

Sierra Leone - Women's Empowerment and Nutrition Survey 2024

**Government of Sierra Leone, Statistics Sierra Leone, Ministry of Agriculture and
Food Security**

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Identification

SURVEY ID NUMBER

SLE_2024_WEN_v02_M_v02_A_ESS

TITLE

Women's Empowerment and Nutrition Survey 2024

ABBREVIATION OR ACRONYM

WEN 2024

COUNTRY

Name	Country code
Sierra Leone	SLE

STUDY TYPE

Agricultural Survey [ag/oth]

SERIES INFORMATION

The Women's Empowerment and Nutrition (WEN) module was integrated into the Annual Agricultural Survey 2024 under the umbrella of the 50x2030 Initiative to close the agricultural data gap (<https://www.50x2030.org/>), a global partnership of the World Bank, the Food and Agriculture Organization of the United Nations (FAO) and IFAD aimed to strengthen the availability of data on agriculture.

This is the first WEN survey in Sierra Leone, and it was designed to generate nationally representative statistics on empowerment and women's dietary diversity among agricultural households.

ABSTRACT

The Women's Empowerment and Nutrition Survey (WEN) 2024 provides nationally representative data on women's and men's empowerment and women's dietary diversity within agricultural households in Sierra Leone. Implemented by Statistics Sierra Leone (Stats SL) in collaboration with the Ministry of Agriculture and Food Security (MAFS), and with technical support of FAO. The survey had four key objectives:

1. Measure women's and men's empowerment and women's dietary diversity at individual level in agricultural households, providing policymakers with data for gender-responsive planning
2. Refine and test the Women's Empowerment Metric for National Statistical Systems (WEMNS) developed by the International Food Policy Research Institute (IFPRI), Emory University, Oxford University, and the World Bank Group, <https://weai.ifpri.info/wemns/>
3. Showcase the feasibility of integrating empowerment and nutrition indicators into existing agricultural survey programs
4. Build national capacity in the collection and analysis of gender and nutrition statistics

The survey captured information on empowerment (agency, rights, resources, collective action) and women's dietary diversity (MDD-W), allowing analysis of the intersection between gender inequality, agricultural participation, and nutritional outcomes.

KIND OF DATA

Sample survey data [ssd]

UNIT OF ANALYSIS

Agricultural households

Scope

NOTES

The WEN 2024 survey covered:

- a) Women's empowerment domains i.e., claiming rights, making choices, engaging in communities, access to resources (WEMNS)
- b) Tenure rights over agricultural land (SDG 5.a.1) and residential dwelling
- c) Dietary Diversity for Women (MDD-W)

TOPICS

Topic	Vocabulary	URI
Gender Equality	ELSST Thesaurus	Link
Food Security	ELSST Thesaurus	Link

Coverage

GEOGRAPHIC COVERAGE

National coverage

UNIVERSE

Male and female members living in agricultural households aged between 18 and 64 years.

Producers and sponsors

PRIMARY INVESTIGATORS

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

PRODUCERS

Name	Abbreviation	Affiliation	Role
Food and Agriculture Organization of the United Nations	FAO	United Nations	Technical assistance

FUNDING AGENCY/SPONSOR

Name	Abbreviation
Government of Sierra Leone	
Food and Agriculture Organization of the United Nations	FAO
Bill and Melinda Gates Foundation	BMGF

Sampling

SAMPLING PROCEDURE

The survey targeted adult members aged 18-64 living in agricultural households. Because the MDD-W indicator is validated for women of reproductive age, the nutrition section was administered only to women.

To meet the survey's measurement objectives, three estimation domains were defined: women 18-49, women 18-64, and men 18-64. The two overlapping women's domains ensured adequate precision for MDD-W among women 18-49 while also allowing empowerment estimates for women 18-64. For each domain, the sample was designed to estimate individual empowerment indicators, a summary empowerment metric (WEMNS), the proportion of women consuming at least five MDD-W food groups with an expected sampling error of 5 percent.

The WEN sample was drawn from the sample of the national agricultural survey. First a subsample of households was selected within each stratum with simple random selection probability. Within each selected household, a fixed number of adults were randomly selected in the field after listing all household members. The subsampling of individuals was conducted using simple random sampling, stratified by gender and age. Hence, the sampling of the WEN survey adopted the same stratification criteria as the agricultural survey sample. Acknowledging clustering and intra-household correlation, the sampling design assumed a design effect of 3.5.

For more detailed information on the sampling methodology and calculations of sample size, see annex 1 of the survey

report, attached as documentation.

RESPONSE RATE

Out of the 2 525 households originally selected, 19 households were not visited. Further, 172 of the sampled households could not be interviewed due to one or more of the following reasons:

- Dwelling destroyed
- Fieldwork window in the enumeration area (EA) had closed
- No one at home despite repeated visits
- Household not found or relocated
- Entire EA deserted
- No competent respondent available at the time of visit

In addition, 16 households refused individual interviews, 28 households had no eligible members, and 71 households could not be interviewed because eligible members were absent during visits and did not return by the end of the day. Thus, a total of 2 219 households were interviewed.

As a result, the rate of non-response was very low: 0.6 percent. The rate of ineligibility was also around 1.1 percent. In the households, one eligible respondent was randomly chosen per stratum (women 18-49, women 50-64, men 18-64). Thus, a household could contribute from one to three individual interviews, but never more than one individual for a single category.

Achieved interviews:

- Women 18-64: 2 146 (of which 1 793 were women 18-49 and 353 women 50-64)
- Men 18-64: 1 707

WEIGHTING

The design sampling weight for each individual was the product of the household's weight and the weight of the respondent within the household. Design individual weights were adjusted for non-response and calibrated to ensure consistency with population totals.

Data collection

DATES OF DATA COLLECTION

Start	End
2024-07	2024-08

DATA COLLECTION MODE

Computer Assisted Personal Interview [capi]

SUPERVISION

Supervisors managed day-to-day operations and logistics; coordinated EA coverage and enumerator workload; monitored data quality (completeness, internal consistency, and adherence to protocols); provided immediate feedback and corrective guidance; resolved technical issues (including CAPI troubleshooting and question interpretation); conducted spot checks and direct observation of interviews; and compiled progress reports for central coordination.

Enumerators conducted interviews in accordance with protocol, maintained respondent confidentiality and privacy, ensured accurate CAPI entry, and reported operational issues promptly to supervisors.

DATA COLLECTION NOTES

Data collection ran concurrently with the post-harvest visit of the National Agricultural Survey 2024. To ensure coordination, WEN fieldworkers mirrored the agricultural survey structure. Twenty-six teams were deployed nationwide, and each team was composed of one supervisor and one or two enumerators (26 supervisors and 30 enumerators in total).

Fieldwork supervisors and enumerators received structured training prior to data collection, delivered by Statistics Sierra Leone (Stats SL) and the Ministry of Agriculture and Food Security (MAFS) with technical support of FAO. Training emphasized data quality, CAPI use, informed consent, confidentiality, and respondent safeguarding. To minimize bias and respondent discomfort, particular attention was given to the sensitive sections of the questionnaire (e.g., harassment attitudes and the 24-hour dietary recall), with practical role-plays on privacy protocols and neutral probing.

The WEN teams visited the same EAs as the agricultural survey but operated independently, following the standard procedures of making at least three contact attempts per selected respondent and avoiding proxy respondents. Interviews

were required to be in a private environment. The MDD-W module followed standardized recall cues and food group lists to ensure comparability.

The average time per EA was 4-5 hours (excluding waiting time for agricultural survey teams) and typically included interview administration of up to 30 minutes for women and up to 20 minutes for men. Time per household ranged from 25 minutes to 1 hour 15 minutes, depending on the number and availability of eligible respondents.

DATA COLLECTORS

Name	Abbreviation	Affiliation
Statistics Sierra Leone	Stats SL	Government of Sierra Leone
Ministry of Agriculture and Food Security	MAFS	Government of Sierra Leone

Questionnaires

QUESTIONNAIRES

The 2024 Women's Empowerment and Nutrition (WEN) questionnaire encompasses multiple topics:

- Time use and agency
- Community participation and leadership
- Financial services and credit
- Property ownership and tenure security
- Decision-making and control over income
- Information and communication technology (ICT) access and use
- Women's dietary diversity (MDD-W)

The CAPI instrument contained automated quality checks and skip patterns. The questionnaire collected information across the following modules:

1. Module D - Paid and Unpaid Activities. Captures time use in the last seven days: household chores, care work, market activities, paid work, farming (subsistence and commercial), leisure, religious/cultural events, learning. It records decision-making power over how much time respondents dedicate to each activity.
2. Module E - Participation and Leadership in Community. Assesses participation in and leadership of different community groups (government, service, financial, livelihood, and religious/social groups). Gender-specific perception questions:
 - a. For women: perceptions of women's ability to participate and be heard in the community.
 - b. For men: same but framed around men's participation.
3. Module F - Life Transitions and Awareness of Rights (Women only). Measures women's agreement with rights-based statements (education, work, income use, property ownership, marriage/divorce, childbearing decisions). Captures attitudes toward women's autonomy across life transitions.
4. Module G - Financial Services and Credit. Records use of financial services in the past 12 months (mobile money, bank account, ATM, credit card). Assesses access to loans from formal (banks, cooperatives, microfinance) and informal (savings groups, moneylenders, NGOs) institutions.
5. Module H - Property Ownership. Measures ownership and rights to agricultural land and dwellings. Asks about ability to sell, bequeath, or document property rights. Captures security of tenure by asking for the likelihood of involuntary loss.
6. Module I - Decision-Making and Control over Income. Assesses individual influence over use of household money (own and others'), major household purchases, decisions on personal healthcare.
7. Module J - Information Communication Technologies (ICT). Measures frequency of use of mobile phones, internet and social media platforms.
8. Module L - Sexual Harassment (Women only). Captures attitudes on acceptability of different forms of harassment: verbal disrespect, work restrictions, rumor-spreading unwanted romantic/sexual advances and exchange of work benefits for sexual favors. Asked in private, ensuring no one could overhear the questions.
9. Module M - Food and Drinks Consumed in Last 24 Hours (Women only). 24-hour dietary recall to measure Minimum Dietary Diversity for Women (MDD-W). Lists food groups (cereals, roots/tubers, legumes, nuts, dairy, meat/fish, eggs, leafy greens, vegetables, fruits, oils/fats, sweets, beverages, insects). Provides standardized recall for comparability across individuals.
10. Module N - Information on Respondent. Records literacy, schooling history, and highest education level.

Data Processing

DATA EDITING

The data went through the following consistency checks:

1. Rigorous internal and cross-module checks enforced skip logic and consistency
2. Rule-based imputation was applied where needed to maintain within-module coherence. For example, when a response contradicted a required filter or created a logical inconsistency between related items, the value was recorded to maintain consistency
3. No statistical/model-based imputation was used to infer substantive values. All edits and imputations followed predefined rules and were fully documented in Stata do-files

****STATISTICAL DISCLOSURE CONTROL (SDC)****

Statistical Disclosure Control (SDC) methods have been applied to the microdata files to protect the confidentiality of respondents. Such methods include the recoding of certain variables (e.g. age and level of education), as well as suppression of some data points.

Users must therefore be aware that data protection with SDC methods involves some modifications to the data, which can result in certain unwanted consequences such as information loss and bias, which may affect the resulting estimates and their parameters.

In addition, the WEN data was re-processed after the first release to propagate anonymized household IDs and EA codes from the main agricultural survey to the WEN survey, in order to ensure linkage.

Geographic identifiers, mainly the region, district and location status (urban/rural) variable, were also propagated from the main agricultural survey to the WEN survey to ensure consistency in the anonymization process. This may result in some suppressions in the geographic identifiers, as a result of the anonymization process conducted on the main agricultural survey.

****DATA PROCESSING NOTES****

Other processing also occurred at various stages.

1. Data Entry: Enumerators recorded responses directly into tablets during interviews, eliminating the need for separate data entry. Built-in skips, range checks, and mandatory fields minimized capture errors. Data were periodically synchronized to a central server managed by Stats SL, ensuring secure storage and timely availability for processing.
2. Data Cleaning: Upon synchronization, the dataset underwent automated validation to flag missing or invalid values, out-of-range responses, skip-pattern violations, duplicate IDs, and key cross-module consistency (e.g., roster-eligibility alignment; women-only routing for Modules F, L, M). Technical staff (Stats SL/MAFS, with FAO support) conducted manual reviews of flagged records, applying predefined editing rules and documenting all corrections. Where necessary, issues were reconciled using field notes or supervisor feedback. These steps ensured datasets were accurate and complete before analysis and reporting.

Access policy

CONTACTS

Name	Affiliation	Email	URL
Statistics Sierra Leone	Government of Sierra Leone	info@statistics.sl	Link
Ministry of Agriculture and Food Security	Government of Sierra Leone	info@maf.gov.sl	Link

CONFIDENTIALITY

Confidentiality of respondents is guaranteed by the Statistics Act of Sierra Leone, enacted in 2002.

ACCESS CONDITIONS

The datasets have been anonymized and are available as Public Use Files (PUF). They contain individual-level data (non-aggregated) that has undergone treatment to ensure strict confidentiality, preventing direct or indirect identification of individuals or households. This confidentiality protection aligns with relevant legislation.

Terms and conditions:

1. The data and other materials provided by the National Data Archive will not be redistributed or sold to other individuals, institutions, or organizations without the written agreement of the National Data Archive.
2. The data will be used for statistical and scientific research purposes only. They will be used solely for reporting aggregated information, and not for investigation of specific individuals or organizations.
3. No attempt will be made to re-identify respondents, and no use will be made of the identity of any person or establishment discovered inadvertently. Any such discovery would immediately be reported to the National Data Archive.

4. No attempt will be made to produce links among datasets provided by the National Data Archive, or among data from the National Data Archive and other datasets that could identify individuals or organizations.
5. Any books, articles, conference papers, theses, dissertations, reports, or other publications that employ data obtained from the National Data Archive will cite the source of data in accordance with the Citation Requirement provided with each dataset.
6. An electronic copy of all reports and publications based on the requested data will be sent to the National Data Archive.
7. The original collector of the data, the National Data Archive, and the relevant funding agencies bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

CITATION REQUIREMENTS

Statistics Sierra Leone, Women's Empowerment and Nutrition Survey (WEN) 2024, Version 1.0 of the public use dataset (August 2025).

Dataset downloaded from <https://microdata.statistics.sl/index.php/home>

ACCESS AUTHORITY

Name	Affiliation	Email	URL
Statistics Sierra Leone	Government of Sierra Leone	microdata@statistics.sl	Link

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DISCLAIMER

The original collectors of the data, Stats SL, MAFS, and the relevant funding agencies bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

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Metadata production

DDI DOCUMENT ID

DDI_SLE_2024_WEN_v02_M_v02_A_ESS_FAO

PRODUCERS

Name	Affiliation	Role
Statistics Sierra Leone	Government of Sierra Leone	Metadata producer
Ministry of Agriculture and Food Security	Government of Sierra Leone	Metadata producer
Food and Agriculture Organization of the United Nations	United Nations	Metadata producer
Statistics Division	Food and Agriculture Organization of the United Nations	Metadata adapted for FAM

Data Dictionary

Data file	Cases	Variables
Final_SL_WEN_v3_anon	3853	128