1. **PREFACE**

This report presents the main results of the third round of the Ghana Living Standards Survey (GLSS3), which was carried out by the Ghana Statistical Service (GSS). The report provides a snapshot picture of the living conditions of Ghanaian households at a key stage in the country's development process. Fieldwork for the survey covered a period of 12 months (September 1991 to September 1992), some nine years after the commencement of Ghana's Economic Recovery Programme, and immediately prior to the re-introduction of democratic government under the new Fourth Republic.

Included in this report is detailed information on a great variety of socio-economic topics: for instance, demographic characteristics of the population, education, health, employment, housing, as well as household agriculture and household business activity. Perhaps the most valuable part of the report is the detailed information it provides on the income and expenditure of households. It is hoped that the data presented here will provide a solid basis for informed discussion amongst planners and decision makers about current living conditions in Ghana. Researchers wishing to carry out any special analysis of the GLSS data, or requiring more background information about the GLSS, are invited to contact the GSS.

Conducting a complex survey like this one would not have been possible without the help of a large number of people and organisations. The GSS would particularly like to thank the many householders who took part in this survey, often at considerable inconvenience to themselves, and who put up with the frequent visits and questioning by our interviewers. Thanks are also due to the field staff themselves - interviewers, supervisors, drivers and data entry operators - who carried out their duties efficiently and with good spirit, despite the often difficult working conditions. Thanks also to the regional statistical officers, district administrators, officials and many chiefs and CDR representatives, who provided support to our survey teams. Within the GSS itself the main responsibility for carrying out the fieldwork, processing the data and preparing this report has fallen to the Sample Survey Section and the Data Processing and Field Services Division, with additional inputs provided by the Prices and National Accounts sections.

We would like to acknowledge with thanks the technical and financial support received from the Government of Ghana, the World Bank, and the British Overseas Development Administration (ODA). We also wish to thank Mr Peter Digby (ODA Statistical Adviser) and Mr Harold Coulombe (University of Warwick) who both played a major part in GLSS3.

Finally, we wish to take this opportunity to draw the attention of readers to two other publications which contain data from GLSS3. A report entitled *Rural Communities in Ghana*, which was published in October 1993, is based on information collected from a sample of community leaders around the country, and provides data on community facilities available to rural households. Another report, entitled *The pattern of poverty in Ghana, 1988-1992* and which discusses the changes in living standards in Ghana across all three rounds of the GLSS, will be published shortly by the GSS.

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2. OVERVIEW OF GLSS3

Background and Objectives

Following the pattern set in the first two rounds of the Ghana Living Standards Survey (GLSS), the questionnaire used for the third round again covered a wide spectrum of topics, such as education, health, housing, employment, income and expenditure, which affect the living standards of households. GLSS3 thus provides data on various aspects of Ghanaian household economic and social activities, which are of help for monitoring the impact of the Government's Economic Recovery Programme.

GLSS3 differed from the two previous rounds, however, in concentrating particularly on the income, consumption and expenditure of households at a much more disaggregated level than previously. As a result, GLSS3 should provide much more accurate estimates of income and expenditure, including the imputed value of home produced food which is consumed by households. The data on household expenditure are also being used to derive the weights needed for rebasing the Consumer Price Index. The GLSS data on income, consumption and expenditure, together with other individual, household and community level data collected in GLSS3, will also provide a valuable database for national and regional planning purposes.

In GLSS1 and GLSS2 only two visits, two weeks apart, had been made to each selected household, and the expenditure data on food and non-food items were collected on the second visit, with a recall period of two weeks. Obviously this has a recall lapse problem. An attempt was also made to obtain annual estimates of household expenditure on food and non-food items, as well as annual estimates of consumption of home produced food items.

To reduce the recall error in GLSS3, much more detailed information was collected by means of frequent visits to each household. Households were visited eight times at two-day intervals in rural areas, and 11 times at three-day intervals in urban areas. By reducing the recall period from two weeks to two or three days, much improved estimates of household consumption and expenditure should be obtained.

Sample design

A multi-stage sampling technique was used in selecting the GLSS3 sample. Technical details of the sample design are given in Appendix 1 of the main report. Initially, 4565 households were selected for GLSS3, spread around the country in 407 EAs; in general, 15 households were taken in an urban EA and 10 households in a rural EA. The actual achieved sample was 4552 households. The sample designed used for the GLSS3, and with the very high response rate achieved, the sample can be considered as being self-weighting, though in the case of expenditure data (as discussed below) weighting of the expenditure values should be done.

Questionnaires

Three types of questionnaires were used for GLSS3: a household questionnaire, a community questionnaire and a price questionnaire. Appendix 2 of the main report contains a detailed description of the contents of each questionnaire.
The household questionnaire was in two parts. Part A collected information on household composition, education, health and fertility, employment and time use, migration, and housing characteristics, and it was also used to identify the respondents for Part B. Part B covered agricultural activities, including the consumption of home produce, household expenditure, non-farm enterprises, other income and expenditure, and credit, assets, and savings.

Details of infrastructure and other facilities available to rural communities were recorded in the community questionnaire. This questionnaire was usually administered at a meeting with the community chief, along with his elders and other knowledgeable people in the community.

The price questionnaire was used to collect information on prices in the local market. This information is needed for comparing prices in different parts of the country, which would allow the construction of regional price indexes and the adjustment of household expenditures to a common base so as to take account of regional variations in purchasing power.

**Fieldwork**

GLSS3 fieldwork commenced on 30 September 1991 in both rural and urban clusters, and finished in September 1992. In all, 11 teams each made up of 7 personnel were involved in the data collection and data entry exercise. Seven of these were rural teams, three were urban, and the eleventh team was a relieving team.

**Data processing**

The data collected in this survey were entered directly onto microcomputers, which had been installed in the eight regional capitals. Kumasi and Accra had two PCs each, while Tamale, Sunyani, Koforidua, Ho, Cape Coast and Sekondi/Takoradi had one each. Special interactive software programs had been prepared for data entry and consistency checks, using the software package Rode-PC.
3. DESCRIPTION OF THE QUESTIONNAIRES

The main questionnaire used in the survey was the household questionnaire. In addition to this, there were community and Price questionnaires.

**Household Questionnaire**

The household questionnaire was used to collect information on various topics some of which pertain to eligible individual household members. The questionnaire is in two parts, A and B.

**PART A**

**Section 1: Household Roster**

The purpose of this section is to identify usual members of households, and to collect demographic data such as age, sex, marital status etc. regardless of his or her other socio-economic standing.

**Section 2: Education**

The objective of this section is to measure the level of education or formal schooling of all household members aged five (5) years or more. It is also intended to measure how much was spent on education of household members during the past 12 months, time spent on primary schooling, type of school (public or private) attended and the highest educational qualification achieved, including short training course. Information on adult literacy levels and apprenticeship of persons was also collected in this section.

**Section 3: Health**

This section gathers information on health status of all household members that will be used to measure the cost of medical care and the use made of the different kinds of health services and facilities available. Information on preventive services during the past 12 months, fertility and child mortality is collected.

**Section 4: Employment**

This section is designed to gather information on employment, time use and the different sources of income for household members aged 7 years and over. This section was the main module of the survey and has been expanded into detail.

**Section 5: Migration**

The purpose of this section is to gather data on the geographic mobility of household members. The section is brief as such focuses on the most recent migration and elicits information on previous place of residence, type of work and reasons for moving.

**Section 6: Identification of Respondents for Round 2**

This section is mainly used to identify eligible members of household and make appointments with them for sections 8, 9, and 10 of the questionnaire.
Section 7: Housing

The quality of house occupied by the household is paramount to the welfare of the members. In this regard, the section seeks information on the type of dwelling, occupancy status, number of rooms and room space, expenditures, utilities and amenities as well as the physical characteristics of the dwelling.

PART B

Section 8: Agriculture

The purpose of this section is to collect data on the household’s agricultural activities. It covers agricultural assets such as land, livestock and equipment. Furthermore, it provides data on agricultural production, technology, processing, marketing, income and consumption patterns.

Section 9: Household Expenditure

This section collects data on expenditures of households on food and Non-food items over a period of 35 days.

Section 10: Non-Farm Enterprise

This section is designed to obtain information on income for the household specifically from Non-Farm Enterprises. It also identifies which household members are responsible for each non-farm enterprise in terms of decision making and the allocation of income it generates. Non-Farm Enterprises that are currently operating and those that were operational some time in the past 12 months but currently not operating are considered.

Section 11: Remittances

Information on cash and/or in-kind remittances is collected in this section. Transfers to the household are considered as income whereas transfers from the household constitute expenditures. In the analysis however, net remittance is used.

Section 12: Credit, Assets and Savings

This is the last section of the questionnaire and it is designed to collect information on Loans, Assets and Savings. The household members who contracted the loans and those operating savings accounts are identified for interviewing.

Community Questionnaire

The main aim of the community questionnaire was to identify the economic infrastructure, education and health facilities existing in the villages, as well as any related problems that affect their welfare. The questionnaire was administered in the rural EAs only.
Price Questionnaire

As part of the survey a price questionnaire was designed to collect prices of most essential commodities in the local markets.
3. DESCRIPTION OF DATA FILES AND VARIABLES

List of data files

The files of all the sections are currently available either in SAS [.SSD] format or in SPSS-Windows [.SAV] format. Below are the currently available files:

Household Questionnaire - Part A

S0A: Survey information.
S0B: Survey information continued
S1: Household Roster
S2: Education:
S3A: Health: Health condition in the past two weeks
S3B: Health: Preventive health, Vaccination, in the past 12 months
S3C: Health: Postnatal care
S3D: Health: Fertility, Prenatal care, and Contraceptive use
S4A: Employment: Screening questions and list of occupations in past 12 months
S4B: Employment: Characteristics of the main occupation
S4B1: Employment: Characteristics of the main occupation continued
S4B2: Employment: Characteristics of the main occupation continued
S4B3: Employment: Characteristics of the main occupation continued
S4B4: Employment: Characteristics of the main occupation continued
S4C: Employment: Secondary occupation during the past 12 months
S4C1: Employment: Secondary occupation during the past 12 months continued
S4C2: Employment: Secondary occupation during the past 12 months continued
S4C3: Employment: Secondary occupation during the past 12 months continued
S4D: Employment: Third occupation during the past 12 months
S4E: Employment: Fourth occupation during the past 12 months
S4F: Employment: Fifth occupation during the past 12 months
S4G: Employment: Employment search in the past 12 months
S4H: Employment: Activity status and employment search in the last 7 days
S4J: Employment: Employment history
S4K: Employment: Housekeeping
S5: Migration
S6: Identification of respondents for Sections 8, 9, and 10
S7: Housing

Household Questionnaire – Part B

S8A1: Agriculture: Land
S8A2: Agriculture: Livestock and Fishing
S8A3: Agriculture: Agricultural equipment
S8B: Agriculture: Plot details
S8C1: Agriculture: Harvest and disposal of staple grains, field and cash crops
S8C2: Agriculture: Harvest and disposal of roots, fruits, vegetables etc.
S8D: Agriculture: Seasonality of sales and purchases (key staples only)
S8E: Agriculture: Other agricultural income (in cash and kind)
S8F: Agriculture: Agricultural costs and expenses
S8G: Agriculture: Processing of agricultural produce
S8H: Agriculture: Consumption of home produce
S9A11: Household Expenditure: ID’s of persons responsible for purchases
S9A12: Household Expenditure: Non-food expenses-less frequently purchased items
S9A2: Household Expenditure: Non-food expenses-frequently purchased items
S9B: Household Expenditure: Food expenses
S9C: Household Expenditure: Availability of selected consumer items
S10A: Non-Farm Enterprises: Basic characteristics of non-farm enterprises
S10B: Non-Farm Enterprises: Expenditures on enterprises
S10C: Non-Farm Enterprises: Assets of enterprises
S10D: Non-Farm Enterprises: Revenue of enterprise
S10E: Non-Farm Enterprises: Net income and inventory of enterprise
S11A1: Income Transfers: Identification of households who gave out cash or goods as remittance (donors)
S11A2: Income Transfers: Transfer payments made by households
S11B1: Income Transfers: Identification of who received cash or goods as remittances (recipients)
S11B2: Income Transfers: Transfer payments received by households
S11C: Miscellaneous income
S11D: Miscellaneous out-goings (expenditures)
S12A1: Identification of households with credits
S12A2: Credits
S12B: Assets and durable consumer goods
S12C: Savings (including Susu)

Household Income And Expenditure Files

A. DISAGGREGATED HOUSEHOLD INCOME VARIABLES
   (expressed on an annual basis)

   BI1  SCHOL = Value of educational scholarship (at individual level)
   BI2  J1CASH = Employment income in cash, main job
          J1SECASH = Self-employment income in money, main job
          J1BONC = Bonus inc in money pay, main job
          J1BONK = Bonus not inc in money, main job
          J1K = Employment income in kind, main job
          J1H = Employment income as subsidized housing, main job
          J1TR = Employment income as subsidized transport, main job
          J1OTH = Employment income in other forms, main job (all variables at individual level)
   BI3  J2CASH = Employment income cash, 2nd job
          J2SECASH = Self-employment income in cash, 2nd job
          J2K = Employment income in kind, 2nd job
          J2H = Employment income as subsidized housing/transport/other, 2nd job (all variables at individual level)
   BI4  J3CASH = Employment income cash, 3rd job
          J3SECASH = Self-employment income in cash, 3rd job
          J3K = Employment income in kind, 3rd job (all variables at individual level)
   BI5  J4CASH = Employment income cash, 4th job
          J4SECASH = Self-employment income in cash, 4th job
**J4K** = Employment income in kind, 4<sup>th</sup> job (all variables at individual level)

**B16**
- **J5CASH** = Employment income cash, 5<sup>th</sup> job
- **J5SECASH** = Self-employment income in cash, 5<sup>th</sup> job
- **J5K** = Employment income in kind, 5<sup>th</sup> job (all variables at individual level)

**B17**
- **INCWAT** = Income from water sold (at household level)

**B18**
- **INCLND1** = Income from renting out land
- **INCLND2** = Income from sharecropping (both at household level)

**B19**
- **INCLIV** = Income from renting out livestock (at household level)

**B10**
- **INCEQ** = Income from renting out agricultural. Equipment (at level of each individual item)

**B11**
- **CROPSV1** = Revenue from sale of cash crops-main outlet
- **CROPSV2** = Revenue from sale of cash crops-other outlet (both at level of each individual crop)

**B12**
- **ROOTSV** = Revenue from sale of roots/fruit/vegetables (at level of each individual crop)

**B13**
- **OTHAGINC** = Revenue from other agricultural income (at household level)

**BE14**
- **INCTRCRP** = Revenue from transformed crops (at level of each individual product)

**B15**
- **INCNFC** = Revenue in cash from non-farm enterprises
- **INCNFK** = Revenue in goods/services from non-farm enterprises
- **INCNFDOM** = Value of output of non-farm enterprises consumed domestically
- **INCNFRNT** = Non-farm rent income
- **PRNFDOM** = Profit of non-farm enterprises used within household
- **PRNFRND1** = Profit of non-farm enterprises paid to other households
- **PRNFRND2** = Profit of non-farm enterprises saved
- **PRNFRND3** = Profit of non-farm enterprises for other uses (at level of each enterprise)

**B16**
- **INCREM** = Income from remittances (at level of each individual remittance)

**B17**
- **INCMISC** = Miscellaneous income (at level of each individual category)

**B. DISAGGREGATED HOUSEHOLD EXPENDITURE VARIABLES**

**(expressed on an annual basis)**

**BE1**
- **EDUCEXP** = Expenditure on education (at individual level)

**BE2**
- **WATB** = Water bill - 1
- **WATB2** = Water bill - 2
- **ELECB** = Electric bill
- **GARB** = Garbage disposal bill (at household level)

**BE3**
- **LANDEXP** = Expenditure on renting farm land (at level of individual farm)

**BE4**
- **CROPEXP** = Expenditure on crop inputs (at level of each individual input)

**BE5**
- **LIVEXP** = Expenditure on livestock inputs (at level of each individual input)

**BE6**
- **FDPREXP1** = Labour costs on food processing
- **FDPREXP2** = Other costs on food processing (both at level of each individual product)

**BE7**
- **HP1** = Cons. of home production-actual
- **HP2** = Cons. of home production-*12
- **HP1D** = Cons. of home production-actual-Deaton
- **HP2D** = Cons. of home production-*12-Deaton (all at level of each item consumed)

**BE8**
- **YREXP** = Less frequent non-food expenditure (at level of each item purchased)

**BE9**
- **DAYEXP** = Frequent non-food expenditure
- **DAYEXPD** = Frequent non-food expenditure-Deaton (both at level of each item purchased)
BE10  FOODEXP = Food expenditure (actual)
       FOODEXPD = Food expenditure (actual)-Deaton (both at level of each item purchased)
BE11  NFINP = Exp. on inputs of non-farm enterprises (at level of each expenditure item)
BE12  EQDEPN = Depreciation of farm equipment (at level of each individual item)
BE13  ASSDEPN = Depreciation of non-farm capital assets (at level of asset type within each enterprise)
BE14  REMITEXP = Expenditure on remittances (at level of each individual remittance)
BE15  MISCEXP = Miscellaneous expenditure (at household level)
BE16  USEVAL = Use value of durable goods (at level of each type of asset/good)
BE17  IMPRTOWN = Value of imputed rental services - household owner (at household level)
BE18  IMPRTPAR = Value of imputed rental services - paid by parents (at household level)
BE19  RENTPAID = Actual rental payment in cash and kind (at household level)
BE20  IMPRTEMP = Value of imputed rental services - paid by employers (at household level)
BE21  IMPRTSQU = Value of imputed rental services - squatter (at household level)

C.  SUB-AGGREGATES OF HOUSEHOLD INCOMES AND EXPENDITURES

IE1  SCHOL1 = Value of scholarship, last 12 months
IE2  J1TOT = Total wage income main job – past 12 months
IE3  J2TOT = Total wage income 2nd job – past 12 months
IE4  J3TOT = Total wage income 3rd job – past 12 months
IE5  J4TOT = Total wage income 4th job – past 12 months
IE6  J5TOT = Total wage income 5th job – past 12 months
IE7  FD = Total wage income paid in food
       HO = Total wage income paid in housing
       GD = Total wage income paid in other forms
IE8  SEFARM = Farm self-employment income
IE9  SENONF = Non-farm self-employment income
IE10 WATINC = Income from water sold
IE11 LNDINC1 = Income from renting out land
       LNDINC2 = Income from sharecropping
IE12 LIVINC = Income from renting out livestock
IE13 EQINC = Income from renting out agro equipment
IE14 CRPINCl = Revenue from sale of cash crops – main outlet
       CRPINC2 = Revenue from sale of cash crops – other outlet
IE15 ROOTINC = Revenue from sale of roots/fruit/veg
IE16 INCOthag = Revenue from other agricultural source
IE17 TRCRPINc = Revenue from the sale of transformed crop products
IE18 NFCINC = Revenue in cash from non-farm enterprises
       NKINC = Revenue in goods/services of non-farm enterprises
       NFDOMINC = Value of non-farm enterprise products consumed domestically
       PROFITNF = Profit of non-farm enterprises for own purposes
       NFRNTINC = Non farm rent income
IE19 REMINC = Income from remittances
IE20 MISCINC = Miscellaneous income
IE21 EXPEDUC = Expenditure on educational items
IE22 HHUTILS = Expenditure on household utilities
IE23 EXPLAND = Expenditure on renting farm land
IE24 EXPCCROP = Expenditure on crop input
IE25  EXPLIV = Expenditure on livestock inputs
IE26  EXPFDPR1 = Labour costs on food processing
        EXPFDPR2 = Other costs on food processing
IE27  PH1 = Consumption of home-produced food-actual
        PH2 = Consumption of home-produced food-*12
        PH1D= Consumption of home-produced food-actual-Deaton
        PH2D= Consumption of home-produced food-*12-Deaton
IE28  EXPYEAR = Less frequent non-food expenditure
IE29  EXPDY = Frequent non-food exp.
        EXPDYD = Frequent non-food exp. - Deaton
IE30  EXPFD = Food expenditure (actual)
        EXPFDD = Food expenditure (actual) - Deaton
IE31  INPNF = Expenditure on non-farm enterprises
IE32  DEPNEQ = Depreciation of farming equipment
IE33  DEPNASS = Depreciation of non-farm capital assets
IE34  EXPREMIT = Expenditure on remittances
IE35  EXPMISC = Miscellaneous expenditure
IE36  VALUSE = Use value of durable goods
IE37  RENT1 = Imputed rent - household owner
IE38  RENT2 = Imputed rent - paid by parents
IE39  RENT3 = Actual rent in cash and kind
IE40  RENT4 = Imputed rent - paid by employers
IE41  RENT5 = Imputed rent - squatters

D. AGGREGATES OF HOUSEHOLD INCOMES AND EXPENDITURES

All variables are at the household level

AGG1  OTEMP = Income from employment
AGG2  AGI1_1 = HH agro income (1)-actual
        AGI1_1C = HH agro income (1)-actual-corr.
        AGI1_1D = HH agro income (1)-actual-Deaton
        AGI1_1CD = HH agro income (1)-actual-corr.-Deaton
        AGI1_2 = HH agro income (1)*12
        AGI1_2C = HH agro income (1)*12-corr.
        AGI1_2D = HH agro income (1)*12-Deaton
        AGI1_2CD = HH agro income (1)*12-corr.-Deaton
        AGI2_1 = HH agro income (2)-actual
        AGI2_1C = HH agro income (2)-actual-corr.
        AGI2_1D = HH agro income (2)-actual-Deaton
        AGI2_1CD = HH agro income (2)-actual-corr.-Deaton
        AGI2_2 = HH agro income (2)*12
        AGI2_2C = HH agro income (2)*12-corr.
        AGI2_2D = HH agro income (2)*12-Deaton
        AGI2_2CD = HH agro income (2)*12-corr.-Deaton
        HHAGDEPN = Depreciation of farm equipment
AGG3  NFSEY1 = Gross non-farm self-employment income (1)
        NFSEY2 = Gross non-farm self-employment income (2)
NFSEY3 = Gross non-farm self-employment income (3)
NFDEPN = Non-farm capital assets depreciation
AGG4 IMPRT = Actual and imputed rental income
AGG5 REMITINC = Income from remittances
AGG6 OTHERINC = Other income
AGG7 EXPFD = Food expenditure (actual)
   EXPFDD = Food expenditure (actual)-Deaton
   EXPFD_C = Food expenditure (actual)-Corr.
   EXPFD_CD = Food expenditure (actual)-Corr.-Deaton
AGG8 HOUSEXP = Expenditure on housing
AGG9 OTHXP_ = Other expenditure (actual)
   OTHXP_D = Other expenditure (actual)-Deaton
   OTHXP_C = Other expenditure (actual)-Corr.
   OTHXP_CD = Other expenditure (actual)-Corr.-Deaton
AGG10 IMPF_1 = Imputed food exp.-actual
    IMPF_1C = Imputed food exp.-actual-corr.
    IMPF_1D = Imputed food exp.-actual-Deaton
    IMPF_1CD = Imputed food exp.-actual-corr.-Deaton
    IMPF_2 = Imputed food exp.-*12
    IMPF_2C = Imputed food exp.-*12-corr.
    IMPF_2D = Imputed food exp.-*12-Deaton
    IMPF_2CD = Imputed food exp.-*12-corr.-Deaton
AGG11 IMPNFEXP = Other expenditure (imputed)
AGG12 EXPREMIT = Expenditure on remittances

Community Questionnaire

Price Questionnaire