



**REPUBLIC OF GHANA  
STATISTICAL SERVICE**

**GHANA LIVING STANDARDS SURVEY  
(WITH AN INCOME, CONSUMPTION AND EXPENDITURE MODULE )  
G L S S 3**

**DATA ENTRY OPERATORS MANUAL**

ACCRA, 1990

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# **1. INTRODUCTION**

## **1.1 BACKGROUND.**

Despite the successes of the structural adjustment programmes being implemented by the government to strengthen and rehabilitate the economy of Ghana, there are high social costs. The monitoring and evaluation of these costs on sub-groups of the population are therefore essential for planning suitable compensatory programmes for those adversely affected. This implies that the necessary data must be available for such purposes.

The Ghana Living Standards Survey (with an Income, Consumption and Expenditure Module) places emphasis on household consumption and expenditure and it is specifically concerned with:

- \* Understanding the effects of adjustment programmes on different groups of the population, and
- \* Introducing the concept of social programmes and policies targeted towards the least favoured groups.

## **1.2 OBJECTIVES OF THE SURVEY**

The survey has the following objectives:

- \* To provide information on patterns of household income, consumption and expenditure at a greater level of disaggregation.
- \* To serve as the basis for the construction of the Consumer Price Index (CPI)
- \* For up-dating National Accounts
- \* In combination with earlier data from the GLSS, to give a database for national and regional planning and for the estimation of consumption as a proportion of household production.

To achieve these objectives, in-depth data will be collected on the following key elements:

- \* Household Income, Consumption and Expenditure
- \* Health and Fertility Behaviour
- \* Education and Skills/Training
- \* Employment and Time Use
- \* Demographic Characteristics
- \* Housing and Housing Conditions
- \* Prices of Consumer Items.

The information gathered from the GLSS would generally aid decision makers in the formulation of economic and social policies to:

- \* Identify target groups for government assistance
- \* Construct models to simulate the impact on individual groups of the various policy options, and
- \* To analyse the impact of decisions that have been implemented and of the economic situation on living conditions of households.

User agencies such as the National Development Planning Commission, the Ministry of Finance and Economic Planning (MFEP), District Assemblies and the general public will greatly benefit from the survey.

## **1.3 METHODOLOGY OF THE SURVEY**

It is proposed to study 4565 households in 407 workloads in order to achieve the survey objectives. In all 308 rural EAs and 99 urban EAs were selected.

While each rural workload would comprise a total of 10 households each urban workload will consist of 15

households.

## **1.4 SURVEY PERIOD**

The Survey will cover practically the whole year in order to ensure a continuous recording of household income, consumption and expenditures and changes occurring thereof.

The year has been divided into cycles instead of months. Eleven cycles of 33 days each have been planned for urban clusters while 22 cycles of 16 days each have been earmarked for the rural clusters.

## **1.5 ORGANISATION OF THE SURVEY**

The Ghana Living Standards Survey (with an Income, Consumption and Expenditure Module) is being conducted by a Project Directorate which is assisted by a staff of technical officers and ten data collection and entry teams based in eight regional offices of the Statistical Service. An additional spare team will also be available for annual leave requirements.

A microcomputer is installed in each regional office for the immediate entry of data from all questionnaires that will be completed by each team. This is to facilitate the quick entry of data close to the points of data collection. The regional centres are; Accra, Kumasi, Sekondi-Takoradi, Tamale, Koforidua, Sunyani, Ho and Cape Coast

Accra and Kumasi will have two teams each and thus two microcomputers each.

\* A software programme has been designed to detect inconsistencies in the data so that errors could be corrected by the interviewer on the next visit to the household.

\* Two types of skips have been used in the questionnaire:

- Answer-specific skips, listed directly under the answer and enclosed within parentheses, eg (>>6)
- Skips that apply after a question, regardless of the answer and is printed in capitals in a box at the bottom of the question, e.g.

>>PART D

\* The Project Directorate will pay periodic surprise visits to the field.

## **1.6 THE PROJECT DIRECTORATE**

It is composed of 10 members namely,

- The Deputy Government Statistician: He is the Project Director and is therefore responsible for the administration of the survey; implementation of its broad guidelines, direction of the work of the Directorate; authorising expenditures, and making the necessary contacts for the smooth running of the project. He is generally responsible to the Government Statistician, who is the National Project Co-ordinator, for the conduct of the survey.
- The Project Manager (Interviews) who acts as Assistant Project Director. He assists the Project Director in the conduct of the survey in the field. He trains interviewers, keeps in touch with the survey teams in the field and sees to it by frequent visits to the field that instructions for completing the questionnaires are followed.

He must be ready to give prompt and appropriate solution to any technical or other problems that may arise in the field.

- The Project Manager (Data Entry/Processing) is responsible for the design of the data entry software and data/processing programmes. He is to ensure that all supervisors and data entry operators follow all instructions for running the programme and for the efficient use of the microcomputers.

- Four Project Assistants: One of whom is responsible for Data Processing and the other three for interviews. They assist the Project Managers in their duties.

The Project Directorate is assisted by a staff of three technical officers. The senior-most assists in the administration of the secretariat while the other two are standby supervisors.

## **1.7 DATA COLLECTION AND ENTRY TEAMS.**

There will be 3 urban and 7 rural data collection and entry teams. Each urban team will consist of 7 members while the rural teams will have 6 members each. The composition of the teams is as shown below:

| <u>Rural</u>                | <u>Urban</u>                |
|-----------------------------|-----------------------------|
| 1 Supervisor                | 1 Supervisor                |
| 2 regular interviewers      | 3 regular interviewers      |
| 1 supplementary interviewer | 1 supplementary interviewer |
| 1 Driver                    | 1 Driver                    |
| 1 Data entry operator       | 1 Data entry operator.      |

\* The supervisor is the team leader and is responsible for overseeing, monitoring and correcting the work of the interviewers and data entry operator. In addition, he is responsible for managing the team's equipments, vehicles and funds. He also represents the Project Director at the regional level.

\* The regular interviewers conduct daily interviews with the household. The duty of the supplementary interviewer is to take over the duties of the regular interviewer while the latter takes some rest to avoid any interruptions in the survey schedule. He will also be responsible for collecting price data in the markets of all the communities where households are interviewed.

\* The Data Entry Operator is responsible for entering the data collected from the field on a microcomputer.

\* The driver drives the team from the regional office to the place where the survey is being carried out.

## **2. WORKLOAD OF DEOs**

When a rural or urban team begins work in every workload, the DEO will have the following tasks to perform:

### **Rural DEOs**

a.) **Round 1:** At the beginning of the 6th visit in a rural workload, you will receive 20 questionnaires with data covering sections 1-7. These should be completely entered by the close of the 7th visit and submitted to the team supervisor together with their corresponding printouts.

b.) **Round 2:** Again you will receive 20 questionnaires with data covering the remaining sections (8-12) at the beginning of the first visit in the next rural workload and should be completely entered by the close of the 3rd visit and submitted to the team supervisor together with their corresponding printouts.

c.) By the close of the 5th visit in the next rural workload you should have completed all corrections in the current workload as directed by the supervisor and should have taken one (1) backup of each round.

### **Urban DEOs**

a.) **Round 1:** At the beginning of the 6th visit in an urban workload, you will receive 45 questionnaires with data covering sections 1-7. These should be completely entered by the close of the 8th visit and submitted to the team supervisor together with their corresponding printouts.

b.) **Round 2:** Again you will receive 45 questionnaires with data covering the remaining sections (8-12) at the beginning of the first visit in the next urban workload and these must be completely entered by the close of the 3rd visit and submitted to the team supervisor together with their printouts.

c.) By the close of the 5th visit in the next urban workload you should have completed all corrections in the current workload as directed by the supervisor and should have taken one (1) backup of each round.

## **INSTRUCTIONS ON WORKRATE**

\* **Rural DEOs:-** You have three (3) days to complete data entry on 20 households in round 1 and four (4) days in round 2.

\* **Urban DEOs:-** You have seven (7) days to complete data entry on 45 households in round 1 and nine (9) days in round 2

\* **Rate of Data Entry:-** Each DEO should enter at least seven (7) questionnaires a day during round 1 and five (5) per day in round 2.

\* You should always place the printout of every household in its corresponding questionnaire.

\* You will have a total of 4 diskettes for each workload; (ie. the original and backup diskettes for each of the two rounds). All four (4) diskettes will have to be sent to the Head Office, Accra from time to time.

### 3. THIRD YEAR DATA ENTRY SYSTEM

#### 3.1 INTRODUCTION

The Data Entry System for the preparation of data collected on the third (3rd) year GLSS household questionnaire was developed on the RODE/PC Data Entry software package for both the 2-drive floppy IBM microcomputer system and the micro-computer with a hard disk.

The operation of this data entry system has been explained using the microcomputer with only 2 floppy disk drives. In chapter 5, we shall find out how this system works with microcomputers with hard disks.

The following terminologies used in this system should be well noted:

a. **JOB**: A job is simply a data entry application or program. In your case there are two data entry programs or jobs; one for each of the two rounds of the survey.

The jobnames or data entry program filenames are:

- \* **R1** ... for round one - sections 1 to 7
- and \* **R2** ... for round two - sections 8 to 12

b. **FORMAT**: A format is a screen displayed by a job. It defines the information on the screen, the input data fields, and the layout of the output record. A job may have one or more formats of the same or different number of fields.

In your case the job;

- R1 ... has twenty-four (24) formats or screens.
- R2 ... has thirty-two (32) formats or screens.

c. **BATCH**: A batch is the data file created on the disk from the data entered on the screen.

For convenience we shall refer to batches as workloads. Each regional centre will work on part of the 407 workloads containing the 4565 households.

### 3.2 SYSTEM FORMATS AND THEIR CORRESPONDING SECTIONS IN THE QUESTIONNAIRE

#### ROUND-ONE (24 formats)

##### FORMAT SECTION

- 1 SEC 0 : ID of HH
- 2 MENU
- 4 SEC 1 : HH Roster
- 5 SEC 2 : Education (A,B,C)
- 6 SEC 3A : Health Condition
- 7 SEC 3B : Prev. Care, Vacc.,
- 8 SEC 3C : Postnatal Care
- 9 SEC 3D : Fertility
- 10 SEC 4A : Screening Quest.
- 11 SEC 4B : Main Occ. (Q1-13)
- 12 SEC 4B : Main Occ. (Q14-28)
- 13 SEC 4B : Main Occ. (Q29-42)
- 14 SEC 4C : 2nd Occ. (Q1-14)
- 15 SEC 4C : 2nd Occ. (Q15-28)
- 16 SEC 4D : 3rd Occ.
- 17 SEC 4E : 4th Occ.
- 18 SEC 4F : 5th Occ.
- 19 SEC 4G : Employment Search
- 20 SEC 4H : Activity Status
- 21 SEC 4J : Employment History
- 22 SEC 4K : Housekeeping
- 23 SEC 5 : Migration
- 24 SEC 6 : Respond for 2nd Rd
- 25 SEC 7 : Housing

#### ROUND-TWO (32 formats)

##### FORMAT SECTION

- 1 SURVEY RESULTS
- 2 MENU
- 3 SEC 8A : Land
- 4 SEC 8A : Livestock
- 5 SEC 8A : Agric Equip
- 6 SEC 8B : Plot Details
- 7 SEC 8C (1) : Harvest
- 8 SEC 8C (2) : Harvest
- 9 SEC 8D : Sales & Pur.
- 10 SEC 8E : Other Agric..
- 11 SEC 8F : Agric Cost&.
- 12 SEC 8G : Process Agric
- 13 SEC 8H : Consumption.
- 14 SEC 9A1: N\_Food Ex(PR)
- 15 SEC 9A1: N\_Food " LFRQ
- 16 SEC 9A2: N\_Food " FRQ
- 17 SEC 9B : Food Exp
- 18 SEC 9C : Avail Con\_It
- 19 SEC 10A: N\_Farm Basic.
- 20 SEC 10B: Exp. 1,2,3
- 21 SEC 10C: Assets 1,2,3
- 22 SEC 10D: Rev. of Ent.
- 23 SEC 10E: Net Income..
- 24 SEC Skip Ques..
- 25 SEC 11A: Trans. Paym.
- 26 SEC 11B: Skip Ques..
- 27 SEC 11B: Income from.
- 28 SEC 11C,11D: Mis In/Ou
- 29 SEC 12A: Skip Ques..
- 30 SEC 12A: Credit
- 31 SEC 12B: Assets & Dur
- 32 SEC 12C: Savings

#### SYSTEM 'FORMATS' AND CORRESPONDING 'PAGES' IN THE QUESTIONNAIRE

One will not always use one (1) format or screen to enter data from only one (1) page in a questionnaire; that is, a new page will not always call for a new format.

##### 1. Using one (1) format for two (2) or more pages:

A situation may arise where the same format or screen will be used to enter data from two (2) or more pages. This occurs when a particular table in a section is continued in two or more pages. Sometimes tables of sub sections that are continued over two or more pages are handled as above. Typical formats are:



ROUND-ONE (1)

| <u>FORMAT</u> | <u>SECTION</u> | <u>PAGE</u>        |
|---------------|----------------|--------------------|
| 4             | 1              | 1.2, 1.3           |
| 5             | 2A,2B,2C       | 2.1, 2.2, 2.3, 2.4 |
| 6             | 3A             | 3.1, 3.2           |
| 23            | 5              | 5.1, 5.2           |
| 25            | 7              | 7.1, 7.2, 7.3      |

ROUND-TWO (2)

| <u>FORMAT</u> | <u>SECTION</u> | <u>PAGE</u>  |
|---------------|----------------|--|
| 13            | 8H             | 8.9, 8.10, 8.11, 8.12                              |
| 15            | 9A1            | 9.1b, 9.1c, 9.2a, 9.2a, 9.3a, 9.3b                 |
| 16            | 9A2            | 9.4, 9.5, 9.6, 9.7                                 |
| 17            | 9B             | 9.8, 9.9, 9.10, 9.11, 9.12, 9.13, 9.14, 9.15, 9.16 |
| 19            | 10A            | 10.1, 10.2   |
| 20            | 10B            | 10.3, 10.4, 10.5                                   |
| 21            | 10C            | 10.6, 10.7, 10.8                                   |

2. Using one(1) format for one(1) or more 'parts' or 'tables' of a page:ROUND-ONE (1)

| <u>FORMAT</u> | <u>SECTION</u> | <u>PAGE</u> | <u>DESCRIPTION</u>   |
|---------------|----------------|-------------|----------------------|
| 1             | 0              | 01a         | 'Survey Information' |

ROUND-TWO (2)

| <u>FORMAT</u> | <u>SECTION</u> | <u>PAGE</u> | <u>DESCRIPTION</u>                    |
|---------------|----------------|-------------|---------------------------------------|
| 4             | 8A             | 8.2a        | 'Livstock' Quest. 21-31               |
| 5             | 8A             | 8.2b        | 'Agric. Equip.' Quest. 33-40          |
| 9             | 8D             | 8.6a        | PART D 'Seasonality of...' Qus. 1-6   |
| 10            | 8E             | 8.6b        | PART E 'Other Agric...' Qus. 1-10     |
| 11            | 8F             | 8.7a        | 'Crop Costs' Quest. 1-5               |
|               | 8F             | 8.7b        | 'Livstock' Quest. 6-10                |
| 14            | 9A1            | 9.1a        | Top - 'Person(s) resp. for purchases' |
| ++15          | 9A1            | 9.1b        | Left Half - 'CODE 201-207'            |
|               | 9.1c           |             | Right Half - 'CODE 208-213'           |
|               | 9.2a           |             | Left Half - 'CODE 215-403'            |
|               | 9.2b           |             | Right Half - 'CODE 405-419'           |
|               | 9.3a           |             | Left Half - 'CODE 421-511'            |
|               | 9.3b           |             | Right Half - 'CODE 512-804'           |
| 24            | 11A            | 11.1a       | 'Questions 1-3'                       |
| 25            | 11A            | 11.1b       | 'Questions 4-13'                      |
| 26            | 11B            | 11.2a       | 'Questions 1-2'                       |
| 27            | 11B            | 11.2b       | 'Questions 3-12'                      |
| 28            | 11C            | 11.3a       | PART C 'Misce.. Income' Quest. 1-6    |
|               | 11D            | 11.3b       | PART D 'Misce.. Expendi..' Quest 1-5  |
| 29            | 12A            | 12.1a       | 'Questions 1-2'                       |
| 30            | 12A            | 12.1b       | 'Questions 3-11'                      |
| 31            | 12B            | 12.2a       | PART B 'Assets....' Quest. 1-4        |
|               | 12B            | 12.2b       | PART C 'Savings...' Quest. 2-6        |

++ THIS SAME FORMAT TAKES CARE OF THREE (3) PAGES AS MENTIONED ABOVE.

### 3.3 DATA ENTRY PRINTOUTS

The following messages/information appear in the printouts during data entry for each household in round 1 and round 2.

- The Workload No., Household No., Household Id., Interviewer No., Data Entry Operator No. and Supervisor No. after entering all data on the FIRST SCREEN of each round.

- The id codes of all household members entered in each section.  
Also farm nos., crop codes, food codes, enterprise nos., and other item codes.

- Error messages of inconsistent entries made on individual household members and the household in general

YOU MUST ALWAYS PLACE THE PRINTOUT PRODUCED AFTER ENTERING ALL DATA ON EACH HOUSEHOLD IN THE QUESTIONNAIRE COMPLETED. THIS WILL BE EDITED BY THE SUPERVISOR AND HANDED BACK TO YOU TO CARRY OUT ANY CORRECTIONS.

### 3.4 GETTING STARTED

\*\*\*BEFORE YOU START WORK, THE RODEPC GADGET SHOULD BE PROPERLY CONNECTED TO THE PRINTER PORT OF THE SYSTEM UNIT.

1. Switch on computer with DOS diskette in drive A;(Enter DATE & TIME).

You come to the A> prompt.

2. Place Rodepc System Diskette in drive A and Batch Diskette in drive B.

3. Type "DE" at the A> prompt and press ENTER to start the Data Entry System.

The Main System Menu is displayed with only the options we shall be using, namely: DATA ENTRY, BATCH STATUS and QUIT TO DOS.

4. Prepare the batch into which will be entered the data.

note: This is done only once for every workload when entering the first household of the workload.

- Type "B" at the Main System Menu to enter the Batch Status Mode and press ENTER to display a batch.

- The batch number displayed is 999. Now Type "N" and provide the workload number you will be working in and press ENTER.

- Press F2 twice to return to the main menu.

YOU ARE NOW READY TO ENTER DATA INTO THE WORKLOAD YOU HAVE PREPARED.

5. Type "D" to enter Data Entry System.  
You will now be asked to enter the job name.
6. Type "R1" and press ENTER in Jobname if you are working on ROUND ONE  
Type "R2" and press ENTER if you are working on ROUND TWO
7. You will now be prompted for the batch number  
Type the workload number and press ENTER  
You are now in the data entry menu

### 3.5 THE DATA ENTRY MENU

This menu shall be used to select the type of activity you wish to perform against the batch. The menu options are;

ENTER, UPDATE, CORRECT, VERIFY, BROWSE, RESET VERIFY, QUIT TO DOS

The desired function is selected by pressing the first letter of the item or by moving the arrow to the desired item and pressing ENTER.

Below the menu options, a display of the number of records entered and the number of records marked (ie. records with inconsistent entries) in the batch could be viewed at the beginning or end of any data entry session.

In your case, you will generally use only four (4) of the menu options (namely, enter, update, correct, and browse) in maintaining the batches created.

The following sessions explain how to use these four (4) options:

### 3.6 DATA ENTRY SESSION

ENTER:- This function enables you to enter records into a new batch or at the end of an existing batch. This is the only function. You can select for a new or empty batch.

Press E to begin data entry.

Points to note during entry:

1. Press ENTER after every field entry for the entry to be recorded.
2. Use DEL or ESC or BACKSPACE keys to clear an entry in a field.
3. You can modify an entry in a field by typing the new entry into the same field.
4. If a correct entry from the questionnaire is rejected, override this error or force entry by Pressing F10. A mandatory entry and out of range entry can however not be overridden.

5. The CURSOR DOWN and TAB RIGHT keys could be used to move cursor to next fields. The CURSOR UP and TAB LEFT keys move the cursor to previous fields.

6. Use the PgUp and PgDn keys to scroll from screen to screen or section to section displaying data entered in the batch. The PgDn scrolls to the next record in the batch. PgUp scrolls to the previous record in the batch.

7. You are allowed to skip over sections without entries:

a) by pressing SHIFT+F1 to Switch to next format or screen.

APPLY THIS WHEN PREVIOUS SCREENS HAVE BEEN COMPLETELY ENTERED.

b) through a MENU that enables you to select the desired or next section. You are prompted to use this menu only when you have completed entries in the household roster (ie. SECTION 1)

This PROMPT displayed at the top left corner of the screen begins from section 2. It appears thus:  
Menu? (Yes=1)

Type 1 and press ENTER to enter MENU or simply press ENTER to continue data entry in the current screen.

\*You may also use this menu to modify entries in other sections.

8. You must always complete all entries in a household or questionnaire in a round before you exit data entry session.

After every complete entry on a household or questionnaire,

Press F1 and E to save your entries before you begin the next questionnaire. THIS OPERATION PREVENTS THE LOSS OF DATA ENTERED SINCE THE LAST EXIT, SHOULD THERE BE ELECTRIC POWER FAILURE.

9. When you enter data entry session to continue at the end of a batch, the first screen of the Job or round you are working in will be displayed.

Press PgUp to display the last section or screen entered or completed.

Press PgDn to come back to the first screen to begin entry for a new household or questionnaire.

If on the other hand you have to continue entry at the end of the last household or section entered, press SHIFT+F1 to display the SECTIONAL MENU from where you can select the appropriate section.

11. Press F1 and E to exit data entry session.

SOME IMPORTANT INSTRUCTIONS TO BE FOLLOWED DURING DATA ENTRY IN ROUND2:

You are to follow special instructions displayed in the following formats carefully before entering any data.

| <u>DISPLAYED INSTRUCTIONS !!!</u> |                |                               |                      |
|-----------------------------------|----------------|-------------------------------|----------------------|
| <u>FORMAT</u>                     | <u>SECTION</u> | <u>(Enter only when ....)</u> | <u>Do not Enter!</u> |
| 4                                 | 8A             | Q21=1                         | Q20                  |
| 5                                 | 8A             | Q33=1                         | Q32                  |
| 9                                 | 8D             | Q1=1                          |                      |
| 11                                | 8F             | Q1=1                          |                      |

|    |     |      |    |
|----|-----|------|----|
| 15 | 9A1 | Q1=1 |    |
| 19 | 10A |      | Q1 |
| 20 | 10B |      | Q1 |
| 21 | 10C | Q1=1 |    |
| 25 | 11A |      | Q4 |
| 27 | 11B |      | Q3 |
| 31 | 12B | Q1=1 |    |

\* In format 20 and 21 (for SEC 10B & SEC 10C) you must remember to enter the correct codes that identifies the enterprise:

- ie. Enter 1 if you are working on First Enterprise.  
Similarly enter 2 & 3 for 2nd & 3rd enterprise respectively.

\* In sections 8H,9A2 and 9B, skip rows whose entire entries are all zeros. However zero entries in all other sections must all be entered.

note:- You must notify your supervisor of any field entry that moves the cursor over a field whose corresponding column in the questionnaire contain some data. THE SUPERVISOR SHOULD INFORM THE SECRETARIAT IF IT IS NOT DUE TO ERROR ENTRIES BY THE INTERVIEWER.

### 3.7 DATA UPDATE SESSION

UPDATE:- This function enables you to display and modify records in an existing batch.

note: Modification of data here include:

- a. Modifying field entries in a record.
- b. Inserting new records in the batch.
- c. Deleting existing records from the batch.

From the data entry menu:

\* Press "U" to begin data update

- This brings you to the first record in the batch.

To move down to the desired record in a batch:

#### METHOD 1

- You can use the <PgDn> and <PgUp> keys to move from record to record or screen to screen until you are at the desired record.

#### METHOD 2

- You can also scroll to a particular record by the following steps.

- a. Press <F1>

- b. Type in the record number you are after and press ENTER.  
The required record is displayed.

### METHOD 3

- You can use a scan function to get to the required record by supplying the workload No. and household No. of the record.

\* You are now on the first record in the batch after pressing U.

#### To SCAN,

- a. Press <F1>
- b. The functions: End, Modify, Insert, Scan, ... are displayed on the command line below.  
Press "S" to select the scan function.
- c. Four (4) scan options are displayed.  
Press E to select Field scan or press G to select Global scan.
- d. Press ENTER to continue the field scan.
- e. Enter Workload No. and Household No. and press <CTRL+ENTER>
- f. Press PgDn and press ENTER to display the first record with the same workload No. and Household No. as you entered.
- g. If the record you are after comes after the one displayed,  
press F1 and continue to press PgDn until you arrive at the desired record. If you bypass the record, press PgUp to go back.

### 1. MODIFICATION:

Display the record you want to modify using any of METHODS 1-3 above.

Press "M" to select the modify mode, EXCEPT FOR METHOD 1 above.

Use the <CURSOR UP> & <CURSOR DOWN> keys to move to the desired field entries to be changed. The <TAB LEFT> & <TAB RIGHT> keys could do the same.

Enter the new field entries.

Press <CTRL+ENTER> keys at the end of all changes in the screen or section to effect the required field changes.

Now scroll through records above and below the modified record, using the <PgUp> & <PgDn> keys to ensure that the modification has been effected.

Press <F1> and "E" to end the modify operation

### 2. INSERTION:

Display the record after which you want to insert new record(s) using any of METHODS 1-3 above.

Press <F1> to enter command mode except for METHOD 2 above.

"You must see a display of commands like End, Modify, Insert... after the Batch Status Line below the screen".

Press "I" to select insert mode.

"You will see that all the field entries of the current record are cleared."

Now Enter the new record(s).

"Again you will see that all the field entries made for each record disappears after the last field entry of the record."

Now press <F1> and scroll through records below and above the current record, using the <PgDn> and <PgUp> keys to ensure that the insertions have been effected.

Press "E" to end the insert operation

### **3. DELETION:**

Display the record you want to delete using any of METHODS 1-3 above.

Press <F3>

"You will now be prompted to press <DEL> if you are sure or to press <F2> to quit."

Press <DEL> to delete the displayed record.

Now scroll through records above and below the deleted record, using the <PgUp> and <PgDn> keys to ensure that the deletion has been effected.

Press "F1" & "E" to end the delete operation

## **3.8 DATA CORRECTION SESSION**

**CORRECTION:-** This function enables you to display and modify marked records in an existing batch.

**note:** This function enables the correction of INCONSISTENT data in the batch or data listed in the printout. All records with error entries overridden during the data entry session are MARKED and they are corrected and UNMARKED during this session.

From the data entry menu;

Press C to begin the data correction session.

The first MARKED record is displayed

a. Press cursor down or tab right key along the fields. The PC beeps at the field holding the inconsistent data.

b. Modify the field entry and press CtrlENTER to effect the change

c. Press F4 to UNMARK the record.

- After correcting a marked record, always press PgDn to scroll to the next marked record.

\* After pressing PgDn the next marked record is displayed if any exists. Apply steps (a), (b) and (c) above to correct the record.

\* If on the other hand the PC beeps and displays 'no more marked records in this direction', check marked records in the reverse direction by pressing PgUp. If the same message is displayed then there are no more corrections to make.

Press F1 and E to exit data correction mode.

**Special note:**

Sometimes a marked record need not be corrected because the error may be due to a wrong field entry in a previous record entered. In such a situation;

- \* Press F4 to UNMARK the record;
- \* Exit data correction session;
- \* Enter data update session;
- \* Modify wrong entries in error record.

### **3.9 DATA BROWSING SESSION**

**BROWSING:-** This function enables you to display or view through records in a batch. However it does not allow you to modify, insert, or delete, any record in the batch.

**note:** This option mainly enables you to ascertain what records are contained in a batch.

From the data entry menu;

Press B to begin the data browsing session.

This brings you to the first record in the batch;

Press PgDn and PgUp keys to scroll from record to record.

Press F1 and E to exit the BROWSE mode.

**Special Remark:**

To go to any format while in any of the sessions apart from the data entry session;

Press F2 and type the format number you want to go to;

Press ENTER and the required format will be displayed.

### **QUIT TO DOS OPTION:**



From the data entry menu;

Press Q to exit the data entry menu.

You are now at the Main System Menu.

Press Q again to come to the A> prompt

Switch off the computer.

## 4. BATCH MANAGEMENT

### Viewing Files in Batch Diskette

You can view the files created in your batch diskette at anytime during your work.

For a round 1 batch diskette, you can view the workload no. and also the ids of the households entered in the workload.

For a round 2 batch diskettes, you can view only the workload no.

eg. For a rural workload, if the workload no. is 375 and the households in the workload have nos. 3, 8, 17, 19, 26, 31, 35, 37, 38, 40, then after entering all data in the workload, the following files can be viewed from the batch diskette:

R1. 375 <--- workload no.

37503

37508

37517

37519

37526

37531

37535

37537

37538

37540

R1.375

37503

37508

37517

note: If only the first three households have been entered, then the files displayed will be:

Generally, you can view the files created in your batch diskette at anytime during your work by using the DIR Command.

DIR:- Enables you to view the files on a diskette.

eg. To view the files in your batch diskettes:

- a. Insert batch diskette in drive A.
- b. Type DIR at the A> prompt and press <ENTER>

You have a display of the files on the batch diskettes as explained above.

### Preparing a fresh Diskette

You have to prepare a fresh empty diskette to create new batches for round 1 and round 2 data entry and also to take backups of batch diskettes into which you have entered all the data in a workload.

You will use the FORMAT Command to prepare new and empty diskettes. You will format only the new diskettes given you. Note that information or data on diskettes formatted are destroyed.

FORMAT:- Enables you to prepare a new diskette for work.

To format a new diskette

- a. Put your DOS diskette in drive A.

- b. Insert the empty new diskette in drive B
- c. At the A> prompt, type

Format b: and press <ENTER>

#### Note

1. At the end of the format operation, if the display of the bytes available on disk is less than 362,000 or if there are bad sectors, do not use the diskette.

2. You are prompted if you want to format another diskette.(Y/N).

To format another diskette: Insert new diskette in drive B and type Y. Type N to exit format operation.

#### Taking Backups of Batch Diskettes

When data entry together with corrections for a workload have been completed, you must take a backup or make a copy of the original data you have entered in the workload, using the COPY command.

Also you will use the copy commands to make copies of the empty write-protected round 1 and round 2 batch diskettes given you onto empty formatted diskettes into which you will enter your data on each workload.

COPY:- Enables you to make an identical copy of one or several files.

eg. To copy all the files in batch diskette onto an empty diskette:

- a. Insert the batch diskette (Source Diskette) in drive A.
- b. Insert the empty diskette (Target Diskette) in drive B.
- c. At the A> prompt, type

Copy \*.\* b: and press <ENTER>

All files copied from batch diskette into the empty diskette are displayed.

#### Labelling your Diskette

We shall name the original batch diskette as the PRODUCTION diskette and the copy of the original diskette as BACKUP diskette.

You must label the production and backup diskettes using the felt pens provided as follows:

|   |  |
|---|--|
| <b>PRODUCTION</b><br>12/5/91<br>R1.375<br>3,8,17,19,26,31,35,37<br>38,40,44,46,51,56,62 | <b>BACKUP</b> 13/5/91<br>R1.375<br>3,8,17,19,26,31,35,37<br>38,40,44,46,51,56,62 |
|---|--|

Like the above-illustrated labels, you should supply the following information:

- a. Whether the diskette is a production or backup diskette;
- b. Date on which "Production" or "Backup" diskette was prepared;
- c. The workload number and the round, (R1 or R2);
- d. The households nos. entered.

Note:

The Production and the diskettes will be collected by the Supervisor and sent to the Head Office, Accra from time to time.

The Working Diskettes

Each DEO will be provided with the following diskettes for data entry work:

- 2 DOS diskettes;
- 2 Rodepc system diskettes;
- 2 Round 1 batch diskettes;
- 2 Round 2 batch diskettes.

Each of the above diskettes shall be write protected and you must handle them as such.

You will also be provided with a number of new diskettes to be used to create new batches.

## 5. USING THE COMPUTER SYSTEM WITH A HARD DISK

### 5.1 INTRODUCTION

Chapters 3 and 4 dealt with the operation of the data entry system using the 2 floppy disk drive microcomputer. The computer with a hard disk is also used in the same way to prepare data on the diskette. However the following differences should be noted:

#### The Working Diskettes

Unlike the floppy system, no DOS, RODEPC SYSTEM or BATCH (R1/R2) diskettes will be provided. The entire software and applications (R1/R2) will be resident on the hard disk.

The three and half (3 1/2) high density diskettes on which to create batches and enter the data will be provided. Two workloads should be entered on one diskette; (ie. 2 R1 and 2 R2 batches).

note:- The 3 1/2 DS HD diskette is four times the capacity of the 5 1/4 DS DD diskette.

### 5.2 GETTING STARTED

\*\*\*THE RODEPC GADGET SHOULD BE PROPERLY CONNECTED TO THE PRINTER PORT OF THE SYSTEM UNIT BEFORE YOU START WORK

1. Switch on computer; (Enter DATE & TIME)

The screen display prompt is ... C:\GLSS3>

note: C:\GLSS3> directory contains the rodepc data entry system.

2. Insert your Batch Diskette in drive A
3. Type "de" at the C:\GLSS3> prompt and press ENTER to start Data Entry System

The Main System Menu is displayed.

4. Type "D" to enter Data Entry System.  
You will now be asked to enter the job name.
5. Type "R1" and press ENTER in Jobname if you are working on ROUND ONE  
Type "R2" and press ENTER if you are working on ROUND TWO
6. You will now be prompted for the batch number  
Type the workload number and press ENTER

note: Assuming that you have never created this batch or workload number for your Job, the beeper on the PC will sound and you should see the following message:

Batch not found on drive A  
Press F2 to quit or press INSERT to create the batch

Respond to this message by pressing INSERT

7. You will be prompted for the batch\_id. Just press ENTER

You are now in the data entry menu

### **5.3 BATCH MANAGEMENT**

To prepare a new diskette:

- a. Insert new diskette in drive A;
- b. At the C:\GLSS3> prompt, type;  
format a: and press <ENTER>

Taking backups of batch diskettes:

With a single drive computer;

- a. At the C:\GLSS3> prompt type diskcopy a: b: and Press <ENTER>

You will be prompted to insert SOURCE diskette in drive A:

- b. Insert your production diskette in drive A: and  
press any key;

You will be prompted again to insert TARGET diskette in A:

- c. Replace your production diskette with your backup diskette in drive A and press any key;

If the copying is completed, the prompt is;

"Copy another diskette (Y/N)?". Press N to end diskcopy or press Y to make backup of another batch.

If the copying is not completed you will be prompted to insert SOURCE diskette again in drive A:

- d. Repeat steps (b) and (c)

Labelling your batch diskettes:

PRODUCTION 16/5/91  
R1R2.375  
3,8,17,19,26,31,35,37  
38,40,44,49,51,56,62  
R1R2.412  
6,9,11,18,19,23,29,33,34  
43 46 49 55 57

BACKUP 16/5/91  
R1R2.375  
3,8,17,19,26,31,35,37  
38,40,44,49,51,56,62  
R1R2.412  
6,9,11,18,19,23,29,33,34  
43 46 49 55 57

You will be provided with felt pens for this purpose.

Submission of batch diskettes:

Since you will use one 3 1/2 DS HD diskette to hold data on two workloads, submit the production diskette to your supervisor and retain the backup diskette for the two workloads.

## **6. LOGISTICS AND MANAGEMENT.**

### **6.1 MAIN TASKS OF DATA ENTRY OPERATOR**

The data entry operator essentially has two major tasks:

- \* entry of data from the questionnaires and
- \* management of computer hardware and documents.

Entry of data from the questionnaires consists of entering all data from the questionnaires on to the diskettes and correcting all errors in the data entered so that each diskette contains clean data.

Management of computer hardware and documents consists of properly maintaining the microcomputer and printer and storing the questionnaires, diskettes and printouts.

#### Management of computer Hardware

To prevent the rapid deterioration of the delicate and costly computer and printer, you must ensure that:

- the office doors and windows are always kept shut to prevent dust; you will be provided with dusters;
- You turn off the computer and printer at the end of each work period;
- you protect your computer and printer clean from dust by covering them with the covers designed for them before leaving;
- you handle your computer and printer with care. You must not allow anyone to use them.

#### Management of materials

The materials are diskettes, printouts and questionnaires.

These materials should be put in order by workload and within a given workload, by household number to make the identification of documents easier.

#### Submission of diskettes, printouts and questionnaires

You will submit to your supervisor:

- a.) 4 diskettes - 2 "production" diskettes, one for each of round 1 and round 2, which are those produced directly from data entry from sections 1-7 and sections 8-12 respectively; also 2 "backup" diskettes which are the copies of the 2 production diskettes.
- b.) 10 questionnaires per rural workload or 15 questionnaires per urban workload. Each questionnaire should contain one printout.

#### Remark:

Your supervisor will verify the data entered from the questionnaires by checking your printouts. He will make any corrections necessary and also ascertain that the diskettes you have submitted correspond to the questionnaires.

All corrections that the supervisor wants you to effect will be written in red on the "printout". He will circle the data to be re-entered or indicate lines that should be deleted or added.

#### Sending Diskettes and Printouts to Accra



When you have completed data entry and corrections for a workload and taken backups of the production diskettes, your supervisor will send the production diskettes, backup diskettes and the printouts to the Survey Directorate in Accra.

#### Organising your work at the office.

You should make the best possible use of the small amount of space allocated to you. That is, everything must be kept in the proper place.

For instance,

- \* The computer and printer must be put on the table.
- \* The diskettes, questionnaires and printouts must be tidily stored in the cabinet.

#### Computer Breakdown.

If, despite all the precautions described above, the computer breaks down, you should report to your supervisor who will in turn inform the Project Directorate in Accra.

You should never try to repair the computer yourself. You are strictly forbidden to dismantle the central processing unit, the monitor, or even the printer.

You should however be certain that you really do have a computer breakdown and not a defect in the electrical supply (incorrect plugging, power failure, short circuit, etc.) or faulty procedures you may be using to prevent unnecessary worries. If your machine breaks down when your supervisor is far in the field then you should immediately call the staff in Accra. The appropriate person to call is the project's Data Processing Manager (telephone Accra 665441 Ext 6450) but if he is not available, you may contact other offices at the secretariat on extension 6472 or 6473 or 6495.