



INITIATIVE ON
West and Central African
Food Systems Transformation



**Transforming Agrifood Systems in West and
Central Africa Initiative
(TAFS-WCA)**

**Women and Youth
Empowerment in the Agricultural
Sector in Ghana**

Africa Rice Center

Technical Report

© May 2024



Acknowledgments

This study is part of the CGIAR Research Initiative on [Transforming Agri-Food Systems in West and Central Africa \(TAFS-WCA\)](#). The TAFS-WCA initiative is a collaborative effort of nine centers including six CGIAR centers, namely the Africa Rice Center (AfricaRice), the International Institute of Tropical Agriculture (IITA), the Alliance of Bioversity International and the International Center for Tropical Agriculture (Alliance Bioversity-CIAT), The International Water Management Institute (IWMI), the International Center for Potato (CIP) and the WorldFish and three international centers namely the West and Central African Council for Agricultural Research (CORAF), The World Vegetable Center (WorldVeg) and The International Centre of Insect Physiology and Ecology (icipe). The initiative further collaborates with national partners in different countries.

The Initiative's leadership thanks all funders for supporting this research through their contributions to the [CGIAR Trust Fund](#), and the Governments of Belgium and the Netherlands for their financial support. The authors also thank the national partners and enumerators for their contributions to the study data collection.

The report was written by Yeo Petanhangui Arnaud, Women and Youth Expert at AfricaRice and Aminou Arouna, Impact Assessment Economist, Leader of Policy, Innovation Systems and Impact Assessment Program (PII) at AfricaRice and Regional Policy Task Force Coordinator at AfricaRice; with technical assistance from Mujawariya Gaudiose, Rice Value Chain Expert and Gender Focal Point; Wilfried Yergo, Research Assistant on Economic Data Management; Rachidi Aboudou, Research Assistant on Quantitative Impact Assessment; and Remy Gbede, Research Assistant Agricultural Economist at AfricaRice.

Citation

Yeo, P., A., Arouna, A., Mujawariya, G., M., Yergo, W., G., Aboudou, R., and Gbede, T., R., (2024). **Report of the TAFS-WCA: Quantitative Study on Women and Youth Empowerment in the Agricultural Sector in Ghana**, CGIAR/AfricaRice, 28 p.

© Copyright of this publication remains with the authors and the CGIAR.

This publication is an output of the CGIAR Research Initiative on Transforming Agri-Food Systems in West and Central Africa (TAFS-WCA). Any opinions expressed here belong to the author(s) and are not necessarily representative of or endorsed by the Center or CGIAR.

Abstract

This report presents the results of the quantitative survey on women and youth empowerment in the agricultural sector in Ghana. The survey targeted producer households using a digital database established as part of the TAFS-WCA baseline study. Data were collected from 404 actors in five Ghanaian regions. The analyses focused on perceptions of decision-making authority over resources, production activities, revenues, and leadership. Particular attention was paid to the disparities between women and men and between age groups. The key results are as follows:

- Women have far fewer opportunities to own agricultural assets than men, as do young people compared to their older counterparts.
- The agricultural assets held the least by women and young people are water for irrigation, livestock, agro-climatic technologies, and processing equipment.
- Processing and marketing agricultural products are two activities in which women earn more money than men do. The economic sectors dominated by young people compared to their elders are the transportation and processing of agricultural products.
- Young people have relatively less access to basic agricultural support services than their elders. Women have less access than men to services such as the internet and information.
- Women (50.24%) were less likely than men (56.23%) to speak in public regularly. However, young people (62.07%) were more likely to speak in public than older people (52.73%).
- More young people feel respected by others than older people do. The proportion of women who felt respected by their partners was lower than that of men.
- Most women and young people are active in associations, but a few hold positions of responsibility in their communities.
- Women are less able to make decisions about family matters than men, while older people are more able to make decisions than younger people.
- Gender analysis showed that the proportion of women able to make decisions related to production activities is generally lower than that of men.
- The proportion of young people able to make decisions on the choice of crops, the acquisition of land, the use of agricultural equipment, fertilizers, or labour, and the sale of produce, is lower than that of their elders.

- Overall, women contribute less than men to decision-making regarding income from agricultural economic activities, except salaried employment and the processing of agricultural products. Seed production and agricultural production are activities in which young people contribute less than their elders to decision-making regarding the income generated.
- Women (55.97%) were just as likely as men (57.06%) to disagree, as were young people (55.43%) compared with their elders (56.76%).

These data confirm the existence of numerous challenges to the empowerment of women and young people in Ghana's agricultural sector. These challenges can be addressed by better integrating the underlying social issues.

Contents

Abstract.....	3
Contents	5
List of tables.....	6
List of figures.....	6
Major abbreviations and acronyms	7
1. INTRODUCTION.....	8
1.1 Context	8
1.2 Objectives.....	9
2. METHODOLOGY	10
2.1 Study Area	10
2.2 Sampling	11
2.3 Data collection tool.....	11
2.4 Training of survey enumerators	11
2.5 Organization of the data collection.....	12
2.6 Quality control procedure	12
2.7 Data analysis.....	13
3. RESULTS	14
3. 1 Socio-demographic information of respondents	14
3. 1.1 Status in the household	14
3.1.2 Regions of origin	14
3.1.3 Age.....	14
3.1.4 Marital status	15
3.1.5 Education level	15
3.1.6 Household size	16
3.2 Empowerment indicators	16
3.2.1 Resource empowerment	16
3.2.1.1 Livelihood insurance.....	16
3.2.1.2 Ownership of property	17
3.2.1.3 Access to support services	19
3.2.2 Empowerment in production	19
3.2.3 Income empowerment	21
3.2.4 Empowerment at the leadership level	24
3.2.4.1 Right to speak in public.....	24
3.2.4.2 Physical Mobility.....	25
3.2.4.3 Intra-household relationship.....	25
3.2.4.4 Group membership	26
4. CONCLUSION	27
REFERENCES.....	28

List of tables

Table 1: Distribution of farmers by status in the household	14
Table 2: Distribution of respondents by region.....	14
Table 3 : Age distribution	14
Table 4 : Breakdown by marital status.....	15
Table 5 : Breakdown by level of education	15
Table 6 : Distribution by household size by heads of household.....	16
Table 7 : Participation in decision-making on household affairs.....	16
Table 8 : Perceived ability to make decisions on household affairs	17
Table 9 : Access and Possession of Farm Property.....	17
Table 10 : Personal Access and Possession of Non-Farm Property.....	18
Table 11 : Level of access to agricultural services.....	19
Table 12 : Level of participation in decision-making on production activities.....	19
Table 13 : Perception of decision-making capacity on production activities.....	20
Table 14 : Level of access to income by activity	22
Table 15 : Level of contribution to decision-making on the use of incomes	22
Table 16 : Frequency to speak in public	24
Table 17 : Perception of freedom of physical mobility.....	25
Table 18 : Level of respect in the household	25
Table 19 : Ability to disagree	26
Table 20 : Demonstration of membership.....	26

List of figures

Figure 1: Map of survey.....	10
Figure 2: Level of participation in decision-making on the distribution of generated income	23
Figure 3: Level of ability/freedom to speak in public.....	24

Major abbreviations and acronyms

AfricaRice	:	Africa Rice Center
CGIAR	:	Consortium of International Agricultural Research Centers
CSIR	:	Council for Scientific and Industrial Research
FAO	:	Food and Agriculture Organization
WB	:	World Bank

1. INTRODUCTION

1.1 Context

Ending hunger, ensuring food security, improving nutrition, and promoting sustainable agriculture are Goal 2 of the Sustainable Development Goals. This goal is also a priority for most development partners. However, much more work needs to be done to achieve this goal. Indeed, it is estimated that between 2015 and 2019, the prevalence of undernourishment increased from a score of 8.0 to 9.3. In 2021, between 702 and 828 million people suffered from hunger (FAO et al., 2022).

Africa is not on the sidelines of these trends as the continent has one of the highest numbers of undernourished people in the world (FAO et al., 2015), with around 278 million people being undernourished (FAO et al., 2022). Sub-Saharan Africa (SSA), with a population of more than 1.2 billion (WB, 2022), is particularly affected by this problem, as almost the region's quarter of the population is still suffering from hunger in 2021. While the percentage of undernourished people in SSA decreased from 27% to 23% between 2001 and 2021, this number has increased by 81 million over the same period due to population growth (Observatory of Inequality, 2022).

Poor food security outcomes are underpinned by various factors. Studies have shown that extreme weather, conflict, and the COVID-19 pandemic are driving food insecurity in this region (Holger et al., 2022). In addition, poor performance in improving food security in SSA is linked to farmers' difficulties accessing productive resources (CGIAR, 2022).

However, agriculture in SSA remains a source of livelihood, income, and job creation (Holger et al., *ibid.*) for millions of farmers, especially women. Women play an important role in the continent's agricultural sector, accounting for 52 percent of the total population of the sector and are responsible for approximately 50 percent of agricultural work on farms. Women also produce 60-80% of the continent's food (Bomjiwe and Kaaria, 2015). In addition, they are responsible for transplanting, weeding, harvesting, threshing, winnowing, grinding, parboiling, cooking, and marketing field products, among other tasks specific to rice cultivation. This may seem paradoxical, as women find it difficult to be autonomous from their male counterparts (Bomjiwe and Kaaria, *ibid.*). They have more precarious land rights to agricultural land, less access to credit and training and must work with technologies designed for men (FAO, 2023). These difficulties also hold for young people, who are currently too few to envisage their future in the agricultural sector despite the existing economic opportunities. All these challenges need to be addressed to improve the fight against gender inequalities in African agri-food systems.

The One CGIAR Initiative, entitled "Transforming Agri-Food Systems in West and Central Africa (TAFS-WCA)," through its Work Package 4, has targeted this. Through its various activities, the initiative aims to tackle barriers to improving the livelihoods of youth and women through entrepreneurship models in food value chains (CGIAR 2021). The strategy is to assess the drivers of gender inequality in the agricultural sector.

Therefore, a study on women and youth empowerment in the agricultural sector in West and Central Africa can contribute to this. It aims to assess, using a quantitative approach, the aspects related to the empowerment of women and youth in agricultural production and value chains in TAFS-WCA countries. Thus, this document presents a case study of Ghana.

1.2 Objectives

The objective of this diagnostic study is to measure the level of empowerment of women and youth in Ghana's agricultural sector. This will help collect reliable, precise, and sufficient values of indicators that should be used to support gender activities within the framework of the TAFS-WCA. The specific objectives of this study were as follows:

- assessed the level of empowerment of women and youth in the agricultural sector in Nigeria.
- determine the barriers to women's and youth empowerment in the agricultural sector.
- identify opportunities for women and youth empowerment in the agricultural sector.

2. METHODOLOGY

This section describes the methodology used in this study. It proceeds as follows: i) study area and sampling, ii) data collection tool, iii) training of survey enumerators, iv) organization of data collection, and v) quality control procedure and analysis of the data collected.

2.1 Study Area

The study was conducted in Ghana during September 2023 and covered four (04) regions of the country including Ahafo, Ashanti, Bono, and Bono Est (Figure 1). These regions are those parts of the country that had benefited from the baseline survey of the TAFS-WCA initiative.

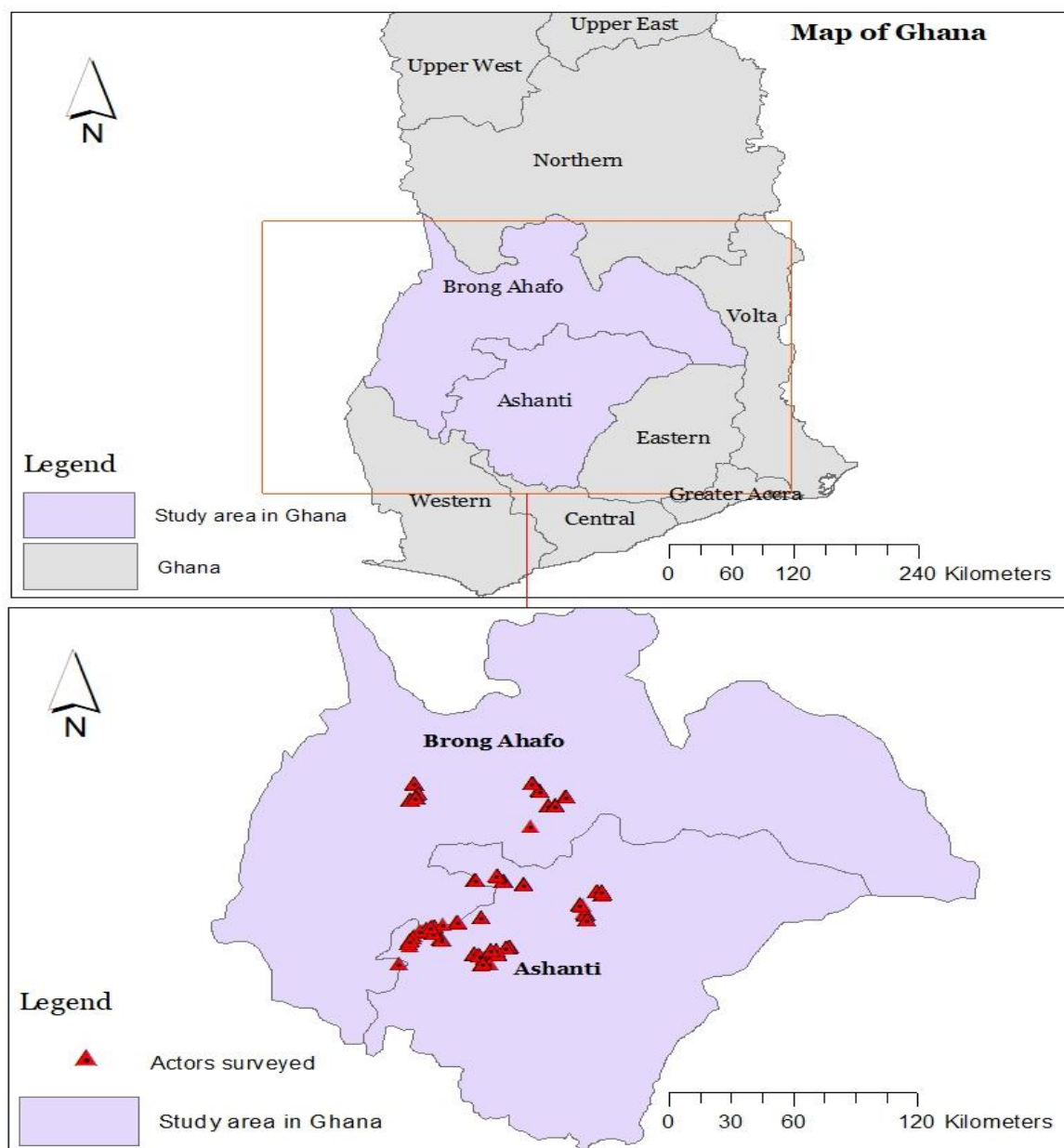


Figure 1: Map of survey

2.2 Sampling

A stratified random sampling technique was used to select study respondents. Overall, 404 individuals from 236 households comprised the sample size of this study. Since the focus is on women and youth empowerment in the agricultural sector, mainly in crop production activities, the first criterion of the sampling procedure was being a rice or other key crop-producing household. Second, marital status and relationship with the household head were also considered when selecting individual respondents within a selected household. Third, households headed by women producers were given priority to obtain a significant presence of female heads of household. However, some married female producers who were not heads of household were also regarded, and both their husbands (heads of household) and they were given the survey individually. Finally, care was taken to ensure the presence of young people within the different categories of individuals.

2.3 Data collection tool

The data collection tool used in this study was a structured questionnaire that was designed to measure individual empowerment. It is suitable for assessing the empowerment of women and youth in the agricultural sector in terms of their decision-making capacity. Four main dimensions of analysis were covered: production, resources, revenue, and leadership. The questionnaire also contained information on the socioeconomic and demographic characteristics of respondents.

The questionnaire was automated using a CPro Application installed on Android tablets. It was intended exclusively for "female producers who are heads of household/unmarried", "married producers who are not heads of households", "wives of married producers who are not heads of household," "married producers who are heads of households" and "wives of married producers who are heads of household."

2.4 Training of survey enumerators

The study mobilized enumerators trained in data collection. The majority had previously participated in the TAFS-WCA baseline survey. They are essentially individuals with an academic background in agriculture and social sciences and proven experience in Android socioeconomic household surveys. They were trained over two days, mainly on the objectives of the study, the criteria for choosing respondents, ethics and informed consent in research, and the use of tablets (GPS activation, battery saving, synchronization, verification, etc.). The questionnaire for measuring individual empowerment was presented during the training so that

the enumerators could immerse themselves in the content of the various modules. It was the subject of an explanation and exchange between trainers and collection agents. Application sessions on tablets were also carried out to master the subtleties of the automated questionnaire. To simulate and test the questionnaire, role-playing was organized among the enumerators. This was followed by a debriefing session, during which each enumerator shared their experience with the questionnaire to clarify certain aspects related to handling the input mask on a tablet.

2.5 Organization of the data collection

A total of 10 enumerators including 7 men and 3 women were trained in Kumasi (CSRI). After the training, enumerators were deployed in each area. To facilitate the mobilization of farmers and their relatives in the field, lists of sampled households and contacts were made available to them. The survey took place over 10 days. During the training and data collection, the following task has been completed:

- i) Supervisors and enumerators were well aware of their responsibilities, things to do and not to do during the data collection;
- ii) Improved the content of the questionnaire from the feedback obtained from the participant's enumerators;
- iii) Automation of the questionnaire on tablets with CSPro application for data collection;
- iv) Training of enumerators on the questionnaire and how to use tablets with CSPro application installed on tablets for data collection and how to submission the data collected in the field,
- v) Submission and verification of the data collected.

2.6 Quality control procedure

It is known that outliers, duplicates, missing data, etc. very often taint the quality of the results. These biases are often caused by poorly trained enumerators who deviate from the survey protocol in the field. To overcome this, our data quality control relies on the pair leaders.

Their responsibility was to assist with field deployment, identification of survey locations, data collection, and daily information debriefings. After each day, they also organize the reporting of the collected data to the data manager. Once they are transmitted, they are incorporated into a CSPro hosting platform. This platform makes it possible to monitor in real-time the progress of the collection carried out by each investigating officer. This makes it possible to call out to agents in the field as soon as an error is detected and to better visualize the quality and

inconsistencies of the data provided (aberration, duplicates, missing data, etc.) to quickly provide solutions during the survey. As another quality measure, control sets were inserted into the questionnaire mask to prevent the interviewers from deviating from the protocol and to ensure a high degree of quality of the data collected.

2.7 Data analysis

For the data analysis, a grid was developed in agreement with the expert in the inclusion of women and youth and the data manager for the production of the results. Overall, the analysis of the collected data was performed using descriptive statistics with Stata Software. The evaluation covered the dimensions of empowerment, in terms of resources, production, revenue, and leadership.

3. RESULTS

3. 1 Socio-demographic information of respondents

3. 1.1 Status in the household

The farmers surveyed are made up of female heads of household (72), male heads of household (169) and married women (163). More than half of the respondents are also women (235 women compared to 169 men) (Table 1).

Table 1: Distribution of farmers by status in the household

Variables	Female (number)	Male (number)	Overall (number)
Farmers Head of Household	72	169	241
Farmers married head of Household	163	0	163
Total	235	169	404

3.1.2 Regions of origin

The farmers interviewed came from two agricultural regions of Nigeria, namely the Bono (9.90%), Bono East (14.36%), Ahafo (%), and Ashanti (56.44%). Overall, the differences in the regional distributions of women and men, as well as youth and adults over 35 years of age, are relatively small and controlled (Tableau 2).

Table 2: Distribution of respondents by region

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Region					
Ahafo	17.87	21.30	20.59	15.31	19.31
Ashanti	56.60	56.21	57.52	53.06	56.44
Bono	9.36	10.65	6.86	19.39	9.90
Bono East	16.17	11.83	15.03	12.24	14.36

3.1.3 Age

Table 3 presents the age distribution of the respondents. Results show that 11.39% of farmers are 60 and above years old, 24.26% are between 19 - 35 years of age, 29.21% are between 36 - 45 years of age, and 35.15% are between 46 - 59 years of age. The average age of the farmers surveyed is about 45 years old. Similarly, the distribution of average age by sex shows that women are slightly younger than men (Table 3).

Table 3 : Age distribution

Variables	Female (%)	Male (%)	Overall (%)
Age group			
[19-35]	29.36	17.16	24.26
[36-45]	28.51	30.18	29.21

	[46-59]	32.77	38.46	35.15
	[60->]	9.36	14.20	11.39
Average Age	Mean	43.45	47.09	44.98
	Median	43.00	47.00	45.00
	Std. Dev	11.44	12.06	11.83

3.1.4 Marital status

The analysis of the marital status as contained in Table 4 shows that the vast majority (88.61%) of producers surveyed are married. The disaggregation of the data shows that married social seniors (85.62%) are much less important than newlyweds (97.96%). However, men (100%) are much more likely to be married than women (80.43%), as they are very often subject to singlehood, widowhood, and divorce (Table 4).

Table 4 : Breakdown by marital status

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Married	80.43	100.00	85.62	97.96	88.61
Single	2.55	0.00	1.63	1.02	1.49
Widow	11.91	0.00	9.15	0.00	6.93
Divorced	5.11	0.00	3.59	1.02	2.97

3.1.5 Education level

The ability to read and write depends on the level of education. It very often influences the level of autonomy of people in their society. This section presents the results on the level of schooling of Ghanaian farmers (Table 5). Trends show that farmers who attended school are in the majority, with 37.87% with secondary level 1 education, 23.52% with primary education, 8.91% with secondary level 2 education, and 2.23% with post-secondary level education. On the other hand, non-literate farmers represent ¼ (26.24%) of the total headcount, among whom there are more women (31.06%) than men (19.53%) and fewer young people (17.35%) than adults over 35 years of age (29.08%) (Table 5).

Table 5 : Breakdown by level of education

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
None	31.06	19.53	29.08	17.35	26.24
Literate	2.98	3.55	3.59	2.04	3.22
Primary	20.85	19.53	19.61	22.45	20.30
Junior high school	34.04	43.20	35.95	43.88	37.87
Senior high school	7.66	10.65	8.17	11.22	8.91
University	1.70	2.96	2.29	2.04	2.23
Other	1.70	0.59	1.31	1.02	1.24

3.1.6 Household size

Statistics show that the average household size of the Nigerian farmers surveyed is around 7 people. Specifically, the size of female-headed households (6.35 persons) is smaller than that of male-headed households (7.24 persons). On the other hand, households with adults over the age of 35 years of age are larger than those with a youth under the head (Table 6).

Table 6 : Distribution by household size by heads of household

Variables	Female-headed household	Households headed by men	Households where authority is held by adults over 35 years of age	Households where authority is held by Youth of 35 years and under	Overall (%)
Mean	6.35	7.24	7.05	6.45	6.97
Median	6.00	7.00	7.00	5.00	6.00
Sd	2.97	3.05	2.74	4.58	3.05

3.2 Empowerment indicators

3.2.1 Resource empowerment

3.2.1.1 Livelihood insurance

An individual's autonomy is also measured by his or her ability to participate in daily decision-making within his or her community, family, and life. In this regard, the results of the study on empowerment in the agricultural sector in Ghana show that the vast majority of producers participate in decision-making on household affairs, including paying for food expenses (99%), whether or not to vote (98.78%), opening a bank account to save money (98.33%), having or not having a contractual arrangement with another actor (98.11%), whether or not to go to a health centre in case of illness (97.73%) and whether or not to enrol children in school (96.51%). (Table 7)

In the same vein, the participation of women and young people in decision-making remains high. However, there are some notable deviations in the analysis of specific trends that need to be highlighted. The areas in which women are less involved in decision-making than men are schooling, food and contractual activities. Conversely, when age groups are taken into account, young people generally have a lower level of participation than older people, except in contractual activities (Table 7).

Table 7 : Participation in decision-making on household affairs

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall
Whether or not to enroll children in school	95.88	97.33	96.98	94.94	96.51

Whether or not to go to the health center when you're sick	97.83	97.60	98.34	95.79	97.73
Paying for food	98.71	99.40	99.67	96.91	99.00
Open a bank account to save money	100.00	96.00	98.67	96.67	98.33
To have or not to have a contractual arrangement with another actor	96.97	100.00	97.73	100.00	98.11
Whether or not to vote	99.29	98.10	99.48	96.15	98.78

Individual autonomy also depends on the ability to make decisions. The data collected from Ghanaian farmers shows gender differences. They indicate that women are less able to make decisions in family matters than men while adults over 35 years old are more capable of doing so than young people (Table 8).

Table 8 : Perceived ability to make decisions on household affairs

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall
Whether or not to enroll children in school	68.56	90.67	80.00	72.15	78.20
Whether or not to go to the health center when you're sick	77.83	85.63	81.79	78.95	81.11
Paying for food	74.68	89.88	82.57	76.29	81.05
Open a bank account to save money	75.24	89.33	82.00	76.67	81.11
To have or not to have a contractual arrangement with another actor	69.70	100.00	81.82	77.78	81.13
Whether or not to vote	87.86	99.05	93.26	90.38	92.65

3.2.1.2 Ownership of property

Farmers own property is grouped into two broad categories. These are farm and non-farm assets (Table 9). The fact of having them or not affects the living conditions of farmers in general.

Surveys carried out in Ghana show that many agricultural assets were accessible to many farmers. On one side, most women and young people farmers owned agricultural assets such as agricultural plots, agricultural labor, agricultural equipment, herbicides/insecticides, chemical/organic fertilizers, improved seeds/varieties and livestock. On the other hand, the agricultural assets they own least are water for irrigation, livestock, agro-climatic practices/technologies, and processing equipment. It also emerges that women have far fewer opportunities to own agricultural assets than men, as do young people compared with their elders (Table 9).

Table 9 : Access and Possession of Farm Property

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Access to Agricultural assets					
Agricultural plots	91.91	96.45	95.42	88.78	93.81

Water for irrigation	37.02	41.42	40.52	33.67	38.86
Labor	95.32	97.04	97.39	91.84	96.04
Chemical/organic fertilizers	64.26	69.82	66.99	65.31	66.58
Improved seeds/varieties	61.70	71.60	70.59	51.02	65.84
Herbicides/insecticides	78.30	80.47	82.68	68.37	79.21
Climate-smart agricultural practices/innovations	30.21	29.59	30.39	28.57	29.95
Animal husbandry	55.32	55.62	56.21	53.06	55.45
Agricultural equipment	85.11	87.57	89.22	76.53	86.14
Processing machinery/equipment	46.81	48.52	48.04	45.92	47.52
Ownership to Agricultural assets					
Agricultural plots	62.98	71.60	67.32	64.29	66.58
Water for irrigation	5.11	9.47	5.88	10.20	6.93
Labor	80.43	85.80	85.62	73.47	82.67
Chemical/organic fertilizers	60.00	65.68	62.75	61.22	62.38
Improved seeds/varieties	56.60	66.27	66.67	41.84	60.64
Herbicides/insecticides	73.62	78.11	80.07	61.22	75.50
Climate-smart agricultural practices/innovations	5.53	8.28	5.23	11.22	6.68
Animal husbandry	44.26	46.15	44.77	45.92	45.05
Agricultural equipment	77.02	82.25	82.35	69.39	79.21
Processing machinery/equipment	35.74	39.64	36.60	39.80	37.38

In order of importance, non-agricultural assets held by farmers were mainly mobile phones (96.09%), private assets (75.06%), energy/electrical power sources (58.19%), drinking water sources (57.95%) and means of transport (54.28%). The study shows that both women and young people generally have access to private non-agricultural asset ownership. Moreover, the proportion of men who claim owning non-agricultural assets is higher overall than that of women. As for young people, they hold as many or sometimes more of non-farm asset than adults over 35 (Table 10).

Table 10 : Personal Access and Possession of Non-Farm Property

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Access to Non-agricultural assets					
Household assets	95.74	98.22	96.08	98.98	96.78
Source of energy/electrical power	67.23	65.68	66.01	68.37	66.58
Source of drinking water	95.74	94.08	95.75	92.86	95.05
Mobile phone	93.62	92.31	94.44	88.78	93.07
Means of transport	37.02	43.20	41.18	34.69	39.60
Ownership to Non-agricultural assets					
Household assets	93.78	98.80	95.92	95.88	95.91
Source of energy/electrical power	44.30	55.86	47.03	55.22	49.07
Source of drinking water	23.56	29.56	23.55	34.07	26.04
Mobile phone	90.91	96.79	93.43	93.10	93.35
Means of transport	21.28	34.32	27.45	24.49	26.73

3.2.1.3 Access to support services

Farmers' empowerment problems are sometimes due to a lack of support at different levels. This evaluation in Ghana shows that access to support services for farmers varies considerably from one service to another.

While most women and young people report having access to extension support and agricultural information, only a minority have access to the internet, credit and value chain training. Young people also have much less access than their elders to basic agricultural support services. As for women, they have less access than men to services such as the Internet and information (Table 11).

Table 11 : Level of access to agricultural services

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Value chain training	21.28	20.12	21.90	17.35	20.79
Extension support/advice/exchange visits	74.89	77.51	77.12	72.45	75.99
Obtaining credit	25.11	24.85	25.16	24.49	25.00
Internet	29.36	27.22	29.74	24.49	28.47
Access to information	65.11	76.92	71.90	64.29	70.05

3.2.2 Empowerment in production

This section focuses on Ghanaian farmers' participation in decision-making about farming activities in the 12 months preceding the interview. Table 12 show that almost all respondents, i.e. at least nine out of ten farmers, state that they are heavily involved in decision-making in their respective farming activities, including crops or varieties to grow (99.45%), harvesting periods and means (99.39%) and means to obtain farmland (96.79%). It comes back that in terms of participation in decision-making in agricultural activities, the proportions of women and men, as well as young people and their elders, remain very high and fairly close.

Table 12 : Level of participation in decision-making on production activities

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Which crop or variety to grow	99.51	99.35	99.27	100.00	99.45
How to obtain farmland	96.63	97.01	96.72	97.06	96.79
Agricultural machinery and equipment to be used for production	94.69	95.56	94.61	97.22	95.07
When and how to prepare the soil (ploughing, ridging)	97.76	98.99	99.45	94.00	98.28
When and how to apply fertilizer	98.74	99.26	99.57	96.72	98.98
When and how to apply pesticides/insecticides	98.91	98.61	98.82	98.63	98.78
When and how to harvest	99.47	99.29	99.22	100.00	99.39

Hire workers or not and how many workers to hire	98.58	98.73	98.96	97.53	98.65
How much to keep for the household and which to sell	99.05	98.69	98.56	100.00	98.90
Fixing the selling price of agricultural produce	98.31	98.84	98.69	98.04	98.53
Where / on which market to sell	100.00	96.83	98.24	100.00	98.63

According to data, most Ghanaian farmers feel that they have a good ability to make decisions on their agricultural activities. On average, eight out of ten farmers, including women and young people, have a high or very high level of decision-making power over all agricultural processes, from choosing crops to selling produce (Table 13).

The majority of women and young people demonstrate great decision-making capacity in agricultural activities. Gender analysis, however, shows that the proportion of women likely to make decisions related to production activities is generally lower than that of men. On the other hand, the data is mixed when it comes to age groups. The level of young people capable of making decisions is higher than that of elders, particularly in the phases of soil preparation, pesticide application, harvesting and use of production. On the other hand, the proportion of young people capable of making decisions on the choice of crops, the acquisition of land, the use of agricultural equipment, fertilizers or labor, and the sale of products, is lower than that of their elders (Table 13).

Table 13 : Perception of decision-making capacity on production activities

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Which crop or variety to grow					
No decision taken	0.97	0.65	0.00	3.49	0.83
Small extent	3.40	1.94	2.55	3.49	2.77
Moderate extent	17.48	9.68	14.55	12.79	14.13
Great/Very High extent	78.16	87.74	82.91	80.23	82.27
How to obtain farmland					
No decision taken	3.37	0.75	2.05	2.94	2.24
Small extent	8.43	0.75	3.69	10.29	5.13
Moderate extent	15.17	10.45	13.52	11.76	13.14
Great/ Very High extent	73.03	88.06	80.74	75.00	79.49
Agricultural machinery and equipment to be used for production					
No decision taken	0.00	0.00	0.00	0.00	0.00
Small extent	3.54	1.11	1.80	5.56	2.46
Moderate extent	19.47	11.11	16.17	13.89	15.76
Great/ Very High extent	76.99	87.78	82.04	80.56	81.77
When and how to prepare the soil (ploughing, ridging)					
No decision taken	0.75	0.00	0.00	2.00	0.43
Small extent	2.99	2.02	2.19	4.00	2.58
Moderate extent	20.15	7.07	15.85	10.00	14.59
Great/ Very High extent	76.12	90.91	81.97	84.00	82.40
When and how to apply fertilizer					
No decision taken	1.26	0.00	0.43	1.64	0.68

Small extent	4.40	2.22	2.58	6.56	3.40
Moderate extent	18.24	6.67	13.73	9.84	12.93
Great/ Very High extent	76.10	91.11	83.26	81.97	82.99
When and how to apply pesticides and insecticides					
No decision taken	1.09	0.00	0.39	1.37	0.61
Small extent	3.80	1.39	2.75	2.74	2.74
Moderate extent	20.11	11.11	16.47	15.07	16.16
Great/ Very High extent	75.00	87.50	80.39	80.82	80.49
When and how to harvest					
No decision taken	1.60	0.00	0.39	2.86	0.91
Small extent	3.72	2.14	2.71	4.29	3.05
Moderate extent	16.49	7.14	13.57	8.57	12.50
Great/ Very High extent	78.19	90.71	83.33	84.29	83.54
Hire workers or not and how many workers to hire					
No decision taken	2.36	0.00	1.04	2.47	1.35
Small extent	4.72	2.53	2.42	8.64	3.78
Moderate extent	15.09	5.06	11.07	9.88	10.81
Great/ Very High extent	77.83	92.41	85.47	79.01	84.05
How much to keep for the household and which to sell					
No decision taken	1.90	0.00	0.72	2.35	1.10
Small extent	1.90	1.96	1.44	3.53	1.93
Moderate extent	17.14	11.11	16.19	9.41	14.60
Great/ Very High extent	79.05	86.93	81.65	84.71	82.37
Fixing the selling price of agricultural produce					
No decision taken	0.00	1.16	0.65	0.00	0.49
Small extent	4.27	3.49	3.92	4.00	3.94
Moderate extent	15.38	11.63	15.03	10.00	13.79
Great/ Very High extent	80.34	83.72	80.39	86.00	81.77
Where / on which market to sell					
No decision taken	0.60	0.00	0.00	1.52	0.34
Small extent	2.40	2.38	2.20	3.03	2.39
Moderate extent	19.76	17.46	17.62	22.73	18.77
Great/ Very High extent	77.25	80.16	80.18	72.73	78.50

3.2.3 Income empowerment

Agricultural value chain activities in Ghana are generally income-generating activities. However, they are not always valued enough to the point of providing profits to farmers who are directly dependent on them.

Surveys revealed that transport appears to be the activity where few farmers (37.50%) generate income. In addition, eight Ghanaian farmers out of ten on average report earning their income from activities such as agricultural production (95.20%), marketing of agricultural products (93.33%), seed production (90.91%) animal husbandry (88.54%), processing of agricultural products (85.96%) and salaried employment (75.00%) (Table 14)

We also observe that the processing and marketing of agricultural products are the two activities where women earn more income than men. The economic sectors dominated by youth compared to their elders are transport and processing of agricultural products (Table 14).

Table 14 : Level of access to income by activity

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
<i>Seed production</i>					
My-self	87.84	94.20	91.51	89.19	90.91
Another member	12.16	5.80	8.49	10.81	9.09
<i>Agricultural production</i>					
My-self	94.12	96.58	95.79	93.06	95.20
Another member	5.88	3.42	4.21	6.94	4.80
<i>Marketing of agricultural products</i>					
My-self	95.03	91.04	93.52	92.65	93.33
Another member	4.97	8.96	6.48	7.35	6.67
<i>Transport</i>					
My-self	20.00	66.67	33.33	50.00	37.50
Another member	80.00	33.33	66.67	50.00	62.50
<i>Animal husbandry</i>					
My-self	82.46	97.44	89.74	83.33	88.54
Another member	17.54	2.56	10.26	16.67	11.46
<i>Processing of agricultural products</i>					
My-self	97.06	69.57	81.82	100.00	85.96
Another member	2.94	30.43	18.18	0.00	14.04
<i>Salary employment</i>					
My-self	50.00	100.00	100.00	66.67	75.00
Another member	50.00	0.00	0.00	33.33	25.00

The majority of farmers surveyed say that they contribute a great deal or all to decision-making on the use of income from activities relating to salaried employment (75%), seed production (74.82%), agricultural production (69.37%), marketing of agricultural products (67.69%), livestock farming (66.67%) and processing of agricultural products (63.16%). Transport (35.50%) is the activity in which only a minority of farmers contribute to decision-making on the income generated (Table 15).

It appears that women contribute less than men to decision-making on income from agricultural economic activities, except in salaried employment and the processing of agricultural products. Seed production and agricultural production are the activities in which young people contribute less than their elders to decision-making on the income generated (Table 15).

Table 15 : Level of contribution to decision-making on the use of incomes

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
<i>Seed production</i>					
No decisions made	4.05	4.35	3.77	5.41	4.20
Contribution to few decisions made	13.51	0.00	4.72	13.51	6.99
Contribution to half of the decisions made	21.62	5.80	14.15	13.51	13.99
Contribution to many decisions made	40.54	57.97	49.06	48.65	48.95
Contribution to all decisions made	20.27	31.88	28.30	18.92	25.87
<i>Agricultural production</i>					
No decisions made	1.07	0.68	0.38	2.78	0.90

Contribution to few decisions made	3.74	1.37	1.92	5.56	2.70
Contribution to half of decisions made	31.55	21.23	26.44	29.17	27.03
Contribution to many decisions made	35.29	42.47	36.78	44.44	38.44
Contribution to all decisions made	28.34	34.25	34.48	18.06	30.93
Marketing of agricultural products					
No decisions made	2.22	0.75	0.82	4.41	1.60
Contribution to few decisions made	5.56	3.01	4.49	4.41	4.47
Contribution to half of decisions made	27.22	22.56	26.12	22.06	25.24
Contribution to many decisions made	40.00	46.62	40.00	52.94	42.81
Contribution to all decisions made	25.00	27.07	28.57	16.18	25.88
Transport					
No decisions made	0.00	0.00	0.00	0.00	0.00
Contribution to few decisions made	60.00	33.33	50.00	50.00	50.00
Contribution to half of decisions made	20.00	0.00	16.67	0.00	12.50
Contribution to many decisions made	20.00	66.67	33.33	50.00	37.50
Contribution to all decisions made	0.00	0.00	0.00	0.00	0.00
Animal husbandry					
No decisions made	1.75	0.00	0.00	5.56	1.04
Contribution to few decisions made	21.05	2.56	12.82	16.67	13.54
Contribution to half of decisions made	19.30	17.95	21.79	5.56	18.75
Contribution to many decisions made	29.82	41.03	29.49	55.56	34.38
Contribution to all decisions made	28.07	38.46	35.90	16.67	32.29
Processing of agricultural products					
No decisions made	0.00	4.35	2.27	0.00	1.75
Contribution to few decisions made	2.94	8.70	2.27	15.38	5.26
Contribution to half of decisions made	29.41	30.43	27.27	38.46	29.82
Contribution to many decisions made	41.18	47.83	43.18	46.15	43.86
Contribution to all decisions made	26.47	8.70	25.00	0.00	19.30
Salary employment					
No decisions made	0.00	0.00	0.00	0.00	0.00
Contribution to few decisions made	0.00	0.00	0.00	0.00	0.00
Contribution to half of decisions made	0.00	50.00	100.00	0.00	25.00
Contribution to many decisions made	100.00	0.00	0.00	66.67	50.00
Contribution to all decisions made	0.00	50.00	0.00	33.33	25.00

Just under nine out of ten farmers surveyed (88.37%) were involved in deciding how the income generated should be distributed. The participation rate of women was significantly higher (88.51%) than that of men (88.17%). However, the participation of older people (90.85%) in decision-making about income is much higher than that of young people (80.61%) (Figure 2).

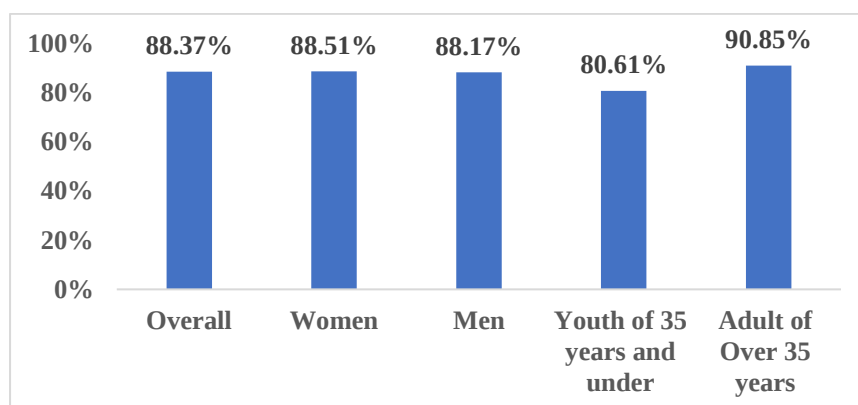


Figure 2: Level of participation in decision-making on the distribution of generated income

3.2.4 Empowerment at the leadership level

3.2.4.1 Right to speak in public

The need to express one's opinion freely can be classified as a primary need. It is also a right. An individual can genuinely flourish and feel integrated into the society in which he or she lives, provided that this right of expression is not impeded.

In African rural communities, public speaking is subject to codes. Speech for one or the other cannot be free expression for all. Ghana in particular, our surveys show that majority farmers (54.97%) say that they often/most of the time/always speak in public. More than Three farmers (33.15%) in ten speak sometimes in public. Only 11.88% rarely/never speak in public (Table 16)

Analysis of the data also shows that women (50.24%) are less likely than men (56.23%) to speak regularly in public. However, young people (62.07%) are more likely to speak in public than their elders (52.73%) (Table 16).

Table 16 : Frequency to speak in public

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Never	3.86	1.29	2.91	2.30	2.76
Rarely	10.63	7.10	9.45	8.05	9.12
Sometimes	35.27	30.32	34.91	27.59	33.15
Often	20.29	22.58	21.82	19.54	21.27
Most of the time	9.66	17.42	12.36	14.94	12.98
Always	20.29	21.29	18.55	27.59	20.72

Overall, around nine out of ten farmers surveyed (89.60%) believe that they are free to speak in public. The disaggregation of opinions shows that the proportions of women (88.09%) and young people (88.78%) free to express their opinions are lower than those of men (91.72%) and adults over 35 (89.87%) (Figure 3).

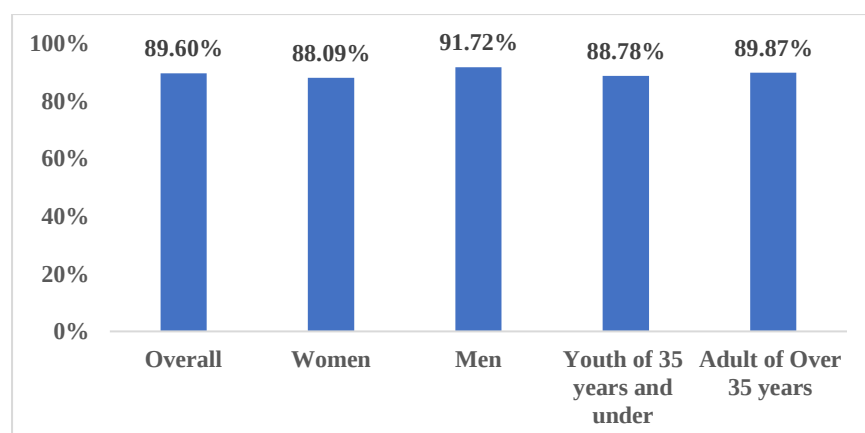


Figure 3: Level of ability/freedom to speak in public

3.2.4.2 Physical Mobility

The more freedom you have, the more autonomous you are, and the less you have that freedom, the less autonomous you are. According to the surveys, Ghanaian farmers have an excellent perception of their physical mobility. A large majority of farmers of farmers (81.87%) believe that they have a great/very high degree of freedom of mobility in their community. In addition, 15.63% believe that they have a moderate degree of freedom of mobility. Only 2.5% think they have small/no freedom of mobility (Table 17).

More specifically, more women (82.76%) than men (80.58%) reported greater freedom of mobility. However, the proportion of young people (77.35%) reporting greater freedom of movement was lower than that of older people (83.11%) (Table 17).

Table 17 : Perception of freedom of physical mobility

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Not at all	0.61	1.16	0.46	2.21	0.84
Very small extent	0.20	0.00	0.15	0.00	0.12
Small extent	1.62	1.45	1.52	1.66	1.55
Moderate extent	14.81	16.81	14.76	18.78	15.63
Great extent	71.40	64.93	70.02	64.09	68.74
Very High extent	11.36	15.65	13.09	13.26	13.13

3.2.4.3 Intra-household relationship

Intra-family relations based on mutual respect are also a guarantee of greater social inclusion. An analysis of data from a survey conducted in Ghana reveals that farmers say they often or always receive respect from members of their household, mainly in a medium proportion from their spouse (56.31%) and in a high proportion from their father/mother (99.44%) or other close relatives (98.09%). More young people than older people feel respected by others. The proportion of women who feel respected by their spouse is lower than that of men (Table 18).

Table 18 : Level of respect in the household

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Husband/wife					
Always	41.03	40.83	40.45	42.27	40.93
Often	15.38	15.38	15.36	15.46	15.38
Sometimes	35.90	37.87	38.20	32.99	36.81
Rarely	7.18	5.92	5.99	8.25	6.59
Never	0.51	0.00	0.00	1.03	0.27
Father/mother					
Always	85.07	84.31	86.21	80.65	84.75
Often	14.43	15.03	13.41	18.28	14.69
Sometimes	0.50	0.65	0.38	1.08	0.56
Rarely	0.00	0.00	0.00	0.00	0.00
Never	0.00	0.00	0.00	0.00	0.00

Other close people					
Always	82.04	81.20	82.74	78.50	81.69
Often	15.62	17.60	15.70	18.77	16.46
Sometimes	2.34	1.20	1.57	2.73	1.86
Rarely	0.00	0.00	0.00	0.00	0.00
Never	0.00	0.00	0.00	0.00	0.00

Respect in the household demonstrates the ability of members to express their disagreement. Looking at the data in the table 19 show that more than half of Ghanaian farmers surveyed (56.44%) believe that they are often/always comfortable expressing their disagreement. What's more, women (55.97%) are as likely as men (57.06%) to express their disagreement, as are young people (55.43%) compared to their elders (56.76%) (Table 19).

Table 19 : Ability to disagree

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Always	43.48	42.46	43.10	42.86	43.04
Often	12.49	14.60	13.66	12.63	13.40
Sometimes	27.75	27.98	28.03	27.33	27.85
Rarely	12.03	11.44	10.92	14.29	11.77
Never	4.26	3.53	4.30	2.90	3.94

3.2.4.4 Group membership

To cope with the challenges of poverty they face, members of rural communities in Ghanaian sometimes tend to organize themselves into groups with a social vocation and financial assistance. the data shows that more than half of farmers surveyed (55.20%) say they belong to an association. Only 6.93% hold or have held political office in their community (Table 20).

In general, most women and young people are active in associations. But few of them hold positions of responsibility in their communities (Table 20). These statistics confirm a weakness in the leadership of women and young farmers.

Table 20 : Demonstration of membership

Variables	Female (%)	Male (%)	Adult of Over 35 years (%)	Youth of 35 years and under (%)	Overall (%)
Member of association	55.32	55.03	57.84	46.94	55.20
Holding/having held a political position	4.26	10.65	7.52	5.10	6.93

4. CONCLUSION

The objective of this study was to collect reliable and accurate data on indicators that can positively impact the empowerment of women and youth in the agricultural sector in Ghana. The breakdown of opinions by gender and age shows some notable differences. The study shows that Ghanaian women and young farmers generally have access to private ownership of non-agricultural and agricultural assets. However, the proportion of men who report owning non-agricultural assets is higher overall than that of women. As for young people, they own as many, if not more, non-agricultural assets than adults over 35. Apart from this, women have far fewer opportunities to own agricultural assets than men, as do young people compared to their elders. The agricultural assets they own least are water for irrigation, livestock, agro-climatic practices or technologies, and processing equipment. What's more, young people have relatively less access to basic agricultural support services than adults over 35. As for women, they have less access than men to services such as the internet and information. Data on access to income show that processing and marketing agricultural products are the two activities where women earn more money than men. The economic sectors dominated by young people compared to their elders are transport and the processing of agricultural products.

In terms of leadership, the majority of women and young people are active in associations, but few hold positions of responsibility in their communities. Women and young people are also less likely to speak regularly in public. Disaggregation of opinions shows that the proportions of women and young people who are free to express their opinions are still lower than those of men and older people respectively.

When it comes to decision-making, the participation of women and young people is generally high. However, women are still less able to make decisions than men, while adults over 35 are more able to make decisions than young people. In production activities, the proportion of young people able to make decisions on the choice of crops, the acquisition of land, the use of agricultural equipment, fertilisers or labour, and the sale of products, is lower than that of their elders. From another point of view, women contribute less than men to decision-making on income from agricultural economic activities, except in salaried employment and the processing of agricultural products. Young people's participation in decision-making on income is lower than that of their elders. On the other hand, women are just as likely as men to express disagreement, as are young people.

These results highlight the many social and economic obstacles to the empowerment of women and young farmers in Ghana. They confirm the need for specific interventions to address them.

REFERENCES

- FAO, IFAD, WHO, WFP & UNICEF. (2022). Summary of The State of Food Security and Nutrition in the World 2022. Reorient food and agricultural policies to make healthy eating more affordable. Rome, FAO. <https://doi.org/10.4060/cc0640fr>
- FAO, IFAD & WFP, (2015). The State of Food Insecurity in the World 2015. Meeting the 2015 international hunger reduction goals: taking stock of uneven progress. Publications of the Food and Agriculture Organization of the United Nations. Rome.
- BM, (2022). Total population, Sub-Saharan Africa. <https://donnees.banquemondiale.org/indicateur/SP.POP.TOTL?locations=ZG>
- Observatory of Inegalities, (October 4, 2022). 800 million undernourished people in the world. <https://www.inegalites.fr/800-millions-de-personnes-sous-alimentees-dans-le-monde>
- Holger, K., Shobha, S. & P-O., Colleye, (2022). Three challenges and three opportunities for food security in Eastern and Southern Africa. World Bank Blogs, <https://blogs.worldbank.org/fr/africacan/trois-defis-et-trois-chances-pour-la-securite-alimentaire-en-afrique-de-lest-et-australe>
- CGIAR, (2022). Annual technical report.