

Agriculture Household Listing Survey 2023

Statistics Sierra Leone, Ministry of Agriculture and Food Security

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visit_data_catalog_at: <https://microdata.worldbank.org/>

Identification

SURVEY ID NUMBER

SLE_2023_SLLIST_v01_M_v01_A_ESS

TITLE

Agriculture Household Listing Survey 2023

ABBREVIATION OR ACRONYM

SLLIST 2023

COUNTRY/ECONOMY

Name	Country code
Sierra Leone	SLE

ABSTRACT

In recognition of the critical role the agricultural sector plays in national development, Sierra Leone joined the 50x2030 Initiative in early 2023. This partnership focuses on establishing a sustainable annual agricultural survey program. The program's primary aim is to generate high-quality, timely, and relevant agricultural data that directly addresses the country's needs. The implementation of the 50x2030 activities in Sierra Leone relies on a variety of statistical undertakings, one of which is the Sierra Leone Listing Survey (SLLIST) conducted in 2023. This survey plays a vital role in monitoring and achieving the goals of the 50x2030 initiative. It serves as a foundational element for subsequent surveys, establishing a comprehensive sampling frame that will be utilized in future data collection efforts. By meticulously gathering data on various aspects, SLLIST lays the groundwork for further analysis and ensures the accuracy of subsequent surveys.

The other specific objectives for the design of the Listing Survey were to:

- Accurately enumerate and document all dwelling units/structures and households within the selected enumeration areas (EAs) in preparation for agricultural holdings/households' selection
- Record detailed description of every structure and identify the heads of agricultural holdings/households
- Collect information in each of the 520 selected EAs, ensuring effective supervision and monitoring of the agricultural holdings/households to be selected for data collection.

KIND OF DATA

Sample survey data [ssd]

UNIT OF ANALYSIS

Households

Scope

NOTES

This survey focused on collecting data from agricultural households, covering topics such as household demographics, land ownership, agricultural activities, livestock rearing, labor force composition, and participation in off-farm activities.

TOPICS

Topic	Vocabulary	URI
Agricultural workers	ELSST Thesaurus	
Agricultural production	ELSST Thesaurus	

KEYWORDS

Crops Livestock Households

Coverage

GEOGRAPHIC COVERAGE

National coverage, with the exception of the Western Urban district

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
Statistics Sierra Leone	Government of Sierra Leone
Ministry of Agriculture and Food Security	Government of Sierra Leone

PRODUCERS

Name	Affiliation	Role
Food and Agriculture Organization	United Nations	Technical Assistance

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
World Bank	WB	Financial assistance through the HISWA Project

Sampling

SAMPLING PROCEDURE

The survey employed a stratified random sampling technique to ensure a representative sample of agricultural households across all five regions and fifteen districts of Sierra Leone with the exception of the Western Urban district. From 514 Enumeration Areas, a total of 42990 agricultural households were interviewed.

RESPONSE RATE

The response rate was 99.9%.

WEIGHTING

Sample weights were calculated for the data file. It was computed as the inverse of the probability of selection of agricultural household, the latter being the product of the probability of selection of the EA in which the household is located and the probability of selection of the EA.

The weight variable is called "SampleWeight".

Survey instrument

QUESTIONNAIRES

The questionnaire was administered in each household, preferably to the head of household. It includes questions on household demographic characteristics and agricultural activities practiced.

The questionnaire is provided as external resource.

METHODOLOGY NOTES

The dataset was anonymized using statistical disclosure methods. To start the process, variables were classified into main categories as variables to delete, quasi identifiers, direct identifiers, linked variables. All direct identifiers and unnecessary variables were removed. Then, quasi-identifiers (and linked variables) were considered to formulate disclosure scenarios. Disclosure risk was measured using k-anonymity and probabilistic risk.

Quasi identifiers have been anonymized using top coding (which was especially applied to categorical variables), shuffling (which was applied to enumeration area codes) and local suppression which was applied to both the quasi identifiers and the linked variables. In addition, information loss was mainly measured based on number of missing values introduced during anonymization and dependency coefficient between categorical variables.

The software used was R.

Data collection

DATES OF DATA COLLECTION

Start	End
2023-08-28	2023-09-18

DATA COLLECTION MODE

- Computer Assisted Personal Interview [capi]

Data processing

DATA EDITING

The listing questionnaire was implemented on CSPRO as CAPI tool. During data collection, some validation controls were integrated into the app to minimize mistakes when typing households' answers. After data collection, a processing program designed under SPSS software permitted to clean both cases and variables. Duplicated cases were deleted and then the sampling weights adjusted to take the two non-covered EAs into account. Missing, illegal, unlike and incoherent values were detected and then locally imputed objectively in respecting filters. Finally, the necessary tabulation variables were created and then tables were produced according to the tabulation plan designed earlier.

Data appraisal

ESTIMATES OF SAMPLING ERROR

To appreciate the data quality, some tables were supported by sampling errors estimates. Especially, coefficients of variations and standard errors were estimated for a set of indicators in open data publishing purposes.

Access policy

CONFIDENTIALITY

Confidentiality declaration text

The users shall not take any action with the purpose of identifying any individual entity (i.e. person, household, enterprise, etc.) in the micro dataset(s). If such a disclosure is made inadvertently, no use will be made of the information, and it will be reported immediately to FAO.

ACCESS CONDITIONS

Licensed datasets, accessible under conditions.

Disclaimer and copyrights

DISCLAIMER

The user of the data acknowledges that the original collector of the data, the authorized distributor of the data, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses

Metadata production

DDI DOCUMENT ID

DDI_SLE_2023_SLLIST_v01_M_v01_A_ESS

PRODUCERS

Name	Abbreviation	Affiliation	Role
Statistics Sierra Leone	Stats SL	Government of Sierra Leone	Metadata producer
Ministry of Agriculture and Food Security	MAFS	Government of Sierra Leone	Metadata producer
Statistics Division	ESS	FAO	Metadata producer and metadata adapted for FAM
Development Data Group	DECDG	World Bank Group	Metadata adapted for World Bank Microdata Library

Metadata version

DDI DOCUMENT VERSION

Identical to a metadata (SLE_2023_SLLIST_v01_EN_M_v01_A_ESS) published on FAO microdata repository (<https://microdata.fao.org/index.php/catalog>). Some of the metadata fields have been edited.

data_dictionary

Data file	Cases	variables
SLLIST2023_anonymized_microdata	42990	31

Data file: SLLIST2023_anonymized_microdata

Cases: 42990

variables: 31

variables

ID	Name	Label	Question
V1	h_region	Region	
V2	h_district	District	
V3	urban_rural	Place of residence	
V4	EACODE	Enumeration Area	
V5	hh_ID	Household ID	
V6	q0105_sex_of_head	Sex of head of household	
V7	q0109_cropproduction	Household involved in crop production	
V8	q0109_livestock	Household involved in livestock	
V9	q0109_aquaculture	Household involved in aquaculture	
V10	q0109_forestry	Household involved in forestry	
V11	q0109_other	Household involved in other agricultural activities	
V12	q0109b_cattle	Household rearing cattle	
V13	q0109b_sheep	Household rearing sheep	
V14	q0109b_goat	Household rearing goat	
V15	q0109b_chicken	Household rearing chicken	
V16	q0109b_pig	Household rearing pig	
V17	q0109b_duck	Household rearing duck	
V18	q0109b_other	Household having other livestock type	
V19	q0119_fishing_on_farm	Household practicing fishing on farm	
V20	q0120_fishing_hunting	Household practicing fish hunting/capture	
V21	q0111_number_of_people	Number of people in the household	
V22	q0112_livestock	Does any member in the household rear livestock?	
V23	q0112_number_active_mem	Number of economically active members	
V24	q0113_crop_land_area	Crop land area	
V25	q0114_permanent_workers	Permanent agricultural workers	
V26	q0115_number_of_cattle	Number of cattle	
V27	q0116_number_of_goats	Number of goats	
V28	q0117_number_of_sheep	Number of sheep	
V29	q0118_number_of_chicken	Number of chicken	
V30	q0115_number_of_duck	Number of duck	
V31	SampleWeight	Final sample weight, adjusted after non-covered EA deletion	

total: 31

H_REGION: Region**Data file:** SLLIST2023_anonymized_microdata**Overview**

Valid: 42986 Invalid: 4 Minimum: 1 Maximum: 5
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	EASTERN	17370	40.4%
2	NORTH-EASTERN	6982	16.2%
3	NORTH-WESTERN	8283	19.3%
4	SOUTHERN	9751	22.7%
5	WESTERN AREA	600	1.4%
Sysmiss		4	

Q0109_FORESTRY: Household involved in forestry**Data file:** SLLIST2023_anonymized_microdata**Overview**

Valid: 42947 Invalid: 43 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	999	2.3%
2	No	41948	97.7%
Sysmiss		43	

H_DISTRICT: District**Data file:** SLLIST2023_anonymized_microdata**Overview**

Valid: 42946 Invalid: 44 Minimum: 1 Maximum: 15
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	KAILAHUN	5363	12.5%
2	KENEMA	6489	15.1%
3	KONO	5510	12.8%
4	BOMBALI	1715	4%
5	FALABA	880	2%
6	KOINADUGU	833	1.9%
7	TONKOLILI	3545	8.3%
8	KAMBIA	3278	7.6%
9	KARENE	1462	3.4%
10	PORTLOKO	3536	8.2%
11	BO	3914	9.1%
12	BONTHE	774	1.8%
13	MOYAMBA	2820	6.6%
14	PUJEHUN	2231	5.2%
15	WESTERN RURAL	596	1.4%
16	WESTERN URBAN	0	
Sysmiss		44	

URBAN_RURAL: Place of residence

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42966 Invalid: 24 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Rural	35207	81.9%
2	Urban	7759	18.1%
Sysmiss		24	

EACODE: Enumeration Area**Data file:** SLLIST2023_anonymized_microdata**Overview**

Minimum: 11010102 Maximum: 51040603
 Type: Continuous Width: -9 Format: character

HH_ID: Household ID**Data file:** SLLIST2023_anonymized_microdata**Overview**

Minimum: 1 Maximum: 42990
 Type: Continuous Width: -9 Format: character

Q0105_SEX_OF_HEAD: Sex of head of household**Data file:** SLLIST2023_anonymized_microdata**Overview**

Valid: 42232 Invalid: 758 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Male	30149	71.4%
2	Female	12083	28.6%
Sysmiss		758	

Q0109_CROPPRODUCTION: Household involved in crop production**Data file:** SLLIST2023_anonymized_microdata**Overview**

Valid: 42789 Invalid: 201 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	41974	98.1%
2	No	815	1.9%

Sysmiss		201	
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Q0109_LIVESTOCK: Household involded in livestock

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42990 Invalid: 0 Minimum: 1 Maximum: 2
Type: Discrete Width: 10 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	25900	60.2%
2	No	17090	39.8%

Q0109_AQUACULTURE: Household involved in aquaculture

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42943 Invalid: 47 Minimum: 1 Maximum: 2
Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	137	0.3%
2	No	42806	99.7%
Sysmiss		47	

Q0109_OTHER: Household involded in other agricultural activities

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42990 Invalid: 0 Minimum: 1 Maximum: 2
Type: Discrete Width: 10 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	73	0.2%
2	No	42917	99.8%

Q0109B_CATTLE: Household rearing cattle

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42868 Invalid: 122 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	502	1.2%
2	No	42366	98.8%
Sysmiss		122	

Q0109B_SHEEP: Household rearing sheep

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42816 Invalid: 174 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	10467	24.4%
2	No	32349	75.6%
Sysmiss		174	

Q0109B_GOAT: Household rearing goat

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42840 Invalid: 150 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	6111	14.3%
2	No	36729	85.7%
Sysmiss		150	

Q0109B_CHICKEN: Household rearing chicken

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42886 Invalid: 104 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	22249	51.9%
2	No	20637	48.1%
Sysmiss		104	

Q0109B_PIG: Household rearing pig

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42906 Invalid: 84 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	176	0.4%
2	No	42730	99.6%
Sysmiss		84	

Q0109B_DUCK: Household rearing duck**Data file:** SLLIST2023_anonymized_microdata**Overview**

Valid: 42912 Invalid: 78 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	2396	5.6%
2	No	40516	94.4%
Sysmiss		78	

Q0109B_OTHER: Household having other livestock type**Data file:** SLLIST2023_anonymized_microdata**Overview**

Valid: 42990 Invalid: 0 Minimum: 1 Maximum: 2
 Type: Discrete Width: 10 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	10	0%
2	No	42980	100%

Q0119_FISHING_ON_FARM: Household practicing fishing on farm**Data file:** SLLIST2023_anonymized_microdata**Overview**

Valid: 42938 Invalid: 52 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	109	0.3%
2	No	42829	99.7%

Sysmiss		52	
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Q0120_FISHING_HUNTING: Household practicing fish hunting/capture

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42959 Invalid: 31 Minimum: 1 Maximum: 2
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	3041	7.1%
2	No	39918	92.9%
Sysmiss		31	

Q0111_NUMBER_OF_PEOPLE: Number of people in the household

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42119 Invalid: 871 Minimum: 1 Maximum: 5
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	1 person	521	1.2%
2	2-3 persons	7822	18.6%
3	4-5 persons	16639	39.5%
4	6-9 persons	14295	33.9%
5	10 or more persons	2842	6.7%
Sysmiss		871	

Q0112_LIVESTOCK: Does any member in the household rear livestock?

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42990 Invalid: 0 Minimum: 1 Maximum: 2

Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	25874	60.2%
2	No	17116	39.8%

Q0112_NUMBER_ACTIVE_MEM: Number of economically active members

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42990 Invalid: 0 Minimum: 1 Maximum: 5
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	1 person	17953	41.8%
2	2 - 3 Persons	21837	50.8%
3	4 - 5 Persons	2627	6.1%
4	6 - 9 Persons	501	1.2%
5	10 or more Persons	72	0.2%

Q0113_CROP_LAND_AREA: Crop land area

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42990 Invalid: 0 Minimum: 0 Maximum: 10
 Type: Discrete Width: 10 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0	None	994	2.3%
1	under 0.5 ha	7437	17.3%
2	0.5-1 ha	11345	26.4%
3	1-2 ha	10476	24.4%

4	2-3 ha	5943	13.8%
5	3-4 ha	2852	6.6%
6	4-5 ha	1663	3.9%
7	5-10 ha	1496	3.5%
8	10-20 ha	584	1.4%
9	20-50 ha	149	0.3%
10	50 ha and over	51	0.1%

Q0114_PERMANENT_WORKERS: Permanent agricultural workers

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42990 Invalid: 0 Minimum: 0 Maximum: 6
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0	None	688	1.6%
1	1 worker	8864	20.6%
2	2 workers	19424	45.2%
3	3 workers	7295	17%
4	4 workers	3379	7.9%
5	5 workers	1746	4.1%
6	6 workers and over	1594	3.7%

Q0115_NUMBER_OF_CATTLE: Number of cattle

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42868 Invalid: 122 Minimum: 0 Maximum: 5
 Type: Discrete Width: 10 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0	None	42366	98.8%
1	1 to 2 heads	207	0.5%

2	3 to 4 heads	119	0.3%
3	5 to 9 heads	107	0.2%
4	10 to 19 heads	46	0.1%
5	20 heads and over	23	0.1%
7	100 heads and over	0	
Sysmiss		122	

Q0116_NUMBER_OF_GOATS: Number of goats

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42840 Invalid: 150 Minimum: 0 Maximum: 4
 Type: Discrete Width: 10 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0	None	36729	85.7%
1	1 to 4 heads	4755	11.1%
2	5 to 9 heads	1063	2.5%
3	10 to 19 heads	252	0.6%
4	20 heads and over	41	0.1%
Sysmiss		150	

Q0117_NUMBER_OF_SHEEP: Number of sheep

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42816 Invalid: 174 Minimum: 0 Maximum: 4
 Type: Discrete Width: 10 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0	None	32349	75.6%
1	1 to 4 heads	9504	22.2%
2	5 to 9 heads	782	1.8%
3	10 to 19 heads	150	0.4%

4	20 heads and over	31	0.1%
Sysmiss		174	

Q0118_NUMBER_OF_CHICKEN: Number of chicken

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42886 Invalid: 104 Minimum: 0 Maximum: 4
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0	None	20637	48.1%
1	1 to 9 chickens	22121	51.6%
2	10 to 49 chickens	48	0.1%
3	50 to 199 chickens	52	0.1%
4	200 chickens and over	28	0.1%
Sysmiss		104	

Q0115_NUMBER_OF_DUCK: Number of duck

Data file: SLLIST2023_anonymized_microdata

Overview

Valid: 42912 Invalid: 78 Minimum: 0 Maximum: 5
 Type: Discrete Width: 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0	None	40516	94.4%
1	1 to 2 heads	973	2.3%
2	3 to 4 heads	664	1.5%
3	5 to 9 heads	539	1.3%
4	10 to 19 heads	182	0.4%
5	20 heads and over	38	0.1%
Sysmiss		78	

SAMPLEWEIGHT: Final sample weight, adjusted after non-covered EA deletion**Data file:** SLLIST2023_anonymized_microdata**Overview**

Minimum: 3.2452043475341 Maximum: 532.89706624035

Type: Continuous Width: 12 Format: Numeric

study_resources

questionnaires

Sierra Leone Agriculture Listing Questionnaire

title Sierra Leone Agriculture Listing Questionnaire
 date 2023
 country Sierra Leone
 publishers Statistics Sierra Leone (Stats SL)
 filename SL_Listing_questionnaire.pdf

reports

REPORT FROM THE LISTING DATA OF THE 2023 ANNUAL AGRICULTURAL SURVEY

title REPORT FROM THE LISTING DATA OF THE 2023 ANNUAL AGRICULTURAL SURVEY
 authors Statistics Sierra Leone (Stats SL) Ministry of Agriculture and Food Security (MAFS)
 date 2024-01-01
 country Sierra Leone
 contributors 50x2030 Initiative
 publishers Statistics Sierra Leone (Stats SL)
 description The report from the Sierra Leone Listing survey present main findings from the listing data of the 2023 Annual Agricultural Survey.
 abstract The main results of the Sierra Leone Listing Survey show a dominance of small-scale farming in the country, evidence of regional variations in terms of proportions of agricultural households by region and by district. In addition, male headed households dominate the sector and are more involved in permanent agricultural work compared to female-headed households. Crop production is the most widespread activity across all regions and genders, followed by livestock rearing. Activities such as hunting, fishing, and aquaculture supplement the subsistence farming practices of a small portion of the agricultural population.
 Introduction
 - Context of the survey
 - Objectives of the Survey
 - Survey Methodology
 Key Findings
 I- Characteristics of Agricultural Households
 I.1- Socio-Demographic Profile of Agricultural households
 I.2- Economic Profile of Agricultural households
 II- Agricultural Practices
 II.1- Crop Production
 II.2- Livestock rearing
 II.3- Other agricultural activities practiced
 Conclusion
 Recommendations
 Glossary
 filename https://maf.gov.sl/wp-content/uploads/2024/08/SLE_FINAL_LISTING_REPORT_16_05_2024.pdf