

# **Survey Methodology**

## **Household Income, Expenditure and Consumption Survey (HIECS), Egypt, 1999/2000**

(Translated by ERF)

## **Preface**

Egypt has witnessed recently important economic changes starting with the non-directed production phase to the openness phase in all the economic activities (agricultural/ manufacturing/ commercial/...), this was the result of the economic reform policy which depends on the market mechanisms. These changes had greatly influenced the consumers; and consequently their consumption pattern has changed, as new goods entered the market which did not previously exist. That is why it was mandatory to study these various phenomena.

The Household Income, Expenditure and Consumption surveys are considered important statistical surveys as they offer data which helps to identify the society's consumption patterns and the changes that arise due to these patterns and as a result of the social and economic changes that take place from time to time.

The Household Income, Expenditure and Consumption surveys were carried out on the national level in the years 58/59, 64/65, 74/75, 81/82, 90/91, 95/96. The current survey 1999/2000 is considered the seventh survey that the CAPMAS implements on the national level. The survey covers a whole year starting from the first of October 1999 till the end of December 2000.

The CAPMAS provides the results of the surveys in three folders covering the survey's methodology and its final results, hoping to achieve its planned objectives and meeting the needs of those interested in this type of household sample surveys. The CAPMAS receives every useful criticism and suggestion with great attention, in order to develop the future surveys.

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## **Introduction**

One of the main duties of the CAPMAS is to carry out multiple periodical surveys, statistical studies and surveys for all economic, social and demographic activities. In addition, the population, and economic censuses which are carried out by the CAPMAS with the objective of providing statistics that meet all the needs of the country's organizations and those who are interested in the data.

The Household Income, Expenditure and Consumption surveys (household budget surveys) are considered one of the important sources of the basic data to produce multiple economic, social, and demographic indicators for the society since they are carried out periodically every couple of years.

The first Household Income, Expenditure and Consumption had been planned to be a pilot survey (for the household budget surveys). It was done in 1955 which the Committee of Statistics had designed and implemented it in three villages in the Giza governorate. Its size was 750 families from the 4000 households as the total number of families in the three villages.

Afterwards, In 1958/59, the first national survey was conducted in all governorates of Egypt on a sample of 6376 households distributed between urban and rural areas with a percentage of 51.5% and 48.5% respectively. All sample households were observed for the entire survey period (12 month).

In the year 1964/65, the second survey was implemented; this survey was from the sample household budget survey which its size reached 13818 distributed with a percentage of 67.6% for the urban areas and 32.4% for the rural areas. This survey adopted a new methodology where the whole sample was divided into four sub-samples where households of each sub-sample were observed for only three consecutive months to provide for greater flexibility in measuring the consumption patterns.

In the year 1974/75, the third survey from the household budget was done after a halt for ten years and this was because of the circumstances in the country. The size of the sample in this survey was 11995 households distributed on the urban and rural areas with a percentage closely similar to that of the second survey and using the same method where the surveyed households were observed for only every 3 consecutive months.

In the year 1981/82, the CAPMAS had undergone the fourth survey where the sample size has increased to reach 17000 households; equally distributed between the urban and rural areas. A new approach was used which included both the fixed and changeable observation of the surveyed families; where 16000 households were changeable and 1000 households were fixed during the survey's period.

In the year 1990/1991, the name of the household budget surveys has changed to Household Income, Expenditure and Consumption surveys, where the fifth survey was done with a sample size that reached 15000 households distributed with a percentage of 60% for the urban areas and 40% for the rural areas. The entire sample was divided into 12 sub-samples, each was observed for only one month.

In the year 1995/1996, the sixth survey was conducted using a sample size of 15090 households who were observed for only one month and distributed with a percentage of 45.1% for urban areas and 54.9% for rural areas while using the same method used in the 1990/1991 survey (the surveyed households were observed for only one month). Finally, the current survey is the seventh survey which was carried out in the year 99/2000. A new method was used which depends on generating the output in a time not so long from the end of the fieldwork. Parallel steps were made in the different work stages where the month's data was collected and data entry on the personal computers in the following month was done after several accurate operations under fieldwork supervision, fieldwork edit, central technical edit, office correlations adjustment, testing the data automatically, measuring data accuracy,...etc.

The annual data was gathered during two months from the end of the fieldwork; this makes the survey one of the best surveys conducted using computers.

The sample size has reached 48000 households monthly changing, where 4000 families were withdrawn monthly distributed between urban and rural areas with a percentage of 60% and 40% respectively.

22 computer devices were utilized which were of the latest versions that can be used to accurately follow up during the recording of the monthly data, measurements of accuracy and data correlations...etc. In this way, this survey has special features that differ from the previous ones. The preliminary work of this survey took 6 months and the fieldwork took 12 months; where it started in October 1999 and ended in the end of September 2000.

The different work stages have been carried out in parallel with the data collection stage from the field, where the survey's questionnaires were submitted from different

governorates to the survey's department in the CAPMAS on the seventh day of the month following the month of the survey. Followed by this stage, the coding and office editing stage which used to start after the submission stage, then, the data recording stage on the computers were carried out in parallel with the coding and office edit stage, afterwards, the re-recording and errors validation stage were undergone. Furthermore, some of the survey's output was prepared monthly and every 3 months. At the end of the survey, total final results were prepared in September 2000 and in this way, the survey has had special features that distinguish it from the previous ones.

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## **Survey Methodology**

The methodology of the households' income, expenditure and consumption survey of 99/2000 covered the following aspects:

- 1- Survey's objectives
- 2- Peculiarities of this survey
- 3- Survey questionnaire
- 4- Definitions and concepts
- 5- Sample design and selection
- 6- Fieldwork methodology
- 7- Office editing and coding
- 8- Data processing
- 9- Preparing final results

### **1- Survey's Objectives**

- 1- To estimate the quantities and values of commodities and services consumed by households during the survey period, thus determining the levels of consumption and estimating the current demand which is important to predict future demands.
- 2- To measure the household's and per-capita average expenditure for various expenditure items in both urban and rural areas.
- 3- To define the average income of the household and the individual.
- 4- To identify the percentage distribution of expenditure for various items used in collecting consumer price indices for different expenditure levels in both urban and rural areas.
- 5- To provide essential data to measure elasticity which reflects the percentage change in expenditure for various commodity and service groups against the percentage change in total expenditure for the purpose of predicting the levels of expenditure and consumption for different commodity and service items in urban and rural areas, as well as, the different levels of total consumption.
- 6- To provide data essential for comparing the change in expenditure against the change in income to measure the income elasticity.
- 7- To study the relationships between demographic, geographical and housing characteristics of households and their income. In addition, studying the

expenditure consumption structure of commodities and services in urban and rural areas.

- 8- To provide the necessary data for national accounts especially in collecting inputs and outputs tables and commodity scales.
- 9- To provide recent data on income, expenditure and consumption estimations for the year 1999/2000 to benefit the planners, investors, researchers and others.
- 10- To identify changes in consumption patterns and norms in urban and rural areas.
- 11- To identify food consumption per capita and its main components of calories, proteins and fats and according to its sources and the different levels of expenditure in both urban and rural areas.
- 12- To identify the value of household food expenditure according to its sources, either from household production or not, in addition to household expenditure for non-food commodities and services.
- 13- To identify the percentage of surveyed households according to its possession of some appliances and equipment such as (cars, satellites, mobiles, etc.) in urban and rural areas.
- 14- To identify the surveyed households according to the number of its members in comparison to the number of rooms that the household occupies.
- 15- To distribute the surveyed households according to:
  - a- Income category
  - b- Income sources
  - c- The number of members who receive an income.
- 16- To distribute the household members who are waged employees according to:
  - a- Income category
  - b- Economic activity
  - c- Sector
  - d- Occupation

## **2- Peculiarities of the 1999/2000 survey**

- Issuance of the decision number 28 for the year 1998 by the minister of planning and international cooperation, included the formation of a committee to study and prepare the expenditure and consumption estimation survey for the country and to follow up the survey's implementation steps, the committee consisted of:



- 1- CAPMAS experts
  - 2- The Ministry of Planning experts
  - 3- The National Investment Bank experts
  - 4- Professors from the Egyptian universities
- A timetable has been prepared to implement each of the survey stages, where the preparations for it had started at 1/4/1999. This timetable ensured the coordination between all the work stages. These stages were done in parallel to each other, where the coding and office editing stage started directly after finishing the monthly data collection stage. The computerized data entry stage starts, where their coding and editing is done directly in the same month of the survey.
  - Specialized work groups were formed for each stage of the survey. In addition to training the group members of each stage according to the intensive training programs. The CAPMAS experts in the area of households' surveys had supervised each stage.
  - The survey data was completely prepared on the computers of the statistical sector, where 22 computers with the most recent versions and updated software packages were used to provide accurate follow up of data entry.
  - The survey department prepared a list of the main commodities to identify the minimum and maximum price for these commodities during each month of the survey. This list was sent to the statistical offices of all governorates to be filled by the editors and supervisors and submit it to the survey's unit, in addition to the questionnaires after filling them to be used in the central office editing.

The main peculiarities of each of the survey stages are presented in the following.

### **First: Survey Tools**

- 1- Three different questionnaires have been designed as following:
  - a- Expenditure and Consumption Questionnaire (number 30/A), this questionnaire precedes the coding (except the geographic data and the occupation and economic activity data). It includes all the expenditure and consumption categories in the form of commodity and service groups.
  - b- Diary Questionnaire (number 30/B), this is an assisting questionnaire to record the household's daily expenditure and consumption data.

- c- Income Questionnaire (number 30/C) to gather income data for each of the household members who have an income according to the items of this income from each of the different income sources.
- 2- All the questionnaire components were edited and amended according to the following:
- a- Amending the table of the basic household member data, where it became in two opposite pages. Amending some of the questions' sequence to facilitate filling them by the interviewer and exclude some of the questions.
  - b- Simplifying the housing circumstances table after deleting some questions that could not be filled in the previous surveys.
  - c- Amending the sequence of the tables, where the annual household expenditure table was put at the end of the questionnaire. This is filled to get the totals of the expenditure and consumption in the 13 tables of the questionnaire.
  - d- Adding some of the commodities that started to have a weight in the Egyptian household consumption, where these commodities were not present in the previous questionnaire of the surveys. In addition to adding some of the commodities to each other because of its little expenditure value and also moving some of the commodities from a group to the other to allow for homogeneity of the commodities; such as:
    - Separating the domestic (Baladi) bread in to two items which are normal domestic (Baladi) bread and improved domestic bread.
    - Adding canned legumes to the legumes group and adding the canned beans (Foul Medammas) to the legumes group rather than the canned vegetables. Besides, other cooked legumes were added to the legumes group.
    - Adding large beef to the meat and chicken group, as well as, separating the veal into veal and veal with bones. Furthermore, adding boneless/ processed chicken pieces and the skeleton, legs and wings of the chicken to that same group.
    - Moving the ice-cream from the sugar and jam group to the milk and its dairy products group.
    - Adding the cakes to the pastries in one item and the wafer (golash and rokak) to the Konafa and Katayef item.

-Dividing the ready-made clothes for men and women to Men, Women, Boys and Girls.

-Moving the cleaning materials expenditure from the furnishings, household equipment and routine household maintenance expenditure group to the housing, water, electricity and fuel group.

In this way, the commodities in the expenditure consumption questionnaire tables are 587 commodities in this survey, while they were 545 commodities in the 95/96 survey.

- 3- It was considered that the income data were in a separate questionnaire and its data was collected in the final visit to the household after finishing all the expenditure and consumption data gathering.
- 4- An assisting questionnaire was designed in an easy and simple way so that the surveyed household would be able to record in it its daily expenditure data during the survey month.
- 5- An instructions booklet has been prepared to fill the questionnaire and to help the interviewers fill in the data from the surveyed households. It was considered while preparing the booklet that it should be both simple and clear.

### **Second: The Fieldwork**

- 1- The field staff was selected among the most efficient and experienced staff working in the CAPMAS and specialized work groups were formed for each stage of the following field work stages:
  - a- Household's data collection
  - b- Data field editing
  - c- Technical supervision on the fieldwork stages
- 2- Intensive training program was conducted at CAPMAS in Cairo and locally in governorates for all who will be working on this survey as the following:
  - a- Central training for the supervisors and 1/3 of the editors in the CAPMAS during the period from 4/9/1999 till 9/9/1999.
  - b- Local training in the governorates for the interviewers and the rest of the editors on two stages.
- The first stage was carried out in Lower Egypt governorates except Cairo during the period from 12/9/1999 till 16/9/1999.

- The second stage was carried out in Upper Egypt governorates except Giza during the period from 19/9/1999 till 23/9/1999.
- As for the interviewers and editors of Cairo and Giza, they were trained in the CAPMAS during the period from 23/9/1999 till 27/9/1999.
- 3- The field work stage took 12 months starting from the first of October 1999 and ending in the end of September 2000,
- 4- A monthly supervision program has been prepared for the data collection and field editing in all the governorates and this program was implemented by a specialized team from the CAPMAS's experts.

### **Third: Central office editing and automated Processing**

- 1- Specialized work groups from the CAPMAS were formed for each stage of the following (after intensive training was provided).
  - a- Central office editing
  - b- Data coding (geographic data/ occupation data/ economic activity data)
  - c- Computerized data entry
  - d- Designing and implementing the computerized system
  - e- Reviewing survey final results
- 2- The office editing and coding stage started in the middle of November 1999 and ended in the middle of November 2000.
- 3- Computerized data entry started by the end of November 1999 and ended by the end of November 2000.

This stage was in parallel with the office editing and coding stage, where the filling the questionnaires of all governorates was done directly, as well as its coding and editing.

### **Fourth: Sample Design**

- 1- The survey's sample was designed based on the master sample that the CAPMAS carried out in March 1999 and it is a large sample representative of the urban and rural areas of all the country's governorates.
- 2- The survey's sample size reached 48000 households; 28800 households from the urban areas and 19200 households from the rural areas, and this sample was distributed to 4000 households each month over a period of 12 months.

### **3- Survey Questionnaires**

Three separate questionnaires were designed for data collection which are:

- a- The expenditure and consumption questionnaire 99/2000
- b- The expenditure and consumption assisting questionnaire 99/2000
- c- The income questionnaire

In the following is a summarized presentation of each of the questionnaires:-

#### **A- The Expenditure and Consumption questionnaire**

This questionnaire is comprised of 14 tables in addition to the identification data and geographic data of the household on the cover page. The questionnaire is divided into two main sections.

##### **Section One: Basic data includes:**

- 1- Demographic characteristics and basic data for all household individuals consisting of 15 questions for every member in the form of a table containing 10 columns, basically one column for each member in two opposite repetitive pages so as to take up to 20 members.
- 2- The household visitors during the survey's month.
- 3- The household members who are travelling abroad for the purpose of working.
- 4- The household's ration card.
- 5- The housing conditions including 18 questions.
- 6- Household ownership of appliances including 23 kinds of appliances.

This section includes some questions which help to define the social and economic level of the households which in turn, helps the interviewer to check the validity of expenditure, consumption and income data.

##### **Section Two: Expenditure and consumption data includes 14 tables as follows:-**

- 1- The quantity and value of food and beverages commodities actually consumed.
- 2- The quantity and value of the actual consumption of cigarettes.
- 3- The quantity and value of clothing and footwear.
- 4- The household expenditure on housing.
- 5- The household expenditure on furnishings, household equipment and routine maintenance of the house.
- 6- The household expenditure on health care services.
- 7- The household expenditure on transportation.

- 8- The household expenditure on education.
- 9- The household expenditure on entertainment, sports and culture
- 10- The household expenditure on restaurants and hotels.
- 11- The household expenditure on miscellaneous goods and services.
- 12- Transfer payments.
- 13- Installments and amounts paid during the year of the survey.
- 14- Total annual household expenditure (prepared in office after collecting all remaining data from the households).

The tables from 1 to 13 include all types of commodities and services (587 items), 37 sub-groups and 13 main groups.

- This questionnaire has been designed to be pre-coded for all expenditure and consumption items and household characteristics answers, except for the occupation and economic activity. Those were coded at the office following the special instructions for occupation and activity. On the questionnaire cover, geographic information was coded at the office, as well, following the administrative units' instructions. Except for the previously mentioned point, all the questionnaire data are pre-coded to avoid possible mistakes in the automatic data processing stage.
- The questionnaire's tables were designed to suit the different reference survey periods. The reference periods differ according to the nature of the data collection of the expenditure on the different commodities and services. For instance, there are consumption goods with more frequent periodicity as the food and beverages and it was agreed to that the survey's month is the adequate reference period. Commodities and services consumed on a semi-regular basis are collected for a reference period of 3 month while commodities and services consumed less regularly are collected on annual basis, ending by the end of the survey period.
- All the questionnaire's components were edited and adequately amended as follows:-
  - 1- Amending the table for the household members' main data, where it became in two opposite pages. As well as, amending the sequence of some of the questions to facilitate the interviewers' duty and excluding some of the questions that are unrelated to the survey.

- 2- Simplifying the housing circumstances table after deleting some of the questions that were not filled in the previous survey.
- 3- Adding some new questions about the household's ownership of appliances.
- 4- Amending the sequence of the tables, where the annual household expenditure table was put at the end of the questionnaire and became the 14<sup>th</sup> table rather than the first table in the questionnaire. This table is filled with the expenditure and consumption totals for the 13 tables of the expenditure and consumption groups.
- 5- Reviewing the components of the commodity and service groups in the expenditure and consumption tables and amending some of the goods and services items to be more realistic, as well as, the components of the commodity and service groups. This is done by adding some goods which became to have a weight in the consumption of the Egyptian household, while these goods were not available in the questionnaire of the previous surveys, as well as, joining some of the goods together because of its very little expenditure value. In addition, moving some goods from one group to the other. This is done as for the commodities group to be more homogenous:-
  - Separating the domestic (Baladi) bread in to two items which are normal domestic (Baladi) bread and improved domestic (Baladi) bread.
  - Adding canned legumes to the legumes group and adding the canned beans (Foul Medammas) to the legumes group rather than the canned vegetables. Besides, other cooked legumes were added to the legumes group.
  - Adding large beef to the meat and chicken group, as well as, separating the veal to veal and veal with bones. Furthermore, adding the boneless/ processed chicken pieces and the skeleton, legs and wings of the chicken to that same group.
  - Moving the ice-cream from the sugar and jam group to the milk and its dairy products group.
  - Adding the cakes to the pastries in one item and the wafer (golash and rokak) to the Konafa and Katayef.
  - Dividing the ready-made clothes for men and women to Men, Women, Boys, Girls.

- Moving the cleaning materials expenditure from the Furnishings, household equipment and routine household maintenance expenditure group to the housing electricity and fuel group.

In this way, the commodities in the expenditure consumption questionnaire tables are 587 items in this survey, while they were 545 items in the 95/96 survey, as follows:

Main and Sub-Groups	No. of Goods & Services	
	95/1996	99/2000
<b>1- Food and beverages:</b> includes 14 sub-groups		
1- Cereals and its products.	25	24
2- Dry and canned legumes	11	13
3- Fresh, frozen, canned and dry vegetables	61	60
4- Fresh and dry fruits and nuts	62	62
5- Meat and poultry	26	30
6- Fish	8	8
7- Eggs	2	2
8- Milk and its products	22	23
9- Oils and fats	12	13
10- Sugar, jam and confectionery	15	14
11- Other food products	11	12
12- Beverages' materials	8	6
13- Non-alcoholic beverages	3	3
14- Alcoholic beverages	3	3
<b>2- Tobacco and narcotics</b>	<b>9</b>	<b>9</b>
<b>3- Clothing and footwear:</b>		
1- Clothing materials.	40	67
2- Footwear.	6	6
<b>4- Housing, water, electricity and fuel:</b> <i>consists of 3 sub-groups</i>		
1- The expenditure on housing.	10	11
2- The expenditure on electricity and fuel	8	8
3- Household cleaning materials.	8	8
<b>5- Furnishings, household equipment and routine household maintenance:</b> <i>consists of 3 sub-groups</i>		
1- Furniture and home furnishings	42	42
2- Household services	6	6
3- Family services	3	3
<b>6- Health care and services</b>	<b>19</b>	<b>20</b>
<b>7- Transport and communication:</b> <i>consists of 4 sub-groups</i>		
1- Value of the private means of transportation.	6	8
2- The expenditure on the private means of transportation	11	12
3- The expenditure on the public means of transportation	3	3
4- The expenditure on the (wired and wireless) transportation.	6	8
<b>8- Education</b>	<b>15</b>	<b>21</b>
<b>9- Recreation and culture and sports:</b> <i>consists of 2 sub-groups</i>		



Main and Sub-Groups	No. of Goods & Services	
	95/1996	99/2000
1- The value of the culture, sports and recreation equipment.	18	18
2- The expenditure on culture, sports and recreation.	14	13
<b>10-Restaurants, cafes and hotels' services</b>	<b>7</b>	<b>7</b>
<b>11-Miscellaneous goods and services: consists of 3 sub-groups</b>		
1- Personal care.	10	10
2- Personal effects N.E.C.	13	13
3- Other services (not classified).	11	12
<b>12-Transfer payments</b>	<b>8</b>	<b>8</b>
<b>13-Installments and paid amounts</b>	<b>2</b>	<b>2</b>
<b>Total</b>	<b>545</b>	<b>587</b>

## B- The assisting questionnaire

The assisting questionnaire has been prepared to help households recording on a daily basis the quantity and value of what have been consumed of food and beverages during the reference period. Therefore, this questionnaire is considered the main source of expenditure data on food and beverage, and was designed in a very simple form to facilitate using it by the surveyed household and the interviewers during their frequent visits to the household.

Due to the importance of such a questionnaire, the households are required to record their expenses daily, and the interviewers are instructed to check what households have recorded every 3 days during their 10 visits to the household during the survey month. In case of the inability of some households to record their daily expenditure, the interviewer has to do it instead.

The questionnaire includes:

- 1- Letter addressed to the head of household to inform him/her about the importance of survey.
- 2- General Instructions of the data recording for households and interviewers.
- 3- Model (A) includes 20 pages to record the daily consumed quantity and value of food and beverages, during the survey period. Each page consists of 4 columns and each column is used to register the data of one good, including:
  - Date
  - Source of commodity
  - Quantity
  - Value

- 4- Model (B) includes 6 pages to record the value of daily expenditure outside the house without the collective budget of the household, and also a page or more is made for each member of the household who spends outside home:-
  - Meals at restaurants or clubs...etc
  - Different kinds of sandwiches
  - Non-alcoholic beverages
  - Alcoholic beverages
  - Expenditure on smoking in cafés
  - Expenditure value at hotels (other than summer and winter vacations)
- 5- Model (C) includes 1 page to record the household's expenditure value on education for each of its members who was educationally enrolled during the year which ends by the end of the survey month. This is according to the member's educational stage with regard to the educational expenditure items.

### **C- Income Questionnaire**

- The tables of this questionnaire had been designed in a way that enables the interviewer to fill in the income data for each member according to the source/sources of his/ her income and the detailed items of each source, where it is possible to calculate the total net income for each member and the household's annual net income.
- A new table has been added to this questionnaire to identify the workforce members who are earners in the household according to the member and the type of the job (main/ secondary). This is done in order to identify the income of each member from his/ her main or secondary job.

Furthermore, the annual net income table, which includes wages and salaries of the working household members, has been divided to main and secondary income according to the income items as wages and salaries.

- This questionnaire consists of 8 tables:-
  - 1- Total annual net income for the household. This table is prepared at the office after filling all the income data from every source of the different income sources for the household members.
  - 2- The data for the household's workforce members who are earners according to the type of work (main/ secondary) and the work status, occupation, economic activity and sector.

- 3- Annual net income as wages and salaries of the household members who are waged employees and it includes 11 items.
- 4- Annual net income from the agricultural activity of the household members and consists of 16 items.
- 5- Annual net income from non-agricultural products of the household members and consists of 17 items.
- 6- Annual net income from real estate ownership of the household members and consists of 8 items.
- 7- Annual net income from financial investments of the household members and consists of 9 items.
- 8- Annual net income from periodic income of the household members and consists of 6 items.

Tables from 3 to 8 illustrate the household income where they consisted of 5 columns and each column is dedicated to a household member who has an income and then there is a column for the summation of all the household members of the household income data (The household's annual net income). This is according to the sources of income.

## **4- Definitions and concepts**

### **1- The household**

The household in this survey is considered the member or group members who live together in the same housing and who may or may not be relatives, so they are one household unit which depends on an agreed collective budget.

Anyone who stayed with the household; for a period not less than 6 months during the 12 months (including the survey month/ period), is included in the household, for which the expenditure and consumption data is being gathered.

According to this definition, the following is included in the household members:

- 1- Individuals who are usually living with the household and present at the time of survey.
- 2- Individuals who are usually living with the household for 6 months or more (connected or not connected) but temporarily absent at the time of survey.
- 3- Military Individuals; and civilians working for the military force and police staff whether present or absent at the survey time.

- 4- Students who are living away of their families such as those who are staying in public dwellings e.g., guest houses, dormitories and hostels.
- 5- Servants who are sharing the household food and accommodation.

## **2- Household Head**

The head of a household is defined as the one considered as such by the rest of household members irrespective of his/ her age and sex. Usually, the household head is responsible for supporting the household and making expenditure decisions.

## **3- Visitor or Guest**

This is the person who shares the food and housing with the household for a period of time not less than one day and not more than 6 months and this is until the end of the survey month. The visitor may or may not be a relative to the household.

## **4- Sampling Unit**

A household is considered a sampling unit in this survey.

## **5- Housing unit**

The place where the household lives and it might be:

### **a- Ordinary dwellings**

The units or places prepared for housing such as (apartment, villa, countryside house, room or more in a dwelling, separate room or more).

### **b- Marital residence/unordinary dwellings**

These are the places which are not mainly prepared for housing but occupied by households such as (stores, garages, etc.).

## **6- Educational Status**

It refers to the status of a person (10 years and older) with regard to the highest attained educational level. It includes the following categories:

- a- Below age.
- b- Illiterate.
- c- Reads and writes.
- d- Below intermediate (primary/preparatory).

- e- Academic secondary certificate.
- f- Above intermediate & below university.
- g- University degree
- h- Above university degree (Diploma, Masters, PhD).

## **7- Work Status**

It refers to the person's status concerning his/her work relationship during the week preceding the interviewer's first visit and it is for all individuals aged 6 years and above. It includes the following categories.

### **A- Working Population**

- They are the individuals (6 years +) who perform any economic activity for some time (one hour at least) during the reference period (one week) whether inside or outside establishments.
- Included in this definition; individuals having jobs but temporally absent from their work during the reference period because of illness, annual leave, training or study leave, and labor dispute, irregularity of work in the establishment for temporary reasons or due to the nature of the establishment activity.

### **B- Unemployment**

- They are individuals; aged (6 years or more) who are physically able to work, willing to work and actively seeking work, but did not find it during the survey week.
- Any individual, who signed a job contract and the date of starting the job would be after the survey week, is considered unemployed.
- Individuals who are temporary or for an indefinite time suspended from their job, as long as they are searching for a job and could not find one or not receiving any pay during the survey week. These individuals are considered unemployed.

Unemployment is divided into:

#### ***(1) Ever worked unemployed***

This applies to a person who has ever worked before but found unemployed in the reference period according to above criteria.

(2) *Never worked unemployed*

This refers to the new entrants to the labor market for the first time such as graduates who have not started their working life yet.

C- Working student

Full time student but working during the survey week.

D- Working house keeper

Females engaged in ordinary housework and duties but found having a gainful work during the survey week.

E- Individuals out of labor force:

They are the individuals in the age span 6-64 years who are physically able to work but did not practice any gainful work during the reference period for some reasons such as:

- (1) Family circumstances (dedicated to homework).
- (2) Preparation for entering into the labor market (full time students).
- (3) No work desire (not interested).
- (4) Retired individuals.
- (5) The disability that temporary prevents individual from work.
- (6) Individuals are in unpaid leaves for one year or more and don't work.
- (7) Individuals who are in compulsory military service or perform public service.
- (8) Prisoners.
- (9) Hospitalized persons who are not engaged in work.
- (10) Individuals (6 -12 years) who are not working or studying.

F- Individuals outside human force

- (1) Children (less than 6 years)
- (2) Individuals of 65 years or more, not working, not willing to work.
- (3) Totally and permanently disabled individuals aged (6-64 years).

## **8- Employment Status**

It refers to the status of the working person aged 6+ with regard to the nature of his/her work relationship during the week that preceding the reference period. It includes the following categories:

a- Wage worker:

This is the individual who works for others in return of regular monetary or in kind wages/salaries (daily/weekly/monthly) during the week preceding the reference period.

b- Employer:

This is the individual, who operates his /her own business (Agricultural, Industrial, Commercial or services) and hire one or more employees with or without wages whether they are among his household's members or not.

c- Own account worker:

This is the individual who operates his/her own business or engages independently in a profession or trade and hires nobody, such as; street vendor, taxi driver who owns the taxi...etc.

d- Unpaid worker:

This is an individual, who works for one of the household members, without receiving any kind of regular payments, either in an establishment or a farm...etc, that the household owns or rents.

Noting that if a household member is found to be an unpaid worker, there has to be an employer member in the household's employment status.

**9- Main Occupation (6+ years)**

- It refers to the kind of the main work, where the individual spends most of his/her time regardless of the economic activity of the establishment where the individual works.
- It is important to state the occupation in details in order to be able to determine the kind of work done.

Concerning the household members who are working in the military, "government employees" is their main occupation.

**10- Economic Activity**

- It indicates the major field of production practiced by the establishment for which the currently working person works or by the latest establishment for which the ever worked unemployed was working.

- For individuals working outside establishments, the economic activity is deduced from the occupation, for instance, the economic activity assigned to vegetable mobile vendors is retail trade of vegetables and for farmers is agriculture.

### **11- Main job**

- This is the job in which the worker spends most of his/her time during the reference week. In case the person has multiple jobs and allocates his/her working time among them equally, then the one with highest return is considered the main job. As an exception of this definition; the job is considered a main one regardless of its little time or return, if there is not any other job done other than this one.
- If the individual works for the government or the public sector and has other jobs the former is considered the main job irrespective of time and return criteria.
- If the individual is on an unpaid leave and currently has another job, then the current job is considered the main job.

### **12- Secondary job**

This refers to the second job that the individual might have had during the reference period. As mentioned above, the secondary job is considered as such if the individual spent in it less time or received less return. In order to consider a job secondary, two conditions must be fulfilled:

- 1- The workplace of the main and secondary jobs has to be different, even if it was the same profession in the two different workplaces. However, overtime in the main job is not considered a secondary one.
- 2- The number of working hours in the secondary job should be less than that of the main job except in the following case:

The jobs of the government and public sector employees are considered main jobs regardless of the number of working hours.



### **13- Goods and services consumption and expenditure**

Consumption of goods: it is the quantity and value of the goods that the household actually consumed during the survey period either the good was produced by the household (household's farm or factory) or not produced by the household (either the household bought it or received it as a gift).

The quantity that was given in return of another good is not included in the consumption of goods category. In addition, the consumption of goods does not include the quantity of goods that were given by the household as a gift or as a payment of an in-kind wage/salary. Furthermore, the quantities of goods that were used for production purposes which the household sells are excluded from consumption of goods category.

Services expenditure: it is the value paid by the household either cash or in-kind for the services provided for the household during the survey period. However, the value of free services provided for the household during the survey period are not included in this category.

### **14- Transfer payments**

It refers to cash or in kind transfers paid by the household to others either inside or outside Egypt. It is the value of expenses paid by the household to non-household individuals such as gifts, assistance charity, dowry...etc.

## **5- Sample design and selection**

The Household Income, Expenditure and Consumption survey sample depends on all of the Primary Sampling Units (PSUs) selected in the master sample which is 600 PSUs distributed between urban and rural areas 60% and 40% respectively. The total PSUs has been distributed between urban and rural areas according to the calculations of the consumption spending variance of the previous surveys; where the consumption spending variance for households in the urban areas reached 22.8% and in the rural areas reached 15.2%.

The coefficient of the consumption spending differences for households in the urban areas were 2.55% with 95% confidence level and in the rural areas was 1.27%.

The master sample size is:

- 600 PSUs in the country

- 360 PSUs in the urban areas
- 240 PSUs in the rural areas

A new frame for the PSUs has been prepared for the master sample using the count of households and housing units. This is done using the zigzag blocks method which utilizes the maps in the PSUs of all the urban and rural areas.

- Primary Sampling unit (PSU)

This is a known area that is demonstrated on the map. It consists of adjacent zigzag blocks. It represents about 1500 households in the urban areas and 1000 households in the rural areas.

### **First: Methodology of the master sample design:**

- 1- The master sample covers all governorates, stratified, un-biased and probability sample ( also including the border governorates):
  - a- The master sample includes all the governorates (urban/ rural), as well as, the border governorates.
  - b- The stratified master sample, where it was designed on the basis that each of the urban and rural areas are independent stratum. Each stratum (urban or rural) is divided in to inner strata (governorates) and on this basis; the size is distributed in each stratum.
  - c- The master sample, where the sampling unit of the primary sampling stage is the area that includes one or a number of blocks and 1500 households (housing unit) in the urban areas and 1000 households (housing units) in the rural areas.  
  
The maps were used to choose the PSUs in the Shiakhata to identify the roads and main routes.
  - d- The master un-biased sample, where the systematic random sampling method is used in all the stages of the sample selection.
  - e- The master probability sample, where each selected unit in the sample has an equal chance to be drawn. In other words, it has an equal chance on the level of the stratum where the unit is selected.

The probability of selecting the household =

$$\frac{\text{Number of selected households in the PSUs (urban / rural)}}{\text{Total number of households in the PSUs (urban / rural)}}$$

**Second: The frame used to prepare the master sample:**

- 1- The 1996 Population Census data (to estimate the number of households for the year 2000) was used. In addition, the number of villages and Shiakhat in all governorates was used to distribute the primary stage sampling units PSUs on the inner strata (governorates).
- 2- The estimated number of households for the year 2000 (on the level of villages and Shiakhat in all governorates (urban/ rural)) was used from the 1996 Population census. This was used to prepare the Cumulative frequency table that was utilized in selecting the primary stage sampling units.
- 3- The maps were used to divide the Shiakha to a number of PSUs.

$$\text{Number of PSUs in the Shiakha} = \frac{\text{Estimated Households' number in the Shiakha}}{1500}$$

The selection of the PSUs is specified in households' cumulative frequency table.

**Third: Sampling unit according to the master sample:**

- 1- Primary stage sampling unit:-
  - 1- Sampling unit in the urban and rural areas is the PSUs and its size is not less than 1500 housing units (not less than 1500 households) in the urban areas, while 1000 housing units (not less than 1000 households) in the rural areas. It is located in one or a number of blocks which are known and the roads to the PSU are clear.
  - 2- The sampling unit in the second stage either in the urban or rural areas are the households.

**Fourth: Size of the master sample**

- 1- The primary stage sample size was distributed ((360 PSUs) in the urban areas) (240 PSUs) in the rural areas) on the inner strata (governorates). This was done through using the probability proportion to size method and by using two indicators and then getting their average:
  - *Fist indicator*: The number of households estimated in each governorate (urban/ rural) for the year 2000 was provided by the population census for the year 1996.

- *Second indicator*: the number of villages and Shiakhat in each governorate and this was provided by the administrative units' guide in Egypt.

The primary stage sampling units were distributed on the governorates (urban/rural), as well using the number of Shiakhat / villages in every governorate. The average number of the primary stage units was carried out, and these are the ones in each governorate using with both indicators. This was done because of the large differences between the size of the governorates (urban/ rural) according to the number of households, Shiakhat and villages.

***Considerations that were taken into account in the income, expenditure and consumption (1999/2000) sample design.***

**First: Framework:**

The survey's sample depends on the frame of households of all the PSUs of the master sample that was done in 1999. This is an area sample that consists of 600 PSUs and it includes every PSU which is 1500 households in the urban areas and 1000 households in the rural areas.

Therefore, the total frame size is 780000 households.

a- Urban Areas:  $360 \text{ PSUs} * 1500 \text{ households} = 540000 \text{ households}$ .

b- Rural Areas:  $240 \text{ PSUs} * 1000 \text{ households} = 240000 \text{ households}$ .

For the first time a very large sample (framework) had been prepared in Egypt. This sample includes all the governorates, as well as the urban, rural areas and the border governorates. In other words, the sample includes 27 governorates.

Egypt consists of two main strata:-

1- Urban stratum

2- Rural stratum

Inside each of the stratum, there are a number of governorates which are considered the inner strata.

**1- The urban stratum includes the following:**

A- The urban governorates which include the following governorates; Cairo, Alexandria, Port Said and Suez.

B- The governorates and cities' capitals in both Upper and Lower Egypt.

C- The capitals of Marakez in both Upper and Lower Egypt.

Each governorate is divided into sections and each section is divided in to a number of Shiakhat.

The city/ Shiakhya is considered the smallest level of administrative units in the urban areas, where census data is available and that its administrative borders could be clearly identified using maps.

These administrative units (cities/ shiakhata) are considered the framework which the primary sampling units in the urban governorates were chosen.

## **2- The rural stratum includes the following:**

The villages of Lower and Upper Egypt and that of the border governorates are considered the smallest administrative units in the rural area.

The Egyptian villages are divided into three sections:-

- A- Villages which consist of only the village's residence.
- B- Villages which consist of the village's residence and a number of farms and hamlets (small village).
- C- Villages which consist of only a number of farms and hamlet (small village) and does not have any residence. The survey's sample includes a number of villages of all kinds and this is done to guarantee the quality of the represented sample. In general, the village with all its appurtenances is considered the smallest level of the administrative units in the rural areas, where census data for these villages are available and its borders could be clearly identified. These administrative units are considered the framework which the primary sampling units were selected in the rural areas.

## **Second: Sample size:**

During the past ten years, the CAPMAS used a sample size of about 15000 households which are located in 500 PSUs only.

However, the 99/2000 survey a sample size of 48000 households was used which is located in 600 PSUs.

The sample in the primary sampling stage size was distributed (as it was in the master sample design) between the urban and rural areas depending on the variance calculations of the urban and rural strata (homogeneity inside the strata and variance between the total strata was considered). The rural stratum is considered homogenous to a large extent compared to the urban stratum which has large differences regarding the diversity of the economic activity and the different kinds of occupations.

*A- Sample size in the primary sampling stage*

- 360 PSUs in the urban areas
- 240 PSUs in the rural areas
- 600 PSUs in the country

The primary sampling units were selected all at a time.

*B- Sample size in the final sampling stage*

The survey was carried out over the year through a sample of households, where 80 households are selected from each PSU in the primary sampling stage, so that the annual sample size in the urban area is  $360 * 80$  households = 28800 households.

- In the rural area  $240 * 80$  households = 19200 households.
- In the country  $600 * 80$  households = 48000 households

The sample size using the PSUs (80 households) was divided into 4 parts, where the part consists of 20 households.

The large PSUs of the households sample are selected on 4 parts of the year (4 quarters) every 3 months. This is done through observing the partial segment (20 households) from the large PSUs (80 households) during one of the survey months.

The survey's questionnaires are filled monthly for 4000 households and for 12 months to get the annual sample size 48000 households.

This is done in order to distribute this size (48000 households) on the PSUs (600 PSUs) during the year on the different governorates (urban/rural). The sample needs to be designed and distributed well using double horizontal vertical tables, in order to distribute the sampling units on 4 periods to ensure being un-biased.

**Third: Sampling error for the income, expenditure and consumption 99/2000 survey:**

The sampling error resulting from using a random sample of this size has been calculated using the following method. The estimated expenditure consumption variance of the previous survey has been used, as well as, the estimated total expenditure consumption average of the previous survey was also used. This was done using the following equation:

$$SE = \frac{Z^2 * \bar{y}^2}{RSE^2 * \bar{x}^2}$$

Z=1.96 is the critical value of the standard normal distribution at 95% confidence level

$\bar{y}^2$  = Estimated expenditure variance from previous survey on the governorate level (urban/rural)

$\bar{x}$  = Estimated Average expenditure from previous survey

RSE = Relative sampling error resulted from using sample size

There are 28800 households in the urban areas and 19200 households in the rural areas. The proportional error of estimation on the country level was found to be; 0.7% for the urban stratum and 0.9% for the rural stratum.

#### **Fourth: Survey's periodicity**

Regarding the survey implementation, the survey is carried out monthly during a period of 12 months.

Regarding the survey's periodicity, for each PSU, the survey's periodicity has been increased to 4 periods for the households of each PSU of the sample, while it was only 2 periods for the households of each PSU of the sample in the 95/1996 survey. This was done in order to improve the methodology used to use 4 periods for data collection for each PSU instead of 2 periods.

Therefore, the sample size in each PSU has been divided into 4 sub samples (sub sample = 20 households), where each sub sample is surveyed for a month in the annual quarter period.

The households' sample size for each PSU (80 households) has been divided into 4 parts:

**First part:** Data collected in the months of the first quarter of the year and the households' series is from 1 to 20

**Second part:** Data collected in the months of the second quarter of the year and the households' series is from 21 to 40

**Third part:** Data collected in the months of the third quarter of the year and the households' series is from 41 to 60

**Fourth part:** Data collected in the months of the fourth quarter of the year and the households' series is from 61 to 80

The survey data for the number of households from each PSU is collected monthly (20 households). This is done using the changeable households system, where the

household is surveyed only one time in the survey month. The new household is surveyed in each month of the survey's 12 months.

In this way, 48000 households were surveyed during the survey year.

### **Sample size of the income, expenditure and consumption survey**

Governorate	Urban		Rural		Total	
	PSU	Households' Number	PSU	Households' Number	PSU	Households' Number
Cairo	106	8480	0	0	106	8480
Alexandria	54	4320	0	0	54	4320
Port-said	8	640	0	0	8	640
Suez	8	640	0	0	8	640
Damietta	5	400	5	400	10	800
Dakahlia	13	1040	24	1920	38	2960
Sharkia	15	1200	25	2000	40	3200
Kalyoubia	12	960	13	1040	25	2000
Kafr-EI-Sheikh	8	640	11	880	19	1520
Gharbia	14	1120	17	1360	31	2480
Menoufia	7	560	15	1200	22	1760
Behera	12	960	22	1760	34	2720
Ismailia	5	400	3	240	8	640
Giza	35	2800	16	1280	51	4080
Beni-Suef	6	480	11	880	17	1360
Fayoum	5	400	10	800	15	1200
Menia	8	640	18	1440	26	2080
Asyout	10	800	13	1040	23	1840
Souhag	8	640	15	1200	23	1280
Qena	7	560	9	720	16	880
Aswan	6	480	5	400	11	480
Luxur city	3	240	3	240	6	160
Red Sea	1	80	1	80	2	160
El-Wadi El-Gidid	1	80	1	80	2	160
Matrouh	1	80	1	80	2	160
North Sinai	1	80	1	80	2	160
South Sinai	1	80	1	80	2	160
Total	360	28800	240	19200	600	48000

## **6- Fieldwork Methodology**

### **First: Preparation for the field's implementation**

- The Household Income, Expenditure and Consumption Surveys are considered one of the most important sources of the main data, which is used to provide many economic, social and demographic indicators on the local and national level.
- Preceding the 99/2000 survey, the master sample was carried out, which represents the urban and rural areas of all governorates. The fieldwork implementation for the master sample was carried out during the period from the first of March 1999 till



the end of May 1999, where the selected PSUs were identified, as well as its blocks were numbered. Furthermore, the building and housing units were counted using these blocks. In this way, it was possible to provide for a master sample to withdraw households' survey sample.

#### Pilot survey:

- After the implementation of the master sample fieldwork was carried out, the pilot was prepared for the questionnaires that were designed for this survey. They are 3 questionnaires, as well as, an instructions booklet.
- 1- The household expenditure and consumption questionnaire.
- 2- The assisting questionnaires that helps the household or the interviewer to record the quantity and value of the real daily consumption of the food and beverage commodities during the survey month. In addition to each household member's expenditure outside home, this is done to assist in gathering the expenditure and consumption data.
- 3- The income questionnaire is related to any of the household members who receive an income.

#### Pilot areas:

The fieldwork of the pilot survey was undergone during the period from 30/6/99 till 7/8/1999. This pilot was carried out on a sample size of about 80 households, where 40 households are from the urban areas in Cairo governorate (Shiakhat Al Shamashergy in kism Shobra and Al Maadi Al Gadida in kism Maadi), as well as 40 households from the rural area (Al Mosanada village at kism El Ayat in Giza and Shatanof village at kism Ashmon in Al Menoufia governorate).

The pilot has been supervised by the survey's executive manager and a group work which consists of the following:

A number of

- 1 supervisor
- 4 fieldwork editors
- 8 interviewers

After their training during the period from 20/6/99 to 23/6/1999 and providing two cars in the pilot areas and after finishing this pilot, its results were assessed and questionnaires were redesigned, as well as the instructions. This was done according to the results assessment of the pilot.

- During the implementation of the pilot fieldwork, a meeting with all the CAPMAS managers in all governorates was done on Saturday 17/7/1999 and introductory fieldwork implementation steps were discussed and included the following:
  - 1- Female interviewers who were chosen to join the survey, are university graduates and performing their civil service. The work areas that the interviewers are assigned to, are according to the lists of sample distribution in the urban and rural areas in each governorate.
  - 2- Submitting the sample lists monthly on the 20<sup>th</sup> day of each month.
  - 3- The method of submitting the survey's publications (questionnaires and instructions)
  - 4- Providing cars for the survey in every governorate.
  - 5- Preparing Identification cards (ID cards) for all who are working on the survey.
  - 6- The training program includes:-
    - a- Fieldwork method
    - b- The survey's objectives, definitions and concepts.
    - c- The way of dealing with the surveyed households
    - d- Survey questionnaires

A central training program was prepared in the CAPMAS and a local one in the governorates:-

- Central training in the CAPMAS for all supervisors and 1/3 of the editors in each governorate during the period from 4/9/1999 to 9/9/1999 and the following attended:
  - 32 field supervisors
  - 65 field editors
  - 15 passing by field specialists
- Local training in the governorates for the interviewers and the rest of the editors, as well as, the passing by field specialists and the supervisor of each governorate. This was done on two stages:
  - The first stage was for the Upper Egypt governorates except Cairo during the period from 12/ 9/1999 till 16/9/1999.
  - The second stage was for the Lower Egypt governorates except Giza during the period from 19/9/99 till 23/9/1999.

- The training for the interviewers and supervisors of Cairo and Giza was carried out during the period from 22/9/99 till 27/9/1999.

The total number of trainees was:

- 32 field supervisors
  - 225 field editors
  - 450 field interviewers
  - 15 passing by field specialists
- 7- The method of office and field editing in the governorates.
- 8- Submitting the filled questionnaires by all governorates monthly.

- After finishing the preparation of the survey instruments (the monthly questionnaires, instructions and lists of the households sample), they were sent to the statistical office in the governorates, as well as, training the group work in this survey of every governorate. In addition, preparing the identification cards of all interviewers. The survey's fieldwork implementation started from 29/9/1999 for data collection on the surveyed households for the month of October 1999 and the work continued monthly in all governorates until 7/10/2000 and also special care has been provided for each governorate for the ones working on this survey during the duration of the field work for 12 months.

## **Second: Field Implementation:**

- The households sample size reached 48000 households and distributed on the 12 months of the survey, where 4000 households were surveyed monthly on the governorates level in the urban and rural areas. The survey started in October 1999 and ended in September 2000.
- The hierarchy and number of people involved in the monthly fieldwork on the governorates' level was:-
  - 32 field supervisors
  - 200 field editors
  - 400 field interviewers
  - 15 passing by field specialists

- The supervisor is the manager of statistical office in the governorate. In each governorate there is a supervisor except for the following, where there was more than one supervisor and this was due to the large sample size.
  - Cairo: 3 supervisors
  - Alexandria: 2 supervisors
  - Giza: 2 supervisors

The supervisor is the one technically and administratively responsible for the survey in the whole governorate or part of it

- The selected editors were one of the best in the statistical office of each governorate. The editor is considered the one responsible with the supervisor in a specified area (PSU), where each editor supervises the work of two interviewers only, as well as, supervising the households' data during the fieldwork. In addition, the editor verifies the data through checking the work of his/ her interviewers.
- The interviewers selected were females who worked in the statistical offices, civil service or other governmental bodies. Each interviewer surveyed 10 households monthly as a maximum limit for data collection.
- The selected passing by field specialists were very experienced ones in this field. Passing by monthly programs were prepared for all governorates and handling any problems during the fieldwork implementation of the survey.
- The method used in the data collection stage was through visiting the surveyed households by the interviewer.
- The first visit is done as the editor accompanies the interviewer and it is carried out before the survey month starts by one or two days. This is done in order to check the presence of the household and meeting its head while providing him/her with an idea about the reason for the visit and the survey's objectives, importance and the needed data on the monthly expenditure and consumption of the household (without mentioning anything about the income data, so as not to lead the household to refuse due to the sensitivity of the income data). In addition, handing the assisting questionnaire to the household and explaining the daily data recording method, as well as, identifying the appropriate time for the next visit.

- The next visit is carried out, where 2 visits are done every week. The interviewer checks that the household is recording the daily expenditure and consumption in the assisting questionnaire during the visit (the assisting questionnaire is considered a main element of the fieldwork and a main source to fill the data for the expenditure and consumption in the main questionnaire (this is done in order to increase accuracy of the data). In addition to filling the data of some of tables of the main questionnaire according to the pre-prepared timetable.
- During the tenth visit which is done on the first day of the following month, the interviewer completes any data that was not filled on the expenditure and consumption, as well as, the income data that should be filled in the income questionnaire which is done for the members of the household who receive income. They are the ones, who were identified in the main data table for all the household members as income earners (excluding the servants). In this way, it was possible to avoid any impact that the income data might have on the expenditure and consumption data due to the sensitivity of the income issue for some of the household members.

The timetable of filling in the data of the questionnaire tables in this survey is represented in the following:

### The timetable of filling the questionnaire tables during the visits

First visit before the survey month starts	Second and third visits in the middle and end of the first week	Fourth and fifth visits in the middle and end of the second week	Sixth and seventh visits in the middle and end of the third week	Eighth visit in the middle of the fourth week, Ninth visit at the end of the survey month	Final visit in the first day of the following month
1. Main data for all household member; question from 1-15	1. The third table clothing and footwear; 1-3, 2-3, 3-3, 3-4	1. The fifth table Expenditure on furniture and household services; 1-5, 2-5, 3-5	1. The eighth table Expenditure on education	1. Table number 10 Expenditure on restaurants, cafes and hotels 2. Table number 12 Transfer payments	1. Fill in any data that was not filled in the expenditure and consumption data
2. The ones currently travelling to work outside the country	2. The fourth table Spending on housing; 1-4, 2-4, 3-4	2. The sixth table Expenditure on health care and services	2. The ninth table Expenditure on culture, sports and recreation; 1-9, 2-9	3. Table number 13 Installments and paid amounts	2. Income tables
3. Ration Card		3. The seventh table Expenditure on transportation; 1-7, 2-7, 3-7, 4-7	3. Table number 11 Miscellaneous goods and services; 1-11, 2-11, 3-11	4. The second table Consumption of Tobacco and narcotics	
4. Housing circumstances				5. Guests' data and reviewing the tables that were previously filled	
5. Household ownership of equipment				6. The first table Quantity and value of consumed commodities from food and beverages	

### **Third: The problems and difficulties faced in the fieldwork implementation of the survey.**

The survey department prepared the Household Income, Expenditure and Consumption survey for the seventh time (1999/2000) that was carried out by the CAPMAS over a period of forty years starting the period of 1957/1958. The survey department made sure to overcome any obstacle or problem that faced the previous survey either problem related to the sample design to guarantee the best representation of all areas and social classes or other obstacles related to questionnaire design in order to include all the possible expenditure and consumption items. While preparing the instructions for the fieldwork implementation, it was taken into consideration that the instructions should cover all the possible explanations to be able to understand the different questionnaire items and the way of filling it, as well as trying to eliminate any obstacle that might be faced in the fieldwork. This is done in order to support the interviewers, editors and all who are working on the survey. In spite of the fact that there has been a great effort exerted to improve the questionnaire and the fieldwork and the preparation for it, there has been some obstacles that were faced which are summarized in the following:-

<b>Problem</b>	<b>Procedure</b>
The unavailability of interviewers in the remote areas in some of the governorates in Upper Egypt.	This problem was overcome by providing interviewers from those working at the statistical office
Data was not collected from some households due to pulling down the house or the housing turned into a facility or the house was empty or closed during the survey month...etc.	These households were substituted by other ones in the same PSU where the survey was carried out. This was done before the start of the survey (during the acquaintance visit)
Refusal of some of the households to provide the wanted data in some areas	These were very limited cases and the household's heads were then convinced by the supervisors and the survey unit.
There has been a misunderstanding in the concept of the 14 <sup>th</sup> question about the main data related to the servants (does the individual receive an income)	This was overcome by notifying those working in the field to add a dash (-) in the answer of this question concerning the servants, where the servants' income is excluded from the household's income.

<b>Problem</b>	<b>Procedure</b>
There has been a misunderstanding in the concept of the 18 <sup>th</sup> question in the table of the housing circumstances in the case that there was not any household member working (means of transportation from the house to the workplace).	This was overcome by adding the answer number 6 which is non-applicable and a circle is put in the case that there was not any household member working
Income data did not match the expenditure data.	All those who were working in the field were notified to fill in the income questionnaire as mentioned in the instructions booklet during the last visit to the household. This should be done regardless of what was mentioned in the expenditure and consumption questionnaire and without any comparison between the total expenditure and the total income.

These problems and difficulties occurred in the primary stages of the survey and publications were prepared to clarify and treat these field problems, where they were distributed to all those working on the survey in the governorates. In addition, the passing by field specialists have treated all these problems during their periodicity pass to check the work of the survey in the governorates.

## **7- Office Editing and Coding**

- Field office editing is one of the main stages that were given great consideration after the stage of the data collection from the surveyed households in the governorates. This was done before submitting the filled questionnaires to the survey department in Cairo, in order to be able to deal with any field error on time. A field editor is responsible for each two interviewers, where the field editor reviews the surveyed households' data in the assisting questionnaire during the fieldwork. Then he/she reviews the survey questionnaires that are submitted by the interviewers to check the data, as well as the field editing that was done by:-
  - Field supervisor in each governorate
  - Passing by field specialists who made a visit to all governorates monthly.
  - Members of the survey's supervision committee and the survey's project body during their visits to some governorates.



- Then the field editor, as well as the field supervisor filling/coding the data on the questionnaire cover, which are the following:-
  - 1- Geographic data:
    - a- Governorate: its code consists of two digits
    - b- Urban/ rural: its code consists of one digit
    - c- Kism/ Markaz: its code consists of two digits.
    - d- City/ Shiakha/ village: its code consists of two digits.

This information is brought from the administrative units guide reference 901/96

- 2- Identification data:
  - a- Survey period and its code consist of one margin and each period includes 3 months of the survey months.
  - b- The survey month and its code consist of two margins.
  - c- The number of the PSU and its code consists of 3 margins from the sample frame lists. The coding of this data is clarified in the instructions booklet.
- After this stage ends in the governorates, the questionnaire is sent monthly to the survey department in the CAPMAS in Cairo. This questionnaire is matched with the frames lists and submitted to the work groups which were formed to carry out the coding and the central office editing. The data coding group edits the data that was coded in the field, then coding the occupation and economic activity data and this is according to the guideline used in coding which are:-
  - a- Administrative units guide; reference number 901/96
  - b- Occupation classification guide; reference number 98/ 12014/ 96
  - c- Arabic classification guide which integrates the economic activity; reference number 30/ 113 /96

The coding group consisted of:

- a- Supervisor
  - b- Group head
  - c- 4 members to code the geographic data
  - d- 4 members to code the occupation data
  - e- 2 members to code the economic activity data
- The questionnaires of each governorate are submitted to the work group in the survey department after its data coding and code editing ends. This work group submits the questionnaires to central office editing groups.

- The central office editing groups were formed of 8 groups where each group consists of 6 editors and each group has a head. These groups have 3 supervisors.
- The central office editing groups carries out an accurate edit for every survey's data according to the instructions that the survey department have prepared and it includes:
  - a- Coverage editing
  - b- Editing data relation and correlation
  - c- Editing of the rationality of the data
  - d- Arithmetic editing

In case there were remarks in the central office editing stage, then the field supervisors are contacted and the questionnaires are returned to them to check the data validity.

- During the field office editing stage in the governorates and the central office editing stage in Cairo, the monthly expenditure and consumption data were converted to annual data by multiplying by the number 12. In addition to converting the quarterly annual data to annual data through multiplying by the number 4. Regarding the annual data, it remains as it is and in this way the questionnaires data are aggregated in the form of data that represents the survey year.
- In this way, the survey's questionnaires become ready for the automatic processing, where they are submitted monthly to the work group responsible for the data processing on the computers.

## **8- Data processing**

A hall equipped with a LAN (Local Area Network) has been provided. This hall consists of 21 computers which are connected to a file server, as well as another computer for the system designers and programs planners who have installed software packages on the computer. These packages record and edit the data and validate the errors (IMPS Package).

A work group was selected for the data entry and error validation and they were given intense training on this stage. They were divided into two sub-groups where each group works for shift of 4 hours daily. The structure of those who were working on the data processing (who are experienced in this area), were the following:-

- 2 system designer and programs planner
- 1 Data entry supervisor

- 7 Data entry group heads
- 42 members in the data entry team working on two shifts.

Software package (IMPS) was used to automatically treat the survey data. IMPS is an abbreviation of Integrated Microcomputer Processing Software.

This package consists of 5 main parts which are:-

#### 1- CENTRACK: "Data (capture) Management and Control"

This part is used to follow the transfer of questionnaires from one stage to the other of the following treatment stages:-

- Data receiving stage
- Data entry stage
- Data verification stage
- Data modification stage
- Tabulation stage

This follow up is done through recording the date of the end of each stage separately on the level of every questionnaires batch which consists of 20 questionnaires for each Shiakha/ village.

The manual count; for the number of households, male members and female members on the Shiakha/ village level in the frame, is compared with the numbers that were counted by the computer after the data verification stage ends.

#### 2- CENTRY:

This is the part for data entry.

The Arabic language entry screens were designed using the program "Nafitha".

The same format of the questionnaire pages were considered when designing the screens and this is done in order to facilitate the recording of the questionnaire. While recording the data of the questionnaire, it was considered that the data to be within specific numerical limits, as well as using the Skipping pattern method which is the automatic transfer from a field to the other without recording the other fields and this is according to the response to a certain question.

Example: the main data register for all household members:

Question (7) - the work status during the week preceding the visit

If the answer was (1- working) A, (4- working student) A, (5- working house keeper), then it moves to the next question, which is question (8) employment status. However, in case the answer was (2- ever worked unemployed), then it

moves to question (11) which is the main occupation. If the answer was (3- never worked unemployed) A, (6- Individual outside the labor force) A, (7-Individual outside the human force), then it moves to question (14) which whether the individual receives any income?

The ID check file was used during the recording. This is file that contains the geographic codes of each shiakha/village inside the frame and it also contains the number of questionnaires in this shiakha/village. This is done to avoid duplication of the data and to avoid any missing questionnaires. Furthermore, this is also done to avoid recording wrong geographic code and this is done through matching the questionnaire number and the geographic code of the shiakha/village which is followed by the ID Check file during the recording of the questionnaire. In case they did not match or there was duplication in the questionnaire, then a notifying message appears. On the other hand, if there was a match, then the recording date is automatically put on the questionnaire that was recorded in the ID check file.

The data verification stage was checked with a percentage of 100% from the survey's population, where each questionnaire is recorded twice to ensure the validity of its data as the computer gives a warning clarifying that the value of the data does not match while recording for the second time with the value that was recorded for the first time. In this way, the data entry employee is obliged to enter the data for a third time to have two values of the same data.

### 3- CONCOR: "Edit and Imputation"

This is the part related to the discovering errors in the questionnaire data that was recorded (Validation), where the consistency of the single data register is checked such as the main data for the individual in the main data lists of the household member.

Examples:

- Relation between age and educational status
- Relation between age and marital status
- Relation between whether the individual has an income and what are the sources of this income.

In addition, there have been relations between more than one kind of lists in the questionnaires.

Example: the relation between the educational status of the individual and the expenditure data related to education.

This part was used in designing a program that contains all the rules of error validation which was previously prepared. These are about 400 rules, where this program tests all these rules on the single questionnaire level in the shiakha/village. This is done as soon as the questionnaire recording ends and (Inconsistency and Intra-record relation Errors) message appears on the screen. Then the recording employee modifies it from the actual questionnaire and this part is considered data quality control.

#### 4- CENTS: "Tabulation of Publication Table"

This part is concerned with preparing the tables. Different programs were prepared using this part to extract the different tables for the households in the urban and rural areas.

#### 5- DATADICT: Data Dictionary

This part is used to prepare and the data index, where all the previous 4 parts use this index.

This index contains full description of all the contents of the questionnaire such as the number and record types.

In addition, this index includes the data description in each register type as the length of the field and its position in the register.

## 9- Preparing final results

The survey data had been categorized into the urban and rural areas in 7 groups, which are:-

**The First Group:** *consists of 27 tables about:*

- The value of the annual expenditure in Egyptian pounds for the households' sample. This is the expenditure on all the main and subsidiary groups according to the governorates, annual expenditure categories for the household, the individual's share categories of annual expenditure, the main occupation of the household head, the main economic activity of the household head, educational status of the household head, economic sector of the household head, household size and structure of the household, annual expenditure categories for the household that

consists of one member, 2-3 members, 4-6 members, 7 or more members and the number of individuals who receive an income in the household.

- The value of what is spent and consumed for the sample household in the year. This is the expenditure on some of the main commodities according to the governorates and the annual expenditure categories for the household.
- The value of the annual expenditure for the households in Egyptian pounds. This is the expenditure on some main commodities according to the governorates, annual expenditure categories for the household, the individual's share of annual expenditure categories, the main occupation of the household head, the main economic activity of the household head, educational status of the household head, work status of the household head, household size and structure of the household.

**The Second Group:** consists of 18 tables about:

- The average annual expenditure for the household in Egyptian pounds. This is the expenditure on all the main and subsidiary expenditure groups according to the different characteristics (governorates/ annual expenditure categories...etc.)
- The average annual expenditure for the individual in Egyptian pounds. This is the expenditure on all the main and subsidiary expenditure groups according to the governorates, individual's share categories of the annual expenditure and the number of members who receive an income.

**The Third Group:** *consists of 15 tables about:*

- This is percentage of the annual expenditure for the household on all the main and subsidiary expenditure groups relative to the total expenditure consumption according to the different characteristics (governorates/ annual expenditure categories...etc.).

**The Fourth Group:** *consists of 54 tables about:*

- The value of annual expenditure on all the main groups in Egyptian pounds:
  - 1- Food and beverages
  - 2- Tobacco and narcotics
  - 3- Clothing and footwear
  - 4- Housing, water, electricity and fuel
  - 5- Furnishings, household equipment and routine household maintenance

- 6- Health care and services
- 7- Transport and communication
- 8- Education
- 9- Recreation and culture and sports
- According to the governorates, the main occupation of the household head, the main economic activity of the household head, individual's share categories of the annual expenditure, structure of the household, type of housing, expenditure items on housing, ownership of the house, annual expenditure categories for the household, expenditure items on health care and services and expenditure items on education.

**The Fifth Group:** *consists of 42 tables about:*

- Distribution of the household sample according to the percentage of what is spent on food and beverages and with regards to the different characteristics (7 tables).
- Distribution of the household sample according to the household size and with regards to the different characteristics (9 tables).
- Distribution of the household sample according to the members who receive an income and with regards to the different characteristics (10 tables).
- Distribution of the household sample according to the annual expenditure categories for the household and with regards to the different characteristics (9 tables).
- Distribution of the household sample according to the sector where the household head works and the governorate.
- Distribution of the household sample according to the housing type and the occupation of the household head.
- Distribution of the household sample according to the housing type and governorates.
- Distribution of the household sample according to the housing type and annual expenditure categories for the household.
- Distribution of the household sample according to the housing ownership and governorates.
- Distribution of the household sample according to the household size and number of rooms occupied.
- Distribution of the household sample according to the income sources and governorates.

**The Sixth Group:** *consists of 22 tables about:*

- Distribution of the household sample with regards to the age categories and type and according to the governorates, annual expenditure categories for the household, the individual's share categories of annual expenditure, the main occupation of the household head, the main economic activity of the household head, educational status of the household head, economic sector of the household head, household size and structure of the household.
- Distribution of the household sample according to the individuals who receive an income with regards to the different sources of income and governorates.
- Distribution of the household sample according to the educational status and type of the individual and the governorates.
- Distribution of the household sample according to the number of individuals who receive an income and the economic sector of the household head.
- Distribution of the household sample according to the number of individuals who receive an income and the work status of the household head.
- Distribution of the household sample according to the individual's share categories of annual expenditure for the household and the governorates.
- Distribution of the household sample according to the individual's share categories of annual expenditure and the main occupation of the household head.
- Distribution of the household sample according to the individual's share categories of annual expenditure for the household and the work status of the household head.
- Distribution of the household sample according to the individual's share categories of annual expenditure for the household and the main economic activity of the household head.
- Distribution of the household sample according to the individual's share categories of annual expenditure for the household and the educational status of the household head.
- Distribution of the household sample according to the individual's share categories of annual expenditure for the household and the main occupation of the individual.
- Distribution of the household sample according to the individual's share categories of annual expenditure for the household and the work status of the individual.
- Distribution of the household sample according to the individual's share categories of annual expenditure for the household and the main economic activity of the individual.



- Distribution of the household sample according to the individual's share categories of annual expenditure for the household and the educational status of the individual.

**The Seventh Group:** *consists of 5 tables about:*

- Distribution of the family income for the household sample with regards to the different sources of income and governorates.
- Distribution of the family income for the household sample with regards the different sources of income and the work categories.
- Distribution of the net income from wages and salaries with regards to the family income categories and the main economic activity for the earner.
- Distribution of the net income from non-agricultural projects with regards to the family income categories and the main economic activity for the earner.
- Average household and individual share who receives an income distributed with regards to the different income sources and governorates.

This is in addition to any tables and data that are needed according to the needs of the data users.