



LIBERIA 2024 ANNUAL AGRICULTURE PRODUCTION SURVEY

WOMEN'S EMPOWERMENT AND NUTRITION

Executive Highlights



LIBERIA INSTITUTE OF STATISTICS
AND GEO-INFORMATION SERVICES



Food and Agriculture Organization
of the United Nations



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1 – Context, Objectives, and Survey Design

1.1 Background and Rationale

The 2024 Liberia Agriculture Production Survey (AAPS) marked a milestone in the country's effort to strengthen agricultural data systems and integrate gender and nutrition into national statistics. Conducted by the Liberia Institute of Statistics and Geo-Information Services (LISGIS) in collaboration with the Ministry of Agriculture (MoA) and supported technically by the Food and Agriculture Organization of the United Nations (FAO) under the 50x2030 Initiative, the survey sought to capture a holistic picture of agricultural livelihoods and the people behind them.

Recognizing that production cannot be understood apart from those who make decisions and consume its output, the 2024 AAPS included for the first time a Women's Empowerment and Nutrition (WEN) module. The module reflects growing recognition that gender equality and nutrition are mutually reinforcing drivers of sustainable development. In Liberia—where women constitute a large share of the agricultural labour force but face structural barriers to resources and decision-making—understanding empowerment and its connection to dietary outcomes is critical for both statistics and policy.

The WEN module serves two complementary purposes:

1. To capture the status of women's empowerment and dietary diversity in agricultural households; and
2. To demonstrate how multidimensional gender-nutrition indicators can be integrated into large-scale surveys efficiently and at low cost.

1.2 Policy and Development Context

Agriculture remains Liberia's economic backbone, employing most of the rural population and accounting for over one-third of GDP. Yet persistent gender gaps limit productivity and nutrition outcomes. Women farmers often cultivate smaller plots, have reduced access to

extension and credit, and shoulder heavy unpaid care burdens.

By embedding empowerment and nutrition questions in the AAPS, Liberia now possesses evidence to support the National Gender Policy, National Agriculture Investment Plan (2021–2025), and the country's commitments to SDG 2 (Zero Hunger) and SDG 5 (Gender Equality). The WEN dataset connects agricultural performance with social outcomes, bridging gaps between economic and human-development agendas.

1.3 Objectives of the WEN Module

The module pursued four interlinked objectives:

- **Measure** women's empowerment and dietary diversity using standardized, comparable indicators.
- **Document** field and methodological lessons to refine future gender-sensitive surveys.
- **Promote** evidence-based policymaking by linking women's agency with nutrition outcomes.
- **Strengthen** national capacity for collecting, analyzing, and using gender and nutrition statistics.

1.4 Survey Coverage and Design

The module covered women and men aged 18–64 in agricultural households across all regions. Nutrition data were collected exclusively from adult women to compute Minimum Dietary Diversity for Women (MDD-W).

Sampling followed the AAPS two-stage stratified design: enumeration areas from the census served as primary units, and agricultural households as secondary. Up to three individuals per household (two women and one man) were interviewed.

Quality assurance relied on gender-sensitive enumerator training, real-time CAPI checks, and supervisory verification. Fieldwork occurred during the post-harvest season to minimize seasonal bias.

1.5 Significance of Integration

Embedding WEN in an agricultural survey recognizes that:

- Empowerment is both a developmental outcome and a determinant of productivity and well-being.
- Nutrition depends not only on food availability but also on agency and access.
- Data systems must reflect the lived realities of rural women and men.

Liberia thus positions itself among regional pioneers in aligning agricultural statistics with gender and nutrition priorities.

1.6 Intended Use

Results target:

- Government institutions – for SDG monitoring and policy planning.
- Development partners and donors – for programme design.
- Civil society and research bodies – for advocacy and deeper analysis; and
- Communities – for practical application of findings.

2 – Conceptual and Methodological Foundations

2.1 The WEN and WEMNS Frameworks

The WEN framework links women's agency with their nutrition outcomes. Its empowerment component uses the Women's Empowerment Metric for National Statistical Systems (WEMNS)—developed by IFPRI, Oxford, Emory, and the World Bank—to measure multidimensional agency in multistopic surveys.

WEMNS covers four domains, each with three indicators:

Domain	Focus	Examples of Indicators
Claiming Rights (Intrinsic)	Awareness and beliefs	Freedom in livelihood and family choices; rejection of harassment

Making Choices (Instrumental)	Day-to-day decision-making	Time spent, and health decisions
Engaging in Communities (Collective)	Social participation	Group membership, leadership, confidence
Mobilizing Resources (Enabling)	Access to means of action	ICT, financial services, property rights

Each indicator is equally weighted; women unconstrained in $\geq 70\%$ are *empowered*. Composite results derive from the Disempowerment Headcount (H) and Mean Intensity (A), combined to yield the WEMNS Empowerment Score = $1 - (H \times A)$.

2.2 Nutrition Indicators

Diet quality was assessed using:

- MDD-W – proportion of women consuming ≥ 5 of 10 food groups in the past 24 h.
- Food-Group Diversity Score (FGDS) – 0–10 continuous measure. Complementary indicators tracked:
 - Intake of healthy foods (fruits, vegetables, pulses, fish, dairy),
 - Unhealthy foods (sweets, fried snacks, sugary drinks),
 - Traditional small-protein foods (small fish, insects), and
 - Red palm oil consumption.

Together these capture both nutritional adequacy and emerging diet transitions.

2.3 Integration and Analysis

Using the existing AAPS design improved cost-efficiency and comparability. Enumerators received special modules on gender sensitivity and 24-hour dietary recall.

Analysis proceeded in two steps:

1. Compute individual empowerment and nutrition indicators.

2. Examine cross-domain associations and socio-demographic patterns.

Findings are descriptive, not causal, but robustly reveal patterns of inequality and opportunity.

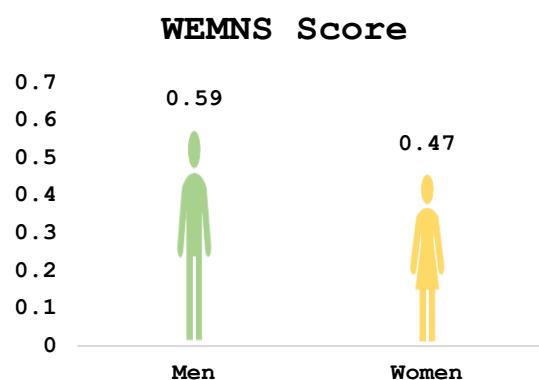
2.4 Limitations

Results apply to adults in agricultural households only; empowerment questions rely on self-report and cultural context. MDD-W reflects one-day intake and may underestimate seasonality. Nevertheless, the integrated design offers a powerful platform for evidence-based policymaking.

3 – Key Findings on Women’s Empowerment

3.1 Overview

Average empowerment among women (0.47) lags behind men (0.59). About half of women ($H = 0.53$) are disempowered, facing multiple simultaneous constraints ($A = 0.46$). Gender gaps are widest in Claiming Rights and Making Choices, narrower in Collective and Resource domains.



3.2 Claiming Rights

- Freedom in livelihood choices: only 35.7 % of women fully endorse women’s right to choose economic activities; education and youth strongly predict support.
- Freedom in family formation: likewise, 35.5%, highest in Montserrado (49%) and lowest in South-Central (19%).

- Rejection of harassment: encouraging at 56%, but tolerance remains widespread; education drives rejection rates upward.

Intrinsic agency is improving among younger, educated women but constrained by traditional norms in rural areas.

3.3 Making Choices

- Time allocation: 41% of women vs 50% of men report control over their time; regional disparities are stark (85% in South Eastern A vs 25% in South Eastern B).
- Spending decisions: 27% of women vs 38% of men exercise strong influence; gaps close among post-secondary-educated and female heads.
- Health decisions: 47 % of women control their own health care, with regional peaks above 80 % in South Eastern A.

Instrumental agency remains the weakest dimension of women’s empowerment.

3.4 Engaging in Communities

- Participation: nearly universal (86 % of women, 85 % of men).
- Leadership: 42 % of women vs 48 % of men hold positions; education dramatically increases likelihood.
- Confidence: only 17 % of women express strong confidence in women’s community engagement (vs 32 % of men).

Collective agency is Liberia’s comparative strength but still marked by gaps in self-confidence and authority.

3.5 Mobilizing Resources

- ICT use: ≈ 60 % of women access mobile or internet services; key enabler of information flow.
- Financial services: 58% use savings or mobile money; one-third accessed credit.
- Property rights: only 11% hold formal documentation though 40% feel secure in tenure.

Resource access is expanding but legal ownership remains limited.

3.6 Synthesis

Education, literacy, and female headship consistently correlate with higher empowerment scores. Liberia's empowerment landscape thus mixes significant progress in participation and finance with persistent inequality in decision-making and rights awareness.

4 – Women's Dietary Diversity and Nutrition Outcomes

4.1 Overall Diet Quality

Nationally, 54 % of women meet MDD-W; mean FGDS = 4.6 groups. Rural women average 4.4, urban 4.9. Diets remain dominated by staples and fats, with low intake of pulses, dairy, and eggs.

4.2 Food-Group Patterns

Food Group	% Women Consuming	Key Insights
Staples (grains, roots, tubers, plantains)	94 %	Caloric base, micronutrient poor
Pulses	17 %	Scarcity, price barriers
Nuts & Seeds	18 %	Important fatty acids
Milk & Dairy	15 %	Very limited consumption
Meat, Poultry & Fish	89 %	Strong coastal supply, variable inland
Eggs	12 %	Underused nutrient source
Dark-green leafy vegetables	56 %	Moderate
Vitamin A-rich fruits/vegetables	71 %	Encouraging but seasonal
Red palm oil	78 %	Key vitamin A source, high fat
Sweets / snacks / sugary drinks	25–39 %	Growing nutrition-transition risk

Insects & small proteins	6 %	Niche but culturally relevant
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4.3 Regional and Demographic Variation

- Highest MDD-W: Montserrado ≈ 61 %, lowest: South Eastern B ≈ 47 %.
- Educated women (> 70 %) far outperform those with no schooling (< 45 %).
- Female heads record higher MDD-W than spouses.
- Diversity peaks among ages 30–44 years.

4.4 Key Nutrition Insights

- Moderate but unequal diet diversity.
- Deficits in pulses, dairy, and eggs.
- Coexistence of undernutrition and rising NCD risk.
- Education, income control, and female headship drive positive outcomes.

5- Empowerment–Nutrition Linkages

Women's empowerment and nutrition are deeply connected in Liberia. Data from the 2024 AAPS – WEN module show that when women have greater control over resources, decisions, and community participation, they achieve more diverse and nutritious diets.

- Women more empowered eat better. Those meeting the Minimum Dietary Diversity for Women (MDD-W) standard had a mean empowerment score of 0.50, compared with 0.45 among those who did not—confirming a strong, statistically significant link between agency and diet quality.
- Access to credit, savings, and mobile technology have strong correlation with minimum dietary intake possibly allowing them to purchase and prepare more varied, nutrient-dense foods such as vegetables, meat, and milk.

- Collective participation matters. Women involved in community organizations or leadership roles show high correlation with dietary diversity.
- Cultural continuity persists. Traditional foods like red palm oil and insects or small proteins remain widely consumed across all empowerment levels, shaped more by geography and custom than by agency.
- A double-edged effect. Empowerment expands choice but also increases consumption of processed foods and sugary snacks, reflecting Liberia's ongoing nutrition transition.

6 - Policy Implications, Recommendations, and Conclusion

The Women's Empowerment and Nutrition (WEN) module offers powerful insights for Liberia's development agenda. The findings directly support national priorities under the National Food and Nutrition Security Policy, the ARREST Agenda for Inclusive Development (AAID), and international commitments to the Sustainable Development Goals (SDGs).

Empowerment is shown to be both a matter of equity and a driver of nutrition and food security. Without addressing persistent gender gaps in access to land, credit, and decision-making power, progress in reducing malnutrition will remain limited. At the same time, the growing consumption of processed and sugary foods highlights the need for balanced, nutrition-sensitive empowerment policies that promote healthier choices.

6.1 Policy Recommendations

- Expand women's access to productive resources. Strengthen financial inclusion, credit access, and property rights that directly correlate with more diverse and adequate diets.
- Promote women's leadership and participation. Support involvement in farmer organizations and community leadership to enhance collective empowerment.

- Pair empowerment with nutrition education. Combine economic and social empowerment programmes with awareness campaigns encouraging healthy diets and moderation of processed foods.
- Improve food system availability and affordability. Increase production and market access for nutrient-rich foods such as pulses, dairy, eggs, and fruits.
- Address cultural and household barriers. Foster more equitable decision-making and positive gender norms within households and communities.
- Monitor the nutrition transition. Track both nutritious and unhealthy food consumption to guide balanced policies and prevent rising diet-related diseases.

6.2 Conclusion

The 2024 WEN module demonstrates that integrating gender and nutrition data into agricultural surveys is not only feasible but transformative. Empowered women are more likely to achieve dietary adequacy, lead community initiatives, and contribute to resilient food systems.

Going forward, women's empowerment must stand at the center of agricultural and nutrition policy, supported by data-driven planning and cross-sectoral collaboration. By institutionalizing the WEN approach, Liberia can lead by example, showing how evidence, equity, and empowerment together can drive inclusive and nutritionally secure rural development.