reported number of households based on the frame. The latter was used as the measure of size (MOS) in deriving the cumulated list for sampling. The sample villages were selected using the systematic sampling method with a random start with probability proportional to size method (PPS). The selection of sample villages was carried out through the use of a computer program. The procedure adopted is described below.

The selection probability for village i in domain **h** is given by the formula

$$p_h^{(i)} = a_h M_{hi} / M_h \qquad \text{(Eq.1)}$$

where

a_h = number of villages or PSU's drawn from the domain

M_{hi} = number of households in village i as reported in the frame

$M_h = \sum M_{hi}$

= total number of households in domain as recorded in the frame

The selection of PSU's was performed by arranging the villages in the **h** th domain according to region, province, district and commune and the estimated number of households was used as the measure of size M_{hi} . The values of M_{hi} were then cumulated and Cu M_{hi} was recorded against each PSU. The sampling interval I_{h1} was computed which is given by

$$I_{h1} = M_h / a_h$$

The list of PSU''s was examined to determine if any M_{hi} was greater than or equal to $I_{hi.}$ Such overlarge PSU's which are termed self-representing PSU's which will be certainly selected if allowed to remain as in their normal form, were divided into blocks of equal size, generally below 300 households and each block was treated as a separate PSU. The number of blocks into which the original PSU was divided was recorded.

Linear systematic sampling with a decimal interval was used to select the PSU's. The sampling interval I_{h1} was computed to 3 decimal places and a random number from 1 to

1000xI_{h1} was selected. When the decimal point is placed before its last 3 digits it becomes R. The sequence of sampling numbers were computed as

$$R,\ \ R + I_{h1},\ \ R + 2I_{h1}, R + 3I_{h1}, \ldots\ldots, R + (a_h - 1)\, I_{h1} \quad as$$

specified for the particular stratum. .

The Second Stage Selection

For each selected village (PSU) a field listing was undertaken and let the actual number of households listed in the PSU be M_{hi}^{*},

then the probability of selecting a household in the **i** th PSU in the **h** th domain is

$$p_h^{(j/i)} = n_h / M_{hi}^{*} \qquad \text{(Eq. 2)}$$

where n_h is equal to 10 in domains 1 and 2 and 15 for domain 3. Circular systematic random sampling with a random start was used to select households. The sampling interval would be equal to the current estimate of households in the PSU ascertained through the listing operation divided by 10 in the urban domains and 15 in the rural domain..

1.4.4 Design Weights

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

The probability of selection of **j** th household in normal size PSU's and blocks in the **h** th domain is

$$p_h^{(i)} \times p_h^{(j/i)} = p_h^{(ij)} \qquad \text{(Eq. 3)}$$

where $p_h^{(i)} = a_h M_{hi} / M_h$

and $p_h^{(j/i)} = n_h / M_{hi}^{*}$

Thus the design weights w_{hij} for these units are

$$w_{hij} = 1 / p_h^{(ij)}$$

$$= \frac{M_h \times M_{hi}^{*}}{a_h \times M_{hi} \times n_h} \qquad \text{(Eq. 4)}$$

For the large PSU's which were segmented, the probability of selection of the $\mathbf{j_{th}}$ household in the $\mathbf{s_{th}}$ segment in the $\mathbf{i_{th}}$ PSU in the $\mathbf{h_{th}}$ domain is

$$p_h^{(i)} \times p_h^{(s/i)} \times p_h^{(j/is)} = p_h^{(isj)} \qquad \text{(Eq. 5)}$$

where $p_h^{(i)} = a_h M_{hi} / M_h$

$$p_h^{(s/i)} = 1 / s_i$$

and $$p_h^{(j/is)} = n_h / M_{his}^{*} \qquad \text{(Eq. 6)}$$

The design weight for such large PSU is

$$w_{hisj} = 1 / p_h^{(isj)}$$

$$= \frac{M_h \times M_{his}^{*} \times s_i}{a_h \times M_{hi} \times n_h} \qquad \text{(Eq. 7)}$$

The design for CSES is not self weighting and therefore it is necessary to compute weight for each PSU, block or segment selected in the sample and these weights have to be used in the estimation procedure.

1.4.5 Estimation Procedure

The design provides for estimators to be computed for the three domains, namely Phnom Penh, Other Urban and rural areas and for Cambodia. These estimates are in respect of the truncated frame used in the survey. However, as in the two preceding surveys estimates for the nation as a whole were also prepared in view of the need expressed for those estimates. The extrapolation procedure used in the estimation for the un-truncated frame is described later.

Most of the estimators that will be computed from the survey will be ratio estimates but frequently estimates of stratum totals are required for use by policy makers and administrators, accordingly estimators of stratum totals were prepared. The estimation procedure for these estimators are set out in the paragraphs that follow.

Estimation Procedure for Household Information

The estimate of the stratum total of a characteristic y is given by the following formula.

$$\hat{Y}_h = \sum_i \sum_j w_{hij}\, y_{hij} \qquad \text{for} \quad i = 1, 2, 3, \ldots\ldots a_h \qquad \text{(Eq. 8)}$$

$$j = 1, 2, 3, \ldots\ldots n_{hi}$$

where

$\hat{Y}_h$ = estimate of characteristic y for stratum h

y_{hij} = any characteristic of household j in sample village i in stratum h

n_{hi} = number of sample households in village i

a_h = number of sample villages in stratum h

$w_{hij} = 1 / f_h$

$f_h = 1 / w_{hij}$

The estimate for the total for all three domains $\hat{Y}$ was computed as the sum of the estimates for each domain viz.

$$\hat{Y} = \sum \hat{Y}_h \qquad h = 1, 2, 3. \qquad \text{(Eq. 9)}$$

Most of the estimators to be computed from the survey are in the form of averages and proportions. In general these estimators are combined ratio estimators which take the form set out below. The estimated stratum mean is a ratio and it is given by

$$r_h = \frac{\hat{Y}_h}{\hat{X}_h} = \frac{\sum_i \sum_j w_{hij}\, y_{hij}}{\sum_i \sum_j w_{hij}\, x_{hij}} \qquad \text{(Eq. 10)}$$

where

y_{hij}, a_h, n_{hi}, w_{hij} are as defined in Eq. 8

$x_{hij} = 1$ for $j = 1, 2, 3, \ldots\ldots n_{hi}$
$i = 1, 2, 3, \ldots\ldots a_h$

The population mean is also a ratio, say r, which was estimated using the following formula.

$$r = \frac{\sum_h \sum_i \sum_j w_{hij}\, y_{hij}}{\sum_h \sum_i \sum_j w_{hij}\, x_{hij}} \qquad \text{(Eq. 11)}$$

where

y_{hij}, a_h, n_{hi}, w_{hij} are as defined in Eq. 8

X_{hij} is as defned in Eq. xx 10

Estimation Procedure for Sector and National Level Estimates

As stated earlier, it was necessary to use a truncated frame that excluded areas where survey field operations could not be undertaken for security considerations. As a result two provinces and a some districts and communes in the provinces that were covered had to be excluded because of the unsettled conditions which prevented survey teams from operating in those areas. It is noted that there is no sound basis according to accepted statistical methodology for providing estimates for Cambodia as a whole or sectoral or regional estimates through household sample surveys or even censuses due to these reasons.

However, in view of the interest of a wide range of users who desire to even have approximate national level estimates, it was decided to prepare estimates for areas and regions excluded in the truncated frame. The procedure developed for the SESC 1993/94 to derive national level estimates was modified for use in this survey and the method adopted is set out in the paragraphs that follow.

Excluded Villages in Partly Covered Provinces.

Estimated totals for the excluded rural or urban villages were derived using the following formula:

$$\hat{Y}_{2h} = \hat{P}_h \, \bar{Y}_h^{*} \qquad \text{(Eq. 12)}$$

where

$$\hat{Y}_h^{*} = \frac{(M_h \, \bar{Y}_h)}{(M_h + P_h)} + \frac{(P_h \, \tilde{\bar{Y}}_h)}{(M_h + P_h)} \qquad \text{(Eq. 13)}$$

= weighted mean for characteristic y for areas in the truncated frame and excluded villages in the partly covered provinces.

$$\hat{\bar{Y}}_h = \frac{\sum_i \sum_j w_{hij} \, y_{hij}}{\sum_i \sum_j w_{hij} \, x_{hij}} \qquad \text{(Eq. 14)}$$

= mean for characteristic y for villages in domain h that are included in the truncated frame

$$\bar{Y}_h' = \sum \frac{P_{hg}}{} \times \bar{y}_{hg}$$

$g \quad P_h$

$=$ weighted mean of characteristic y in the excluded urban or rural villages

$P_{h\,g}$ = number of households based on the frame in province g in the excluded rural/ urban villages.

P_h = total number of households based on the frame in excluded rural/ urban villages

$$\bar{y}_{h\,g} = \frac{\sum_i y_{h\,g\,i}}{a_{h\,g}}$$

$=$ mean of province g in domain h in excluded rural/ urban villages.

$$\bar{y}_{h\,g\,i} = \frac{\sum_j y_{h\,g\,ij}}{\sum_j x_{h\,g\,ij}}$$

$=$ village sample mean

The estimate for characteristic y in the excluded rural and urban villages in the provinces from which villages have been excluded in the truncated frame were estimated by summing up for the domains.

$$\hat{Y}_2 = \sum_h \hat{Y}_{2h} \qquad \text{(Eq. 15)}$$

For Totally Excluded Provinces

The estimate for characteristic y in the excluded urban or rural villages in provinces that were totally excluded in the truncated frame was computed as follows.

$$\hat{Y}_{3h} = \hat{E}_h \times \bar{Y}_h^* \qquad \text{(Eq. 16)}$$

where

E_h = number of households in the excluded urban/ rural villages in totally excluded provinces based on the frame

Extrapolated Estimate for Cambodia

The estimates for the nation as a whole were derived by adding the estimates based on the truncated frame and the extrapolated data for the villages excluded from the frame as set out below.

$$\hat{Y}^{\alpha} = \hat{Y} + \hat{Y}_2 + \hat{Y}_3 \qquad \text{(Eq. 17)}$$

where

$\hat{Y}$ = estimate for villages included in the frame

$\hat{Y}_2$ = estimate for excluded villages in the truncated frame in the partly excluded provinces

$\hat{Y}_3$ = estimate for excluded villages in the truncated frame in totally excluded provinces.

1.4.6 Estimation of Variances and Standard Errors

The computation procedure will be incomplete without establishing the procedure for assessing the precision or reliability of the survey estimates. The variances of the ratio estimates will be of the form

$$\text{var}(r) = \frac{1}{8^2} \sum (1 - f_h)\ (a_h / a_h - 1) \sum (z_{hi}^2 - z_h^2 / a_h) \qquad \text{(Eq. 18)}$$

where

$r = \mathbf{y} / \mathbf{x}$

$\mathbf{y_{hi}} = \sum_j w_{hij}\ y_{hij}$

$x_{hi} = \sum w_{hij}\ x_{hij}$

$$r = \sum_{j}\sum\sum w_{hij}\ y_{hij} \ / \ \sum\sum\sum\ w_{hij}\ x_{hij}$$

$$\hat{x}^2 = X^2 = \left(\sum_{h\ i\ j}\sum\sum w_{hij}\ x_{hij} \right)^2$$

$z_{hi} = y_{hi} - r\, x_{hi}$

a_h = number of sample villages from stratum h

w_{hij} = weight for each individual in the sample household

Variance of Ratio of r_h in Stratum h

The variance of ratio estimate r_h in stratum h is of the form:

$$\text{var}(r_h) = (1 / x_h^2)(1 - f_h)(a_h / a_h - 1) \sum (z_{hi}^2 - z_h^2 / a_h) \qquad \text{(Eq. 19)}$$

where

$$\hat{X}_h = x_h = \sum_{i\ j}\sum w_{hij}\ x_{hij}$$

and f_h, a_h, and z_{hi} are as defined earlier.

Standard Error and Coefficient of Variation

The standard error of a survey estimate provides a measure of how far the survey estimate is likely to vary from the true population value(i.e. parameter) as a result of having collected the data on a sample basis rather through a complete census. The standard error se(r) of a survey estimate is by definition

$$se(r) = var(r)^{1/2}$$

The relative standard error or coefficient of variation (cv), on the other hand provides a measure of the relative variance of a survey estimate; that is the magnitude of the estimated sampling error relative to the magnitude of the estimate itself. The cv that is expressed as a proportional error enables the data user to compare the relative reliability or precision with which different types of survey characteristics have been measured eg. Means versus proportions, where direct comparisons of standard errors are uninformative since the magnitude of the standard error is dependent upon the magnitude of the estimate.

Computationally, the coefficient of variation is calculated as

$$cv(R) = se(r) / r.$$

Computation Details

Stratum Level Estimates

$$\hat{Y}_h = y_h = \sum\sum w_{hij}\, y_{hij}$$

$$\hat{X}_h = x_h = \sum\sum w_{hij}\, x_{hij}$$

Ratio (r_h)

$$r_h = y_h / x_h = \sum\sum w_{hij}\, y_{hij} / \sum\sum w_{hij}\, x_{hij}$$

1.5 Concepts and Definitions

In order to ensure comparability of data, most of the basic concepts and definitions that were developed for the two socio-economic surveys conducted by the National Institute of Statistics in 1993 and 1996 were used in the CSES 1997 to the extent feasible. These surveys had adopted international standard definitions and concepts as recommended by the United Nations with appropriate modifications to suit local conditions.

A detailed explanation of the terms used in the CSES 1997 can be found in the Manual of Instructions for Field Operation. Only selected concepts and definitions are included in the report.

Housing Unit

A housing unit is a structurally separated and independent place of abode. It may have been constructed, built, converted or arranged for human habitation, such as commercial, industrial, and agricultural buildings, or natural and man-made shelters such as caves, boats, abandoned trucks, culverts and similar structures which are used as living quarters.

Household

The household is the basic unit of enumeration and analysis. For the purpose of this survey a household is a social unit consisting of either

a) one person who makes provision for his or her own food or other essentials for living without combining with any other person; or

b) a group of persons living together who make common provision for food or other essentials for living. The persons in a group may pool their incomes and have a common budget to a greater or lesser extent. They may be related or unrelated persons or a combination of both.

Head of Household

The head of household is the adult member of the household who is accepted and recognized by the other household members as head.

Disability

A restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being is defined as disability. It describes functional limitation or activity restriction caused by an impairment. The survey ascertained information by inquiring whether the person had any major problem with his/her body, mind or behavior that limited the persons ability to participate in work, school, or ordinary social life, which is a permanent or long-term condition but not temporary illness.

Illness

For the purpose of this survey, any short-term or long-term health problem such as a sickness, injury, or a pregnancy related problem was defined as illness.

Literacy

Literacy is the ability to read and write a simple message. A person is considered literate if he or she can both read and write a simple message in any language or dialect. A person capable of reading only his own name or numbers, or can read but not writes and vice versa, is not considered literate.

Work

Work is defined as an economic activity that a person does for pay, in cash or in kind, in any establishment, office, farm, private house, or for profit or without pay on a household operated farm or enterprise.

Labor Force or Economically Active Population

The labor force or economically active population refers to persons who contribute or are available to contribute to the production of goods and services in the country. They are either employed or unemployed.

Employed

Employed persons are those who are in the labor force who were reported to be either at work or with a job or business although not at work during the reference week. Persons at work are those who did some work at all, even for an hour, during the reference period (past week). Persons are also considered employed if they are with a job or business even though not at work during the reference period because of temporary illness/injury, vacation or other leave of absence, bad weather, strike/labor disputes or other reason.

Unemployed

Unemployed persons are persons in the labor force who did not work or had no job or business during the reference week but were reported available and actively looking for work. Also, considered as unemployed are persons without job or business who were reported as available for work but were not looking for work because of their belief that no work was available or because of temporary illness/disability, bad weather, pending job application or waiting for job interview.

Occupation

Occupation refers to the type of work, trade or profession performed by the individual during the reference period. If the person is not at work but with a job, occupation refers to the kind of work that the person will be doing when he reports for work.

Principal Occupation

If a person has more than one occupation, the one in which the person spends most of his working time is considered as the principal occupation. If the person is engaged in only one occupation, then that will be his/her principal occupation.

Secondary Occupation

Secondary occupation is any kind of work or job that a person does for pay, profit or family gain in addition to the principal occupation.

Industry or Kind of Economic Activity

Industry or kind of economic activity refers to the nature of work done by the institution or the workplace or enterprise where the person works.

Household Expenditure

Household Expenditure refers to the expenses or disbursements made by the household purely for personal consumption. Durable furniture and equipment (e.g. tables and chairs, cars, motor cycles, and appliances) purchased during the reference period mainly for household use is treated as household consumption. It excludes expenses in relation to farm or business operations, investment ventures, purchase of real property and other disbursements that do not involve personal consumption. Household expenditure consists of the following:

a) Value of food consumed and value of goods/services paid for whether in cash or in credit during the reference period;

b) Value of goods and services received as gifts;

c) Value of goods and services consumed from the output of agricultural and non-agricultural activities of the household;

d) Imputed value of owned/rent free house;

e) Imputed value of goods/services received as fringe benefits from the employer or part of the salaries and wages of employed household members during the reference period which were also consumed during the reference period.

Consumer Durables

Any household items which last for more than a year such as television, radio, refrigerator, bicycle, motor bicycles, car etc. and which are mainly for household use and not for business or other production purposes are defined as consumer durables.

Household assets

Any consumer durables or capital items, which usually last for more than a year, owned by a household and used either for household consumption or business purpose including land and buildings are defined as household assets.

Schooling

The term schooling includes attendance at a kindergarten, primary, lower or upper secondary school, technical or professional school, college or university.

Wages

Wages include remuneration received as cash wages, tips, commissions, piece rate earnings, overtime payments, and imputed value of benefits in kind, such as meals or accommodation provided by the employer.

1.6 Survey Organization

At the commencement of the Project in April 1997, considering the extremely tight time schedule within which the survey programme will have to be designed and implemented and the importance of the survey data from national planning perspectives, Minister of Planning approved the appointment of a nuclear staff of senior professionals from the National Institute of Statistics as a Core Group to work with the Project staff. The members of the core group were identified to cover essential aspects of survey planning and design, survey implementation and coordination, and survey processing so that the counterpart staff could work with the Project expert staff to immediately operationalise the survey and also simultaneously receive on the job training in household survey design and implementation. The core group comprised the Deputy Director responsible for industrial and trade statistics, the Deputy Director in charge of agriculture statistics, the bureau chiefs responsible for social statistics, and national accounts and prices and the vice bureau chiefs of the sample survey and data processing bureaus. The Director, National Institute of Statistics functioned as the survey director and reported to the Under Secretary of State, MOP under whom the NIS functioned who was also the National Project Coordinator. The survey director was responsible for the management and supervision of NIS staff as well as the staff engaged

from the Ministry of Planning and provincial planning and statistics departments who worked on the survey as enumerators and supervisors.

The Senior Statistics Adviser of the Project provided technical direction and overall guidance in the organization and implementation of the survey including preparation of cost estimates, survey design, preparation and review of survey implementation plan, review of survey instruments, as well as in the establishment of the survey project office and processing centre and in the preparation of tabulation plan and the survey report. The project consultants and experts recruited for the survey were responsible for the sampling design, preparation and review of survey instruments, design systems and programs for data processing, technical training of field staff and survey processing staff, technical supervision of all aspects of the survey, preparation of tabulation plan, extraction of tables, data validation and preparation of survey report.

The core group in collaboration with the project expert staff took all major decisions relating to the survey. The Under Secretary of State, MOP responsible for NIS was available for consultation and assistance to resolve administrative issues. As the survey activities gathered momentum, additional staff was co-opted, as required for the different survey activities. Recognizing the importance of provincial staff for the successful implementation of field data collection operations especially in the local context, the staff of provincial statistics bureaus were identified on a need basis which depended on the sample selected from the province. NIS was under pressure to assign both NIS personnel and staff of provincial statistics bureaus to two on-going projects having responsibilities for the population census scheduled for March 1998 and data collection for national accounts compilation, and NIS was unable to allocate an adequate number of trained staff for field operations and the staff of the MOP was co-opted for survey enumeration. Although staff was trained for survey enumeration, their inadequate experience and skills in surveys affected data quality and data editing and cleaning became more complex in a survey, which used an integrated set of long questionnaires. One of the most important and valuable results of the survey from a capacity building point of view is the exposure and hands on experience gained by statistical staff at all levels in several aspects of designing and conducting large scale multi-objective surveys.

1.7 Field Operations

The need to complete survey field operations before the end of July 1997 and release the NIS and provincial statistical staff was a major critical factor which determined many of the decisions relating to the timing and scheduling of survey operations. The population census project financed by UNFPA had scheduled the training of field staff to commence in July 1997. The census project was keen to have the services of all senior and middle level staff of NIS and provincial statistics bureaus.

The security situation has by and large determined the organization of fieldwork in household surveys conducted in Cambodia. As often attempted elsewhere in the conduct of field work on large scale surveys, deployment of centrally trained teams of enumerators with supervisory staff in motor vehicles is not a feasible option at the present time primarily because of security and logistical issues including the safety of personnel and transport. Alternatively, provincial staffs who are familiar with local conditions, along with staff from NIS are assigned to work as teams arranging private transport on their own. Majority of enumerators use their own motor bicycles and others procure them from their friends and relatives. The provision of incentive allowances to meet the cost of travel and subsistence has made this arrangement to be operationally satisfactory and cost effective.

Accurate assessment of staff requirements, and staff deployment on the basis of work load assessments and careful monitoring and co-ordinatory arrangements that were instituted made it possible to conclude field work by the end of June 1997 and thus meeting the target date for this critical activity. In retrospect the decision imposed to finalise fieldwork before July 1997 turned out to be something benevolent and a good fortune. The events and incidents that erupted in early July 1997 would have certainly prevented the conduct of field work in many areas and in addition resulted in the misplacement and loss of completed survey documents where field work had been completed by that time.

Field Test of Survey Instruments

Before finalizing the survey instruments, two pre-tests of listing form, village, core and module questionnaires and instructions for field operation were conducted in Kampong Speu Province and in Phnom Penh Municipality on 5th and 6th May 1997 by the staff of the National Institute of Statistics. A team comprising ten enumerators and two supervisors were selected and trained to conduct these tests and they functioned in two groups. In the selected villages households were randomly selected and interviewed. The Project staff, senior staff of NIS, and the Under Secretary of State, Ministry of Planning participated and observed the conduct of these interviews. The tests were useful in identifying a number of deficiencies in the questionnaires as well as in the enumerator's instructions manual. The survey instruments were modified on the basis of these tests, and these modifications related to the wording of questions, space provided for responses, recording of totals, recording of animal sign according to the Cambodian calendar to improve age data, changes in skip instructions, changes in response categories and codes among other changes made to finalize the questionnaires.

1.7.1 Training of Field Staff

CSES 97 is the first multi-objective national survey, which attempted to collect data on a wide range of socio-economic issues using a set of long questionnaires. The questionnaire was in four parts, Listing sheet, Village questionnaire, Core questionnaire and Social sector module. To completely fill the set of questionnaires, an interviewer had to

admit 8 questions included in the listing form, 212 questions in the village questionnaire, and 192 questions included in the Core questionnaire, and 134 questions in the social sector module. A village questionnaire has not been admitted in the household surveys conducted earlier in Cambodia. The pretests had shown that a household interview would take one to two hours to obtain a complete and satisfactory response from the household. This relative complexity of the data collection task through household interviews was known and they were taken into account in planning and implementing a training program for enumerators and supervisors. However, time constraints already referred to, made it infeasible to extend the training duration and training schedule, although the need to do so was apparent.

The core group of NIS senior staff and other staff who participated in the pretest had been actively involved in the survey design and in the preparation of survey instruments and they had also been trained to conduct the pretest. They had participated in drafting, reviewing and translating the field operations manual into Khmer. These officers assisted in training enumerators and supervisors taking on the dual role of resource person and interpreter.

NIS had two other ongoing activities referred to earlier, which were being conducted concurrently and it was unable to release its full complement of staff and could detail only 65 officers for the survey. Staff of provincial statistical bureaus was identified on a need basis that depended on the sample selected for the province even here the staff requirements for census mapping program reduced the staff that can be released from the provincial statistics bureaus. These limiting factors made it necessary to engage 67 officers of the Ministry of Planning for field work. In all 211 staff were deployed on field operations including 156 enumerators, 48 supervisors and 7 coordinators. Supervisors was selected on the basis of their seniority, aptitude and experience of having conducted supervisory work in previous surveys. They were trained in two batches in order to complete training by the end of May 1997. The first batch of 118 staff was trained for six days from 19th to 24th May 1997 and the second batch comprised 97 staffs who were trained from 28th May to 3rd June 1997.

The training program was started on 19th May through an opening ceremony presided over by the Minister of Planning, and attended by Under Secretary of State of Planning, Deputy Resident, Representative, UNDP among others. The Minister of Planning and also the other speakers emphasized the importance of CSES 1997 and exhorted the staff to do their best to collect complete and high quality information from respondents. The Minister of Planning gave a similar address to the outgoing participants of the second training program. The opening ceremony was televised and reported by Cambodian radio. A press release explaining the aims and objectives of the survey and seeking the cooperation from the public in general and from leaders and representative of the village was issued from the Ministry of Planning.

The project expert staff conducted training with the assistance of NIS core group members. The training was conducted in English and Khmer. The aims and objectives of the survey, scope and coverage, and broad features of the sampling design were described. The

different questionnaires were taken up and explained in detail. The training was conducted more as a seminar where participants raised questions and sought clarifications relating to both the questions included in the questionnaires and explanatory notes provided in the manual of instructions. These training sessions had highlighted several issues in the survey instruments and in the process the manual got clarified and expanded. A role playing exercise was not attempted because the training had to be restricted to six days to cover four questionnaires and also explaining the systematic sampling procedures which enumerators and supervisors had to adopt in the field. The questions were directed at the enumerators to elicit responses from them to test whether the trainees had really understood the concepts, definitions and procedures to be followed by them in the field, and know the extent of the information and knowledge they were able to acquire specially on complex questions and topics and skip patterns, such as those that were included in the village and core questionnaires. Further, the participants were given test data to work out exercises for the selection of sample households based on systematic sampling procedures explained to them.

A special effort was required in explaining some topics such as those on economic activity which involved a number of deep and complex concepts on gainful work, employment, and income questions; health problems and treatment used and the amount spent on hospitalization and treatment; and the collection of data on household expenditures where expenditure had been aggregated to a limited number of questions.

In order to ensure that the training imparted will still be fresh in their mind they were deployed on fieldwork immediately after the conclusion of training. In most instances, the fieldwork commenced on the second or third day after the training ended.

1.7.2 Data Collection

Each interviewer was assigned selected villages based on the sampling procedure. In order to complete the data collection activity within the planned time frame, each enumerator was assigned about 30/ 45 households in three or four villages. The questionnaires were filled by the method of personal interview.

A pre-listing of households was undertaken by the enumerator to generate the current list of households, which was essential to select the sample households based on the systematic sampling procedure. In addition to preparing a current list of buildings, housing units and households certain additional information such as the number of household members, principal economic activity of the household was also collected.

After the selection of sample households, the selected households were revisited to interview one or more responsible members of the household to fill in the core and social sector questionnaires. Before or after the household interviews, the enumerator interviewed the head of the village and other key informants to canvass information for the village questionnaire.

The field control procedures provided for the supervisors to inspect and make on the spot checks while the interview was being conducted and they were also required to re-interview a sub-sample of the households already interviewed by the enumerators under his supervision. To ensure effective supervision through inspections and re-interviews, adequate funds were allocated for the payment of honoraria to supervisors for their supervisory duties. Some of the core group staff functioned as area coordinators and they were in over all charge of supervision as well as the coordination of the areas assigned to them. There was also a visit of the Minister of Planning and the Under Secretary of State MOP, Project Staff and Senior NIS Staff in Mid June 1997 to encourage the field staff and to study the operational issues and problems encountered in field work.

Despite the length of the questionnaire, the respondents had cooperated with the survey staff and provided answers to both questionnaires and it was possible to achieve a 100% response rate. At this stage it is not possible to comment on item non-response, and completeness of information provided by the respondents, and the respondent's fatigue arising from the length of the interviews which may have had a bearing on these issues.

1.7.3 Data Processing

1.7.3.1 Manual Processing

All completed questionnaires were brought to NIS for processing. Although completed questionnaires were checked and edited by supervisors in the field, specially because of the length of questionnaires and the complexity of the topics covered the need for manual editing and coding by trained staff was accepted as an essential priority activity to produce a cleaned data file without delay. In all 39 staff comprising 35 processing staff and 4 supervisors were trained for three days by the project staff. An instruction manual for manual editing and coding was prepared and translated into Khmer for the guidance of processing staff. Manual processing of questionnaires commenced in mid August 1997.

In order to produce an unedited data file, keying in the data as recorded by field enumerators and supervisors, (without subjecting data to manual edit as required by the Analysis Component Project staff), it was necessary to structure manual editing as a two-phase operation. Thus in the first phase, the processing staff coded the questions such as those on migration, industry, and occupation which required coding. Editing was restricted to selected structural edits and some error corrections. These edits were restricted to checking the completeness and consistency of responses, legibility, and totaling of selected questions. Error corrections were made without canceling or obliterating the original entry made by the enumerator, by inserting the correction close to the original entry.

Much of the manual editing was carried out in the second phase, after key entry and one hundred percent verification and extraction of error print outs. A wide range of errors had to be corrected which was expected in view of the complexity of the survey and the skill background of the enumeration and processing staff. The manual edits involved the

correction of errors arising from incorrect key entry, in-correct/ failure to include identification, miss-coding of answers, failure to follow skip patterns, misinterpretation of measures, range errors, and other consistency errors.

1.7.3.2 Computer Data Processing

An in-house survey processing centre was established at the NIS to process the CSES 1997. A net work of 12 PC's with 2 high capacity PC's as servers was installed and NIS staffs were trained to use the network system. The network can be strengthened with additional workstations to process a survey sampling of 15,000 households the proposed sample size for the CSES 1998/99.

Entire data processing was done on microcomputers and data entry and editing was carried out using Integrated Micro-Computer Processing System(IMPS) package developed by the US Bureau of the Census. Statistical Package for Social Scientists (SPSS) was used to obtain tabulations.

At the end of August 1997, the keyers and verifiers were trained for three days and key entry operations commenced. In all 30 key entry and verification staff and 3 supervisors were trained by the Data Processing Specialist to use the data entry screens prepared using IMPS software.

Four data entry systems were created to input the data from the four questionnaires. The data entry system for the listing form contains one record type with a maximum length of 49. The system for the village questionnaire contains15 record types with a maximum record length of 105. The system designed for the core questionnaire contains 17 record types with a maximum record length of 116. The data entry system designed for the social sector module contains12 card types with a maximum record length of 94. After keying in the data one hundred percent verification was done on all card types. In spite of this safeguard to minimize errors it was found that verifiers had not only failed to detect errors but had introduced errors during verification. The set of consistency edit checks prepared for the survey when applied for a sample of three villages, the error printouts were so voluminous that it was decided to clean the files in stages, selecting a single record, question or a topic at a time. The first computer edit was applied to check the basic structure of the data and to check the skipping patterns. The errors were corrected manually and the data file was updated using IMPS programs. After completing the structural edit, the data file was re-edited for validity of records. Consistency edits were designed to detect responses that appeared to be inconsistent with other responses or in conflict with definitions and processing rules. It was necessary to run several edit checks to clean some data items. For tabulation several sub-master files were created for most data items. The inflation factors that should be assigned to each village were applied to the data at the tabulation stage.

1.8 Limitations of Data

The results presented in this report are based on a sample, and they are subject to sampling errors. Sampling errors in surveys occur as a result of limiting the survey observations to a subset rather than the whole population. These errors are related to the sample size selected and sampling design adopted in the survey. In order to maintain these errors to acceptable levels, the sampling design with the sample allocation described earlier which was considered efficient was adopted. The sampling errors in respect of selected important characteristics will be computed and published in a separate report.

In addition to sampling errors, the estimates are also subject to non-sampling errors that arise in different stages of any survey operation. These include

- errors that are introduced at the preparatory stage
- errors committed during data collection including those committed by interviewers and respondents
- processing errors

The first item includes errors arising from questionnaire design, preparation of definitions and instructions, preparation of table formats etc. The other two categories are clear from the terminology used. The use of trained enumerators and processing staff and careful organization and thorough supervision are essential to control and minimize these errors.

As already referred to, it was possible to obtain responses from all the villages and households that were sampled, and thus it was not necessary to adjust the data for non-response. Thus the bias that is introduced into the estimates as a result of non-response was avoided.

The estimated population values were computed by blowing up sample values and as a consequence the estimates in some tables may not add up to the totals shown in the table due to rounding.

1.9 Survey Report

This report, which gives information on some important topics, is based on data collected from the complete sample of villages and households. As noted earlier, in spite of interruption of work in July 1997, nearly all survey activities were completed on schedule, within a relatively short period of time of 9 months from Project inception. The cleaning of data files and data validation were affected by a paucity of trained staff, who were assigned other duties in two projects. Considering staff availability and the extent of data cleaning involved, the preparation of a preliminary report was accepted as the appropriate method to meet the needs of users who required the data urgently.

For this purpose arrangements were made to clean the data files on essential topics and extract tables and prepare this report. In the report data and estimates on selected topics

are presented. In respect of a few key items, estimates based on the truncated frame and the extrapolated estimate for Cambodia covering the areas excluded from the frame were computed using the procedure described in the section on the sampling design. An enlarged version of the report covering the other essential items of data canvassed through the survey as well as the extrapolated estimates for selected items will be published later.

This report of the CSES 1997 was prepared by the staff of the Monitoring Component of the Project assisted by the staff of the National Institute of Statistics. The names of the personnel who worked on the survey in the different stages from survey planning and designing to survey processing and report preparation appear in Appendix 1.

Chapter 2

SURVEY RESULTS

POPULATION CHARACTERISTICS

2.0 Introduction

A brief analysis of the results of the survey is presented in the chapters that follow. The results presented in the report provide estimates at the level of the three domains Phnom Penh, other urban areas, and the rural sector into which the entire geographical area covered by the survey was divided. The survey design has provided for statistically reliable estimates for most characteristics at these levels of stratification. The estimates have been formed by weighting the data from the sample households to provide estimates that relate to all households in each domain. The weighting factors were calculated based on the probabilities of selection for the sample. In addition to the output tables given in this report, a number of other tables were produced when validating data and verifying survey results.

As described earlier, it was necessary to use a truncated frame which excluded two provinces, and districts and communes from several provinces due to disturbed conditions which prevented the survey staff from visiting them for field work. The truncated frame covered 87.3 % of the villages in Cambodia. All villages in Phnom Penh were included in the frame, 8.7 % of villages in other urban areas and 13.7 % villages in the rural sector were excluded from the frame for security considerations. The method described in Paragraph 1.4.5 was used in the computation of extrapolated estimates that provided estimates for the whole country. Where extrapolated estimates are presented they will be described as extrapolated estimates, otherwise the estimates presented in the report are those based on the truncated frame used in the survey. The interpretation of data should be undertaken with caution taking note of the use of a truncated frame, especially in instances where numerical values of estimates rather than proportions and percentages are presented in the tables.

2.1 Population of Cambodia

The extrapolated estimate of the total population of Cambodia including areas that were excluded from the frame amounted to 10.4 million consisting of 4.9 million males and 5.5 million females (52 %). The population of the municipality of Phnom Penh was estimated at 925,000. The extrapolated estimate of the population in other urban centers added to 1,051,000. The total population of the rural sector including areas that were excluded from the frame was 8,392,000. Accordingly, the total urban population was estimated at 1, 977,000 or 19.1 percent of the total population and 80.9 percent of the population were in the rural sector. The survey estimate of the urban rural break down of the population is higher than the rates disclosed in earlier surveys by about 2-3 percent.

2.2 Population Density

The density of population is estimated at 50.2 persons per square kilometres over the country's estimated land area of 181,0325 square kilometres. The density of population in Phnom Penh was 3,465 persons per square kilometres

Table 3
Number of Households and Population by Stratum, Cambodia

Domain	Number of Households	Average Household size	Household Population		
			Both Sexes	Male	Female
Cambodia	2,099,000	4.9	10,368,000	4,933,000	5,436,000
Phnom Penh	179,000	5.2	925,000	41,000	484,000
Other urban	202,000	5.2	1,051,000	490,000	561,000
Rural	1,718,000	4.9	8,392,000	4,001,000	4,391,000

2.3 Households

The extrapolated estimate of the total number of households in Cambodia was 2,098,000. Of this total number 179,000 were in Phnom Penh, 202,000 were in other urban areas and 1,718,000 were in the rural sector. The average household size in Phnom Penh and other urban areas were estimated at 5.2 persons per household. In the rural sector, it was 4.9 persons per household. A comparison of this information on household size with the data from SESC 1993/94 shows that the number of households has increased by 338,000 during the past four years. Population growth during the past four years and decline in household size have contributed to this 19 % increase in the number of households. In Phnom Penh and other urban areas the average household size has declined from an estimated 5.9 persons per household in 1993 to 5.2 persons per household in 1997. The corresponding decline in the rural sector during the same period was from 5.5 to 4.9 persons.

The distribution of households by household size (Table 4) shows that less than 2 percent of the households in both urban and rural sectors were single person households. Similarly, the percentage of households which has ten or more members amounted to 1.8 percent for Cambodia and 2.2 to 2.3 percent in Phnom Penh and other urban centers. The share of large size households in the rural sector was even smaller and amounted to only 1.7 percent.

The percentage of large households with seven or more members in Cambodia has amounted to 22.3 percent. This percentage was slightly higher for Phnom Penh amounting to 23.9 percent. Table 4 also shows that more than half of all households in Cambodia had 3, 4 or 5 household members. The percentage share of households with 3, 4 or 5 persons was similar in both urban and rural areas amounting to 53 % in both sectors.

Table 4

Percentage Distribution of Male and Female Headed Households

by Household Size and Stratum, Cambodia 1997

Cambodia

No of Members	Both Genders Percent	Male-Headed Households Percent	Female-Headed Households Percent
Total	100.00	100.00	100.00
1	1.79	0.32	6.60
2	8.34	5.15	18.71
3	16.35	14.83	21.32
4	18.89	18.83	19.10
5	17.80	18.70	14.86
6	14.53	16.10	9.39
7	10.57	12.08	5.62
8	6.89	8.25	2.48
9	3.03	3.61	1.13
10+	1.81	2.13	0.79

Phnom Penh

Total	100.00	100.00	100.00
1	1.69	0.36	4.92
2	5.50	3.79	9.65
3	13.95	11.78	19.21
4	17.55	16.26	20.70
5	21.95	22.72	20.08
6	15.50	17.96	9.52
7	11.14	12.17	8.64
8	6.35	7.42	3.76
9	4.17	5.09	1.92
10+	2.20	2.46	1.59

Other Urban			
Total	100.00	100.00	100.00
1	1.30	0.36	4.09
2	6.69	3.79	15.35
3	12.37	10.87	16.84
4	18.87	18.28	20.64
5	18.89	20.09	15.28
6	17.09	17.67	15.35
7	10.89	12.43	6.28
8	8.40	10.16	3.13
9	3.16	3.78	1.30
10+	2.36	2.56	1.75
Rural			
Total	100.00	100.00	100.00
1	1.86	0.31	7.20
2	8.88	5.47	20.56
3	17.14	15.64	22.27
4	19.05	19.17	18.64
5	17.17	18.10	14.00
6	14.09	15.71	8.54
7	10.46	12.03	5.07
8	6.77	8.10	2.19
9	2.88	3.43	0.99
10+	1.70	2.04	0.54

In terms of the number of related persons living together in the same unit, it appears that the age structure of the household has changed during the inter-survey period. A comparison of the household size distributions of SESC 1993/94 with that of CSES 1997 and the decline in the relative shares of cohorts of children in the ages 0 - 4, 5 - 9, and 10 - 14 years confirm this position. It is evident that the movement is towards the formation of nuclear family units resulting in a decline in household size. The reported large increase in households would have necessarily caused an increase in the investments on housing infrastructure and investment in household durables and equipment. The changes in the household consumption pattern was picked up through the survey, but investment on capital assets including housing have not been investigated. There is evidence that ownership of household durables has increased (a comparison with SESC 1993/94). It will be possible to examine the changes in the consumption pattern and expenditures on non-food items to see the effect of household formation on living standards.

2.4 Female Headed Households

CSES 1997 has revealed that females headed 23.5 percent of all households. In Phnom Penh, the percentage was even higher with 29.2 percent and in other urban centers 25.0 percent were female headed and in the rural sector the percentage of female headed

households amounted to 22.6%. The proportion of female headed households disclosed through CSES1997 is higher than the figure reported by the SESC 1993/94 where the percentage for Cambodia was estimated to be 21.2 percent, with 25.8 percent in Phnom Penh, and 20.4 percent in the rural sector. The household surveys conducted recently have consistently disclosed the prevalence of these high rates.

The households headed by females had fewer family members. Table 4. Nearly 7% were single person households and a further 40% had only one or two family members in addition to the female head of household. Thus, 47% or about one half of all female headed households had one to three household members, whereas there were only 20% of such male headed households.

The age distribution of female household heads shows that 12.5% or one in eight female-headed households were headed by females below 35 years. Table 5. A further 22% of female household heads were between 35 to 44 years. About 45% female heads of households were over 50 years of age. Female headship is an indicator that focuses on effect of wars and strife on family responsibilities. Information on this condition is of special interest for planning social development and the survey data could provide several cross-tabulations which would delineate the socio - economic characteristics of female headed households.

Table 5

Percentage Distribution of Female Headed Households by Age and Stratum, Cambodia -1997

Age Group	Cambodia	Phnom Penh	Other Urban	Rural
All Ages	100.00	100.00	100.00	100.00
10 – 14	0.10	-	-	0.13
15 – 19	0.46	-	-	0.60
20 – 24	1.16	1.22	1.01	1.17
25 – 29	4.52	3.10	2.32	5.05
30 – 34	6.20	5.50	6.93	6.21
35 – 39	9.76	9.61	9.31	9.85
40 – 44	11.93	12.77	14.01	11.51
45 – 49	12.63	16.80	12.76	11.98
50 – 54	14.95	14.56	12.88	15.30
55 – 59	11.99	10.73	12.94	12.05
60 – 64	9.86	13.04	13.16	8.91
65 – 69	8.92	6.32	8.26	9.40
70 – 74	5.30	3.13	3.58	5.87
75+	2.22	3.23	2.85	1.98

2.5 Sex Ratio

The survey has confirmed that there were more females than males in both urban and rural sectors, Cambodian population is made up of 47.6 % males and 52.4 % females. Percentage of females was slightly higher in other urban areas rising to 53.4 percent.

The sex composition of a population refers to the distribution of people according to sex, and it is numerically measured by **sex ratio** that is defined as the number of males per 100 females in the population. Estimated sex ratio for Cambodia in the truncated frame was 90.7. It was slightly higher in Phnom Penh at 91.3 and it had dipped to 87.3 in other urban areas. Sex ratio for children in the age group (0-14) as indicated in Table 6 is 103.9 confirming that more male births had occurred and survived up to the age level. Beyond this age group were persons who were born prior to 1980, during the period of civil wars, and higher male mortality levels among those persons have reduced their sex ratios. In the age group of 15 – 49 years the sex ratio is 85.9. In this age group there are significant proportions of never married and widowed females. In the next higher age group 50-64 years too, there are more females than males. Thus in the 15 – 64 age group which is accepted as the economically active age group, females outnumber males and the burden of household responsibilities disproportionately falls on females.

Table 6
Sex Ratio by Broad Age Group

Age group	Male	Female	Sex Ratio
00 –14	1,893,961	1,822,466	103.9
15 –49	2,082,536	2,425,128	85.9
50 –59	227,445	329,489	69.0
60 +	242,328	323,805	74.8
All Ages	4,446,269	4,900,888	90.7

The pattern of higher male mortality has changed recently. The better survival chances of males have contributed to the rise in the sex ratio. The age specific sex ratios shown in Table 7 demonstrates the decline in the sex ratio from more than 100 to around 95 in the age group 15-19, and its gradual decline to around 65 for the cohort 40 to 44 years confirming that more young adult males had died during the period of upheaval from 1970 to 1979.

Table 7
Sex Ratios by Age Group and Stratum 1997

Age Group	Cambodia	Phnom Penh	Other Urban	Rural
All Ages	90.7	91.3	87.3	91.1
00 - 04	104.6	95.1	92.2	107.2
05 - 09	98.7	105.9	94.5	98.5
10 - 14	109.1	106.3	96.9	111.2

15 - 19	96.8	103.0	92.6	96.6
20 - 24	80.8	90.6	81.0	79.7
25 - 29	90.8	93.2	84.2	91.4
30 - 34	89.9	90.0	91.5	89.6
35 - 39	85.0	85.2	95.9	83.6
40 - 44	67.0	64.2	72.9	66.6
45 - 49	72.8	83.1	72.1	71.0
50 - 54	58.7	80.2	76.6	53.7
55 - 59	82.4	89.5	80.2	81.8
60 - 64	80.1	64.3	60.8	85.1
65+	72.8	61.3	61.9	75.8

The sex ratio then increases before it again declines to about 70 for persons aged 65 years and over. In respect of children and young adults the sex ratios in other urban areas are lower than those of the rural sector. The highest age specific sex ratio of 111.2 was recorded for the age group 0 - 14 years in the rural sector and the highest value of 107.2 was also recorded in the same sector for the age group 0 – 4 years.

2.6 Age Structure

Age structure of a population refers to the pattern of distribution of people in different age categories which is determined by past trends in fertility, mortality and migration.. The age structure of the Cambodian population is available only from some recent surveys, all of which were conducted after 1993. Historical data on the age distribution are not available from earlier sources and therefore it is not possible to review the changes in the age structure. The household surveys conducted during the past 5 years indicate that the population of infants and children has been under-estimated. In view of this position special care was taken in canvassing age data and the enumerators were advised on the difficulties of collecting accurate information and the Cambodian calendar was also used to assist in eliciting the ages of persons who were not certain of their year of birth.

A classification of the population into broad age groups of childhood ages of 0 – 14 years, working ages 15 – 64 years and old ages 65 years and over is useful in examining the age structure. The proportion in the childhood ages amount to 40% and this percentage was lower in Phnom Penh (34.3%) Table 8. In developing countries experiencing high birth rates and declining death rates children under 15 years constitute about 40% of the population, whereas in developed countries this percentage ranges between 20% to 30 %. The proportion in the working age group 15 – 64 years was estimated at 56% in rural areas and other urban areas but it was higher in Phnom Penh(62%). The old ages 65 years and over constituted 4% of the total population.

Table 8

Population by Broad Age Group and Stratum , Cambodia.

Age Group	Cambodia	%	Phnom Penh	%	Other Urban	%	Rural	%
0-14	3,716,427	39.76	316,870	34.25	403,806	40.37	2,995,751	40.37
15-64	5,262,467	56.30	576,381	62.29	558,695	55.85	4127,390	55.61
65+	368,263	3.94	32,039	3.46	37,767	3.78	298,457	4.02
All Ages	**9,347,157**	**100.00**	**925,290**	**100.00**	**1,000,268**	**100.00**	**7,421,598**	**100.00**

The survey has reported that the percentage of infants and young children in the age group 0 - 04 is 11.2 % and the percentages for male and females were 12.1% and 10.5 % respectively Table 8. The share of the next age group of 05 - 09 years was higher amounting to 14.7 %. The proportion in the next age group 10 - 14 years was 13.9 %. The total population of infants and children of school going age in the age group 0 –14 years comprised nearly 40 percent of the total population. The proportion of male children was higher in these groups, the percentages were 42.6% males and 37.3% females.

In the 4 household surveys conducted during the past 5 years, the share of the age group 0- 4 years in total population has varied between 12. 2% and 13.4%. All 4 surveys have reported a higher proportion for the next higher age group 05 – 09 years which percentage had varied between 14.6% and 15.5 %. Further, these surveys have estimated the proportion falling in the age group 10-14 years was also higher than that of the age group 0 – 4 years. This under-estimation of infants and young children could be due to an omission of young children during survey enumeration, a result of an over estimation of their ages or through a decline in fertility. It is more likely that all these issues would have had their combined effect, which resulted in a lowering of the estimates that were disclosed through these surveys.

Table 9 shows that the relative share of each next higher 5 year age cohort has continued to decline beyond the age group 5 – 9 years, the only exception to this trend being the age group 20 – 24 years. The persons currently aged 20 – 24 were those who were born during the period of the upheaval from 1975 to 1979 and as expected the cohorts which are both above and below this cohort are larger in size.

As in most developing countries, the Cambodian age pyramids are of the expanding type which are broad at the base, tapering gradually towards the top. High fertility rates and declining death rates have resulted in the pyramid taking this shape. The shape of the pyramid has changed from a more broad based shape to a less broad based one with the decline in the shares of 0 - 4, 5 – 9, and 10 – 14 age groups.

Table 9

Percentage Distribution of Household Population by Age, Sex and Stratum, Cambodia 1997

Age Group	Cambodia			Phnom Penh			Other Urban			Rural		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
00 – 04 Years	11.2	12.1	10.5	8.3	8.5	8.1	11.1	11.4	10.8	11.6	12.6	10.7
0	1.7	2	1.4	0.7	0.7	0.6	1.6	2	1.3	1.8	2.2	1.5
1	2.1	2.3	2	1.6	1.8	1.4	2.1	2.1	2.1	2.2	2.4	2.1
2	1.7	1.9	1.6	1.6	1.5	1.6	2.1	1.9	2.3	1.7	2	1.5
3	2.9	2.8	3	2.3	2.8	1.9	2.6	2.4	2.7	3	2.9	3.2
4	2.7	3	2.5	2.1	1.7	2.6	2.7	3	2.5	2.8	3.1	2.5
05 – 09 Years	14.6	15.3	14.1	12	13	11.2	15.6	16.2	15	14.9	15.5	14.3
5	2.9	3.1	2.7	1.7	1.8	1.7	2.7	3.2	2.3	3.1	3.3	2.9
6	3.2	3.3	3.1	2.5	2.9	2.2	3.6	3.8	3.3	3.2	3.3	3.2
7	3.1	3.2	3.1	2.8	3.1	2.5	3.5	3.4	3.6	3.1	3.1	3.1
8	2.8	2.9	2.7	2.6	2.7	2.5	2.8	2.6	2.9	2.8	2.9	2.7
9	2.6	2.8	2.4	2.4	2.6	2.2	3	3.2	2.8	2.6	2.8	2.4
10 – 14 Years	13.9	15.2	12.7	13.9	15	12.9	13.7	14.5	13.1	13.9	15.4	12.6
10	3.2	3.4	3	2.9	3.1	2.8	3.2	3.2	3.1	3.2	3.5	3
11	2.3	2.5	2.1	2.5	2.8	2.2	2.2	2.3	2.1	2.3	2.5	2.1
12	3.1	3.3	3	3	3.2	2.9	3.2	3.7	2.9	3.2	3.3	3.1
13	2.8	3.1	2.4	2.7	3.2	2.3	2.8	3.3	2.3	2.8	3.1	2.5
14	2.5	2.8	2.2	2.7	2.8	2.7	2.3	2	2.6	2.5	2.9	2
15 – 19 Years	11.8	12.2	11.4	12.6	13.5	11.9	11.5	11.9	11.2	11.7	12.1	11.4
15	2.8	3	2.7	3.3	3.8	2.8	2.9	3.2	2.7	2.8	2.8	2.7
16	2.5	2.7	2.4	2.9	2.8	3	2.8	2.8	2.8	2.4	2.6	2.3
17	2.5	2.6	2.3	3.2	3.3	3.1	2.2	2.5	2	2.4	2.6	2.3
18	2.5	2.4	2.6	2.2	2.5	2	2.3	2.1	2.5	2.6	2.5	2.7
19	1.4	1.5	1.4	1.1	1.1	1	1.3	1.3	1.3	1.5	1.5	1.4
20 – 24 Years	6.8	6.4	7.2	6.4	6.3	6.4	6.3	6.1	6.5	7	6.5	7.4
20	1.4	1.1	1.7	1.2	1.2	1.1	1.2	1.1	1.2	1.5	1.1	1.8
21	1.2	1.1	1.3	0.9	0.6	1.1	1	1.2	0.8	1.3	1.2	1.4

Table 9 (Contd.)

Percentage Distribution of Household Population by Age, Sex and Stratum, Cambodia 1997

All Group	Cambodia			Phnom Penh			Other Urban			Rural		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
55 – 59 Years	2.8	2.7	2.9	2.6	2.6	2.6	2.5	2.4	2.6	2.9	2.7	3.0
55	0.7	0.6	0.7	0.8	0.9	0.8	0.6	0.7	0.6	0.6	0.5	0.7
56	0.6	0.6	0.6	0.4	0.4	0.4	0.7	0.6	0.8	0.6	0.7	0.6
57	0.5	0.5	0.5	0.5	0.3	0.6	0.5	0.5	0.4	0.5	0.5	0.5
58	0.6	0.6	0.6	0.6	0.7	0.6	0.5	0.4	0.5	0.6	0.7	0.6
59	0.4	0.3	0.4	0.3	0.2	0.3	0.3	0.2	0.3	0.4	0.3	0.5
60 – 64 Years	2.1	2	2.2	2.4	2	2.9	1.9	1.6	2.2	2.1	2.1	2.1

60	0.5	0.5	0.6	0.7	0.5	0.8	0.3	0.2	0.4	0.5	0.5	0.6
61	0.3	0.3	0.4	0.5	0.5	0.5	0.3	0.2	0.4	0.3	0.3	0.4
62	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
63	0.5	0.4	0.5	0.4	0.2	0.5	0.4	0.3	0.5	0.5	0.5	0.5
64	0.4	0.4	0.4	0.6	0.4	0.7	0.4	0.4	0.5	0.4	0.4	0.3
65 – 69 Years	1.8	1.6	2	1.4	1.4	1.5	1.8	1.4	2.1	1.8	1.6	2
65	0.5	0.4	0.6	0.4	0.3	0.6	0.4	0.2	0.6	0.5	0.4	0.6
66	0.3	0.3	0.4	0.2	0.3	0.2	0.4	0.4	0.4	0.3	0.3	0.4
67	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.5	0.4	0.4	0.4
68	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.3	0.4
69	0.2	0.2	0.3	0.2	0.2	0.1	0.3	0.2	0.3	0.3	0.3	0.3
70 – 74 Years	1.1	1	1.3	1	0.8	1.2	1	1	1	1.2	1	1.4
70	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4
71	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2
72	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.3
73	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
74	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75 – 79 Years	0.6	0.6	0.7	0.6	0.3	0.8	0.6	0.5	0.8	0.6	0.6	0.6
75	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2
76	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0.2	0.1	0.1	0.1
77	0.1	0.1	0.1	0.2	0	0.3	0.1	0.1	0.1	0.1	0.1	0.1
78	0.1	0.1	0.2	0.1	0	0.2	0.2	0.1	0.2	0.1	0.1	0.2
79	0.1	0.1	0.1	0	-	0.1	0	0	0	0.1	0.1	0.1
80 – 84 Years	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2
80	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
81	0	0	0	0	0.1	0	0	0	-	0	0	0.1
82	0	0	0.1	0.1	0.1	0.1	0	-	0	0	0	0.1
83	0.1	0.1	0	0.1	0.1	0.1	0	0	0.1	0.1	0.1	0
84	0	0	0	0	-	0	0.1	0	0.1	0	0	0
85 & Over	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0	0.3	0.2	0.1	0.2

2.7 Disability

CSES 1997 collected data on the type of disability and the cause of disability. A screening question ascertained whether the person had " any major problem with his/her body, mind or behavior that limits his / her participation in work, school or ordinary social life". In all 10 types of disabilities were identified and pre-coded. Similarly 5 possible causes were also pre-coded.

CSES 1997 estimated the disabled population at 203,000 or 2.2% of the total population (truncated frame) of Cambodia. This means that 2.2 out of 100 persons in the population are disabled with one or more types of disability. Of this number 132,000 were males and 71,000 were females. The majority of the disabled numbering 165,000 or 81.5% were in the rural sector. Of the total disabled population 7.7% and 10.8% were in Phnom Penh and other urban areas. Phnom Penh had the lowest incidence of disabled with 15,000 or a rate of 1.7% of the total population Table 10.

Table 10

Disabled Population by Sex and Stratum

	Both Sexes	Male	Female

	Number	%	Number	%	Number	%
Cambodia	203,000	2.2	132,000	3.0	71,000	1.5
Phnom Penh	16,000	1.7	9,000	2.0	7,000	1.4
Other Urban	22,000	2.2	15,000	3.2	7,000	1.4
Rural	165,000	2.2	108,000	3.1	57,000	1.5

Disabled persons prevalence rates are defined as the number of persons identified as disabled in the total population surveyed, divided by the total population surveyed and multiplied by 100,000. Table 11 provides the number of persons per 100,000 population according to type of disability. By type of disability, amputation of one or limbs had the highest prevalence rate of 479. The prevalence rate is even higher among males with 800 amputees per 100,000 of the population. The rate for females is lower at 190, which is less than one–fourth of the rate of males. The breakdown by stratum shows that the prevalence rates for males were 392, 938, and 857 in Phnom Penh, other urban and rural areas. In addition to amputees, persons who were not able to use one or more limbs were treated as a separate category and the prevalence rate for Cambodia was 469 for both sexes. With a

Table 11
Disabled Population by Type of Disability and Stratum, Cambodia

No.	Type of Disability	Both Sexes		Male		Female	
		Disabled Population	Prevalence Rate Per 100,000	Disabled Population	Prevalence Rate Per 100,000	Disabled Population	Prevalence Rate Per 100,000
	Cambodia						
1	Amputation of one or more limbs	44,808	479	35,509	799	9,299	190
2	Unable to use one or more limbs	43,797	469	29,186	656	14,611	298
3	Blind	31,134	333	17,443	392	13,691	279
4	Deaf	8,968	96	5,588	126	3,380	69
5	Mute	6,517	70	2,979	67	3,538	72
6	Mentally disturbed or retarded	17,714	190	10,101	227	7,613	155
7	Permanent disfigurement	10,460	112	6,931	156	3,529	72
8	Paralyzed	4,377	47	2,438	55	1,939	40
9	Deaf and Mute	2,492	27	591	13	1,901	39
10	Other multiple disabilities	6,751	72	3,085	69	3,665	75
11	Other	25,911	277	17,851	401	8,060	164
	Total Number Disabled	202,930	2,171	131,702	2,962	71,228	1,453
	Total Population	9,347,157	100,000	4,446,270	100,000	4,900,887	100,000

	Phnom Penh						
1	Amputation of one or more limbs	2,330	252	1,733	392	597	123
2	Unable to use one or more limbs	3,435	371	2,106	477	1,329	275
3	Blind	1,614	174	1,097	248	516	107
4	Deaf	1,148	124	698	158	449	93
5	Mute	339	37	111	25	229	47
6	Mentally disturbed or retarded	2,362	255	1,527	346	835	173
7	Permanent disfigurement	1,486	161	497	113	989	204
8	Paralyzed	692	75	372	84	320	66
9	Deaf and Mute	565	61	227	51	339	70
10	Other multiple disabilities	837	90	275	62	563	116
11	Other	824	89	308	70	516	107
	Total Number Disabled	15,633	1,690	8,951	2,027	6,682	1,381
	Total Population	925,289	100,000	441,553	100,000	483,736	100,000

Table 11 (Contd.)
Disabled Population by Type of Disability and Stratum, Cambodia

No.	Type of Disability	Both Sexes		Male		Female	
		Disabled Population	Prevalence Rate Per 100,000	Disabled Population	Prevalence Rate Per 100,000	Disabled Population	Prevalence Rate Per 100,000
	Other Urban						
1	Amputation of one or more limbs	5,252	525	4,372	938	880	165
2	Unable to use one or more limbs	3,998	400	2,845	610	1,153	216
3	Blind	3,402	340	2,052	440	1,350	253
4	Deaf	1,412	141	1,082	232	330	62
5	Mute	651	65	462	99	189	35
6	Mentally disturbed or retarded	2,057	206	954	205	1,103	206
7	Permanent disfigurement	973	97	580	124	393	74
8	Paralyzed	689	69	202	43	487	91
9	Other multiple disabilities	729	73	393	84	336	63
10	Other	2,703	270	1,718	369	984	184
	Total Number Disabled	21,866	2,186	14,661	3,145	7,206	1,349
	Total Population	1,000,269	100,000	466,101	100,000	534,169	100,000
	Rural						
1	Amputation of one or more limbs	37226	0.5	29404	0.83	7822	0.2
2	Unable to use one or more limbs	36364	0.49	24235	0.68	12129	0.31
3	Blind	26118	0.35	14294	0.4	11825	0.3

4	Deaf	6408	0.09	3807	0.11	2601	0.07
5	Mute	5526	0.07	2406	0.07	3120	0.08
6	Mentally disturbed or retarded	13296	0.18	7620	0.22	5676	0.15
7	Permanent disfigurement	8001	0.11	5854	0.17	2147	0.06
8	Paralyzed	2996	0.04	1863	0.05	1133	0.03
9	Deaf and Mute	1927	0.03	365	0.01	1562	0.04
10	Other multiple disabilities	5184	0.07	2417	0.07	2767	0.07
11	Other	22384	0.3	15824	0.45	6560	0.17
	Total Number Disabled	165431	2.23	108090	3.05	57340	1.48
	Total Population	7256168	97.77	3430526	96.95	3825642	98.52

Table 12
Disabled Population by Cause of Disability, Cambodia 1997

Cambodia

Cause	Both Sexes	%	Male	%	Female	%
Congenital	50247	24.8	26077	19.8	24170	33.9
Due to war or conflict	25805	12.7	24166	18.4	1639	2.3
Due to land mine explosion	16290	8.0	15097	11.5	1193	1.7
Due to illness/disease	60800	30.0	35702	27.1	25099	35.2
Due to accident	26430	13.0	18061	13.7	8369	11.8
Other	12537	6.2	5805	4.4	6733	9.5
Not stated	10820	5.3	6794	5.2	4026	5.7
All Causes	202930	100.0	131702	100.0	71228	100.0

Phnom Penh

Cause	Both Sexes	%	Male	%	Female	%
Congenital	4798	30.7	2129	23.8	2668	39.9
Due to war or conflict	1815	11.6	1451	16.2	364	5.5
Due to land mine explosion	1048	6.7	709	7.9	339	5.1
Due to illness/disease	3340	21.4	2054	23.0	1286	19.3
Due to accident	2507	16.0	1302	14.6	1205	18.0
Other	706	4.5	503	5.6	203	3.0
Not stated	1418	9.1	802	9.0	616	9.2

All Causes	15633	100.0	8951	100.0	6682	100.0

Table 12 (Contd.)
Disabled Population by Cause of Disability, Cambodia 1997

Other Urban

Cause	Both Sexes	%	Male	%	Female	%
Congenital	2933	13.4	1542	10.5	1391	19.3
Due to war or conflict	3589	16.4	3085	21.0	504	7.0
Due to land mine explosion	2348	10.7	2348	16.0	-	-
Due to illness/disease	6731	30.8	3870	26.4	2861	39.7
Due to accident	3108	14.2	2313	15.8	795	11.0
Other	1879	8.6	558	3.8	1320	18.3
Not stated	1279	5.9	945	6.4	334	4.6
All Causes	21866	100.0	14661	100.0	7206	100.0

Rural

Age Group	Both Sexes	%	Male	%	Female	%
Congenital	42516	25.7	22406	20.7	20110	35.1
Due to war or conflict	20400	12.3	19630	18.2	770	1.3
Due to land mine explosion	12894	7.8	12040	11.1	854	1.5
Due to illness/disease	50730	30.7	29778	27.6	20952	36.5
Due to accident	20815	12.6	14446	13.4	6369	11.1
Other	9953	6.0	4744	4.4	5209	9.1
Not stated	8123	4.9	5047	4.7	3076	5.4
All Causes	165431	100.0	108090	100.0	57340	100.0

prevalence rate of 333 the blind formed the next highest type of disability. In Phnom Penh there were more persons who were mentally disturbed or retarded with a prevalence rate of 255 than amputees and the blind.

The disabled population classified by cause of disability shows that illness or diseases had been the principal cause of disability in Cambodia. This was the principal cause in both urban areas and in the rural sector. But in Phnom Penh, the main causative factor was reported as congenital disability Table 12. Disabilities caused by land mine explosions were reported as 6.7 %, 10.7 %, and 7.8% in Phnom Penh, other urban and rural strata. Proportions disabled
due to war or conflict were higher and the corresponding rates for Phnom Penh, other urban areas and the rural sector were 11.6 %, 16.4 % and 12.3 % respectively.

2.8 Age Dependency

The population in the economically active age groups of 15 – 64 years is customarily accepted as supporting the infants and children who comprise the population 0-14 years of age and the population 65 years old and above who comprise the old and the infirm, the last two groups are denoted as the dependent population. The age dependency ratio is defined as the ratio of the sum of the population below 15 years and population above 65 years taken together, divided by the economically active population between age groups of 15 to 64 years viz.

$$\text{Age Dependency Ratio} = \frac{\text{Population 0-14years + Population 65years and above}}{\text{Population 15 - 64 years old}} \times 100$$

The age dependency ratio is a summary indicator, which indicates the economic burden falling on the economically active component of the total population. Population 0 – 14 years was estimated at 39.8% and the population 65 years and over was 3.9% resulting in a dependency ratio of 77.6% for Cambodia. This means that about 78 young and elderly persons were dependent on every 100 persons in the working age group. The proportion of young persons in Phnom Penh was lower than the national average and this has lowered the dependency ratio of Phnom Penh to 60.5% Table 13. The dependency ratio was higher than the national average in other urban areas and in the rural sector.

Table 13
Age Composition and Dependency Ratio - 1997

Stratum	Population			Dependency Ratio
	Total %	0-14years %	15- 64 years %	65 yrs.&above %	
Cambodia	100.0	39.8	56.3	3.9	77.6
Phnom Penh	100.0	34.3	62.3	3.5	60.5
Other Urban	100.0	40.4	55.8	3.8	79.0
Rural	100.0	40.4	55.6	4.0	79.8

It is useful to decompose the age dependency ratio in to two components namely, a youth dependency ratio and old age dependency ratio as shown below. The old age dependency ratio was estimated at 7.2 % for rural areas and it was lower in Phnom Penh at 5.6% Table 14.

Table 14
Youth and Old Age Dependency Ratios

Dependency Ratio	Cambodia	Phnom Penh	Other Urban	Rural
Total Dependency Ratio	77.6	60.5	79.0	79.8
Youth Dependency Ratio	70.6	55.0	72.3	72.6
Old Age dependency Ratio	7.0	5.5	6.7	7.2

A comparison of the age dependency rates from CSES 1997 with that disclosed by SESC 1993/94 shows that the dependency rates have declined during the inter survey period.

	CSES 97	SESC 1993/94
Cambodia	77.6	91.6
Phnom Penh	60.5	74.5
Other Urban	79.0	89.7
Rural	79.8	92.9

The economically active age group has increased both in numerical terms and as a relative share of the total population (due to the entry of larger sized cohorts born after the

end of the 1970's and through migration) resulting in the observed decline in the dependency ratios.

2.9 Marital Status

The question on marital status elicited information to classify each person into one of the categories of never married, currently married, widowed, divorced or separated. The category currently married included persons who were living together whether or not their marriage had legal status, and the category separated included both legal and de-facto separations.

Although marital status information was collected for all age groups, since children below 15 years are mostly never married, it is useful to examine the conjugal condition of persons 15 years old and over, which data is presented in Table 15 The survey has disclosed that 58.3% of the population 15 years old and above were currently married, 30% were never married and nearly 12% were widowed, divorced or separated. Although the currently married
males and females that amounted to 1,627,000 males and 1,654,000 females respectively were nearly equal in magnitude, in percentage terms the difference is significant with estimates of 63.7% of males and 53.7% of females having been reported as currently married. The marital status distribution patterns in urban and rural areas were broadly similar. The proportion of married males and the proportion of unmarried males were both higher than that of females in all three domains.

Table 15
Percentage Distribution of Population Aged 15 Years and Over
by Marital Status and Stratum, Cambodia

Population 15 years and over by Marital Status by Stratum, Cambodia

Age Group	Total	%	Never Married	%	Currently Married	%	Widowed	%	Divorced	%	Sepa-rated	%	Not Stated	%
Cambodia	5630729	100	1674989	29.75	3280900	58.27	605658	10.76	48295	0.86	10686	0.19	10202	0.18
Male	2552308	100	831818	32.59	1626724	63.74	77726	3.05	9052	0.35	1479	0.06	5508	0.22
Female	3078421	100	843171	27.39	1654176	53.73	527932	17.15	39243	1.27	9206	0.3	4693	0.15
Phnom Penh														
Total	608420	100	206954	34.01	328388	53.97	68852	11.32	2044	0.34	1572	0.26	610	0.1
Male	280502	100	111601	39.79	161493	57.57	6311	2.25	236	0.08	369	0.13	491	0.18
Female	327918	100	95352	29.08	166895	50.9	62540	19.07	1809	0.55	1203	0.37	119	0.04
Other Urban														
Total	596463	100	187369	31.41	339778	56.97	61715	10.35	4344	0.73	161	0.03	3095	0.52
Male	269720	100	93796	34.78	167433	62.08	6400	2.37	595	0.22	-	-	1496	0.55
Female	326743	100	93573	28.64	172346	52.75	55315	16.93	3749	1.15	161	0.05	1599	0.49
Rural														

Total	4425847	100	1280666	28.94	2612734	59.03	475091	10.73	41906	0.95	8954	0.2	6496	0.15
Male	2002086	100	626420	31.29	1297798	64.82	65015	3.25	8221	0.41	1111	0.06	3522	0.18
Female	2423760	100	654246	26.99	1314936	54.25	410076	16.92	33685	1.39	7843	0.32	2975	0.12

Table 16
Widowed, Divorced and Separated Female Population by Age and Stratum, Cambodia

Age	Total Females	Widowed	%	Divorced	%	Separated	%
All Ages	3078421	527932	17.15	39243	1.27	9206	0.3
15 - 19	559412	2342	0.42	1177	0.21	0	0
20 - 24	353947	8195	2.32	3678	1.04	117	0.03
25 - 29	410332	27818	6.78	9736	2.37	1815	0.44
30 - 34	334454	30373	9.08	6555	1.96	747	0.22
35 - 39	309545	36503	11.79	6987	2.26	2473	0.8
40 - 44	247080	43903	17.77	6116	2.48	2493	1.01
45 - 49	210358	55970	26.61	1983	0.94	712	0.34
50 - 54	185552	69181	37.28	1759	0.95	145	0.08
55 - 59	143937	60717	42.18	551	0.38	704	0.49
60 - 64	109044	49649	45.53	701	0.64		
65 - 69	95584	55711	58.28				
70 - 74	63955	44332	69.32				
75+	55222	43239	78.3				

Phnom Penh

Age	Total Females	Widowed	%	Divorced	%	Separated	%
All Ages	327918	62540	19.07	1809	0.55	1203	0.37
15 - 19	57657	500	0.87				
20 - 24	30901	749	2.42	388	1.26	117	0.38
25 - 29	39951	3904	9.77	729	1.82	117	0.29
30 - 34	35266	2960	8.39	577	1.64		
35 - 39	35648	4180	11.73	115	0.32	128	0.36
40 - 44	32945	4402	13.36			112	0.34
45 - 49	29213	8755	29.97			352	1.2
50 - 54	19881	8270	41.6			145	0.73
55 - 59	12749	5491	43.07			231	1.81
60 - 64	13954	8562	61.36				
65 - 69	7203	4927	68.4				
70 - 74	5996	4432	73.92				
75+	6555	5409	82.52				

Other Urban

Age	Total Females	Widowed	%	Divorced	%	Separated	%
All Ages	326743	55315	16.93	3749	1.15	161	0.05
15 - 19	59948	370	0.62	375	0.63		
20 - 24	34978	995	2.84	562	1.61		
25 - 29	43432	1931	4.45	711	1.64		
30 - 34	38341	2159	5.63	381	0.99		
35 - 39	31858	3700	11.61	487	1.53	161	0.51
40 - 44	29046	6402	22.04	524	1.8		
45 - 49	22353	5659	25.32	523	2.34		
50 - 54	17551	6285	35.81		0		
55 - 59	13936	6895	49.48	186	1.33		
60 - 64	11927	6810	57.1		0		
65 - 69	11236	6283	55.92		0		
70 - 74	5228	2781	53.19		0		
75+	6911	5045	73		0		

Rural

Age	Total Females	Widowed	%	Divorced	%	Separated	%
Total	2423760	410076	16.92	33685	1.39	7843	0.32
15 - 19	441806	1472	0.33	802	0.18		
20 - 24	288067	6451	2.24	2728	0.95		
25 – 29	326949	21983	6.72	8296	2.54	1698	0.51934
30 – 34	260847	25253	9.68	5597	2.15	747	0.28637
35 – 39	242039	28623	11.83	6385	2.64	2185	0.90274
40 – 44	185089	33099	17.88	5592	3.02	2380	1.28586
45 – 49	158793	41556	26.17	1460	0.92	360	0.22671
50 – 54	148120	54626	36.88	1759	1.19		
55 – 59	117252	48332	41.22	365	0.31	473	0.40340
60 – 64	83164	34278	41.22	701	0.84		
65 – 69	77145	44501	57.68				
70 – 74	52732	37118	70.39				
75+	41755	32785	78.52				

If marital status is correctly reported in the inquiry, then the number of married males should be nearly equal to the number of married females allowing for some short term separations where one of the spouses is excluded from the household population and grouped under the category of institutional population or is out of the country. Table 15 shows that the number of married males is nearly equal to the number of married females in all strata, confirming that marital status had been correctly reported in the survey.

The survey has also disclosed that there were more widowed females than males. The divorced and separated categories were relatively small, and taken together they account for only about 4% in both urban and rural areas. In these categories too there were more females than males. While the number of males in never married and currently married statuses were nearly equal to the number of females in these groups, there were an estimated 576,000 widowed, divorced or separated females, whereas the number of males in these statuses amounted to only 88,000. This pattern where the proportion of widowed females was higher should be expected in a situation where the country had gone through a long period of wars and internal strife. The data from the survey indicates that higher mortality and possibly higher rates of re-marriages among males were the main factors for the higher incidence of widowhood disclosed through the household surveys.

In the context of high proportions of female-headed households, information on marital status of females is of special interest. The age specific distribution of widowed female population shows that the percentage of widowed females rises rapidly from 2.3% in the age group 20-24 years to 26.6.% in the age group 45 - 49 years Table 16. The percentage of widowed and separated females in childbearing ages 20 - 49 years to the total population in that age group was 13.2% for all strata. In the age groups beyond 50 years the percentage of widowed females increases from 41.6% in the age group 50 – 54 years to 82.5% for females aged 75 years and over.

Table 17 (a)
Population by Five Year Age Group and Sex, Cambodia (Truncated Frame)

	Both Sexes		Male		Female		Sex Ratio
	No.	%	No.	%	No.	%	
All Ages	9,347,156	100.0	4,446,269	100.0	4,900,887	100.0	90.72
00 – 04	1,048,473	11.2	536,275	12.1	512,198	10.5	104.70
05 – 09	1,369,240	14.7	679,978	15.3	689,262	14.1	98.65
10 – 14	1,298,714	13.9	677,708	15.2	621,006	12.7	109.13
15 – 19	1,100,866	11.8	541,454	12.2	559,412	11.4	96.79
20 – 24	639,930	6.9	285,983	6.4	353,947	7.2	80.80
25 – 29	782,929	8.4	372,597	8.4	410,332	8.4	90.80
30 – 34	635,103	6.8	300,649	6.8	334,454	6.8	89.89
35 – 39	572,720	6.1	263,175	5.9	309,545	6.3	85.02
40 – 44	412,672	4.4	165,592	3.7	247,080	5.0	67.02
45 – 49	363,444	3.9	153,086	3.4	210,358	4.3	72.77
50 – 54	294,452	3.2	108,900	2.5	185,552	3.8	58.69
55 – 59	262,482	2.8	118,545	2.7	143,937	2.9	82.36
60 – 64	197,869	2.1	88,825	2.0	109,044	2.2	81.46
65 – 69	165,410	1.8	69,827	1.6	95,584	2.0	73.05
70 – 74	107,193	1.2	43,238	1.0	63,955	1.3	67.61
75+	95,660	1.0	40,438	0.9	55,222	1.1	73.23

Table 17 (b)
Population by Five Year Age Group and Sex - Phnom Penh

	Both Sexes		Male		Female		Sex Ratio
	No.	%		%		%	
All Ages	925,289	100.0	441,553	100.0	483,736	100.0	91.28
00 – 04	76,821	8.3	37,453	8.5	39,368	8.1	95.14
05 – 09	111,353	12.0	57,271	13.0	54,081	11.2	105.90
10 – 14	128,696	13.9	66,327	15.0	62,368	12.9	106.35
15 – 19	117,049	12.7	59,392	13.5	57,657	11.9	103.01
20 – 24	58,900	6.4	27,998	6.3	30,901	6.4	90.61
25 – 29	77,184	8.3	37,233	8.4	39,951	8.3	93.20
30 – 34	67,013	7.2	31,747	7.2	35,266	7.3	90.02
35 – 39	66,030	7.1	30,382	6.9	35,648	7.4	85.23
40 – 44	54,090	5.9	21,145	4.8	32,945	6.8	64.18
45 – 49	53,497	5.8	24,284	5.5	29,213	6.0	83.13
50 – 54	35,823	3.9	15,942	3.6	19,881	4.1	80.19
55 – 59	24,153	2.6	11,404	2.6	12,749	2.6	89.45
60 – 64	22,642	2.5	8,689	2.0	13,954	2.9	62.27
65 – 69	13,165	1.4	5,962	1.4	7,203	1.5	82.77
70 – 74	9,567	1.0	3,571	0.8	5,996	1.2	59.56
75+	9,307	1.0	2,752	0.6	6,555	1.4	41.98

Table 17 (c)
Population by Five Year Age Group and Sex - Other Urban

	Both Sexes		Male		Female		Sex Ratio
	No.	%		%		%	
All Ages	1,000,269	100.0	466,100	100.0	534,169	100.0	87.26
00 – 04	110,850	11.1	53,188	11.4	57,662	10.8	92.24
05 –09	155,601	15.6	75,612	16.2	79,989	15.0	94.53
10 – 14	137,355	13.7	67,580	14.5	69,775	13.1	96.85
15 – 19	115,443	11.5	55,495	11.9	59,948	11.2	92.57
20 – 24	63,328	6.3	28,349	6.1	34,978	6.6	81.05
25 – 29	80,012	8.0	36,580	7.9	43,432	8.1	84.22
30 – 34	73,433	7.3	35,092	7.5	38,341	7.2	91.53
35 – 39	62,401	6.2	30,544	6.6	31,858	6.0	95.88
40 – 44	50,209	5.0	21,164	4.5	29,046	5.4	72.86
45 – 49	38,468	3.9	16,116	3.5	22,353	4.2	72.10
50 – 54	31,002	3.1	13,451	2.9	17,551	3.3	76.64
55 – 59	25,111	2.5	11,176	2.4	13,936	2.6	80.20
60 – 64	19,288	1.9	7,361	1.6	11,927	2.2	61.72
65 – 69	17,667	1.8	6,432	1.4	11,236	2.1	57.24
70 – 74	9,720	1.0	4,492	1.0	5,228	1.0	85.92
75+	10,380	1.0	3,469	0.7	6,911	1.3	50.20

Table 17 (d)
Population by Five Year Age Group and Sex - Rural

	Both Sexes		Male		Female		Sex Ratio
	No.	%		%		%	
All Ages	7,421,598	100.0	3,538,616	100.0	3,882,982	100.0	91.13
00 – 04	860,802	11.6	445,634	12.6	415,168	10.7	107.34
05 – 09	1,102,285	14.9	547,095	15.5	555,191	14.3	98.54
10 – 14	1,032,664	13.9	543,801	15.4	488,863	12.6	111.24
15 – 19	868,374	11.7	426,568	12.1	441,806	11.4	96.55
20 – 24	517,703	7.0	229,636	6.5	288,067	7.4	79.72
25 – 29	625,733	8.4	298,784	8.4	326,949	8.4	91.39
30 – 34	494,657	6.7	233,810	6.6	260,847	6.7	89.63
35 – 39	444,289	6.0	202,249	5.7	242,039	6.2	83.56
40 – 44	308,373	4.2	123,283	3.5	185,089	4.8	66.61
45 – 49	271,478	3.7	112,686	3.2	158,793	4.1	70.96
50 – 54	227,627	3.1	79,506	2.3	148,120	3.8	53.68
55 – 59	213,217	2.9	95,965	2.7	117,252	3.0	81.85
60 – 64	155,939	2.1	72,775	2.1	83,164	2.1	87.51
65 – 69	134,578	1.8	57,433	1.6	77,145	2.0	74.45
70 – 74	87,907	1.2	35,175	1.0	52,732	1.4	66.71
75+	75,972	1.0	34,217	1.0	41,755	1.1	81.95

Table 18
Marital Status by Age, Sex and Stratum, Cambodia

Age Group	Total	%	Never Married	%	Currently Married	%	Widowed	%	Divorced	%	Sepa-rated	%	Not Stated	%
Phnom Penh														
Total	280502	100	111601	39.79	161493	57.57	6311	2.25	236	0.08	369	0.13	491	0.18
15 - 19	59392	100	59204	99.68	187	0.32			-	-	-	-	-	-
20 - 24	27998	100	23837	85.14	3907	13.96			111	0.4	144	0.51	-	-
25 - 29	37233	100	18459	49.58	18411	49.45	118	0.32	-	-	-		245	0.66
30 - 34	31747	100	7189	22.65	24412	76.9	145	0.46	-	-	-	-	-	-
35 - 39	30382	100	2414	7.95	26884	88.49	615	2.03	125	0.41	225	0.74	118	0.39
40 - 44	21145	100	148	0.7	20456	96.74	540	2.55	-	-	-	-	-	-
45 - 49	24284	100	239	0.98	23551	96.98	494	2.03	-	-	-	-	-	-
50 - 54	15942	100	-	-	15205	95.37	610	3.83	-	-	-	-	128	0.8
55 - 59	11404	100	-	-	10937	95.9	467	4.1	-	-	-	-	-	-
60 - 64	8689	100	110	1.27	7696	88.58	882	10.16	-	-	-	-	-	-
65 - 69	5962	100	-	-	4986	83.63	976	16.37	-	-	-	-	-	-
70 - 74	3571	100	-	-	3031	84.89	540	15.11	-	-	-	-	-	-
75+	2752	100	-	-	1829	66.45	924	33.55	-	-	-	-	-	-

Female

Total	327918	100	95352	29.08	166895	50.9	62540	19.07	1809	0.55	1203	0.37	119	0.04
15 - 19	57657	100	54169	93.95	2988	5.18	500	0.87	-	-	-	-	-	-
20 - 24	30901	100	18201	58.9	11447	37.04	749	2.42	388	1.25	117	0.38	-	-
25 - 29	39951	100	10404	26.04	24797	62.07	3904	9.77	729	1.82	117	0.29	-	-
30 - 34	35266	100	5745	16.29	25984	73.68	2960	8.39	577	1.64	-	-	-	-
35 - 39	35648	100	2911	8.17	28314	79.43	4180	11.73	115	0.32	128	0.36	-	-
40 - 44	32945	100	2415	7.33	26015	78.96	4402	13.36	-	-	112	0.34	-	-
45 - 49	29213	100	1358	4.65	18747	64.17	8755	29.97	-	-	352	1.21	-	-
50 - 54	19881	100	148	0.75	11317	56.92	8270	41.6	-	-	145	0.73	-	-
55 - 59	12749	100	-	-	6908	54.18	5491	43.07	-	-	231	1.81	119	0.93
60 - 64	13954	100	-	-	5392	38.64	8562	61.36	-	-	-	-	-	-
65 - 69	7203	100	-	-	2276	31.6	4927	68.4	-	-	-	-	-	-
70 - 74	5996	100	-	-	1564	26.08	4432	73.92	-	-	-	-	-	-
75+	6555	100	-	-	1146	17.49	5409	82.51	-	-	-	-	-	-

Age Group	Total	%	Never Married	%	Currently Married	%	Widowed	%	Divorced	%	Sepa-rated	%	Not Stated	%

Other Urban

Male

Total	269720	100	93796	34.78	167433	62.08	6400	2.37	595	0.22	-	-	1496	0.55
15 - 19	55495	100	54214	97.69	839	1.51	-	-	-	-	-	-	442	0.8
20 - 24	28349	100	22462	79.23	5615	19.81	-	-	-	-	-	-	273	0.96
25 - 29	36580	100	12030	32.89	23577	64.45	465	1.27	-	-	-	-	508	1.39
30 - 34	35092	100	3338	9.51	31318	89.24	163	0.46	273	0.78	-	-	-	-
35 - 39	30544	100	172	0.56	30049	98.38	-	-	323	1.06	-	-	-	-
40 - 44	21164	100	1255	5.93	19720	93.18	189	0.89	-	-	-	-	-	-
45 - 49	16116	100	132	0.82	15358	95.3	353	2.19	-	-	-	-	273	1.69
50 - 54	13451	100	-	-	12670	94.19	781	5.81	-	-	-	-	-	-
55 - 59	11176	100	-	-	10561	94.5	615	5.5	-	-	-	-	-	-
60 - 64	7361	100	193	2.63	6105	82.94	1063	14.44	-	-	-	-	-	-
65 - 69	6432	100	-	-	5586	86.86	845	13.14	-	-	-	-	-	-
70 - 74	4492	100	-	-	4304	95.8	189	4.2	-	-	-	-	-	-
75+	3469	100	-	-	1732	49.93	1737	50.07	-	-	-	-	-	-

Female

Total	326743	100	93573	28.64	172346	52.75	55315	16.93	3749	1.15	161	0.05	1599	0.49
15 - 19	59948	100	54370	90.7	4101	6.84	370	0.62	375	0.63	-	-	731	1.22

20 - 24	34978	100	19627	56.11	13522	38.66	995	2.84	562	1.61	-	-		273	0.78
25 - 29	43432	100	9371	21.58	31419	72.34	1931	4.45	711	1.64	-	-	-	-	
30 - 34	38341	100	4250	11.09	31551	82.29	2159	5.63	381	0.99	-	-	-	-	
35 - 39	31858	100	2530	7.94	24980	78.41	3700	11.61	487	1.53	161	0.5	-	-	
40 - 44	29046	100	1139	3.92	20980	72.23	6402	22.04	524	1.8	-	-	-	-	
45 - 49	22353	100	1255	5.62	14320	64.06	5659	25.32	523	2.34	-	-		595	2.66
50 - 54	17551	100	-	-	11266	64.19	6285	35.81	-	-	-	-	-	-	
55 - 59	13936	100	395	2.84	6460	46.36	6895	49.48	186	1.33	-	-	-	-	
60 - 64	11927	100	163	1.36	4955	41.54	6810	57.1	-	-	-	-	-	-	
65 - 69	11236	100	273	2.43	4679	41.65	6283	55.92	-	-	-	-	-	-	
70 - 74	5228	100	199	3.81	2248	42.99	2781	53.2	-	-	-	-	-	-	
75+	6911	100	-	-	1866	27	5045	73	-	-	-	-	-	-	

Age Group	Total	%	Never Married	%	Currently Married	%	Widowed	%	Divorced	%	Sepa-rated	%	Not Stated	%
Male														
Total	2002086	100	626420	31.29	1297798	64.82	65015	3.25	8221	0.41	1111	0.06	3522	0.18
15 - 19	426568	100	417628	97.9	6894	1.62	342	0.08	-	-	-	-	1704	0.4
20 - 24	229636	100	133733	58.24	92980	40.49	2577	1.12	345	0.15	-	-	-	-
25 - 29	298784	100	58013	19.42	235070	78.68	3787	1.27	1479	0.49	434	0.15	-	-
30 - 34	233810	100	10583	4.53	217294	92.94	2306	0.99	3169	1.36	-	-	457	0.2
35 - 39	202249	100	3066	1.52	194423	96.13	4323	2.14	438	0.22	-	-	-	-
40 - 44	123283	100	1484	1.2	117573	95.37	2223	1.8	1248	1.01	337	0.27	419	0.34
45 - 49	112686	100	309	0.27	107810	95.67	3285	2.91	-	-	340	0.3	942	0.84
50 - 54	79506	100	-	-	74471	93.67	4613	5.8	423	0.53	-	-	-	-
55 - 59	95965	100	504	0.53	90860	94.68	3888	4.05	714	0.74	-	-	-	-
60 - 64	72775	100	-	-	65643	90.2	7133	9.8	-	-	-	-	-	-
65 - 69	57433	100	765	1.33	47203	82.19	9465	16.48	-	-	-	-	-	-
70 - 74	35175	100	334	0.95	26852	76.34	7582	21.55	407	1.16	-	-	-	-
75+	34217	100	-	-	20726	60.57	13491	39.43	-	-	-	-	-	-
Female														
Total	2423760	100	654246	26.99	1314936	54.25	410076	16.92	33685	1.39	7843	0.32	2975	0.12
15 - 19	441806	100	400978	90.76	37717	8.54	1472	0.33	802	0.18	-	-	837	0.19
20 - 24	288067	100	125482	43.56	153039	53.13	6451	2.24	2728	0.95	-	-	368	0.13
25 - 29	326949	100	56726	17.35	237789	72.73	21983	6.72	8296	2.54	1698	0.52	457	0.14
30 - 34	260847	100	28964	11.1	200286	76.78	25253	9.68	5597	2.15	747	0.29	-	-

35 - 39	242039	100	15691	6.48	189157	78.15	28623	11.83	6385	2.64	2185	0.9	-	-		
40 - 44	185089	100	9031	4.88	134094	72.45	33099	17.88	5592	3.02	2380	1.29	894	0.48		
45 - 49	158793	100	9377	5.9	106041	66.78	41556	26.17	1460	0.92	360	0.23	-	-		
50 - 54	148120	100	2682	1.81	89053	60.12	54626	36.88	1759	1.19	-	-	-	-		
55 - 59	117252	100	1342	1.14	66741	56.92	48332	41.22	365	0.31	473	0.4	-	-		
60 - 64	83164	100	1158	1.39	46608	56.04	34278	41.22	701	0.84	-	-	419	0.5		
65 - 69	77145	100	2031	2.63	30614	39.68	44501	57.68	-	-	-	-	-	-		
70 - 74	52732	100	-	-	15613	29.61	37118	70.39	-	-	-	-	-	-		
75+	41755	100	785	1.88	8185	19.6	32785	78.52	-	-	-	-	-	-		

Chapter 3

LITERACY AND EDUCATION

3.0 Literacy

Literacy is the ability to both to read and to write. Data on literacy was collected in respect of all persons aged 5 years and over. The minimum age for schooling had been raised to 6 years, and there is evidence of late entry to schools in the rural areas in particular and it is more meaningful to estimate the literacy level for the population 10 years old and over. Further in order to permit international comparison of literacy data, estimation of the literacy level of the population aged 15 years and over has been recommended and these rates from the survey are set out below.

CSES 97 has disclosed that 68.0 % of the population 10 years old and over were literate and the breakdown by sex and sector is shown in Table 19.

Table 19
Literacy Rates of Persons of Age 10 years and over
by Sex and Stratum, Cambodia 1997

Stratum	Both Sexes %	Male %	Female %
Cambodia	68.0	77.7	59.6
Phnom Penh	83.3	90.3	77.0
Other Urban	73.9	83.7	65.6
Rural	65.2	75.2	56.4

3.1 Adult Literacy Rate

Adult literacy rate is defined as the percentage of population 15 years old and above who can with understanding both read and write a simple message in any language to the total population 15 years and over. Adult literacy was estimated to be 67.8% for Cambodia. Table 20. Literacy rates are highest in Phnom Penh with rates of 90.9%, 74.8% and 82.2% for males, females and for both sexes. When compared with these rates, the rural sector rates were substantially lower and the male, female and both sexes literacy rates were 77.9%, 54.7% and 65.2% respectively. As expected, male rates were higher than female rates in all sectors.

Table 20
Adult Literacy Rates by Sex and Stratum - 1997

Stratum	Both Sexes %	Male %	Female %
Cambodia	67.8	80.0	57.7
Phnom Penh	82.2	90.9	74.8
Other Urban	72.9	84.0	63.7
Rural	65.2	77.9	54.7

Adult literacy rates appear to have increased by approximately 2.5% during the past few years by the addition of cohorts with better education. This is evident from a comparison of CSES 1997 data with the rates disclosed through SESC 1993/94, Table 21.

Table 21
Adult Literacy Rates Disclosed in Recent Surveys

Stratum/ Sex		CSES 97 %	SESC 96 %	SESC93/94 %
Cambodia	Both Sexes	67.8	66.6	65.3
	Male	80.0	78.5	79.7
	Female	57.7	56.6	53.4
Phnom Penh	Both Sexes	82.2	77.4	82.0
	Male	90.9		91.9
	Female	74.8		63.3
Other Urban	Both Sexes	72.9		72.7
	Male	84.0		84.4
	Female	63.7		63.2
Rural	Both Sexes	65.2	64.2	63.5
	Male	77.9		78.6
	Female	54.7		51.0

The literacy level of teenagers and young adults were generally higher as a result of better access to education and the variation in the levels are shown in the age specific literacy rates given in Table 22. The age specific literacy rates of males decline from 86.1% for the age group 15 – 24 years to 67% in the age group 55 – 64 years. The female rates for the same age groups were 77.5% and 21.5% respectively. In the case of females the age specific rates were not only lower than that of males, further, they decline more rapidly from one age group to the next higher age group. The illiterate population by age group was also estimated for the truncated area covered by the frame and the total illiterate population above 15 years was estimated at 1.8 million persons.

Table 22
Age Specific Literacy Rates and Estimated Illiterate Population

Age Group	Both Sexes %	Male %	Female %	Total Illiterate Population
15 - 24	81.59	86.10	77.49	320,296
25 - 34	75.41	83.26	68.32	348,307
35 - 44	66.30	79.30	59.29	331,801
45 - 54	59.74	81.88	45.10	264,614
55 - 64	41.90	66.98	21.45	267,404
65 +	24.46	48.63	07.21	277,962
15 +	67.82	79.97	57.75	1,810,384

3.2 Educational Attainment

CSES 1997 collected data on educational attainment, current school attendance, current grade, type of school attended, reasons for dropping out of school, grades repeated, and information on fees and other expenses of schooling. School attendance was defined as attendance at a kindergarten, primary, lower or upper secondary school, technical or professional school, college or university. Current attendance "covered attendance in school during the current (this) academic semester or year". School attendance and educational attainment data were collected in respect of the household population 5 years and over.

The population aged five years and above of Cambodia in the truncated area covered by the frame was estimated to be 8.3 million or 88.8 percent of the total population. Of this population 33.1 % had not attended school and a further 4.3 % had not completed any grade at school Table 23. The percentage that had no schooling was lower in Phnom Penh (19.4%) but in the rural sector the proportion was 35.5% which amounted to almost twice the rate in Phnom Penh. The percentage that had a primary education(grades 1-5) amounted to 45.8% in the rural sector. This percentage is lower in the urban areas as the proportion that had a secondary and college education were higher in Phnom Penh (39.7%) and other urban areas (27.4%), than in the rural sector (16.5%). Of the 20,800 undergraduates and graduates nearly 75% were in Phnom Penh.

Table 23

Population 5 Years Old and Over by Education

Level and Stratum, Cambodia 1997

Educational Attainment	Cambodia		Phnom Penh		Other Urban		Rural	
	Number	%	Number	%	Number	%	Number	%
Total	8,298,683	100	848,468	100	889,419	100	6,560,796	100
1 No Schooling	2,749,983	33.1	164,469	19.4	257,414	28.9	2,328,100	35.5
2 Primary School	3,685,722	44.4	312,258	36.8	369,954	41.6	3,003,511	45.8
3 Secondary School	1,383,020	16.7	233,520	27.5	190,244	21.4	959,257	14.6
4 High School	281,734	3.4	103,812	12.2	53,135	6.0	124,787	1.9
5 Vocational/Technical	17,751	0.2	11,133	1.3	1,571	0.2	5,048	0.1
6 Under Graduate/Graduate	20,849	0.3	15,102	1.8	2,129	0.2	3,618	0.1
7 Other	159,624	1.9	8,175	1.0	14,974	1.7	136,475	2.1
Male								
Total	3,909,994	100	404,100	100	412,912	100	3,092,982	100
1 No Schooling	986,565	25.2	54,057	13.4	86,059	20.8	846,449	27.4
2 Primary School	1,803,764	46.1	138,970	34.4	175,908	42.6	1,488,888	48.1
3 Secondary School	827,139	21.2	121,328	30.0	105,092	25.5	600,720	19.4
4 High School	191,441	4.9	65,966	16.3	35,365	8.6	90,108	2.9
5 Vocational/Technical	13,227	0.3	8,409	2.1	1,144	0.3	3,675	0.1
6 Under Graduate/Graduate	16,562	0.4	11,704	2.9	1,998	0.5	2,861	0.1
7 Other	71,297	1.8	3,667	0.9	7,346	1.8	60,284	1.9
Female								
Total	4,388,689	100	444,368	100	476,507	100	3,467,814	100
1 No Schooling	1,763,418	40.2	110,413	24.8	171,354	36.0	1,481,651	42.7
2 Primary School	1,881,957	42.9	173,289	39.0	194,045	40.7	1,514,625	43.7
3 Secondary School	555,881	12.7	112,193	25.2	85,152	17.9	358,537	10.3
4 High School	90,293	2.1	37,845	8.5	17,770	3.7	34,679	1.0
5 Vocational/Technical	4,524	0.1	2,724	0.6	427	0.1	1,373	0.0
6 Under Graduate/Graduate	4,286	0.1	3,399	0.8	130	0.0	757	0.0
7 Other	88,328	2.0	4,508	1.0	7,628	1.6	76,192	2.2

Educational attainments of the sampled population broken down by sex and strata are shown in Table 24 .This breakdown of educational attainments by sex shows the disparity between male and female educational attainments.

Less than one third of the persons who had a high school education were females. About 80% of the persons who had an under graduate or graduate education were males. Table 24 also shows that the proportion that had completed grades beyond primary schools were significantly lower in the rural sector in relation to the corresponding percentages in Phnom Penh and other urban areas. The percentage of persons who had completed grade 9 (secondary education) was estimated at 5.5 % in Phnom Penh and 3.7 % in other urban areas but it had amounted to only 1.7 % in the rural sector.

Table 24

Population 5 Years Old and Over by Educational Attainment and Stratum, Cambodia 1997

Educational Attainment	Cambodia		Phnom Penh		Other Urban		Rural	
	Number	%	Number	%	Number	%	Number	%
Total	8,298,683	100.0	848,468	100.0	889,419	100.0	6,560,796	100.0
1. No Schooling	2,749,983	33.1	164,469	19.4	257,414	28.9	2,328,100	35.5
2. No Grade Completed	355,422	4.3	26,069	3.1	39,652	4.5	289,702	4.4
3. Grade 1	557,519	6.7	42,840	5.0	57,166	6.4	457,513	7.0
4. Grade 2	691,032	8.3	53,903	6.4	69,313	7.8	567,816	8.7
5. Grade 3	796,523	9.6	61,555	7.3	77,570	8.7	657,398	10.0
6. Grade 4	731,856	8.8	63,626	7.5	73,481	8.3	594,749	9.1
7. Grade 5	553,370	6.7	64,265	7.6	52,772	5.9	436,333	6.7
8. Grade 6	402,385	4.8	52,985	6.2	46,846	5.3	302,554	4.6
9. Grade 7	420,691	5.1	71,285	8.4	65,688	7.4	283,718	4.3
10. Grade 8	371,694	4.5	62,325	7.3	44,710	5.0	264,659	4.0
11. Grade 9	188,250	2.3	46,925	5.5	33,000	3.7	108,326	1.7
12. Grade 10	91,310	1.1	27,068	3.2	18,380	2.1	45,862	0.7
13. Grade 11	81,490	1.0	29,527	3.5	13,977	1.6	37,986	0.6
14. Grade 12	69,614	0.8	35,720	4.2	14,438	1.6	19,456	0.3
15. Grade 13	39,320	0.5	11,497	1.4	6,340	0.7	21,483	0.3
16. Technical/Vocational Pre-Secondary Dip/Certi	9,772	0.1	6,969	0.8	1,218	0.1	1,585	0.0
17. Technical/Vocational Post Secondary	7,979	0.1	4,164	0.5	353	0.0	3,463	0.1
18. Under Graduate	6,399	0.1	3,571	0.4	626	0.1	2,202	0.0
19. Graduate	13,463	0.2	10,966	1.3	1,503	0.2	994	0.0
20. Post-Graduate	987	0.0	565	0.1	-	-	422	0.0
21. Other	37,600	0.5	1,669	0.2	1,476	0.2	34,455	0.5
22. Not Reported	122,024	1.5	6,506	0.8	13,498	1.5	102,020	1.6
Male								
Total	3,909,994	100.0	404,100	100.0	412,912	100.0	3,092,982	100.0
1. No Schooling	986,565	25.2	54,057	1.4	86,059	2.2	846,449	21.6
2. No Grade Completed	185,897	4.8	13,501	0.3	20,167	0.5	152,229	3.9

3. Grade 1	279,204	7.1	22,154	0.6	28,346	0.7	228,705	5.8
4. Grade 2	320,430	8.2	24,106	0.6	31,706	0.8	264,619	6.8
5. Grade 3	378,844	9.7	24,584	0.6	35,903	0.9	318,357	8.1
6. Grade 4	356,307	9.1	27,054	0.7	33,220	0.8	296,033	7.6
7. Grade 5	283,082	7.2	27,571	0.7	26,566	0.7	228,945	5.9
8. Grade 6	232,588	5.9	24,522	0.6	24,863	0.6	183,204	4.7
9. Grade 7	252,512	6.5	38,306	1.0	35,140	0.9	179,066	4.6
10. Grade 8	227,404	5.8	32,447	0.8	26,998	0.7	167,959	4.3
11. Grade 9	114,635	2.9	26,053	0.7	18,091	0.5	70,491	1.8
12. Grade 10	63,013	1.6	16,792	0.4	12,251	0.3	33,969	0.9
13. Grade 11	55,022	1.4	17,517	0.4	9,863	0.3	27,641	0.7
14. Grade 12	48,501	1.2	23,990	0.6	8,895	0.2	15,616	0.4
15. Grade 13	24,905	0.6	7,667	0.2	4,356	0.1	12,882	0.3
16. Technical/Vocational Pre-Secondary Dipl/Certi	6,732	0.1	4,768	0.6	791	0.1	1,174	0.0
17. Technical/Vocational Post Secondary	6,495	0.1	3,641	0.4	353	0.0	2,501	0.0
18. Under Graduate	5,814	0.1	3,321	0.4	626	0.1	1,867	0.0
19. Graduate	10,502	0.1	8,137	1.0	1,372	0.2	994	0.0
20. Post-Graduate	246	0.0	246	0.0	-	-	-	-
21. Other	23,464	0.3	1,092	0.1	1,098	0.1	21,274	0.3
22. Not Reported	47,833	0.6	2,575	0.3	6,248	0.7	39,010	0.6
Female								
Total	4,388,689	100.0	444,368	100.0	476,507	100.0	3,467,814	100.0
1. No Schooling	1,763,418	40.2	110,413	24.8	171,354	36.0	1,481,651	42.7
2. No Grade Completed	169,525	3.9	12,568	2.8	19,485	4.1	137,473	4.0
3. Grade 1	278,315	6.3	20,686	4.7	28,820	6.0	228,809	6.6
4. Grade 2	370,601	8.4	29,797	6.7	37,607	7.9	303,198	8.7
5. Grade 3	417,679	9.5	36,971	8.3	41,666	8.7	339,041	9.8
6. Grade 4	375,549	8.6	36,572	8.2	40,261	8.4	298,716	8.6
7. Grade 5	270,288	6.2	36,695	8.3	26,206	5.5	207,388	6.0
8. Grade 6	169,797	3.9	28,464	6.4	21,984	4.6	119,350	3.4
9. Grade 7	168,179	3.8	32,979	7.4	30,548	6.4	104,652	3.0
10. Grade 8	144,290	3.3	29,878	6.7	17,712	3.7	96,700	2.8
11. Grade 9	73,615	1.7	20,872	4.7	14,908	3.1	37,835	1.1
12. Grade 10	28,297	0.6	10,276	2.3	6,128	1.3	11,893	0.3
13. Grade 11	26,468	0.6	12,010	2.7	4,114	0.9	10,345	0.3
14. Grade 12	21,113	0.5	11,730	2.6	5,544	1.2	3,840	0.1
15. Grade 13	14,415	0.3	3,829	0.9	1,984	0.4	8,601	0.2
16. Technical/Vocational Pre-Secondary Dip/Certi	3,039	0.1	2,201	0.5	427	0.1	411	0.0
17. Technical/Vocational Post Secondary	1,485	0.0	523	0.1	-	-	962	0.0

18. Under Graduate	585	0.0	250	0.1	-	-	335	0.0
19. Graduate	2,960	0.1	2,830	0.6	130	0.0	-	-
20. Post-Graduate	741	0.0	319	0.1	-	-	422	0.0
21. Other	14,137	0.3	578	0.1	378	0.1	13,181	0.4
22. Not Reported	74,191	1.7	3,930	0.9	7,250	1.5	63,011	1.8

3.3 Current School Attendance

Results of the survey show that 46.3 % of the population in the age group 5-24 years were attending the formal school system. Current attendance was defined to include attendance in the formal school system during the academic semester or year at the time of the survey. The total enrollment in this age group was estimated at 2.041 million comprising 1.135 million males and 0.906 million females. The total attendance in primary schools was estimated at 1.617 millions or about 80 percent of all school enrollments. Table 25 shows 337,000 persons comprising 212,000 males and 125,000 females were enrolled in secondary school grades. A small percentage of about 0.5 % were enrolled in technical and vocational undergraduate courses of education. The proportions enrolled in high school, technical, vocational and undergraduate courses are higher in Phnom Penh. This group comprises nearly 15 % of total school enrollments. In the rural sector, the percentage currently enrolled in these courses was significantly lower which amounted to 1.7 %.

Table 25

Population Currently Attending School Aged 5-24 Years by Level and Stratum 1997

Educational Attainment	Both Sexes		Male		Female	
	No.	%	No.	%	No.	%
All Enrollments	2,040,504	100.0	1,134,854	100.0	905,649	100.0
Primary/Grades 1-5	1,617,045	79.2	869,562	76.6	747,483	82.5
Secondary/Grades 6 –9	336,912	16.5	211,739	18.7	125,174	13.8
High School/Grades 10-12	68,892	3.4	45,554	4.0	23,338	2.6
Technical/Vocational	3,554	0.2	1,883	0.2	1,671	0.2
Under Graduate/Graduate	5,880	0.3	4,737	0.4	1,143	0.1
Other	8,221	0.4	1,380	0.1	6,841	0.8
Phnom Penh						
All Enrollments	271,566	100.0	149,185	100.0	122,381	100.0
Primary/Grades 1-5	153,538	56.5	80,927	54.2	72,611	59.3
Secondary/Grades 6 –9	76,454	28.2	42,270	28.3	34,184	27.9
High School/Grades 10-12	32,742	12.1	20,266	13.6	12,475	10.2
Technical/Vocational	2,508	0.9	1,421	1.0	1,087	0.9

Under Graduate/Graduate	4,998	1.8	3,855	2.6	1,143	0.9
Other	1,327	0.5	446	0.3	881	0.7
Other Urban						
All Enrollments	232,448	100.0	127,905	100.0	104,543	100.0
Primary/Grades 1-5	173,609	74.7	91,217	71.3	82,392	78.8
Secondary/Grades 6 –9	46,817	20.1	28,874	22.6	17,943	17.2
High School/Grades 10-12	9,357	4.0	6,307	4.9	3,049	2.9
Technical/Vocational	1,046	0.4	461	0.4	585	0.6
Under Graduate/Graduate	447	0.2	447	0.3	-	-
Other	1,173	0.5	598	0.5	575	0.5
Rural						
All Enrollments	1,536,490	100.0	857,765	100.0	678,725	100.0
Primary/Grades 1-5	1,289,898	84.0	697,418	81.3	592,480	87.3
Secondary/Grades 6 –9	213,642	13.9	140,595	16.4	73,047	10.8
High School/Grades 10-12	26,793	1.7	18,980	2.2	7,813	1.2
Under Graduate/Graduate	435	0.0	435	0.1	-	-
Other	5,721	0.4	336	0.0	5,385	0.8

The population of age group 5-14 years classified by current grade of school attendance is shown in Table 26. Table shows that 1.541 million were enrolled in grades 1 to 9. Of this total number, 92 % were enrolled in grades 1 to 5. Table 26 also shows that there is a sudden drop in the enrollment from grade 3 to grade 4, the decline being as large as 150,000 or as much as 10 % of total school enrollments. There is also a similar decline from grades 4 to 5 and 5 to 6 as well. A comparison of enrollment rates in Phnom Penh and in the rural sector shows that these decline in rates were the result of late school admissions, grade repetition and dropouts.

Table 26

Population Currently Attending School Aged 5 -14 by Grade and Stratum 1997

Educatio	Cambodia		Phnom Penh		Other Urban		Rural	
Attainment	No.	%	No.	%	No.	%	No.	%
All	1,541,568	100.0	179,419	100.0	176,318	100.0	1,185,831	100.0
Grade 1	422,921	27.4	31,818	17.7	44,533	25.3	346,569	29.2
Grade 2	390,737	25.3	32,741	18.2	40,858	23.2	317,137	26.7
Grade 3	321,110	20.8	32,935	18.4	35,453	20.1	252,722	21.3
Grade 4	176,992	11.5	25,777	14.4	20,569	11.7	130,647	11.0

Grade 5	107,396	7.0	20,564	11.5	14,417	8.2	72,415	6.1
Grade 6	51,376	3.3	10,137	5.7	6,849	3.9	34,390	2.9
Grade 7	36,548	2.4	10,319	5.8	8,105	4.6	18,124	1.5
Grade 8	19,809	1.3	9,503	5.3	2,675	1.5	7,631	0.6
Grade 9	8,540	0.6	4,753	2.6	2,098	1.2	1,689	0.1
Other	6,140	0.4	872	0.5	761	0.4	4,507	0.4

3.4 Enrollment rates

School enrollments rates by age, sex and stratum are given in Table 27. School admission age has been raised from 5 years to 6 years and the enrollment rates for 5 years and 6 years are low. About 18 % enter school at the age of 6. This rate was higher in Phnom Penh for both males and females about 27 % joining schools when they were 6 years of age. Participation in schooling continues to increase until the age 12 – 13 years in both urban and rural sectors and rates start to decline thereafter. It is evident from these patterns of school enrollment rates that significant numbers commence schooling several years after reaching the minimum age for admission.

In Phnom Penh, the highest enrollment rate is reached at the age of 13 years when the enrollment rates rise to 91.8 % for both sexes, 93.5 % for males and 89.8 % for females. School attendance declined rapidly in passing from early teens to late teens in respect of both males and females. This decline is less marked in Phnom Penh. The female enrollment rates are lower than that of males at all ages. Table 27 shows that they are significantly lower in late teens.

Table 27

School Enrollment Rates of Population Aged 5 – 19 Years by

Sex and Stratum, Cambodia 1997

	Cambodia			Phnom Penh		
Age	Both Sexes	Male	Female	Both Sexes	Male	Female
5-19 Years	53.3	58.6	48.0	72.7	76.8	68.4
5	4.0	4.1	4.0	12.9	12.2	13.5
6	17.9	18.6	17.2	27.0	27.4	26.6
7	35.5	36.5	34.5	66.6	69.2	63.6
8	53.9	55.9	51.9	82.1	85.5	78.9
9	66.7	66.1	67.3	87.2	84.4	90.1
10	78.7	81.0	76.3	88.3	86.1	90.5
11	83.1	82.4	83.9	91.7	91.7	91.7
12	85.8	89.2	82.4	91.2	91.5	90.9
13	85.0	86.7	83.0	91.8	93.5	89.8

14	79.2	85.2	72.1	83.5	86.8	80.2
15	64.8	77.8	51.7	82.0	89.5	72.7
16	52.9	63.9	41.7	73.4	88.0	60.9
17	38.8	52.6	24.7	69.4	79.0	60.3
18	23.5	34.6	14.1	55.8	71.6	38.1
19	20.7	31.0	10.9	37.8	45.9	29.3

	Other Urban			**Rural**		
Age	Both Sexes	Male	Female	Both Sexes	Male	Female
05 19 Years	55.8	62.7	49.3	50.7	55.8	45.4
5	4.8	7.8	1.3	3.3	3.1	3.6
6	21.1	22.8	19.5	16.6	17.1	16.1
7	33.7	38.4	29.7	32.3	32.2	32.4
8	56.1	58.5	54.1	50.4	52.3	48.5
9	80.4	82.1	78.7	62.2	61.6	62.8
10	82.0	85.7	78.8	77.2	79.9	74.3
11	90.5	90.5	90.6	80.9	80.1	81.8
12	84.2	92.8	74.6	85.4	88.4	82.4
13	82.7	87.7	76.5	84.5	85.7	83.1
14	85.4	95.0	78.8	77.9	84.1	69.6
15	69.3	84.9	53.2	61.6	74.8	48.7
16	52.0	73.2	33.8	50.0	59.4	39.8
17	39.1	49.6	27.3	33.7	48.8	18.4
18	23.7	34.3	15.8	20.0	30.0	11.7
19	22.0	31.2	13.7	19.0	29.6	9.0

Chapter 4

ECONOMICALLY ACTIVE POPULATION

4.0 Introduction

CSES 1997 collected detailed data on the labor force status of the population of

Cambodia. The proportion of the economically active population to the working age population is an index of the utilization of manpower resources in the country. The economically active population or the labour force consists of the employed and the unemployed. Labour force participation rate (LFPR) is defined as

$$\text{LFPR} = \frac{\text{Economically active population}}{\text{Working age population}} \times 100 = \frac{\text{Employed + Unemployed}}{\text{Working age population}} \times 100$$

and the age specific labour force participation rate is defined as

$$\text{Age Specific LFPR} = \frac{\text{Employed + Unemployed in specified Age Group}}{\text{Total Population in the specified age group}} \times 100$$

The population aged 10 years and older was accepted as the working age population. CSES 1997 estimated that 65.8% of the total population of Cambodia aged 10 years and older were economically active. Table 28 shows that the participation rates of males that stood at 66.2 were marginally higher than that of females which was 65.4. The economically active population in Cambodia (for the truncated frame) was estimated at 4.560 million comprising 2.139 million males and 2.421 million females.

The economically active population of Phnom Penh was 363,000 comprising 196,000 males and 167,000 females. The overall participation rate of both sexes in Phnom Penh that amounted to 49.2 percent was significantly lower than the national rate. The numerical magnitude of the labor force in other urban towns aggregated to 448,000, which consisted of 222,000 males and 226,000 females. LFPR in the other urban areas for both sexes was 60.7 percent and the rates for males and females were 65.4 percent and 56.9 percent.

The participation rates in the rural sector were significantly higher than the rates in urban areas, with 68.7 percent of the working age population in both sexes participating in economic activity. The participation rates of males and female were 67.7 percent and 69.7 percent respectively. The rural sector labour force in the truncated area covered by the frame amounted to 3.749 million comprising 1.721 million males and 2.021 million femal

Table 28

Labor Force Participation, Employment and Unemployment Rates by Sex and Stratum, 1997

(Percent)

Stratum	Labor Force Participation Rates			Employment Rate			Unemployment Rate		
	Both	Male	Female	Both	Male	Female	Both	Male	Female

Cambodia	65.8	66.2	65.4	99.3	99.2	99.3	0.7	0.8	0.7
Phnom Penh	49.2	56.5	42.6	96.7	97.0	96.4	3.3	3.0	3.6
Other Urban	60.8	65.4	56.9	98.4	98.3	98.6	1.6	1.7	1.4
Rural	68.7	67.7	69.7	99.6	99.6	99.7	0.4	0.4	0.3

4.1 Age Specific Participation Rates

The age specific participation rates for the three domains and truncated area given in Table 29. The participation rates of Cambodian children and young adults in the age groups of 10-14 years and 15 to 19 years were 12.4 percent and 54.0 percent respectively. The participation rates in Phnom Penh for these age groups were significantly lower and they were 4.1 percent for both sexes and 3.9 percent and 4.1 percent for males and females. In the next age group of 15-19 years the rates were 23.2 percent for both sexes and 17.6 percent for males and 28.9 percent for females. These were significantly lower than the corresponding rates in the rural sector which were 58.8 percent for both sexes and 48.1 percent and 69.2 percent for males and females respectively. The participation rates of both sexes of these age groups were at these levels, as they were still participating in educational activities. It is likely that the participation rates of male and female in these age groups would decline further with better access to educational opportunities especially for children in the rural areas. The age specific participation rates of males in the five-year age groups from 20- 24 years to 55-59 years were over 90 percent.

Age specific participation rates of males in both urban and rural sectors were higher than that of females. The gap between the male and female participation rates in Phnom Penh was higher than the gap between the male and female in rural areas. These rates in the rural

sector which are primarily determined by participation in agricultural and household based

Table 29
Labor Force Participation Rates by 5-Year Age Group, Sex and Stratum, Cambodia 1997

	Cambodia			**Phnom Penh**			**Other Urban**			**Rural**		
Stratum	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
All Ages	65.8	66.2	65.4	49.2	56.5	42.6	60.8	65.4	56.9	68.7	67.7	69.7
10 – 14	12.4	11.3	13.7	4.1	4.0	4.2	10.5	8.2	12.8	13.7	12.5	15.0
15 – 19	54.0	43.8	63.9	23.2	17.6	28.9	48.9	38.7	58.5	58.8	48.1	69.2
20 – 24	88.0	89.8	86.6	61.4	62.4	60.5	80.8	83.6	78.7	92.0	93.9	90.4
25 – 29	90.0	95.2	85.3	70.4	82.6	59.0	80.8	94.7	69.2	93.6	96.9	90.6
30 – 34	89.9	96.3	84.1	72.2	91.3	55.1	83.1	96.6	70.6	93.3	97.0	90.0
35 – 39	91.0	96.6	86.3	80.6	97.0	66.9	88.8	97.3	80.5	92.8	96.4	89.9

40 – 44	90.6	98.0	85.6	77.0	96.5	64.4	85.0	96.9	76.1	93.9	98.5	90.8
45 – 49	89.1	97.2	83.1	77.4	97.8	60.3	83.2	94.0	75.1	92.2	97.6	88.4
50 – 54	87.4	96.9	81.7	69.4	89.3	52.8	82.9	96.4	72.1	90.8	98.5	86.7
55 – 59	81.2	91.4	72.9	58.1	76.3	41.9	72.2	84.5	62.2	84.9	94.0	77.6
60 – 64	69.9	80.9	61.0	44.5	59.2	35.5	58.2	76.2	47.1	75.0	83.9	67.2
65+	37.4	47.8	29.9	17.9	31.3	9.8	33.3	49.2	23.5	40.0	49.2	33.2

economic activities would move in the direction of other urban and Phnom Penh with access to education and expansion of manufacturing and services sector activities in these areas.

4.2 Employment

The survey found that 99.3% of the persons in the labor force were employed (Table 30). The employment rate which is defined as the percentage of employed persons to the total number of persons in the labor force, was lowest in Phnom Penh where the rates were 96.7% for both sexes, 97.0% for males and 96.4% for females. The employment rates of teenagers and young adults were 84.9% for the age group 10-14 years, 80.4% and 92% for the next higher age groups of 15-19 and 20-24 years. The employment rate in the urban areas was 98.4.% and in the rural sector it was high as 99.6% The definition of employment used in the survey which was based on the international standard definition where persons who had worked for even one hour during the reference week was accepted as employed has lowered the unemployment rate.

Table 30
Employment Rates by Age, Sex and Stratum, Cambodia 1997

	Cambodia			**Phnom Penh**			**Other Urban**			**Rural**		
Age Group	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
All Ages	99.3	99.2	99.3	96.7	97.0	96.4	98.4	98.3	98.6	99.6	99.6	99.7
10 - 14	98.4	98.6	98.1	84.9	79.4	90.5	94.9	97.3	93.4	99.2	99.4	99.0
15 – 19	98.2	97.9	98.3	80.4	80.1	80.5	95.7	94.7	96.3	99.4	99.2	99.5
20 – 24	98.4	97.9	98.9	92.0	91.1	92.9	96.1	94.5	97.5	99.2	98.8	99.5
25 – 29	99.3	99.2	99.3	96.7	96.1	97.5	97.9	97.6	98.3	99.6	99.7	99.6
30 – 34	99.8	99.7	99.8	99.5	99.2	100.0	100.0	100.0	100.0	99.7	99.7	99.8
35 – 39	99.7	99.9	99.5	98.7	99.6	97.6	99.6	99.3	100.0	99.8	100.0	99.7
40 – 44	99.7	99.3	100.0	99.7	99.4	100.0	99.6	99.1	100.0	99.7	99.3	100.0
45 – 49	99.9	99.9	99.9	99.7	99.5	100.0	99.6	100.0	99.2	100.0	100.0	100.0

50 – 54	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
55 – 59	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
60 – 64	99.7	100.0	99.4	100.0	100.0	100.0	100.0	100.0	100.0	99.7	100.0	99.3
65+	99.7	100.0	99.4	100.0	100.0	100.0	100.0	100.0	100.0	99.7	100.0	99.4

4.3 Unemployment

The survey has recorded low unemployment rates, and the rate for both sexes was as low as 0.7 % for the country as a whole covered by the survey Table 31. Unemployment rates were insignificant in both urban and rural sectors for persons above 25 years. The emergence of unemployment is visible from the rates disclosed for Phnom Penh for the age group 15 – 19 years and next higher age group 20 –24 years. Teenagers and young adults both male sand females had begun to seek work The reported unemployment rate for Phnom Penh for the age group 15 to 19 years was nearly 20 percent and the rates recorded for both males and females were identical . The unemployment rates for males in the age group of 20 –24 years were 9% for males and 7% for females. The unemployment rate in Phnom Penh for the next age group of 25 - 29 years was 3.3 percent. In the other urban areas, unemployment rates for the age
groups of 15 to 19 years and 20 to 24 years were recorded as 4 percent. The male unemployment rates in these urban areas were reported to be higher around 5.5 percent while rates of females were about 3 percent. The survey had not disclosed any unemployment rates where agricultural work was predominant where underemployment, regularity of work and low incomes appear to be important issues rather than open unemployment.

Table 31

Unemployment Rates by Age, Sex and Stratum

	Cambodia			Phnom Penh			Other Urban			Rural		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
All Ages	0.73	0.8	0.66	3.3	3.04	3.6	1.57	1.71	1.43	0.38	0.42	0.34
10 –14	1.65	1.41	1.86	15.1	20.62	9.47	5.08	2.68	6.56	0.8	0.56	1.02
15 – 19	1.85	2.09	1.7	19.64	19.94	19.46	4.3	5.3	3.69	0.64	0.84	0.5
20 – 24	1.57	2.12	1.11	8	8.92	7.13	3.86	5.47	2.47	0.84	1.2	0.54
25 – 29	0.75	0.84	0.67	3.29	3.89	2.51	2.1	2.4	1.75	0.37	0.33	0.41
30 – 34	0.25	0.34	0.16	0.47	0.79	-	-	-	-	0.26	0.33	0.19

35 – 39	0.32	0.12	0.5	1.29	0.38	2.41	0.36	0.66	-	0.18	-	0.35
40 – 44	0.32	0.72	-	0.28	0.58	-	0.43	0.9	-	0.3	0.72	-
45 – 49	0.08	0.08	0.08	0.28	0.49	-	0.44	-	0.85	-	-	-
50 – 54	-	-	-	-	-	-	-	-	-	-	-	-
55 – 59	-	-	-	-	-	-	-	-	-	-	-	-
60 – 64	0.28	-	0.57	-	-	-	-	-	-	0.33	-	0.68
65+	0.26	-	0.56	-	-	-	-	-	-	0.3	-	0.63

4.4 Employment Status

The break down of employment by employment status shows some important characteristics of the employment profile of Cambodia. The estimate for Cambodia based on the truncated frame shows that 44.7% of the employed population were own account workers in self-employment and another 30.3% were unpaid family workers. Thus 75% of the employed population consisted of either own account workers or unpaid family workers. Employees account for only 10 percent of the employed. Proportion of employers was less than one half of a percent. More than 42% of females were employed as unpaid family workers.

The employment status profile in Phnom Penh is different from the one described above. About 36% of the employed population were in paid employment and one percent of the employed was an employer. Self employed accounted for 40 percent of the total for Phnom Penh. The proportion of unpaid family workers was estimated at 5 percent. About one in six employed persons in other urban areas were paid employees but the proportion of paid employees in the rural sector was significantly lower which stood at less than 7 percent Table 32.

Table 32

Employment Status by Sex and Stratum, Cambodia 1997

Employment Status	Cambodia			Phnom Penh		
	Both Sexes %	Male %	Female %	Both Sexes %	Male %	Female %
All Types	100.0	100.0	100.0	100.0	100.0	100.0
1. Paid Employee	9.9	14.9	5.4	36.5	47.1	24.1
2. Employer	0.4	0.5	0.3	1.0	1.0	1.0
3. Own-account Worker/ Self-employed	44.7	54.5	36.1	40.2	33.3	48.5
4. Unpaid Family Worker	30.3	16.7	42.2	5.0	2.5	7.9

5. Other	0.3	0.3	0.3	0.2	0.1	0.4
6. Not Stated	14.4	13.0	15.7	17.0	16.0	18.1

Employment Status	Other Urban			Rural		
	Both Sexes %	Male %	Female %	Both Sexes %	Male %	Female %
All Types	100.0	100.0	100.0	100.0	100.0	100.0
1. Paid Employee	17.7	27.3	8.2	6.5	9.8	3.7
2. Employer	0.6	0.9	0.3	0.3	0.4	0.2
3. Own-account Worker/ Self-employed	43.1	45.2	41.0	45.4	58.1	34.5
4. Unpaid Family Worker	23.8	13.6	33.8	33.4	18.7	45.9
5. Other	0.3	0.4	0.3	0.3	0.3	0.3
6. Not Stated	14.5	12.6	16.4	14.1	12.7	15.4

4.5 Employment by Industrial Division

4.5.0 Agriculture

About 75% of the employed population of Cambodia (based on the truncated frame) were engaged in agriculture, hunting and forestry sectors Table 33. These sectors had contributed to 85.6% of total employment in the rural sector, 44.1% in other urban areas and 6.1 percent of total employment in Phnom Penh. In addition a further 1.7 percent of the total employed population of Cambodia were employed in the fishery sector. In other urban areas, fishery sector employment was higher accounting for 5% of total employment . In the rural sector it was 1.3 percent. Nearly four out of five employed persons in Cambodia were engaged in agriculture, hunting, forestry and fishing. The industrial sector comprising mining and quarrying, manufacturing, electricity, gas and water, and construction was still small and was about 6 percent of total employment, while the rural sector share of employment in this sector was about 5 percent. In Phnom Penh, the share of the industrial sector was reported as 14.4% with manufacturing contributing 9.4 % and construction adding a further 5.1%. In the urban areas, the share of this sector was about 7 %. Public administration and defense and compulsory social security accounted for 3.1 percent of total employment in Cambodia. In Phnom Penh the share in total employment was 18 .4 percent and 51,526 males and 13,873 females a total of 64,599 were employed in these activities.

4.5.1 Wholesale and Retail Trade

Wholesale and retail trade activities have provided employment to 7.7% of the total employed population of Cambodia. In Phnom Penh, wholesale and retail trade activities was the largest sector accounting for 123,000 persons or 35% of the total employed population.

The large majority of workers in this sector were females. The latter numbered 88,000 as against 35,000 males. Wholesale and Retail Trade sector has accounted for 54 % of female employment.

4.5.2 Education

The total number engaged in education and related activities in the areas covered by the truncated frame are estimated at 55,000 comprising 37,000 males and 18,000 females. Of this number 11,000 were reported as employed in Phnom Penh and the number employed in rural areas was estimated at 35,000 comprising 26,000 males and 9000 females .

Table 33
Employed Population (aged 10 and above) by Major Industry Group (based on primary occupation) Sex and Stratum - Cambodia. (Truncated Frame)

No.	Major Industry Group	Both Sexes	%	Male	%	Female	%
	Cambodia (Truncated Frame)						
	All Industry Groups	4,525,815	100	2,121,975	100	2,403,840	100
1	Agriculture, Hunting and Forestry	3,411,217	75.4	1,516,040	71.4	1,895,177	78.8
2	Fishing	78,476	1.7	53,744	2.5	24,732	1
3	Mining and Quarring	7,735	0.2	5,143	0.2	2,592	0.1
4	Manufacturing	144,827	3.2	62,567	2.9	82,260	3.4
5	Electricity, Gas and Water Supply	3,950	0.1	3,626	0.2	324	-
6	Construction	52,705	1.2	46,874	2.2	5,831	0.2
7	Wholesale and Retail Trade, Repair of Motor Vehicles, Motorcycles, Personal and Household Goods	348,838	7.7	97,142	4.6	251,696	10.5
8	Hotels and Restaurants	4,866	0.1	1,268	0.1	3,598	0.1
9	Transport, Storage and Communication	79,251	1.8	75,334	3.6	3,917	0.2
10	Financial, Intermediation	11,099	0.2	6,754	0.3	4,345	0.2

11	Real Estate, Renting and Business Activities	6,389	0.1	4,834	0.2	1,555	0.1
12	Public Administration and Defence; Compulsory Social Security	139,206	3.1	120,552	5.7	18,654	0.8
13	Education	55,016	1.2	36,723	1.7	18,293	0.8
14	Health	17,035	0.4	10,471	0.5	6,564	0.3
15	Other Community, Social and Personal Service Activities	20,242	0.4	11,691	0.6	8,551	0.4
16	Private Households with Employed Persons	37,917	0.8	19,158	0.9	18,759	0.8
17	Extra-Territorial Organisation and Bodies	6,679	0.1	5,465	0.3	1,214	0.1
18	Not Stated	100,367	2.2	44,589	2.1	55,778	2.3
	Phnom Penh						
	All Industry Groups	350,795	100	190,213	100	160,582	100
1	Agriculture, Hunting and Forestry	21,299	6.1	11,252	5.9	10,047	6.3
2	Fishing	6,178	1.8	4,167	2.2	2,011	1.3
3	Mining and Quarring	128	-	128	0.1	-	-
4	Manufacturing	33,033	9.4	14,043	7.4	18,990	11.8
5	Electricity, Gas and Water Supply	3,238	0.9	2,914	1.5	324	0.2
6	Construction	17,951	5.1	16,194	8.5	1,757	1.1
7	Wholesale and Retail Trade, Repair of Motor Vehicles, Motorcycles, Personal and Household Goods	123,089	35.1	35,443	18.6	87,646	54.6
8	Hotels and Restaurants	2,858	0.8	863	0.5	1,995	1.2
9	Transport, Storage and Communication	26,570	7.6	25,088	13.2	1,482	0.9
10	Financial, Intermediation	5,283	1.5	3,184	1.7	2,099	1.3
11	Real Estate, Renting and Business Activities	2,792	0.8	1,965	1	827	0.5
12	Public Administration and Defence; Compulsory Social Security	64,599	18.4	51,526	27.1	13,073	8.1
13	Education	11,185	3.2	5,777	3	5,408	3.4
14	Health	5,583	1.6	3,661	1.9	1,922	1.2
15	Other Community, Social and Personal Service Activities	6,450	1.8	3,259	1.7	3,191	2
16	Private Households with Employed Persons	9,138	2.6	4,736	2.5	4,402	2.7
17	Extra-Territorial Organization and Bodies	3,169	0.9	2,120	1.1	1,049	0.7
18	Not Stated	8,252	2.4	3,893	2	4,359	2.7
	Other Urban (Truncated Frame)						
	All Industry Groups	441,234	100	218,566	100	222,668	100

1	Agriculture, Hunting and Forestry	194,487	44.1	87,346	40	107,141	48.1
2	Fishing	22,573	5.1	13,479	6.2	9,094	4.1
3	Mining and Quarring	627	0.1	627	0.3	-	-
4	Manufacturing	22,890	5.2	11,899	5.4	10,991	4.9
5	Electricity, Gas and Water Supply	712	0.2	712	0.3	-	-
6	Construction	9,764	2.2	8,995	4.1	769	0.3
7	Wholesale and Retail Trade, Repair of Motor Vehicles, Motorcycles, Personal and Household Goods	91,500	20.7	21,197	9.7	70,303	31.6
8	Hotels and Restaurants	880	0.2	405	0.2	475	0.2
9	Transport, Storage and Communication	26,351	6	23,916	10.9	2,435	1.1
10	Financial, Intermediation	3,703	0.8	2,326	1.1	1,377	0.6
11	Real Estate, Renting and Business Activities	1,420	0.3	1,052	0.5	368	0.2
12	Public Administration and Defence; Compulsory Social Security	30,499	6.9	27,387	12.5	3,112	1.4
13	Education	8,691	2	5,028	2.3	3,663	1.6
14	Health	2,863	0.6	1,187	0.5	1,676	0.8
15	Other Community, Social and Personal Service Activities	4,250	1	2,563	1.2	1,687	0.8
16	Private Households with Employed Persons	6,528	1.5	4,243	1.9	2,285	1
17	Extra-Territorial Organisation and Bodies	1,809	0.4	1,644	0.8	165	0.1
18	Not Stated	11,687	2.6	4,560	2.1	7,127	3.2

Rural

(Truncated Frame)

	All Industry Groups	3,733,786	100	1,713,196	100	2,020,590	100
1	Agriculture, Hunting and Forestry	3,195,431	85.6	1,417,442	82.7	1,777,989	88
2	Fishing	49,725	1.3	36,098	2.1	13,627	0.7
3	Mining and Quarring	6,980	0.2	4,388	0.3	2,592	0.1
4	Manufacturing	88,904	2.4	36,625	2.1	52,279	2.6
5	Electricity, Gas and Water Supply	-	-	-	-	-	-
6	Construction	24,990	0.7	21,685	1.3	3,305	0.2
7	Wholesale and Retail Trade, Repair of Motor Vehicles, Motorcycles, Personal and Household Goods	134,249	3.6	40,502	2.4	93,747	4.6
8	Hotels and Restaurants	1,128	-	-	-	1,128	0.1
9	Transport, Storage and Communication	26,330	0.7	26,330	1.5	-	-
10	Financial, Intermediation	2,113	0.1	1,244	0.1	869	-
11	Real Estate, Renting and Business Activities	2,177	0.1	1,817	0.1	360	-

12	Public Administration and Defence; Compulsory Social Security	44,108	1.2	41,639	2.4	2,469	0.1
13	Education	35,140	0.9	25,918	1.5	9,222	0.5
14	Health	8,589	0.2	5,623	0.3	2,966	0.1
15	Other Community, Social and Personal Service Activities	9,542	0.3	5,869	0.3	3,673	0.2
16	Private Households with Employed Persons	22,251	0.6	10,179	0.6	12,072	0.6
17	Extra-Territorial Organisation and Bodies	1,701	-	1,701	0.1	-	-
18	Not Stated	80,428	2.2	36,136	2.1	44,292	2.2

Table 34
Employed Population Aged 10 and above by Occupation Group (based on Primary Occupation), Sex and Stratum – Cambodia.

No.	Major Industry Groups	Both Sexes	%	Male	%	Female	%
	Cambodia (Truncated Frame)	4,525,815.0	100.0	2,121,975	100.0	2,403,840	100.0
1	Legistators, Senior Officials & Managers	24,954.0	0.6	23,124	1.1	1,830	0.1
2	Professionals	82,535.0	1.8	55,410	2.6	27,125	1.1
3	Technicals and Associate Professionals	97,365.0	2.2	73,765	3.5	23,600	1
4	Clerks	5,342.0	0.1	3,310	0.2	2,032	0.1
5	Service and shop and market sales Workers	316,084.0	7	88,609	4.2	227,475	9.5
6	Skilled agricultural and Fishery Workers	3,443,624.0	76.1	1,544,369	72.8	1,899,255	79
7	Craft and Related Trades Workers	166,627.0	3.7	91,750	4.3	74,877	3.1
8	Plat and Machine Operators and Assemblers	63,203.0	1.4	55,763	2.6	7,440	0.3
9	Elementary Occupation	188,379.0	4.2	106,712	5	81,667	3.4
10	Armed Forces	36,681.0	0.8	34,704	1.6	1,977	0.1
11	Not Stated	101,021.0	2.2	44,459	2.1	56,562	2.4
	Phnom Penh	350,795.0	100	190,213	100	160,582	100
1	Legistators, Senior Officals & Managers	7,826.0	2.2	6,494	3.4	1,332	0.8
2	Professionals	23,874.0	6.8	14,561	7.7	9,313	5.8
3	Technicals and Associate Professionals	51,619.0	14.7	36,247	19.1	15,372	9.6
4	Clerks	3,596.0	1	2,126	1.1	1,470	0.9
5	Service and shop and	117,791.0	33.6	35,710	18.8	82,081	51.1

	market sales Workers						
6	Skilled agricultural and Fishery Workers	26,917.0	7.7	14,546	7.6	12,371	7.7
7	Craft and Related Trades Workers	45,116.0	12.9	25,555	13.4	19,561	12.2
8	Plat and Machine Operators and Assemblers	21,201.0	6	20,192	10.6	1,009	0.6
9	Elementary Occupation	33,979.0	9.7	21,232	11.2	12,747	7.9
10	Armed Forces	10,754.0	3.1	9,787	5.1	967	0.6
11	Not Stated	8,122.0	2.3	3,763	2	4,359	2.7
	Other Urban (Truncated Frame)	441,234.0	100	218,566	100	222,668	100
1	Legistators, Senior Officals & Managers	5,428.0	1.2	4,930	2.3	498	0.2
2	Professionals	15,648.0	3.5	9,023	4.1	6,625	3
3	Technicals and Associate Professionals	20,898.0	4.7	17,505	8	3,393	1.5
4	Clerks	546.0	0.1	344	0.2	202	0.1
5	Service and shop and market sales Workers	78,579.0	17.8	15,786	7.2	62,793	28.2
6	Skilled agricultural and Fishery Workers	213,670.0	48.4	99,119	45.3	114,551	51.4
7	Craft and Related Trades Workers	31,274.0	7.1	20,104	9.2	11,170	5
8	Plat and Machine Operators and Assemblers	16,498.0	3.7	15,628	7.2	870	0.4
9	Elementary Occupation	38,742.0	8.8	23,522	10.8	15,220	6.8
10	Armed Forces	8,264.0	1.9	8,045	3.7	219	0.1
11	Not Stated	11,687.0	2.6	4,560	2.1	7,127	3.2
	Rural (Truncated Frame)	3,733,786.0	100	1,713,196	100	2,020,590	100
1	Legistators, Senior Officals & Managers	11,700.0	0.3	11,700	0.7	-	-
2	Professionals	43,013.0	1.2	31,826	1.9	11,187	0.6
3	Technicals and Associate Professionals	24,848.0	0.7	20,013	1.2	4,835	0.2
4	Clerks	1,200.0	-	840	-	360	-
5	Service and shop and market sales Workers	119,714.0	3.2	37,113	2.2	82,601	4.1
6	Skilled agricultural and Fishery Workers	3,203,037.0	85.8	1,430,704	83.5	1,772,333	87.7
7	Craft and Related Trades Workers	90,237.0	2.4	46,091	2.7	44,146	2.2
8	Plat and Machine Operators and Assemblers	25,504.0	0.7	19,943	1.2	5,561	0.3
9	Elementary Occupation	115,658.0	3.1	61,958	3.6	53,700	2.7

10	Armed Forces	17,663.0	0.5	16,872	1	791	-
11	Not Stated	81,212.0	2.2	36,136	2.1	45,076	2.2

4.5.3 Health

The total number employed in health service activities was 17,000 consisting of 10,500 males and 6,500 females. Of them 5,500 were employed in Phnom Penh nearly 3,000 in other urban areas and 8500 in the rural areas.

4.6 Occupational Distribution (Primary Occupation)

The agriculture, fisheries and related occupations have provided employment to 76% of the total employed population of Cambodia. The share of males in these occupations was lower at 73 % Table 34. As many as four out of five females were occupied in these occupations. A comparison of the occupational break down of employment by occupation from CSES1997 with SESC1993/94 shows that both the magnitude and sectoral shares of technicians and associate professionals and craft and related trade workers had increased during the inter survey period. The number of technicians had increased from an estimated 46,000 to 97,000 and craft and trade workers had increased from 134,00 to 166,000. The growth of manufacturing and construction activities has resulted in these increases and they have been captured through the survey. The survey also shows that the magnitude and sectoral share of agricultural and fishery occupations has also increased during the same period, these occupational groups have to serve as a reservoir to absorb the increases in the labor supply specially in the rural sector until industry and service sector occupation grows. The occupational profile of Phnom Penh diverges from that of Cambodia, which is influenced by the size of the rural sector. In Phnom Penh the percentage share of agricultural and fisheries occupations were 33%. Nearly 15 % of employees had worked as technicians and associate professionals and another 13 % are plant ant machinery operators. There are a relatively high percentage of nearly 7% who were employed as professionals.

4.7 Employment Earnings

CSES 1997 canvassed data on average monthly wages in both primary and secondary occupations and earnings from self-employed and from own account workers. Occupations were coded at the 4-digit level, but most of the codes were collapsed to the 3 digit formats considering the sample size of the survey. In respect of selected occupation coding was at four digit level and it is possible to derive wages /income in respect of such occupations. Following are some of the selected occupations for which estimates were extracted

Table 35
Earnings in Selected Occupations

Occupation	Monthly Wages	Daily Wages
Building frame and related workers	101,194	3,000
Roofers 90,231	3,000	
Floor layers, tile setters	164,792	5,500
Livestock producers	44,158	7,500
Stall and market salesperson	---	2,600

Chapter 5

HOUSING AND HOUSEHOLD ASSETS

5.0 Data on housing characteristics and amenities including floor area, year of construction, construction materials used in construction of the housing unit, source of lighting and drinking water, fuel used for cooking and toilet facilities used by the household were collected through the survey. This information collected on housing and amenities could be classified by household expenditure to ascertain the type and nature and availability of these facilities to persons in low expenditure deciles and households below the poverty line.

The data on these items was collected from the households and the respondents sharing accommodation were asked to report on facilities and amenities of the housing unit they shared with one or more households, and to that extent in the urban areas where housing units are shared, the data presented here could be biased upwards

5.1 Floor Area of Occupied Housing Units

Information was ascertained relating to the floor area of the housing unit occupied by the household. Average floor area of housing units range from 33 square meters in rural areas to 50 square meters in Phnom Penh. The average floor area of dwelling units in other urban centers was about 39 sq. meters. The percentage of households occupying floor areas in excess of 100 square meters was 7.2% in Phnom Penh, 3.7% in other urban areas and 1.5% in the rural sector. Table 37 shows 12 .6% housing units in Phnom Penh, 6.2% in other urban areas and 20% of housing units in the rural sector were housing units with floor areas of less than 20 sq. meters. As much as 37% of households in Phnom Penh and 44% in other urban centers and 50% of households in the rural sector used housing units with floor areas between 20 to 40 sq. meters

5.2 Age of Housing Stock

The year of construction of the occupied housing unit was ascertained and Table 38 shows the age of housing stock by stratum. About 17.5% of housing units in Cambodia were those that were constructed prior to 1980. Table shows that 30% of the occupied dwelling units had been constructed between 1980 and 1989. Data confirm that construction of

housing units had accelerated after 1992. More than one out of three currently occupied dwelling
units were those that had been constructed between 1993 and 1997.

Table 37

Table 37
Floor Area of Occupied Housing Units

No.	Floor Area	Cambodia		Phnom Penh		Other Urban		Square Meter Rural	
		No	%	No.	%	No	%	No	%
1	00 - 09	40,261	2.1	3,120	1.7	3,020	1.6	34,121	2.2
2	10 - 19	313,906	16.6	19,503	10.9	28,027	14.6	266,376	17.5
3	20 - 29	532,147	28.2	33,031	18.5	54,699	28.5	444,417	29.3
4	30 - 39	380,044	20.1	32,822	18.4	30,505	15.9	316,717	20.8
5	40 - 49	313,859	16.6	29,958	16.8	32,837	17.1	251,064	16.5
6	50 - 74	209,765	11.1	34,817	19.5	27,471	14.3	147,477	9.7
7	75 - 99	58,485	3.1	12,583	7	8,380	4.4	37,522	2.5
8	100 -149	24,365	1.3	7,456	4.2	5,299	2.8	11,610	0.8
9	150 +	16,053	0.8	5,203	2.9	1,700	0.9	9,150	0.6
10	Not Stated	903	-	127	0.1	-	-	776	0.1
	Average Area	35.78		50.25		38.51		33.74	

The age of housing stock in the rural sector matches with the age profile described here for Cambodia. In Phnom Penh construction of housing units had accelerated after 1992. In 1992 alone 7.8% of the currently occupied housing units had been built. About 28% of the housing stock in Phnom Penh were those that had been built between 1992 and 1997.

5.3 Construction materials of Walls Roof and Floor

5.3.1 Walls

Information on construction materials used in housing construction was collected which reflected the quality of housing used and to ascertain whether the construction is a temporary or permanent building. Nearly 10% of housing units in Phnom Penh, 34% in other urban areas and three out of five of housing units in rural areas had used bamboo or thatch for outer walls. As many as one out of three housing units in Phnom Penh, 46% in other urban centers and nearly one fourth of housing units in rural areas had used plywood for outer walls. Permanent materials such as concrete bricks or stone or galvanized iron or aluminum

had been used by nearly 50 % of housing units in Phnom Penh, 7.5% in other urban areas but permanent materials had been used by less than 3% in rural areas Table 39.

Table 38

Age of Housing Stock

Year of construction	Cambodia		Phnom Penh		Other Urban		Rural	
	No	%	No.	%	No	%	No	%
Before 1970	104,273	5.5	9,070	5.1	8,893	4.6	86,310	5.7
1970 – 1974	32,289	1.7	5,705	3.2	1,980	1.0	24,604	1.6
1975 – 1979	192,661	10.2	13,399	7.5	14,588	7.6	164,674	10.8
1980 – 1984	251,671	13.3	10,020	5.6	25,095	13.1	216,556	14.3
1985 – 1989	307,020	16.2	16,574	9.3	33,349	17.4	257,097	16.9
1990	96,113	5.1	9,934	5.6	15,057	7.8	71,122	4.7
1991	89,797	4.8	9,394	5.3	9,097	4.7	71,306	4.7
1992	108,507	5.7	13,845	7.8	15,901	8.3	78,761	5.2
1993	132,493	7.0	8,310	4.7	17,461	9.1	106,722	7.0
1994	130,185	6.9	6,166	3.5	16,000	8.3	108,019	7.1
1995	105,109	5.6	8,029	4.5	13,618	7.1	83,462	5.5
1996	149,090	7.9	8,175	4.6	10,557	5.5	130,358	8.6
1997	121,218	6.4	5,607	3.1	8,646	4.5	106,965	7.0
Not Stated	69,362	3.7	54,392	30.5	1,696	0.9	13,274	0.9
Total	1,889,788	100	178,620	100.0	191,938	100	1,519,230	100.0

5.3.2 Material used for Roofing

There appears to be a correlation between materials used for walls and materials used for roofing in dwelling units. 9.6% of housing units in Phnom Penh, 13.6% in other urban areas 52.7% in rural areas had thatched roofs. A proportion as high as 80.0% of the housing units in Phnom Penh had used permanent materials such as tiles, concrete and galvanized iron and aluminium for roofing. This percentage declines to 56% in other urban areas and to 43% of dwelling units in the rural areas Table 40.

5.3.3 Floor

Primary construction material used for the floor were wood, bamboo or planks, in 73% of housing units in rural areas, 50.% of housing units in other urban areas and 22% units in Phnom Penh. Table 41 shows that 42% of housing units in Phnom Penh had used ceramic tiles and a further 25% had used permanent materials such as cement, marble, vinyl and parquets for flooring. About 30% of housing units in other urban areas had used these

permanent materials for flooring. The percentage of housing units in the rural areas that had used these permanent materials amounted to 10 %. About one out of eight of housing units in Phnom Penh and other urban areas and approximately one in six housing units in the rural sector had used earth clay floors.

Table 39

Number and Percentage of Households by Kind of Materials Used for Walls of Occupied Housing Units

No.	Type of Materials	Cambodia		Phnom Penh		Other Urban		Rural	
		No	%	No	%	No	%	No	%
1	Bamboo, Thatch	963,886	51.0	17,272	9.7	65,313	34.0	881,301	58.0
2	Wood or Logs	112,324	5.9	11,150	6.2	8,913	4.6	92,261	6.1
3	Plywood	515,870	27.3	59,166	33.1	88,108	45.9	368,596	24.3
4	Concrete, Bricks or Stone	127,363	6.7	84,740	47.4	11,981	6.2	30,642	2.0
5	Galvanized iron or Aluminium	15,769	0.8	1,250	0.7	2,538	1.3	11,981	0.8
6	Fibrous Cement	779	-	224	0.1	158	0.1	397	-
7	Makeshift, salvaged or improvised Materials	21,499	1.1	684	0.4	5,902	3.1	14,913	1.0
8	Other	123,836	6.6	2,848	1.6	8,864	4.6	112,124	7.4
9	Not Stated	8,462	0.4	1,286	0.7	161	0.1	7,015	0.5
	Total	1,889,788	100.0	178,620	100.0	191,938	100.0	1,519,230	100.0

Tables 40

Number and Percentage of Household by Kind of Materials Used for Roofs of Occupied Housing Units

No.	Type of Materials	Cambodia		Phnom Penh		Other Urban		Rural	
		No	%	No	%	No	%	No	%
1	Thatch	891,520	47.2	17,208	9.6	74,168	38.6	800,144	52.7
2	Tiles	496,564	26.3	24,332	13.6	37,046	19.3	435,186	28.6
3	Fibrous Cement	43,352	2.3	11,637	6.5	3,959	2.1	27,756	1.8
4	Galvanized iron or Aluminium	360,822	19.1	58,869	33	71,801	37.4	230,152	15.1
5	Salvaged Materials	2,099	0.1	748	0.4	223	0.1	1,128	0.1

6	Mixed but predominantly made of Galvanized iron /Aluminium, tiles or Fibrous Cement	21,217	1.1	5,853	3.3	1,482	0.8	13,882	0.9
7	Mixed but predominantly made of thatch or salvaged Materials	2,589	0.1	656	0.4	-	-	1,933	0.1
8	Concrete	64,244	3.4	58,565	32.8	2,520	1.3	3,159	0.2
9	Plastic Sheets	2,296	0.1	642	0.4	380	0.2	1,274	0.1
10	Other	2,589	0.1	110	0.1	212	0.1	2,267	0.1
11	Not Stated	2,496	0.1	-	-	147	0.1	2,349	0.2
	Total	1,889,788	100.0	178,620	100.0	191,938	100.0	1,519,230	100.0

Table 41

Number and Percentage of Households by Kind of Materials Used for Floors

of Occupied Housing Units

No.	**Type of Materials**	**Cambodia**		**Phnom Penh**		**Other Urban**		**Rural**	
		No	%	No	%	No	%	No	%
1	Earth Clay	279,271	14.8	20,713	11.6	21,641	11.3	236,917	15.6
2	Wood, Bamboo or Planks	1,245,416	65.9	39,384	22.0	99,872	52.0	1,106,160	72.8
3	Cement	58,181	3.1	18,515	10.4	6,958	3.6	32,708	2.2
4	Parquet, Polished Wood	202,956	10.7	22,793	12.8	52,165	27.2	127,998	8.4
5	Polished Stone Marble	4,385	0.2	915	0.5	1,520	0.8	1,950	0.1
6	Vinyl	820	-	820	0.5	-	-	-	-
7	Ceramic Tiles	88,705	4.7	75,005	42.0	8,928	4.7	4,772	0.3
8	Others	9,214	0.5	475	0.3	854	0.4	7,885	0.5
9	Not Stated	840	-	-	-	-	-	840	0.1
	Total	1,889,788	100.0	178,620	100.0	191,938	100.0	1,519,230	100.0

5.4 Source of Lighting

In the rural and other urban areas the most commonly used source of lighting was the kerosene lamp. 88% of housing units in the rural sector and 64% of housing units in other urban areas had used this source of lighting. About 80 % of housing units in Phnom Penh had used publicly or privately generated electricity for lighting . About one in three housing units in other urban areas had used electricity as the principal source of lighting. Table 42 shows that only 7% of housing units in rural areas had used electricity for lighting.

Table 42

Households' Main Source of Lighting

No.	Source	Cambodia		Phnom Penh		Other Urban		Rural	
		No	%	No	%	No	%	No	%
1	Publicly Provided								
	Electricity	200,479	10.6	116,791	65.4	46,799	24.4	36,889	2.4
2	Privately Generated								
	Electricity	109,345	5.8	26,141	14.6	14,910	7.8	68,294	4.5
3	Battery	68,263	3.6	4,424	2.5	6,060	3.2	57,779	3.8
4	Pump Lantern	9,157	0.5	1,229	0.7	1,023	0.5	6,905	0.5
5	Kerosene Lamp	1,486,801	78.7	29,026	16.3	122,823	64.0	1,334,952	87.9
6	Candles	2,266	0.1	900	0.5	178	0.1	1,188	0.1
7	Others	13,368	0.7	-	-	145	0.1	13,223	0.9
8	Not Stated	109	-	109	0.1	-	-	-	-
	Total	1,889,788	100.0	178,620	100.0	191,938	100.0	1,519,230	100.0

5.5 Source of Drinking Water

In the rural sector, more than 68% of housing units was dependent on unprotected wells ponds, river or streams, as the source of drinking water. In the other urban areas, these two sources were used by 47% of the households. In Phnom Penh 9.0% of the household had depended on this sources for drinking water. Table 43 also shows that 61% of housing units in Phnom Penh had access to a public tap. Such facilities were restricted to 8.5 % of housing units in other urban areas and only 2 % of housing units in rural areas. Tube pipe well or bore holes had served one in six housing units in rural areas and 22.6 % of housing units in other urban areas.

Table 43

Households' Main Source of Drinking Water

No.	Sources	Cambodia		Phnom Penh		Other Urban		Rural	
		No	%	No	%	No	%	No	%

1	Piped in Dwelling	119,074	6.3	95,688	53.6	11,470	6.0	11,916	0.8
2	Public Tap	37,155	2.0	13,022	7.3	4,866	2.5	19,267	1.3
3	Tubed/Piped Well or Borehole	314,333	16.6	10,561	5.9	43,326	22.6	260,446	17.1
4	Protected Dug Well	94,925	5.0	1,937	1.1	12,889	6.7	80,099	5.3
5	Unprotected Dug Well	610,784	32.3	3,108	1.7	45,175	23.5	562,501	37.0
6	Pond, River or Stream	523,307	27.7	12,999	7.3	45,722	23.8	464,586	30.6
7	Rainwater	10,838	0.6	150	0.1	2,067	1.1	8,621	0.6
8	Tanker Truck, Vender or Otherwise bought	111,628	5.9	37,667	21.1	21,259	11.1	52,702	3.5
9	Others	65,519	3.5	3,114	1.7	5,164	2.7	57,241	3.8
10	Not Stated	2,225	0.1	374	0.2	-	-	1,851	0.1
	Total	1,889,788	100.0	178,620	100.0	191,938	100.0	1,519,230	100.0

Table 44
Distance to Nearest Source of Drinking Water

No.	Distance	Cambodia		Phnom Penh		Other Urban		Rural	
		No	%	No	%	No	%	No	%
1	Less than 1 Km	1,864,854	98.7	177,224	99.2	189,607	98.8	986	-
2	2 - 5 Km	18,775	1.0	1,396	0.8	1,659	0.9	10	-
3	5 - 10 Km	2,991	0.2	-	-	160	0.1	2	-
4	10+	3,168	0.2	-	-	512	0.3	2	-
5	Not Stated	-	-	-	-	-	-	-	-
	Total	1,889,788	100.0	178,620	100.0	191,938	100.0	1000	-

5.6 Toilet Facilities

Type of toilet facilities used is a measure of good sanitary condition available. Table 45 shows that 85 .7% of housing units in rural areas, and as much as 57.7 % of housing units in other urban areas and 15 % of housing units in Phnom Penh had no toilet facilities. Table… also shows that 50 % of the housing units in Phnom Penh had toilets connected to public sewerage, and another 23.3 % had septic tanks. The corresponding percentages for other urban areas were 4 percent and 18.5 % respectively. About 3.5 % of housing units in the rural sector had these facilities.

Table 45
Number and Percentage of Households by Type of Toilet Facilities

No.	Type	Cambodia		Phnom Penh		Other Urban		Rural	
		No	%	No	%	No	%	No	%
1	Connected to sewerage	101,256	5.4	90,667	50.8	7,420	3.9	3,169	0.2
2	Septic tank	128,689	6.8	41,672	23.3	35,467	18.5	51,550	3.4
3	Pit Latrine	85,513	4.5	5,991	3.4	15,030	7.8	64,492	4.2
4	Other without septic tank	34,641	1.8	3,011	1.7	10,489	5.5	21,141	1.4
5	Public toilet	61,033	3.2	3,827	2.1	9,350	4.9	47,856	3.2
6	None	1,439,195	76.2	26,684	14.9	110,736	57.7	1,301,775	85.7
7	Others	12,695	0.7	3,888	2.2	3,285	1.7	5,522	0.4
8	Not Stated	26,766	1.4	2,880	1.6	161	0.1	23,725	1.6
	Total	1,889,788	100.0	178,620	100.0	191,938	100.0	1,519,230	100.0

5.7 Fuel used for cooking

Table 46 shows that 97.7 % in rural sector had used firewood as fuel for cooking and the corresponding percentages for Phnom Penh and other urban areas were 42.7% and 87.9 %. Housing units in these urban centers that had used charcoal for cooking had amounted to 37 .0 % and 9.1 % respectively. In Phnom Penh, one in eight households had used LPG for cooking.

Table 46

Type of Fuel Used for Cooking by Household

No.	Type	Cambodia		Phnom Penh		Other Urban		Rural	
		No	%	No	%	No	%	No	%
1	Fire wood	1,728,949	91.5	76,200	42.7	168,694	87.9	1,484,055	97.7
2	Charcoal	95,466	5.1	66,017	37.0	17,448	9.1	12,001	0.8
3	LPG	25,124	1.3	22,828	12.8	2,296	1.2	-	-
4	Kerosene	16,243	0.9	12,091	6.8	1,197	0.6	2,955	0.2
5	Publicly provided electricity	1,460	0.1	481	0.3	-	-	979	0.1
6	Privately provided electricity	2,069	0.1	403	0.2	-	-	1,666	0.1
7	None	1,305	0.1	272	0.2	163	0.1	870	0.1
8	Other	17,749	0.9	213	0.1	1,805	0.9	15,731	1.0
9	Not Stated	1,423	0.1	115	0.1	335	0.2	973	0.1
	Total	1,889,788	100.0	178,620	100.0	191,938	100.0	1,519,230	100.0

Table 47
Household Durables and Assets

Item/Stratum	Number of Households having	Percentage of Households	Number of
Cambodia	1,554,387	82.2	1,889,962
Bicycle	1,071,798	56.7	
Cart	549,047	29.1	
Boat	161,045	8.5	
Motor Cycle/ Scooter	396,492	21	
Radio/ Cassette recorder	755,825	40	
Television Set	380,122	20.1	
Car	21,308	1.1	
Truck /Van	6,084	0.3	
Tractor/ Agricultural equipement	43,227	2.3	
Phnom Penh	161,732	90.6	178,580
Bicycle	70,956	39.7	
Cart	4,912	2.8	
Boat	4,004	2.2	
Motor Cycle/ Scooter	114,672	64.2	
Radio/ Cassette recorder	129,021	72.2	
Television Set	129,617	72.6	
Car	15,093	8.5	
Truck /Van	1,125	0.6	
Tractor/ Agricultural equipement	461	0.3	
Other Urban	160,749	83.7	192,070
Bicycle	100,070	52.1	
Cart	31,970	16.6	
Boat	21,827	11.4	
Motor Cycle/ Scooter	57,705	30	
Radio/ Cassette recorder	90,029	46.9	
Television Set	47,724	24.8	
Car	2,472	1.3	
Truck /Van	1,175	0.6	

Tractor/ Agricultural equipement	2,726	1.4	
Rural	1,231,906	81.1	1,519,312
Bicycle	900,772	59.3	
Cart	512,165	33.7	
Boat	135,214	8.9	
Motor Cycle/ Scooter	224,115	14.8	
Radio/ Cassette recorder	536,775	35.3	
Television Set	202,781	13.3	
Car	3,743	0.2	
Truck /Van	3,784	0.2	
Tractor/ Agricultural equipement	40,040	2.6	

5.8 Durables

The survey canvassed information on household durables and assets owned by the households to ascertain the economic condition of the households. Data presented in Table 47 shows that 56% of the households in Cambodia had owned bicycles, 29 % had owned carts, 21 % had owned motor cycles or scooters. The percentage of household that owned a motor car was small and amounted to 1.1 %. But in Phnom Penh, the household possessed a motor car had risen to 8.5 %. About 2 out of 5 households in Cambodia had owned radio cassette recorders. One in 5 households had owned a Television set. The percentage that this sound equipment was over 70% in Phnom Penh. In other urban area, nearly one in two household had owned a radio cassette and one in four household had owned a TV set. In the rural sector too, access to this had improved. About 15% had owned a motor cycle or scooter, 35% had owned radio cassette recorders and 13% of the household had owned a Television set. A comparison of CSES 1997 data with SESC 1993/94 results shows that the ownership of these assets had increased during the past three years.

5.9 Livestock Ownership

Data presented in Table 48 shows that more than three out of four households had been rearing livestock. Three out of five households have been engaged in poultry keeping and 50% of the households had owned pigs and 45% had been rearing cattle. These percentages were lower in the urban areas. In the rural sector, two third of the households had raised poultry and more than 50% have been rearing cattle.

Table 48

Livestock Owned by Households

Item / Stratum	Numbers of Households having	% of HH	Total Number of Animals	Average Numbers of Animals	Households

	Animals				
Cambodia	1,438,826	76.1	14,483,795	10.1	1,889,962
Pigs	916,236	48.5	1,766,429	1.9	
Buffalo	206,800	10.9	484,428	2.3	
Cattle	855,342	45.3	2,289,873	2.7	
Poultry	1,123,423	59.4	9,836,574	8.8	
Other	44,046	2.3	106,491	2.4	
Phnom Penh	25,790	14.4	174,591	6.8	178,580
Pigs	7,446	4.2	15,401	2.1	
Buffalo	461	0.3	922	2	
Cattle	6,812	3.8	20,943	3.1	
Poultry	18,994	10.6	134,277	7.1	
Other	1,529	0.9	3,048	2	
Other Urban	101,016	52.6	906,103	9	192,070
Pigs	51,127	26.6	102,518	2	
Buffalo	15,812	8.2	40,528	2.6	
Cattle	38,415	20	105,744	2.8	
Poultry	76,746	40	648,480	8.4	
Other	2,244	1.2	8,833	3.9	
Rural	1,312,020	86.4	13,403,101	10.2	1,519,312
Pigs	857,663	56.5	1,648,510	1.9	
Buffalo	190,527	12.5	442,978	2.3	
Cattle	810,115	53.3	2,163,186	2.7	
Poultry	1,027,683	67.6	9,053,817	8.8	
Other	40,273	2.7	94,610	2.3	

CHAPTER 6

HOUSEHOLD EXPENDITURE

6.0 Household expenditure data were collected through the core questionnaire using two sets of questions, one set for food expenditure and the second set for non-food expenditure. The amounts expended on 20 commonly used food items in the week before the survey was collected. In order to capture complete information to the extent feasible, different reference periods were used in the collection of expenditure data on 13 non-food items included in the survey. Consumption of home grown produce, purchases through exchange of commodities, meals provided free of charge by the employer and food received as gifts and other receipts in kind were valued at market prices and recorded under receipts in kind and used in the valuation of total consumption. Although, very detailed data to the extent that would be canvassed in a consumer expenditure survey, were not collected, values of 33 food items and non- food items included in the survey were considered adequate to derive stable estimates on trends in consumption expenditure.

6.1 Average Monthly Household Expenditure

Average monthly expenditure per household for households in Phnom Penh was 727,282 Riels. The corresponding expenditure for households in other urban areas and the rural sector were 403,254 Riels and 220,037 Riels. Table 49. Average monthly expenditure per household in Cambodia (truncated frame) amounted to 286,585 Riels. The households in Phnom Penh spent 80% more than the amounts spent by households in other urban areas. Average expenditure of households in Phnom Penh were 230% higher than the average expenditure of households in rural areas. On the basis of these results the per capita annual consumption expenditure in Cambodia was estimated at 696,000 Riels or US$ 251.

Table 49
Average Monthly Household Expenditure

Domain	Average Household Expenditure Per Month	
	(Riels)	US $ Dollars
Cambodia	286,585	103.6
Phnom Penh	727,282	262.9
Other Urban	403,253	145.8
Rural	220,037	79.5

A comparison of these estimates with the household consumption estimates derived from the Socio-Economic Survey of Cambodia (SESC) 1993/94 shows that household
consumption expenditure had declined between 1993 and 1997. Estimates from the two surveys are not strictly comparable due to differences in coverage and methodology, and in addition the decline in household size is also an issue. Average household size for the whole country has declined from 5.6 in 1993/94 to 4.9 in 1997. In the urban areas the household size has declined from 5.9 to 5.2 while in the rural sector the decline was from 5.5 to 4.9. Average household expenditure adjusted for this decrease in household size is shown in Table 50. The expenditure in Riels, adjusted for the decreases in household size were in fact higher than SESC 1993 estimates.

Table 50
Average Monthly Household Expenditure in 1993/94 and 1997

Domain	SESC 1993/4	CSES 1997	CSES 1997 (adjusted for HH size)
Cambodia	290,556	286,585	327,525
Phnom Penh	781,201	727.282	825,185
Other Urban	439,517	403,253	457,537
Rural	238,772	220,037	246,980

6.2 Expenditure by Major Group

6.2.1 Average Monthly Household Expenditure

Total household consumption expenditure on all items for the whole country (truncated frame) was 286,585 Riels per household per month. Of this expenditure 184,000 Riels or 64.2% was spent on food and 102,600 or 35.8 was spent on non-food expenditure, Table 51. Of the total non-food expenditure, 44,065 Riels or 15.4% was spent on housing and utilities. Expenditure on medical care was 11,745 Riels (4.1%). Expenditure on education had amounted to 4,565 Riels or 1.6% of total expenditure. Clothing and foot ware had accounted for 3.5% of total expenditure. Households in Phnom Penh had spent 43.9% of expenditure on food. Housing and utilities had absorbed 32.2 % of total expenditure. Transport and communication expenses were 9.5 % of total expenditure. Rural households had spent 71.3% on food and the share of non-food expenditure was thus only 28.7%. These households had spent 9.4% on housing and utilities and 5.0% on medical care.

6.2.2 Average Monthly Per Capita Expenditure

The average monthly per capita consumption expenditure in Phnom Penh was 140,296 Riels (US$50.7). In the other urban areas and the rural sector it was 77, 432 Riels, (US $ 28.0) and 45,045 Riels (US $ 16.3) per month respectively Table 52. The per capita expenditure on food in the truncated area covered by the

frame was 37,200 Riels or 64.2% of total monthly expenditure. Expenditure on food was lower in Phnom Penh and amounted to 43.9 % of total expenditure . Of the non food expenditure, a percentage is as high as 32.2 % of total expenditure had been spent on housing and utilities by households in Phnom Penh.

The average monthly per capita expenditure by item and stratum are shown in Table 53. Expenditure on cereals was broadly similar in the three strata. Households in other urban and rural areas had spent 8,900 Riels per person per month while the households in Phnom Penh 9600 Riels. But in the case of expenditure on meat and poultry there is a wide variation in the per capita expenditures in the three strata. Households in rural areas had spent 2,900 Riels per person per month on these items while the expenditure on these items by households in other urban areas amounted to 5600 Riels or twice the amount spent by rural households. Households in Phnom Penh had spent on the average 10,100 Riels per person per month on meat and poultry. Table also shows that house rent was the item on which per capita expenditure was highest of all non food items in Phnom Penh and other urban areas. But per capita expenditure was higher on medical care (5.0%) in the rural sector households.

Table 51
Average Monthly Household Expenditure by Major Group and Stratum, Cambodia.

No.	Item	Cambodia		Phnom Penh		Other Urban		Rural	
		Value	%	Value	%	Value	%	Value	%
	All Items	**286,586**	**100.0**	**727,282**	**100.0**	**403,253**	**100.0**	**220,037**	**100.0**
1	Food, Beverage & Tobacco	183,979	64.2	319,568	43.9	272,882	67.7	156,803	71.3
	Non food Items	102,607	35.8	407,715	56.1	130,372	32.3	63,234	28.7
2	Clothing and Footwear	9,899	3.5	17,204	2.4	13,802	3.4	8,547	3.9
3	Housing and Utilities	44,065	15.4	234,188	32.2	52,265	13.0	20,682	9.4
4	Household Furnishing and Household Operation	2,035	0.7	4,286	0.6	3,395	0.8	1,599	0.7
5	Medical Care	11,745	4.1	12,123	1.7	16,821	4.2	11,059	5.0
6	Transport and Communication	12,608	4.4	69,411	9.5	14,814	3.7	5,652	2.6
7	Recreation	841	0.3	2,092	0.3	2,010	0.5	546	0.2
8	Education	4,565	1.6	26,429	3.6	5,966	1.5	1,818	0.8
9	Personal Care and Effects	5,841	2.0	11,214	1.5	10,693	2.7	4,596	2.1
10	Miscellaneous Expenditure	11,006	3.8	30,768	4.2	10,605	2.6	8,734	4.0

Table 52
Average Monthly Per Capita Expenditure by Expenditure Group and Stratum, Cambodia.

No.	Item	Cambodia		Phnom Penh		Other Urban		Rural	
		Value	%	Value	%	Value	%	Value	%

	All Items	**57,947**	**100.0**	**140,365**	**100.0**	**77,432**	**100.0**	**45,045**	**100.0**
1	Food, Beverage and Tobacco	37,200	64.2	61,676	43.9	52,398	67.7	32,100	71.3
	Non food Items	20,747	35.8	78,689	56.1	25,034	32.3	12,945	28.7
2	Clothing and Footwear	2,002	3.5	3,320	2.4	2,650	3.4	1,750	3.9
3	Housing and Utilities	8,910	15.4	45,198	32.2	10,036	13.0	4,234	9.4
4	Household Furnishing and Household Operation	411	0.7	827	0.6	652	0.8	327	0.7
5	Medical Care	2,375	4.1	2,340	1.7	3,230	4.2	2,264	5.0
6	Transport and Communication	2,549	4.4	13,396	9.5	2,844	3.7	1,157	2.6
7	Recreation	170	0.3	404	0.3	386	0.5	112	0.2
8	Education	923	1.6	5,101	3.6	1,146	1.5	372	0.8
9	Personal Care and Effects	1,181	2.0	2,164	1.5	2,053	2.7	941	2.1
10	Miscellaneous Expenditure	2,225	3.8	5,938	4.2	2,036	2.6	1,788	4.0

Table 53
Average Monthly Per Capita Expenditure by Item and Stratum, Cambodia.

No.	Item	Cambodia		Phnom Penh		Other Urban		Rural	
		Value	**%**	**Value**	**%**	**Value**	**%**	**Value**	**%**
	All Items	**57,947**	**100.0**	**140,365**	**100.0**	**77,432**	**100.0**	**45,045**	**100.0**
	Food Items	37,200	64.2	61,676	43.9	52,398	67.7	32,100	71.3
1	Cereals	9,010	15.5	9,585	6.8	8,896	11.5	8,954	19.9
2	Fish	6,811	11.8	9,466	6.7	8,648	11.2	6,232	13.8
3	Meat and Poultry	3,902	6.7	10,145	7.2	5,671	7.3	2,885	6.4
4	Eggs	821	1.4	1,434	1.0	1,106	1.4	706	1.6
5	Dairy Products	508	0.9	1,411	1.0	707	0.9	368	0.8
6	Oil and Fats	942	1.6	1,393	1.0	1,155	1.5	857	1.9
7	Fresh Vegetables	2,345	4.0	3,954	2.8	3,022	3.9	2,053	4.6
8	Tuber	250	0.4	339	0.2	314	0.4	230	0.5
9	Pulses and Legumes	265	0.5	350	0.2	384	0.5	239	0.5
10	Prepared and Preserved Vegetables	292	0.5	502	0.4	305	0.4	265	0.6
11	Fruits	2,069	3.6	5,467	3.9	3,820	4.9	1,409	3.1
12	Other Produce	372	0.6	320	0.2	369	0.5	379	0.8
13	Sugar, Salt and Spices	2,147	3.7	2,193	1.6	2,452	3.2	2,100	4.7
14	Tea, Coffee, Cacao	472	0.8	1,926	1.4	737	1.0	255	0.6
15	Non-alcoholic beverages	338	0.6	886	0.6	533	0.7	243	0.5
16	Alcoholic beverages	1,240	2.1	949	0.7	4,317	5.6	862	1.9

17	Tobacco Products	1,947	3.4	2,320	1.7	2,473	3.2	1,829	4.1
18	Other Food Products	443	0.8	1,242	0.9	691	0.9	311	0.7
19	Food Taken Away from Home	2,163	3.7	5,887	4.2	5,465	7.1	1,254	2.8
20	Prepared Meals bought outside And eaten at home	862	1.5	1,906	1.4	1,334	1.7	668	1.5
	Non food Items	20,747	35.8	78,689	56.1	25,034	32.3	12,945	28.7
21	Clothing and Footwear	2,002	3.5	3,320	2.4	2,650	3.4	1,750	3.9
22	House Rent	5,934	10.2	37,310	26.6	6,120	7.9	1,997	4.4
23	Water Charges	764	1.3	2,305	1.6	1,081	1.4	529	1.2
24	Fuel and Power	886	1.5	3,223	2.3	1,283	1.7	541	1.2
25	Wood Fuel	1,326	2.3	2,361	1.7	1,551	2.0	1,167	2.6
26	Furnishing and Household	411	0.7	827	0.6	652	0.8	327	0.7
27	Medical Care	2,375	4.1	2,340	1.7	3,230	4.2	2,264	5.0
28	Transport and Communication	2,549	4.4	13,396	9.5	2,844	3.7	1,157	2.6
29	Recreation	170	0.3	404	0.3	386	0.5	112	0.2
30	Education	923	1.6	5,101	3.6	1,146	1.5	372	0.8
31	Personal Care	953	1.6	1,818	1.3	1,647	2.1	751	1.7
32	Personal Effects	229	0.4	346	0.2	407	0.5	190	0.4
33	Miscellaneous Items	2,225	3.8	5,938	4.2	2,036	2.6	1,788	4.0

6.3 Expenditure by Deciles

6.3.1 Average Monthly Household Expenditure

Average monthly household expenditure by per capita expenditure deciles is shown in Table 54. Average monthly household expenditure of households in Cambodia grouped under the 1st (lowest) decile had amounted to 106,000 Riels per household. This amount rises to 142,000 Riels in the second decile. Households grouped under the 1st and 2nd deciles

Table 54

Average Monthly Household Expenditure by Per Capita Expenditure Decile and Stratum, Cambodia 1997.

Household Expenditure Decile	Cambodia		Phnom Penh		Other Urban		Rural	
	Value Riels	%	Value Riels	%	Value Riels	%	Value Riels	%
All Deciles	286,585	100.0	727,281	100.0	403,254	100.0	220,037	100.0
1st Decile	106,121	3.7	255,293	3.5	129,019	3.2	102,583	4.7

2st Decile	141,945	4.9	341,876	4.7	165,739	4.2	135,663	6.2
3th Decile	154,795	5.4	393,779	5.4	204,654	5.0	148,768	6.8
4th Decile	174,373	6.1	453,890	6.2	232,281	5.8	166,346	7.5
5th Decile	194,906	6.8	498,323	6.9	254,941	6.3	174,430	8.0
6th Decile	219,888	7.7	634,257	8.7	291,619	7.2	196,245	8.9
7th Decile	248,751	8.7	646,944	8.8	327,175	8.0	219,858	10.0
8th Decile	298,613	10.4	850,213	11.7	397,487	9.9	249,830	11.4
9th Decile	403,703	14.1	1,005,604	13.6	596,593	15.1	297,572	13.5
10th Decile	923,609	32.2	2,180,709	30.3	1,443,060	35.3	509,159	23.1

had spent 3.7% and 4.9% of the total household expenditure. Households grouped under the 9th decile had spent 403,000 Riels per household per month and households in the 10th decile had spent 923,000 Riels per household per month. The households in the 9th and 10th (highest) deciles had spent 14.1% and 32.2% of total expenditure. In Phnom Penh household expenditure had varied from 255,000 Riels per household in the 1st decile to 2,180,000 Riels for households grouped under the 10th decile. In the rural sector the amounts spent by households in the 1st (lowest) decile was 102,000 Riels per household per month and this amount rises to 509,000 Riels per household per month for households in the 10th decile.

A detailed breakdown of average household monthly expenditure by per capita expenditure decile and item is given in Table 56. This table provides details of the amounts spent on both food and non- food items by households grouped under the deciles from lowest to the highest decile.

Cambodian households in the 1st (lowest) decile had spent 84, 000 Riels on food of which amount 37, 000 Riels was on cereals, and 15,000 Riels was on fish and 6,000 Riels on vegetables. Of the non-food expenditure amounting to 22,000 Riels 4,500 Riels had been

spent on clothing and 2,700 Riels on medical care per household per month. Households grouped under the 10th (highest) decile had spent 69,000 Riels on cereals, 64,000 Riels on fish and 55,000 Riels on meat and poultry and 22,000 Riels on vegetables. These households had spent 22,000 Riels on clothing and 34,000 Riels on medical care.

6.3.2 Average Monthly Per Capita Household Expenditure by per capita expenditure deciles

In Phnom Penh the households grouped under the lowest (1st) per capita expenditure decile had spent 40,000 Riels per person per month and in the rural sector the per person per month expenditure in the lowest decile group was 16,500 Riels Table 55. Average monthly per capita consumption expenditure of Cambodian households in the truncated area covered by the frame increases from 17,243 Riels in the first decile to 31,974 Riels in the 4th decile.

An average size household of 4.9 persons in the lowest decile had spent only 85,372 Riels per month(US$ 30.9 per month).

Table 55
Average Monthly Per Capita Consumption Expenditure by Per Capita Expenditure Decile and Stratum, Cambodia 1997.

Household Expenditure Decile	Cambodia		Phnom Penh		Other Urban		Rural	
	Value Riels	%	Value Riels	%	Value Riels	%	Value Riels	%
All Deciles	57,944	100.0	140,296	100.0	77,432	100.0	45,045	100.0
1st Decile	17,243	3.0	40,638	2.9	20,632	2.7	16,583	3.7
2st Decile	23,419	4.0	56,490	4.1	29,221	3.8	22,308	4.9
3th Decile	27,741	4.8	69,272	4.9	34,632	4.5	26,022	5.8
4th Decile	31,974	5.5	81,482	5.8	40,376	5.3	29,715	6.6
5th Decile	36,724	6.3	94,161	6.7	46,918	6.0	33,334	7.4
6th Decile	43,124	7.4	109,510	7.8	53,480	6.8	38,062	8.4
7th Decile	51,105	8.8	131,183	9.3	62,474	8.2	44,270	9.9
8th Decile	62,701	10.8	154,635	11.0	77,143	10.0	52,531	11.6
9th Decile	83,964	14.5	192,862	13.7	111,367	14.6	65,506	14.5
10th Decile	201,599	34.8	469,292	33.8	299,865	38.3	121,932	27.2

6.4 Consumption of Cereals

Average household expenditure of households in Cambodia on cereals per household per month was 44,567 Riels. This constituted 15.6% of total expenditure. The amount spent on cereals was broadly similar in urban and rural households. The rural households had spent 44,000 Riels per month and the amount spent by households in other urban areas was 46,000 Riels and the households in Phnom Penh 49,000 Riels. It should be noted that the households in rural areas were smaller in size than in the urban areas. When household expenditure is adjusted for this variation in household size, expenditure of rural households on this item rises to 46,500 Riels.

6.5 Fish , Meat and Eggs

The average monthly expenditure per household in Phnom Penh on fish, meat and eggs were 49,500riels, 52,500riels and 7,500 Riels. The corresponding amounts for households in the 1st decile were 34,000 Riels, 20,000 Riels and 4,000 Riels. The households in the 10th decile had spent 57,500, Riels 85.,000 Riels and 9500 Riels. The average monthly expenditure of households in the rural sector was 30,000 Riels, 14,000 Riels and 3,500 Riels on fish, meat and eggs. The 1st decile households in the rural sector had spent 15,000 Riels on fish 4,500 Riels on meat and 1,500 Riels on eggs. The 10th decile households in the rural areas had spent 56,000 Riels, 31,000 and 6,500 Riels on these items.

6.6 Educational Expenses

The average monthly household expenditure of households in the whole country had ranged from 1,000 Riels for households in the 1st decile to 20,500 Riels for households in the 10th decile. The households grouped under the 1st decile in Phnom Penh had spent 10,500 Riels or 4.1% of total expenditure on education and households in the 10th decile had spent 38,000 Riels or 1.7% of total expenditure. Rural sector households in the 1st had spent 900 Riels or 0.9% and this rises to 3,700 Riels or 0.7 of total expenditure for households in the 10th decile.

6.7 Distribution of Expenditure

The Lorenz curves based on average monthly household expenditure (per capita expenditure deciles) for Cambodia and the three strata are shown in Figure—The curve is obtained by plotting the cumulative percentage of households against the cumulative percentage of household expenditure. Greater equality in the distribution of income or expenditure is indicated by the closer proximity of the curve to the diagonal line, which is known as the "line of equal distribution". As such this curve indicates some measure of inequality in the distribution of household expenditure. The curves for Phnom Penh and other urban areas are below that of the curve for the rural sector showing that disparity in household expenditures was greater in the urban areas.

The Gini coefficient is frequently used to measure the degree of concentration of income or expenditure or as a measure of inequality in these characteristics of the population. The Gini coefficient is defined as the proportion of the area between the Lorenz curve and the diagonal line and the total area under the diagonal line. This proportion always lies between 0 and 1.

The Gini coefficients calculated for Cambodia(for the truncated frame), Phnom Penh, other urban areas and the rural sector is shown below. The inequality in household expenditure is lowest in the rural sector. This inequality in household expenditure is higher in other urban areas than in Phnom Penh.

	Gini Coefficient	Gini Coefficient

	CSES 1997	CSES 1993/94
Cambodia	0.366	0.37
Phnom Penh	0.359	0.42
Other Urban	0.414	0.46
Rural	0.255	0.29

A comparison of these Gini Coefficients with the coefficients derived from SESC 1993 /94 indicates that the inequality in expenditure had declined (improved) in both urban and rural areas.

6.8 Comparability of Data Sources

The expenditure data from CSES 1997 presented here are not strictly comparable with the data from the SESC 1993/94, which canvassed very detailed data on consumer expenditure. SESC 1993/94 collected data on over 450 items of consumption expenditure, the type of information required to establish weights in the construction of consumer price indices. At that level of disagregation it is possible to achieve results closer to actual consumption levels. Such surveys are required infrequently once in 5 –7 years because of costs and time involved in designing, conducting and processing such surveys. CSES 1997 had used a shorter list comprising 33 commonly used consumer items that were considered to be adequate to monitor consumption expenditure over time. In addition to this issue arising from differences in the scope of the two surveys, the researchers should take note of the decline in household size and changes in household structure which are important determinants of household expenditure.

Table 56
Average Household Monthly Expenditure by Per Capita
Expenditure Decile by Item and Stratum, Cambodia

Item	Total Expenditure		1st Decile Expenditure		2nd Decile Expenditure		3rd Decile Expenditure		4th Decile Expenditure		5th Decile Expenditure		6th Decile Expenditure		7th Expe
Phnom Penh	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Valu
Total Expenditure	727281	100	255293	100	341876	100	393779	100	453890	100	498323	100	634257	100	6507
Food Expenditure	319567	43.9	160932	63.0	217087	63.5	230321	58.5	267498	58.9	270369	54.3	340238	53.6	3364
Non Food Expenditure	407714	56.1	94361	37.0	124788	36.5	163458	41.5	186393	41.1	227954	45.7	294019	46.4	3143
No. 1 Cereals	49662	6.8	43199	16.9	42814	12.5	41668	10.6	49647	10.9	45085	9.0	52320	8.2	4754

2	Fish	49044	6.7	34081	13.3	45351	13.3	46133	11.7	47838	10.5	48993	9.8	50456	8.0	5166
3	Meat and Poultry	52568	7.2	19836	7.8	34687	10.1	40295	10.2	45516	10.0	45207	9.1	58992	9.3	4945
4	Eggs	7430	1.0	4228	1.7	5300	1.6	6000	1.5	6535	1.4	8685	1.7	9123	1.4	9071
5	Dairy Products	7310	1.0	2072	0.8	1952	0.6	3821	1.0	3563	0.8	3910	0.8	6183	1.0	4427
6	Oil and Fats	7219	1.0	5380	2.1	6530	1.9	6557	1.7	6739	1.5	6966	1.4	8422	1.3	8300
7	Fresh Vegetables	20487	2.8	11955	4.7	17762	5.2	16819	4.3	19626	4.3	18390	3.7	22686	3.6	2271
8	Tuber	1757	0.2	465	0.2	1123	0.3	1377	0.3	1391	0.3	2165	0.4	2000	0.3	2652
9	Pulses and Legumes	1815	0.2	830	0.3	1483	0.4	1855	0.5	1360	0.3	1535	0.3	1752	0.3	1437
10	Prepared and Preserved Vegetables	2602	0.4	1407	0.6	1861	0.5	2423	0.6	2881	0.6	2020	0.4	3767	0.6	2467
11	Fruits	28329	3.9	7286	2.9	12336	3.6	13684	3.5	18647	4.1	19893	4.0	25784	4.1	3218
12	Other Produce	1659	0.2	419	0.2	1038	0.3	1369	0.3	1612	0.4	1212	0.2	1844	0.3	1947
13	Sugar, Salt and Spices	11365	1.6	8031	3.1	9084	2.7	10758	2.7	11041	2.4	10003	2.0	13061	2.1	1328
14	Tea, Coffee, Cocoa	9980	1.4	2189	0.9	3903	1.1	4587	1.2	6106	1.3	8083	1.6	10129	1.6	1346

	Item	Total Expenditure		1st Decile Expenditure		2nd Decile Expenditure		3rd Decile Expenditure		4th Decile Expenditure		5th Decile Expenditure		6th Decile Expenditure		7th Expe
	Phnom Penh	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Valu
15	Non-alcoholic beverages	4591	0.6	571	0.2	761	0.2	1875	0.5	2502	0.6	2691	0.5	3973	0.6	6388
16	Alcoholic beverages	4916	0.7	1705	0.7	1798	0.5	1843	0.5	2383	0.5	4297	0.9	5315	0.8	6161
17	Tobacco Products	12019	1.7	8573	3.4	11740	3.4	9721	2.5	10786	2.4	10660	2.1	12391	2.0	1182
18	Other Food Products	6437	0.9	2422	0.9	4415	1.3	4860	1.2	6742	1.5	6038	1.2	5890	0.9	7675
19	Food Taken away from Home	30500	4.2	3449	1.4	8643	2.5	8745	2.2	12966	2.9	17120	3.4	34597	5.5	3040
20	Prepared Meals bought outside and eaten at Home	9875	1.4	2836	1.1	4507	1.3	5935	1.5	9619	2.1	7414	1.5	11555	1.8	1333
21	Clothing and Footwear	17204	2.4	6330	2.5	10933	3.2	12880	3.3	11969	2.6	15902	3.2	17938	2.8	2293
22	House Rent	193315	26.6	34004	13.3	44655	13.1	59059	15.0	78965	17.4	102820	20.6	132417	20.9	1494
23	Water Charges	11941	1.6	7512	2.9	8889	2.6	10076	2.6	10835	2.4	11644	2.3	12173	1.9	1521
24	Fuel and Power	16698	2.3	5243	2.1	7742	2.3	11307	2.9	12522	2.8	13354	2.7	16493	2.6	1601
25	Wood Fuel	12233	1.7	7103	2.8	8407	2.5	10738	2.7	10648	2.3	11552	2.3	13428	2.1	1504
26	Furnishing and Household Equipment and Operation	4286	0.6	628	0.2	1358	0.4	1893	0.5	2498	0.6	2412	0.5	3599	0.6	3901
27	Medical Care	12123	1.7	7262	2.8	6874	2.0	9202	2.3	9101	2.0	9225	1.9	11527	1.8	1042
28	Transport and Communication	69411	9.5	4611	1.8	8878	2.6	14371	3.6	10402	2.3	19130	3.8	20678	3.3	2107
29	Recreation	2092	0.3	81	0.0	438	0.1	476	0.1	1472	0.3	858	0.2	766	0.1	2192
30	Education	26429	3.6	10530	4.1	10813	3.2	13820	3.5	18385	4.1	18436	3.7	35004	5.5	2465
31	Personal Care	9422	1.3	4958	1.9	7111	2.1	8496	2.2	6625	1.5	8520	1.7	9842	1.6	7780
32	Personal Effects	1792	0.2	250	0.1	682	0.2	677	0.2	1546	0.3	906	0.2	1040	0.2	5615
33	Miscellaneous Items	30768	4.2	5848	2.3	8008	2.3	10462	2.7	11425	2.5	13195	2.6	19115	3.0	2004

Table
Average Household Monthly Expenditure by Per Capita
Expenditure Decile by Item and Stratum, Cambodia

No.	Item	Total Expenditure		1st Decile Expenditure		2nd Decile Expenditure		3rd Decile Expenditure		4th Decile Expenditure		5th Decile Expenditure		6th Decile Expenditure		7th Expe
	Other Urban	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Valu
	Total Expenditure	403254	100	129019	100	165740	100	204654	100	232281	100	254941	100	291619	100	3271
	Food Expenditure	272882	67.7	100214	77.7	125834	75.9	153271	74.9	168218	72.4	182880	71.7	212921	73.0	2222
	Non Food Expenditure	130372	32.3	28805	22.3	39906	24.1	51382	25.1	64063	27.6	72061	28.3	78698	27.0	1049
1	Cereals	46328	11.5	37321	28.9	38692	23.3	40500	19.8	41525	17.9	40571	15.9	42663	14.6	4725
2	Fish	45035	11.2	20505	15.9	25132	15.2	35140	17.2	39563	17.0	42187	16.5	45458	15.6	4686
3	Meat and Poultry	29534	7.3	6617	5.1	9396	5.7	18311	8.9	17784	7.7	20750	8.1	28014	9.6	2658
4	Eggs	5758	1.4	3109	2.4	3772	2.3	2975	1.5	4079	1.8	5071	2.0	5950	2.0	4732
5	Dairy Products	3681	0.9	223	0.2	1208	0.7	1219	0.6	1804	0.8	2525	1.0	3632	1.2	2676
6	Oil and Fats	6016	1.5	3801	2.9	4240	2.6	4276	2.1	4539	2.0	5685	2.2	6459	2.2	5289
7	Fresh Vegetables	15739	3.9	7122	5.5	9524	5.7	11001	5.4	12647	5.4	14151	5.6	14797	5.1	1524
8	Tuber	1636	0.4	184	0.1	1160	0.7	891	0.4	552	0.2	1123	0.4	2092	0.7	1873
9	Pulses and Legumes	2001	0.5	342	0.3	1492	0.9	830	0.4	744	0.3	1908	0.7	2409	0.8	2077
10	Prepared and Preserved Vegetables	1588	0.4	825	0.6	1233	0.7	927	0.5	1025	0.4	882	0.3	1618	0.6	1624
11	Fruits	19893	4.9	2349	1.8	5016	3.0	6136	3.0	8407	3.6	9449	3.7	11997	4.1	1036
12	Other Produce	1922	0.5	277	0.2	957	0.6	829	0.4	850	0.4	1420	0.6	1800	0.6	1629
13	Sugar, Salt and Spices	12769	3.2	6703	5.2	8938	5.4	9330	4.6	10445	4.5	10728	4.2	12902	4.4	1500
14	Tea, Coffee, Cocoa	3840	1.0	640	0.5	934	0.6	1521	0.7	1119	0.5	2205	0.9	2900	1.0	2917

	Item	Total Expenditure		1st Decile Expenditure		2nd Decile Expenditure		3rd Decile Expenditure		4th Decile Expenditure		5th Decile Expenditure		6th Decile Expenditure		7th Dec Expe
	Other Urban	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Valu

15	Non-alcoholic beverages	2774	0.7	307	0.2		0.0	225	0.1	362	0.2	963	0.4	830	0.3	1804
16	Alcoholic beverages	22482	5.6	1310	1.0	1185	0.7	1636	0.8	2401	1.0	2345	0.9	3941	1.4	3189
17	Tobacco Products	12878	3.2	5897	4.6	6515	3.9	9329	4.6	8779	3.8	8812	3.5	10640	3.6	1492
18	Other Food Products	3599	0.9	249	0.2	827	0.5	1821	0.9	1936	0.8	1859	0.7	2518	0.9	2825
19	Food Taken away from Home	28460	7.1	2108	1.6	4588	2.8	5147	2.5	8236	3.5	9714	3.8	7380	2.5	1188
20	Prepared Meals bought outside and eaten at Home	6948	1.7	326	0.3	1025	0.6	1228	0.6	1420	0.6	531	0.2	4922	1.7	3509
21	Clothing and Footwear	13802	3.4	3888	3.0	5928	3.6	7189	3.5	8721	3.8	8602	3.4	13166	4.5	1197
22	House Rent	31873	7.9	5502	4.3	7761	4.7	10455	5.1	9993	4.3	13687	5.4	13085	4.5	2409
23	Water Charges	5631	1.4	1321	1.0	2162	1.3	2398	1.2	2908	1.3	5302	2.1	3367	1.2	6270
24	Fuel and Power	6681	1.7	1997	1.5	2885	1.7	4427	2.2	3326	1.4	4056	1.6	7114	2.4	5981
25	Wood Fuel	8080	2.0	3433	2.7	4764	2.9	6085	3.0	5897	2.5	7643	3.0	6410	2.2	7742
26	Furnishing and Household Equipment and Operation	3395	0.8	442	0.3	613	0.4	1019	0.5	1460	0.6	1331	0.5	1689	0.6	3058
27	Medical Care	16821	4.2	3725	2.9	4312	2.6	7061	3.5	10732	4.6	11331	4.4	9802	3.4	1780
28	Transport and Communication	14814	3.7	713	0.6	1360	0.8	1857	0.9	4103	1.8	2765	1.1	3197	1.1	6503
29	Recreation	2010	0.5	25	0.0	170	0.1	151	0.1	94	0.0	437	0.2	556	0.2	1127
30	Education	5966	1.5	1017	0.8	2052	1.2	2219	1.1	3992	1.7	4405	1.7	5120	1.8	4864
31	Personal Care	8576	2.1	3216	2.5	3640	2.2	3094	1.5	5063	2.2	4993	2.0	5587	1.9	6481
32	Personal Effects	2117	0.5	158	0.1	241	0.1	285	0.1	614	0.3	583	0.2	858	0.3	1310
33	Miscellaneous Items	10605	2.6	3368	2.6	4019	2.4	5143	2.5	7160	3.1	6927	2.7	8745	3.0	7703

Table
Average Household Monthly Expenditure by Per Capita
Expenditure Decile by Item and Stratum, Cambodia

Item	Total Expenditure		1st Decile Expenditure		2nd Decile Expenditure		3rd Decile Expenditure		4th Decile Expenditure		5th Decile Expenditure		6th Decile Expenditure		7th Expe
Rural	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Valu
Total Expenditure	220037	100	102583	100	135415	100	149017	100	166346	100	174430	100	196245	100	2198
Food Expenditure	156803	71.3	81481	79.4	104622	77.3	113354	76.1	124600	74.9	127543	73.1	141432	72.1	1559
Non Food Expenditure	63234	28.7	21101	20.6	30793	22.7	35663	23.9	41746	25.1	46886	26.9	54813	27.9	6392
No.															
1 Cereals	43746	19.9	36549	35.6	40303	29.8	40722	27.3	40591	24.4	40672	23.3	39732	20.2	4011
2 Fish	30444	13.8	14829	14.5	20764	15.3	23339	15.7	26026	15.6	26364	15.1	30284	15.4	3199
3 Meat and Poultry	14095	6.4	4479	4.4	7351	5.4	7655	5.1	10518	6.3	10818	6.2	13264	6.8	1545
4 Eggs	3451	1.6	1541	1.5	2229	1.6	2537	1.7	2392	1.4	2570	1.5	3474	1.8	3712

5	Dairy Products	1799	0.8	349	0.3	425	0.3	710	0.5	880	0.5	490	0.3	1495	0.8	2000
6	Oil and Fats	4189	1.9	2367	2.3	2910	2.1	3208	2.2	3336	2.0	3640	2.1	3843	2.0	4596
7	Fresh Vegetables	10028	4.6	5463	5.3	8353	6.2	8381	5.6	8863	5.3	8946	5.1	9638	4.9	1136
8	Tuber	1125	0.5	304	0.3	291	0.2	513	0.3	496	0.3	595	0.3	911	0.5	1057
9	Pulses and Legumes	1167	0.5	240	0.2	398	0.3	515	0.3	862	0.5	764	0.4	818	0.4	1324
10	Prepared and Preserved Vegetables	1293	0.6	556	0.5	654	0.5	809	0.5	1151	0.7	958	0.5	1293	0.7	1528
11	Fruits	6882	3.1	1293	1.3	2302	1.7	3498	2.3	3848	2.3	3763	2.2	5198	2.6	6514
12	Other Produce	1851	0.8	372	0.4	459	0.3	762	0.5	1028	0.6	1174	0.7	1492	0.8	1492
13	Sugar, Salt and Spices	10257	4.7	5218	5.1	6946	5.1	7062	4.7	8804	5.3	8686	5.0	8779	4.5	1047
14	Tea, Coffee, Cocoa	1238	0.6	257	0.3	401	0.3	621	0.4	643	0.4	669	0.4	1130	0.6	1364

	Item	Total Expenditure		1st Decile Expenditure		2nd Decile Expenditure		3rd Decile Expenditure		4th Decile Expenditure		5th Decile Expenditure		6th Decile Expenditure		7th Dec Expe
	Rural	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Valu
15	Non-alcoholic beverages	1188	0.5	135	0.1	106	0.1	161	0.1	247	0.1	271	0.2	299	0.2	822
16	Alcoholic beverages	4209	1.9	1481	1.4	1970	1.5	2306	1.5	2414	1.5	2599	1.5	2986	1.5	2905
17	Tobacco Products	8935	4.1	4710	4.6	5536	4.1	6472	4.3	7351	4.4	7834	4.5	8572	4.4	9342
18	Other Food Products	1517	0.7	195	0.2	317	0.2	562	0.4	600	0.4	732	0.4	1636	0.8	1568
19	Food Taken away from Home	6126	2.8	868	0.8	1903	1.4	2706	1.8	3351	2.0	4427	2.5	4564	2.3	5707
20	Prepared Meals bought outside and eaten at Home	3264	1.5	277	0.3	1003	0.7	818	0.5	1198	0.7	1572	0.9	2025	1.0	2596
21	Clothing and Footwear	8547	3.9	4425	4.3	5960	4.4	6604	4.4	6988	4.2	7343	4.2	8306	4.2	9963
22	House Rent	9755	4.4	2194	2.1	3161	2.3	4465	3.0	5497	3.3	5865	3.4	7692	3.9	8208
23	Water Charges	2583	1.2	603	0.6	1069	0.8	1387	0.9	1984	1.2	2223	1.3	2863	1.5	3673
24	Fuel and Power	2645	1.2	1187	1.2	1485	1.1	1893	1.3	2061	1.2	2159	1.2	2324	1.2	2992
25	Wood Fuel	5699	2.6	2559	2.5	3814	2.8	4631	3.1	5175	3.1	5473	3.1	5518	2.8	6105
26	Furnishing and Household Equipment and Operation	1599	0.7	337	0.3	735	0.5	783	0.5	1072	0.6	1151	0.7	1325	0.7	2080
27	Medical Care	11059	5.0	2398	2.3	4424	3.3	4702	3.2	5942	3.6	7330	4.2	10075	5.1	1008
28	Transport and Communication	5652	2.6	679	0.7	948	0.7	1547	1.0	1758	1.1	3597	2.1	2952	1.5	4846
29	Recreation	546	0.2	160	0.2	217	0.2	191	0.1	287	0.2	306	0.2	356	0.2	561
30	Education	1818	0.8	928	0.9	1302	1.0	1181	0.8	1455	0.9	1422	0.8	1765	0.9	2060
31	Personal Care	3668	1.7	1748	1.7	2234	1.6	2354	1.6	3004	1.8	3016	1.7	3498	1.8	4131
32	Personal Effects	928	0.4	25	0.0	187	0.1	148	0.1	588	0.4	599	0.3	777	0.4	889
33	Miscellaneous Items	8734	4.0	3859	3.8	5257	3.9	5778	3.9	5935	3.6	6403	3.7	7362	3.8	8336

Table
Average Household Monthly Expenditure by Per Capita
Expenditure Decile by Item and Stratum, Cambodia

No.	Item	Total Expenditure		1st Decile Expenditure		2nd Decile Expenditure		3rd Decile Expenditure		4th Decile Expenditure		5th Decile Expenditure		6th Decile Expenditure		7th Expe
	Cambodia	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Valu
	Total Expenditure	286585	100	106121	100	141745	100	154995	100	174373	100	194906	100	219888	100	2487
	Food Expenditure	183979	64.2	84182	79.3	108793	76.8	116098	74.9	130268	74.7	139723	71.7	155718	70.8	1755
	Non Food Expenditure	102607	35.8	21938	20.7	32953	23.2	38897	25.1	44105	25.3	55184	28.3	64169	29.2	7321
1	Cereals	44567	15.6	37076	34.9	40809	28.8	39670	25.6	40610	23.3	41272	21.2	39336	17.9	4060
2	Fish	33684	11.8	15103	14.2	22735	16.0	23598	15.2	27427	15.7	29551	15.2	33462	15.2	3667
3	Meat and Poultry	19299	6.7	4920	4.6	7284	5.1	8184	5.3	11787	6.8	13464	6.9	16031	7.3	1829
4	Eggs	4061	1.4	1604	1.5	2432	1.7	2647	1.7	2582	1.5	3102	1.6	3829	1.7	4329
5	Dairy Products	2511	0.9	330	0.3	574	0.4	864	0.6	594	0.3	1222	0.6	1795	0.8	2332
6	Oil and Fats	4661	1.6	2502	2.4	3068	2.2	3355	2.2	3520	2.0	3862	2.0	4598	2.1	5275
7	Fresh Vegetables	11597	4.0	5927	5.6	8358	5.9	8383	5.4	9498	5.4	9710	5.0	11265	5.1	1258
8	Tuber	1237	0.4	303	0.3	376	0.3	488	0.3	621	0.4	795	0.4	856	0.4	1710
9	Pulses and Legumes	1313	0.5	245	0.2	436	0.3	811	0.5	713	0.4	940	0.5	1113	0.5	1664
10	Prepared and Preserved Vegetables	1447	0.5	548	0.5	710	0.5	995	0.6	1027	0.6	1174	0.6	1397	0.6	1791
11	Fruits	10231	3.6	1487	1.4	2735	1.9	3615	2.3	4253	2.4	4596	2.4	6592	3.0	8208
12	Other Produce	1840	0.6	318	0.3	568	0.4	902	0.6	1113	0.6	1372	0.7	1162	0.5	2462
13	Sugar, Salt and Spices	10617	3.7	5386	5.1	7020	5.0	7831	5.1	9041	5.2	8614	4.4	10301	4.7	1184
14	Tea, Coffee, Cocoa	2329	0.8	298	0.3	459	0.3	645	0.4	818	0.5	895	0.5	1383	0.6	1990

	Item	Total	1st Decile	2nd Decile	3rd Decile	4th Decile	5th Decile	6th Decile	7th

	Cambodia	Expenditure Value	%	Expenditure Value	%	Expenditure Value	%	Expenditure Value	%	Expenditure Value	%	Expenditure Value	%	Expenditure Value	%	Expe Valu
15	Non-alcoholic beverages	1671	0.6	134	0.1	158	0.1	211	0.1	196	0.1	299	0.2	802	0.4	829
16	Alcoholic beverages	6133	2.1	1560	1.5	1891	1.3	2557	1.6	2300	1.3	2638	1.4	2911	1.3	3303
17	Tobacco Products	9627	3.4	4905	4.6	5910	4.2	6361	4.1	8190	4.7	8252	4.2	9049	4.1	1012
18	Other Food Products	2193	0.8	190	0.2	389	0.3	721	0.5	609	0.3	1335	0.7	1824	0.8	1964
19	Food Taken away from Home	10699	3.7	1054	1.0	2008	1.4	3251	2.1	3769	2.2	4881	2.5	5873	2.7	5916
20	Prepared Meals bought outside and eaten at Home	4263	1.5	293	0.3	873	0.6	1011	0.7	1599	0.9	1749	0.9	2141	1.0	3654
21	Clothing and Footwear	9899	3.5	4401	4.1	6344	4.5	6582	4.2	7089	4.1	7903	4.1	9521	4.3	1019
22	House Rent	29347	10.2	2294	2.2	3893	2.7	4953	3.2	6414	3.7	7835	4.0	10016	4.6	1297
23	Water Charges	3777	1.3	629	0.6	1302	0.9	1653	1.1	2216	1.3	2724	1.4	3932	1.8	3531
24	Fuel and Power	4383	1.5	1203	1.1	1728	1.2	1931	1.2	2392	1.4	2510	1.3	3117	1.4	3440
25	Wood Fuel	6558	2.3	2690	2.5	4159	2.9	4904	3.2	5329	3.1	5541	2.8	6090	2.8	6958
26	Furnishing and Household Equipment and Operation	2035	0.7	374	0.4	743	0.5	861	0.6	1113	0.6	1210	0.6	1789	0.8	1870
27	Medical Care	11745	4.1	2757	2.6	4150	2.9	5485	3.5	6311	3.6	10084	5.2	9567	4.4	1129
28	Transport and Communication	12608	4.4	654	0.6	1166	0.8	1889	1.2	2237	1.3	3428	1.8	4267	1.9	5780
29	Recreation	841	0.3	158	0.1	203	0.1	233	0.2	304	0.2	320	0.2	457	0.2	635
30	Education	4565	1.6	967	0.9	1310	0.9	1410	0.9	1428	0.8	2217	1.1	2603	1.2	2808
31	Personal Care	4711	1.6	1879	1.8	2345	1.7	2761	1.8	2989	1.7	3445	1.8	4285	1.9	4347
32	Personal Effects	1130	0.4	35	0.0	227	0.2	445	0.3	490	0.3	566	0.3	878	0.4	894
33	Miscellaneous Items	11006	3.8	3898	3.7	5384	3.8	5790	3.7	5793	3.3	7401	3.8	7648	3.5	8481

Chapter 7

COMMUNITY LEVEL INFORMATION

7.0 Introduction

The village questionnaire was used for the purpose of canvassing information on topics that affect all households in the community such as public and private provision of economic infrastructure and social services. Information on village population, economy and infrastructure, education, health and other social services, retail prices and wages as well as the views of village leaders about improvements or changes in their villages and about problems in the spheres of education and health were canvassed in the village questionnaire. In the paragraphs that follow the survey results on selected topics of general interest are presented and briefly reviewed.

7.1 Access to Infrastructure and Services

CSES 1997 village questionnaire canvassed information from key informants on the availability and proximity of the village population to social infrastructure and services. The survey results show that in Phnom Penh 91.7 % of the villages had a motorable road and 72.4 % of all rural villages also had this facility. This percentage amount to 83.0 % for

villages grouped under other urban stratum. As an overall indicator, accessibility by river or canal is not very significant, although this facility will be of much importance in specific localities. The percentage of villages that were accessible by a river or canal increases from 28% of the villages in Phnom Penh to 46.5% of rural villages and to 55% of villages in other urban areas. As many as 86.7% of villages in Phnom Penh were served with electricity and this percentage declines to 14.6 % in respect of rural villages. The differential with regard to piped water is even larger, while 70% of the villages in Phnom Penh had this facility, this proportion declined to 33% of villages in other urban areas and 2.4% of villages in rural areas. Table 57 shows that 16.7% of villages in Phnom Penh and 20% of the villages in other urban areas and 7.9% of villages in rural areas were served with permanent markets in their villages.

Table 58 shows that 80 % of the Cambodian villages had access to a motorable road within one kilometre from the village and that the average distance to a motorable road was 2.4 kilometres. Average distance of a rural village from a motorable road was 3.2 kilometres. Thus access to a motorable road does not appear to be a major issue for the village population of Cambodia. The average distance to a provincial town is estimated at 23 kilometres. Nearly 50 % of all Cambodian villages were within one kilometre of a bank or loan credit unit, and the average distance to one of these service facilities was 16 kilometres. The village population has to travel about the same distance they travel to a loan credit unit to obtain the services of an agricultural extension worker.

Table 57
Villages having Amenities and Services within the Village

Amenity/ Service	Cambodia		Phnom Penh		Other Urban		Rural	
	No.	%	No.	%	No.	%	No.	%
Motorable road	377	79.5	110	91.7	83	83.0	184	72.4
Accessible by river / canal	207	43.7	34	28.3	55	55.0	118	46.5
Electricity	196	41.4	104	86.7	55	55.0	37	14.6
Piped water	123	25.9	84	70.0	33	33.0	6	2.4
Food shop /restaurant	152	32.1	72	60.0	45	45.0	35	13.8
Bank or loan credit unit	52	11.0	13	10.8	12	12.0	27	10.6
Agricultural extension worker	19	4.0	1	0.8	6	6.0	12	4.7
Permanent market	63	13.3	20	16.7	23	23.0	20	7.9
Shop selling manure / agro-chemicals	43	9.1	8	6.7	17	17.0	18	7.1
No of Villages sampled	474		120		100		254	

Table 58
Distance to Amenities and Services

Amenity/Service	Less than 1Km.		1-5Kms.		5Kms or More		Average
Cambodia	No.	%	No.	%	No.	%	Km.
Motorable road	380	80.2	67	14.1	27	5.7	2.36
Food Shop/ Restaurant	161	34	181	38.2	132	27.8	6.42
Bank or Loan Credit Unit	63	13.3	226	47.7	185	39.0	16.40
Agriculture Extension worker	27	5.7	235	49.6	212	44.7	16.28
Permanent market	80	16.9	250	52.7	144	30.4	7.28
Shop Manure and Agro-chemicals	51	10.8	248	52.3	175	36.9	10.13
District Town	16	3.4	206	43.5	252	53.2	8.87
Province Town	13	2.7	157	33.1	304	64.1	23.32
Phnom Penh							
Motorable road	111	92.5	8	6.7	1	0.8	1.28
Food Shop/ Restaurant	78	65	38	31.7	4	3.3	2.50
Bank or Loan Credit Unit	20	16.7	83	69.2	17	14.2	6.98
Agriculture Extension worker	4	3.3	84	70	32	26.7	6.40
Permanent market	31	25.8	80	66.7	9	7.5	6.87
Shop Manure and Agro-chemicals	12	10	90	75	18	15.0	4.78
District Town	3	2.5	90	75	27	22.5	4.28
Province Town	3	2.5	78	65	39	32.5	5.57
Other Urban							
Motorable road	84	84.0	14	14	2	2.0	1.53
Food Shop/ Restaurant	47	47.0	39	39	14	14.0	3.46
Bank or Loan Credit Unit	14	14.0	59	59	27	27.0	18.37
Agriculture Extension worker	9	9.0	61	61	30	30.0	14.90
Permanent market	26	26.0	56	56	18	18.0	4.47
Shop Manure and Agro-chemicals	19	19.0	60	60	21	21.0	10.62
District Town	11	11.0	64	64	25	25.0	5.09
Province Town	10	10.0	64	64	26	26.0	7.58
Rural							
Motorable road	185	72.8	45	17.7	24	9.4	3.21
Food Shop/ Restaurant	36	14.2	104	40.9	114	44.9	9.44
Bank or Loan Credit Unit	29	11.4	84	33.1	141	55.5	20.07
Agriculture Extension worker	14	5.5	90	35.4	150	59.1	21.49
Permanent market	23	9.1	114	44.9	117	46.1	8.57
Shop Manure and Agro-chemicals	20	7.9	98	38.6	136	53.5	12.46
District Town	2	0.8	52	20.5	200	78.7	12.53
Province Town	-	-	15	5.9	239	94.1	37.90

7.2 Development Projects Sponsored by Government and NGO

About one in three villages in Cambodia had a development project sponsored by the Government or NGO. Of them more than one third were infrastructure development projects and a further one fourth were agricultural development projects. Thus, agricultural development projects had been functioning in nearly 10 % of all villages. Table 59. Education development projects had been on going in more than one out of twelve villages. In Phnom Penh the percentage of villages which had an on going development project was lower, less than one out of four villages had a development project. The other urban areas were better served, two out of five villages had a functioning development project. More than one out of three villages in the rural areas had been served by development projects and more than one fourth of the rural villages had the benefit of agricultural or infrastructure projects.

7.3 Education Facilities

About 45% of the villages in Cambodia had a primary school in the village itself. The percentage of villages having a primary school in the village itself was lower in Phnom Penh(21.7%), the other urban areas have being better served having a primary school in 57% of the villages. Table 60.

Table 59

On-going Development Projects Sponsored by Government and NGO

	Cambodia		Phnom Penh		Other Urban		Rural	
Type of Project	No.	%	No.	%	No.	%	No.	%
Agricultural Development	45	9.49	4	3.33	7	7.00	34	13.39
Infrastructure Development	60	12.66	9	7.50	15	15.00	36	14.17
Education	41	8.65	5	4.17	16	16.00	20	7.87
Other	41	8.65	13	10.83	7	7.00	21	8.27
No Project Exists	311	65.61	92	76.67	60	60.00	159	62.60
All Types	187	34.39	31	23.33	45	40.00	111	37.40
Sampled Villages	474	100.00	120	100.00	100	100.00	254	100.00

More than one out of two villages in the rural sector also had this facility. A small number (less than 2%) of primary schools were administered by private institutions, more than 98% were government schools. Lower secondary schools have been functioning in one out of twenty villages. All the lower secondary schools were those administered by the government. About 2% of the villages had upper secondary schools functioning in the village itself and they were all government schools. In the rural areas only one out of 100 villages had this facility.

Major problems relating to primary, lower secondary and upper secondary education were ascertained from village leaders by eliciting information on the three most important

issues encountered by them. Table 66 shows that the absence of a primary, lower secondary or an upper secondary school was listed as the most important problem in all three strata. Poor school buildings, school budget constraints, low living standards of teachers were other important issues listed by them. Details relating to the issues listed are shown in Table 66.

Table 60

Distribution of Schools by Level and Stratum, Cambodia

Type of School	Cambodia		Phnom Penh		Other Urban		Rural	
	No	%	No	%	No	%	No	%
Primary School	216	45.57	26	21.67	57	57.00	133	52.36
Public	215	45.36	25	20.83	57	57.00	133	52.36
Private	3	0.63	1	0.83	1	1.00	1	0.39
Both Public/ Private	2	0.42	-		1	1.00	1	0.39
Lower Secondary School	24	5.06	5	4.17	7	7.00	12	4.72
Public	24	5.06	5	4.17	7	7.00	12	4.72
Private	-		-		-		-	
Both Public/ Private	-		-		-		-	
Upper Secondary School	9	1.90	2	1.67	4	4.00	3	1.18
Public	9	1.90	2	1.67	4	4.00	3	1.18
Private	-	-	-	-	-	-	-	-
Both Public/ Private	-	-	-	-	-	-	-	-
No of Villages	474		120		100		254	

7.4 Health Facilities

CSES 1997 which focused on health facilities and services and their utilization canvassed data through the village questionnaire, on the availability of basic health services by ascertaining the type of health providers operating in the village itself, and if no such provider was functioning, information on the distance to the nearest provider, and for how long the services had been available was obtained. Table 61 hows that the services of a Khru Khmer was available in the village itself in nearly 53 % of all rural villages, and 62 % of villages in other urban areas and one in four villages in Phnom Penh also had their services. Further, the services of other traditional healers were reported to be available in 14 % , 34% and 28 % of all villages in Phnom Penh, other urban centres and rural areas. In Phnom Penh, 9 % of the villages, in other urban areas 25% of the villages, and 16.% of the villages in the rural sector had Khum clinics. Private clinics have been operating in 34% of the villages in Phnom Penh, 20%

of the villages in other urban centres and 5% of the villages in rural areas. A district health centre has been operating in one in ten villages in Phnom Penh, and 6% of the villages in urban and rural areas.

Table 61
Type of Health Facilities and Providers by Stratum, Cambodia

Type of Health Provider	Cambodia		Phnom Penh		Other Urban		Rural	
	No.	%	No.	%	No.	%	No.	%
Khum Clinic	77	16.2	11	9.2	25	25.0	41	16.1
Private Clinic	74	15.2	41	34.2	20	20.0	13	5.1
Pharmacy /Drug Store	117	24.7	49	40.8	35	35.0	33	13.0
District Health Centre	34	7.2	13	10.8	6	6.0	15	5.9
Provincial Hospital	25	5.3	6	5.0	10	10.0	9	3.5
Private Hospital	23	4.9	15	12.5	4	4.0	4	1.6
Doctor	89	18.8	52	43.3	26	26.0	11	4.3
Nurse	107	22.6	35	29.2	34	34.0	38	15.0
Trained Midwife	88	18.6	30	25.0	30	30.0	28	11.0
Traditional Birth Attendant	234	49.4	24	20.0	60	60.0	150	59.1
Khru Khmer	226	47.7	30	25.0	62	62.0	134	52.8
Other Traditional Healers	122	25.7	17	14.2	34	34.4	71	28.0
Others	12	2.5	1	0.8	2	2.0	9	3.5
None								
Number of villages	474		120		100		254	

7.5 Retail Prices and Wages

7.5.1 Retail Prices

The National Institute of Statistics collects prices on about 200 consumer items to produce the consumer price index that is released monthly. It is the only programme that has provided for statistical supervision of collection of price statistics. The collection of prices is restricted to retail markets in Phnom Penh. The Ministry of Agriculture, Forestry and Fisheries also collects prices on a wide range of agricultural products and inputs from selected provinces. The producer prices of selected manufactured items were collected in an establishment survey

conducted by NIS in 1995. These are the only sources of data currently available on prices and there are wide gaps in price statistics, including those on producer prices of both agricultural produce and manufactured items and prices of imports and exports.

Retail prices of a variety of consumer goods including food, clothing, medicine, fuel, household consumer articles, utensils and construction materials were collected from the sampled villages. The object of the collection of statistics on prices was two fold, to ascertain the prices at village level that had not been compiled earlier, and secondly to get information on the availability of shops stocking the selected items at village level. Three price quotes were collected for each item depending on the availability of three or more retail shops in the village. The reference period for the retail price data was the day of the survey. The field work on the survey was conducted from the last week of May to the last week of June 1997. Thus the prices can be taken as representing the prices that prevailed in June 1997.

In order to minimize the variation in prices arising from differences in the quality of items priced, the surveyors were advised to collect data for items of standard quality based on the specifications on quality that were set out in the questionnaires. They were also advised not to collect prices from producers who will yield producer prices that exclude trade and transport margins. However, it should be noted that the prices collected from the villages in the rural sector small shops would by and large reflect the producer prices specially for agricultural produce in many instances, as the shop owners may have sold home garden produce in their own shops.

Prices were canvassed from 120 sampled villages in Phnom Penh, 100 villages in other urban towns, and 254 villages in rural sector. Tables 62 – 64. present the median and average prices of the items canvassed in the 3 strata. They reflect the price differentials in Phnom Penh, provincial towns and the rural prices. Prices were compared with the retail prices collected in Phnom Penh for the CPI for June 1997 and the prices for the same items collected by the MAFF for data validation .

The price differentials between Phnom Penh and rural prices for food items such as rice were as high as 50% to 70%. The median price of rice was 991 Riels in Phnom Penh whereas for the rural sector as a whole the price was 600 Riels. The prices in Phnom Penh for meat (pork without fat), chicken and fish were 30%, 30 %, and 17% higher than the prices in rural areas. Locally produced items and specially those that are subject to high transport margins are priced higher in Phnom Penh. The prices of a number of non-food items were reported to be higher in rural areas (mosquito nets, aluminum saucepan, cement, iron rods, text books, etc) than in Phnom Penh. Several items of medicine appear to be priced at the same price both in Phnom Penh and in rural areas (aspirin, vitamin C, paracetamol, multi-vitamin). The prices of several items were lower in Phnom Penh than in the rural areas, but there were also items where the prices in Phnom Penh were reported to be higher (tetracycline, ampicillin, ORS etc.). The wide variation in the prices of some items in

the different localities had caused the gap between median and the average prices to be significant.

Table 62
Average Price of Food Items by Stratum, Cambodia 1997

(In Riels)

No.	Item	Description (Mark, Quality, Name, etc.)	Unit	Cambodia		Phnom Penh		Other Urban		Rural	
				Median	Mean	Median	Mean	Median	Mean	Median	Mean
1	Ordinary paddy	Quality No.1, Neang Menh	Kg	350	416	500	585	323	401	350	379
2	Rice	Quality No.1, white, 3 mm long, Neang Menh	Kg	750	759	991	970	725	747	600	636
3	Broken rice	Quality No.2	Kg	600	584	800	738	600	598	500	500
4	Whole grain maize	Good quality, Red	Kg	500	548	533	616	654	625	400	489
5	Rice cakes medium	Ansom Pork cake, medium	1 cake	500	540	800	783	500	518	400	429
6	Fermented rice noodles	Coil, Khmer	100 gms	60	73	70	91	60	62	60	71
7	White rice/clear noodles	Fibre type	100 gms	130	146	150	182	140	141	120	126
8	Num Pang	30 cm long	Loaf	300	320	300	333	300	310	300	318
9	Pork without fat	Pure meat	Kg	6000	6243	7791	7395	6900	6402	6000	5686
10	Fresh Beef	Quality No.1	Kg	6000	5979	6800	6607	6000	6008	6000	5634
11	Fresh Chicken	Quality No.1, dressed	Kg	5000	4903	5833	5447	5000	4898	4500	4618
12	Fresh Duck	Quality No. 1, dressed	Kg	4000	3831	4300	4143	4000	3797	3500	3699
13	Sea fish small	Platou, 5-7 fish = 1 kg.	Kg	2833	2947	3250	3488	2216	2487	2500	2825

No.	Item	Description (Mark, Quality, Name, etc.)	Unit	Cambodia		Phnom Penh		Other Urban		Rural	
				Median	Mean	Median	Mean	Median	Mean	Median	Mean
14	Fresh water Mud fish	Large, 1 fish =1 kg.	Kg	4000	3967	4100	4337	4066	4168	3500	3700
15	Chicken egg	Fresh	Piece	200	230	200	215	275	257	200	225
16	Duck egg	Fresh	Piece	275	262	300	269	266	266	255	256
17	Peanuts	Raw seed, good quality	Kg	2200	2286	2433	2358	2100	2167	2233	2315
18	Mung bean	Good quality	Kg	2000	1936	2100	2065	2000	1936	2000	1860
19	Soy bean	Good quality	Kg	1500	1581	1483	1519	2166	2097	1200	1347
20	Mung bean sprouts	Short, fresh	100 gms	100	129	90	91	100	205	100	106
21	Trakun	Good quality , medium size	Bun-dle	100	123	200	156	100	118	100	109
22	Potatoes	Medium size	Kg	2000	2132	2000	1977	2500	2611	2166	1991
23	Sweet potatoes	Red, Medium size	Kg	500	493	500	562	500	550	400	405
24	Onions	White, medium size	Kg	1800	1914	1850	1877	1950	2037	1600	1805
25	Banana	Ripe, Namva, medium size	Kg	550	597	641	681	625	625	500	526
26	Papaya	Ripe, medium size,approx.1kg	1 unit	800	923	1258	1249	1000	1075	500	632
27	Salt	Powder, white	Kg	600	574	600	595	600	589	500	553
28	Fish sauce	Quality No.1	Litre	1100	1226	1300	1449	1000	1214	1000	1084
29	Glutamate/ MSG	Spoon brand, Thai	Kg	5500	4795	5500	4805	5500	5626	5400	4584
30	Sugar (Refined)	White, Quality No.1, Thai	Kg	1583	1594	1558	1604	1500	1499	1600	1639
31	Sweetened condensed milk	Lotus brand, 375 ml	Tin/ Can	1500	1504	1500	1508	1500	1493	1500	1505
32	Alcohol	Royal Whisky, 750 ml.	Bottle	3000	2951	3333	3262	3125	2920	2500	2596
33	Rice wine	Good quality,	Litre	1000	1308	1200	1545	3000	1377	1000	1134
34	Beer bottle	Angkor brand, 750ml	Bottle	3425	3237	3200	3231	3500	3330	3166	3166

No.	Item	Description (Mark, Quality, Name, etc.)	Unit	Cambodia		Phnom Penh		Other Urban		Rural	
				Median	Mean	Median	Mean	Median	Mean	Median	Mean
35	Cigarettes	Local, Ara brand	Pkt. (20)	600	646	600	614	600	665	600	655
36	Pipe tobacco	Strong Fibrous	100 gms	600	726	505	592	600	1107	600	590

Table 63
Average Price of Non Food Items by Stratum, Cambodia 1997

(In Riels)

No.	Item	Description (Mark, Quality, Name, etc.)	Unit	Cambodia		Phnom Penh		Other Urban		Rural	
				Median	Mean	Median	Mean	Median	Mean	Median	Mean
1	Kerosene		Litre	1000	1030	966	977	1000	1062	1000	1043
2	Gasoline		Litre	1300	1322	1300	1336	1300	1318	1300	1314
3	Detergent	Viso fab, Vietnam	Kg	1500	1668	1300	1611	2000	1862	1500	1594
4	Bath soap	Lux, big, Thai	1 cake	1000	1029	1000	968	1000	1153	1000	1001
5	Tooth paste	Klaichet, small ,Thai	Tube	1000	1120	1000	1066	1000	1096	1000	1176
6	Cotton netting		Meter	800	916	600	748	1000	1069	800	1064

7	Ready-made mosquito nets	Nylon, 2mx1.5m,Thai	Piece	14000	14049	12825	13415	15000	14057	14000	14376
8	Cotton cloth	Good quality, White, 1.2mx1m,Cam.	meter	1566	1850	1500	1691	2000	2033	1600	1887
9	Synthetic cloth	Tetron ,White, 1.2m x 1m, Japan	meter	3000	3271	3333	3419	3000	3102	3000	3284
10	Shirts (ready-made)	Long,GQ,Size (M-L), Thai.	Piece	20000	19900	20000	20154	20000	19274	20000	20097
11	Trousers (ready-made)	GQ,Size(27-33), Thai	piece	21000	23645	27000	27256	20000	21601	20000	22120
12	Skirt (ready-made)	Long, Large,Thai	piece	23250	22163	27000	25039	20000	19930	20833	21310
13	Sleeping mat	Red –Kok, 1.2x1.8m, Cam.	Piece	8000	8686	7000	8071	6750	8114	9000	9213
14	Sandals (plastic)	Quality No.1, Medium size	pair	3500	4075	3500	3794	3500	4252	3566	4132
15	Rain coat	Medium size, Vietnam	piece	3500	3775	3500	3739	3500	3829	3500	3766
16	Light bulb	60 W, 220V, Thai	piece	1300	1588	1000	1272	1300	1547	1800	1931
17	Porcelain rice bowl	Dia. 15-20 cm., Chinese	piece	2000	2422	3416	3433	2000	2316	1583	2096
18	Aluminium saucepan	Medium size, Cam.	Piece	7000	7562	6000	7799	6000	6420	7916	7936
19	Plastic basin	Medium Size, Cam.	Piece	4125	4946	4375	4908	4000	5522	4125	4649
20	Thermos flask	Deer brand, medium size, china	piece	12000	12943	13500	12541	11166	12278	12000	13476
21	Cement	Elephant, P600, Thai	kg	10500	7280	6000	5926	10800	8458	13200	8563
22	Iron rod	1 cm diameter, Vietnam	kg	1200	1565	1039	1175	1200	2476	1250	1331
23	Bicycle inner tube	Medium size, Cam.	piece	2500	2501	2766	2567	2500	2419	2500	2506
24	Bicycle tyre	Horse, Size 65o,Cam	piece	5000	5428	6000	5810	4500	5189	5000	5342
25	Paper for pupils	20 sheets with lines	sheaf	300	347	333	357	300	285	350	385
26	Notebooks	100 ruled pages	piece	500	618	558	595	600	578	500	656
27	Textbooks	for class one, 100 pages	1 copy	1800	1859	1800	1766	1900	1843	2000	1973

28	Radio receiver	Ultra, 2 brand (AM, FM), China, 2 b-atteries of size AA	set	15000	16833	13500	16604	16166	16709	15000	17073
29	Radio cassette player	SONY, 1 cassette, 60 w, Singapore	set	70000	57718	70000	56966	70000	58500	70000	57628

Table 64
Average Price of Medicine by Stratum

1	Tetracycline		Pill	100	200	175	199	100	151	100	226
2	Ampicillin	250 mg., Russia	Pill	200	295	150	242	250	277	200	357
3	Penicillin	Thai	Vial	400	472	300	399	500	517	375	520
4	Aspirin	Korean	Pill	100	161	100	168	100	182	100	134
5	Vitamin C	Orange colour, 500m, Australia	100 Pill	10000	10400	10000	10441	10000	9641	10000	11065
6	Rifampicin	Korean	Pill	300	328	300	345	400	355	260	223
7	Cloltimazol	Korean	Pill	200	273	200	357	300	230	150	159
8	Paracetamol	Korean	Pill	100	184	100	241	100	112	100	167
9	ORS	Thai	Packet	300	386	300	457	250	258	200	521
10	Multi-Vitamin	Thai	Pill	100	139	100	108	100	96	100	226
11	Other										

7.5.2 Wages

CSES Village questionnaire collected data on prevailing daily wage rates for males, females and children for selected types of agricultural and unskilled construction labour in the village. The reference period for wage rates was the day of the survey, and it can be assumed that the reported wage rates were those that prevailed in the month of June 1997. The reported rates include any part of the payments in kind in the form of grain or cooked food, the imputed value of such wages in kind were added to the wages paid in cash.

Data on piece rate wages were not collected. It should be noted that the data collected are average wages operating in the village at the time of the survey as reported by a village level key informants. Thus, they are average wages paid to workers rather than the wages fixed by rules or regulations or collective agreements. They are not actual wages reported by a respondent who makes a declaration on wages received by him.

Table 65
Median and Average Wages for Male, Female and Child Labour by Stratum

Type of Work/ Type of Worker	Ploughing		Paddy Planting		Caring for Crops		Harvesting		Unskilled Construction Labor	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Cambodia										
Men	6115	5000	3406	3000	3292	3000	3705	3000	5283	5000
Women	4948	5000	3255	3000	3117	3000	3405	3000	4619	5000
Children	5232	5000	2970	3000	2798	3000	3018	3000	4224	4000
Phnom Penh										
Men	7838	7000	4432	4000	3923	3000	5400	5000	6329	6000
Women	4357	4000	4129	4000	3469	3000	4600	4000	5185	5000
Children	4333	3000	3850	4000	2667	3000	3731	3000	4596	5000
Other Urban										
Men	6809	6000	3709	3500	3433	3000	3635	3500	5108	5000
Women	6613	5000	3581	3000	3344	3000	3500	3000	4500	4000
Children	6368	5000	3549	3000	3463	3500	3379	3500	4815	5000
Rural										
Men	5638	5000	3198	3000	3160	3000	3455	3000	4725	5000
Women	4144	4000	3035	3000	3000	3000	3194	3000	4156	4000
Children	4809	5000	2758	3000	2709	3000	2870	3000	3750	4000

Wages for all types of labour were higher in Phnom Penh. By type of occupation, persons engaged in ploughing had received wages higher than in the other occupations. Wage differentials between male, female labour and child workers were not high. Wages in the rural sector for paddy planting, caring of crops and harvesting were about $ 1.10 to $ 1.20 for men and women. Wages of child workers were about $ 1.00 in rural areas. Wages in the other urban areas were lower than in Phnom Penh but higher than in the rural sector. Wages of unskilled construction labour were lower than that of ploughing, but they were higher than in other agricultural occupations.

Table 66

Major Problems Relating to Primary, Lower Secondary and Upper Secondary Education Listed by Village Leaders

Major problems with Primary schools

Stratum/Types of Problems	Most Important		Second Most Problem		Third Most Problem	
Cambodia	474	100.0	474	100.0	474	100.0
1. No school	151	31.9	10	2.1	7	1.5
2. Too Far	21	4.4	63	13.3	8	1.7
3. Poor school building	68	14.3	31	6.5	13	2.7
4. Living Standard of teachers is low	58	12.2	65	13.7	60	12.7
5. School budget constraint	62	13.1	108	22.8	84	17.7
6. Not enough places	58	12.2	67	14.1	55	11.6
7. Not enough supplies	18	3.8	47	9.9	86	18.1
8. Poor quality of teachers	1	0.2	6	1.3	8	1.7
9. Not enough teachers	6	1.3	16	3.4	28	5.9
10. class not held regularly	5	1.1	13	2.7	29	6.1
11. Other	13	2.7	5	1.1	19	4.0
Phnom Penh	120	100.0	120	100.0	120	100.0
1. No school	59	49.2	2	1.7	3	2.5
2. Too Far	7	5.8	19	15.8	-	
3. Poor school building	6	5.0	3	2.5	2	1.7
4. Living Standard of teachers is low	18	15.0	16	13.3	22	18.3
5. School budget constraint	15	12.5	50	41.7	28	23.3
6. Not enough places	7	5.8	6	5.0	6	5.0
7. Not enough supplies	3	2.5	13	10.8	26	21.7
8. Poor quality of teachers	1	0.8	1	0.8	1	0.8
9. Not enough teachers	-		-		-	
10. class not held regularly	1	0.8	1	0.8	8	6.7
11. Other	-	-	-		4	3.3
Other Urban	100	100.0	100	100.0	100	100.0
1. No school	22	22.0	3	3.0	-	
2. Too Far	2	2.0	12	12.0	2	2.0
3. Poor school building	11	11.0	8	8.0	1	1.0
4. Living Standard of teachers is low	16	16.0	17	17.0	7	7.0
5. School budget constraint	17	17.0	21	21.0	12	12.0
6. Not enough places	18	18.0	8	8.0	16	16.0
7. Not enough supplies	4	4.0	12	12.0	19	19.0
8. Poor quality of teachers	-		2	2.0	1	1.0

9. Not enough teachers	1	1.0	1	1.0	9	9.0
10. class not held regularly	-	-	4	4.0	6	6.0
11. Other	6	-	2	2.0	4	4.0
Rural	254	100.0	254	100.0	254	100.0
1. No school	70	27.6	5	2.0	4	1.6
2. Too Far	12	4.7	32	12.6	6	2.4
3. Poor school building	51	20.1	20	7.9	10	3.9
4. Living Standard of teachers is low	24	9.4	32	12.6	31	12.2
5. School budget constraint	30	11.8	37	14.6	44	17.3
6. Not enough places	33	13.0	53	20.9	33	13.0
7. Not enough supplies	11	4.3	22	8.7	41	16.1
8. Poor quality of teachers	-		3	1.2	6	2.4
9. Not enough teachers	5	2.0	15	5.9	19	7.5
10. class not held regularly	4	1.6	8	3.1	15	5.9
11. Other	7	2.8	3	1.2	11	4.3

Major problems with Secondary schools

Stratum/Types of Problems	Most Important		Second Most Problem		Third Most Problem	
	474	100.0	474	100.0	474	100.0
Cambodia						
1. No school	207	43.7	11	2.3	9	1.9
2. Too Far	75	15.8	137	28.9	16	3.4
3. Poor school building	9	1.9	9	1.9	1	0.2
4. Living Standard of teachers is low	39	8.2	42	8.9	54	11.4
5. School budget constraint	66	13.9	126	26.6	110	23.2
6. Not enough places	9	1.9	23	4.9	17	3.6
7. Not enough supplies	10	2.1	47	9.9	104	21.9
8. Poor quality of teachers	1	0.2	1	0.2	7	1.5
9. Not enough teachers	1	0.2	5	1.1	7	1.5
10. class not held regularly	1	0.2	3	0.6	30	6.3
11. Other	6	1.3	5	1.1	23	4.9
	120	100.0	120	100.0	120	100.0
Phnom Penh						
1. No school	79	65.8	4	3.3	2	1.7
2. Too Far	6	5.0	37	30.8	6	5.0
3. Poor school building	3	2.5	2	1.7	-	
4. Living Standard of teachers is low	13	10.8	11	9.2	20	16.7
5. School budget constraint	12	10.0	45	37.5	33	27.5
6. Not enough places	1	0.8	2	1.7	5	4.2
7. Not enough supplies	2	1.7	10	8.3	25	20.8

8. Poor quality of teachers	-	-	1	0.8	1	0.8
9. Not enough teachers	-	-	-	-	-	
10. class not held regularly	-	-	-	-	6	5.0
11. Other	-	-	-	-	4	3.3
	100	100.0	100	100.0	100	100.0
Other urban						
1. No school	31	31.0	2	2.0	1	1.0
2. Too Far	17	17.0	24	24.0	4	4.0
3. Poor school building	1	1.0	1	1.0	1	1.0
4. Living Standard of teachers is low	14	14.0	9	9.0	8	8.0
5. School budget constraint	16	16.0	30	30.0	15	15.0
6. Not enough places	3	3.0	5	5.0	3	3.0
7. Not enough supplies	2	2.0	9	9.0	28	28.0
8. Poor quality of teachers	-	-	-		1	1.0
9. Not enough teachers	-	-	1	1.0	2	2.0
10. class not held regularly	-	-	1	1.0	5	5.0
11. Other	2	-	3	3.0	6	6.0
	254	100.0	254	100.0	254	100.0
Rural						
1. No school	97	38.2	5	2.0	6	2.4
2. Too Far	52	20.5	76	29.9	6	2.4
3. Poor school building	5	2.0	6	2.4	-	
4. Living Standard of teachers is low	12	4.7	22	8.7	26	10.2
5. School budget constraint	38	15.0	51	20.1	62	24.4
6. Not enough places	5	2.0	16	6.3	9	3.5
7. Not enough supplies	6	2.4	28	11.0	51	20.1
8. Poor quality of teachers	1	0.4	-		5	2.0
9. Not enough teachers	1	0.4	4	1.6	5	2.0
10. class not held regularly	1	0.4	2	0.8	19	7.5
11. Other	4	1.6	2	0.8	13	5.1