

Engagement of Rural Women in Homestead Agricultural Activities and Association with Different Characteristics in Bangladesh

Shaila Islam¹, M. Mizanur Rahman Sarker²

¹Department of Agribusiness and Marketing, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh

²Department of Agricultural Statistics, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh

Email address:

shailaislam1235@gmail.com (S. Islam), sarker@sau.edu.bd (M. M. R. Sarker)

To cite this article:

Shaila Islam, M. Mizanur Rahman Sarker. Engagement of Rural Women in Homestead Agricultural Activities and Association with Different Characteristics in Bangladesh. *Journal of Business and Economic Development*. Vol. 7, No. 3, 2022, pp. 63-70.

doi: 10.11648/j.jbed.20220703.11

Received: February 4, 2022; **Accepted:** March 26, 2022; **Published:** August 4, 2022

Abstract: The study's primary objective is to ascertain rural women's level of engagement in household agricultural activities at Dhamrai upazila, Dhaka district, and to analyze the relationships between selected characteristics of rural women and their level of engagement in household agricultural activities. The research is being undertaken in two villages inside the Kulla union, namely Chandrail and Sastapur. Between August 20 and September 20, 2020, data were gathered from 100 rural women utilizing a pre-tested interview schedule. To quantify the factors in the investigation, precise scales were developed. Correlation(s) tests were utilized to identify the relationships between the independent variables and the study's dependent variable. The findings indicated that the majority of rural women (73 percent) had a moderate level of participation in domestic agricultural activities, compared to 20% and 7% who had a low level of engagement and 7% who had a high level of engagement, respectively. Correlation analysis revealed that seven of nine independent variables, namely farm size, family income, cosmopolitaness, extension contact, agricultural training, knowledge about homestead agricultural activities, and attitude toward dwelling agricultural activities, had a significant positive relationship with rural women's participation in dwelling agricultural activities. The other two factors, namely the rural women's age and education level, exhibited no significant link with their engagement in household agricultural operations. The PCI ranked 'lack of necessary agricultural land' first, followed by 'lack of adequate fertilizers', 'lack of proper knowledge', 'lack of proper capital', 'lack of quality seeds', 'lack of extension workers', 'lack of adequate insecticides', 'lack of marketing opportunities', and 'lack of communication facilities'.

Keywords: Women Empowerment, Dwelling Agriculture, PCI (Problem Confrontation Index), Bangladesh

1. Introduction

Bangladesh's economy is mostly agricultural, with agriculture accounting for 13.47 percent of Gross Domestic Product (GDP). During the last decade, agriculture contributed around 3% per year to the yearly economic growth rate, which will be 5.84 in 2020-2021. [1] Though agriculture's contribution to the national economy and employment may decline further, it will continue to be the single largest source of income and employment and a critical component of the country's claim to food self-sufficiency, rural poverty reduction, and sustainable economic development. The Government has the ability to

guarantee that the required circumstances exist for the nation to address these difficulties, and it is critical to do so through increasing food production and incorporating women, who account for almost half of the overall population. Women are critical in conserving the earth's essential life support systems, including land, water, vegetation, and wildlife [2]. They are critical to agricultural and domestic growth. It cannot be argued that in a developing nation like Bangladesh, the under-utilised rural female force constitutes a vast reservoir of human resources although the intervention group have remarkably up-scaled their capacity in the decision-

making process over loan, use of loan, agricultural production, sale of product, child education, children's marriage, medical care and family planning [3]. They form a sizable and potentially significant portion of the entire population. Rural women's contributions to Bangladesh's socioeconomic growth cannot go unrecognized. They were mostly involved in crop-related operations such as composting, transplanting, sowing, weeding, harvesting, drying, and household gardening. However, their greater economic contribution has not been accompanied by significant advancements in education, training, health and nutrition, as well as access to production resources and services. Similarly, they are virtually absent from national agenda-setting and resource-allocating organisations. Their increased involvement in village associations, marketing, co-ops, and other community groups may contribute to the reduction of social duties associated with access to productive resources. Rural women are often involved in a variety of businesses but have not been fully recognised so far due to the lack of systematic study in these areas. Therefore, it is critical for women to become a preferred target group in agricultural output. At the moment, numerous government-sponsored programs engage rural women, including goat rearing, poultry rearing, tree planting, and literacy programs. There are several service sector programs administered by the Ministry of Agriculture, including SAIP (Smallholder Agriculture Improvement Project), ASIRP (Agricultural Services Innovation and Reform Project), CDP (Crop Diversification Program), NCDP (North West Diversification Project), and Gram AUS. All of these programs emphasize women's engagement in agricultural operations, and encourage GOs to collaborate closely with local and national NGOs. Rural women - who account for half of Bangladesh's rural population - must be included in development initiatives, particularly in household agricultural enterprises. Thus, when rural women are involved and included in development efforts and are aware of their rights and asserts, their involvement in subsistence agricultural operations will be significantly increased. "Engagement" in this context refers to an individual's participation with an object, phenomena, or latitude associated with domestic agriculture production. Participation in dwelling agricultural activities refers to an individual's attitude toward agricultural production in dwelling regions. In rural Bangladesh, rural women were engaged in productive labor in home industry and even marketing, in addition to caring for children and cooking and serving meals to other family members [4]. Rural women's participation in domestic agricultural operations is critical for Bangladesh's agricultural growth, since the vast majority of them reside in rural regions and are in close proximity to agricultural production systems. Women are critical to the country's agricultural growth, having been actively engaged in agricultural output and productivity. It is consequently critical to have a thorough grasp of rural women's engagement in agricultural output, particularly in the country's residential agricultural operations.

2. Material and Methods

2.1. Study Area

Rural women, i.e. female heads of families, are found in all unions of Dhamrai upazila in the Dhaka district. The districts of Bangladesh are divided into sub-districts called Upazilas [5]. Spatial variation of different household characteristics was found in the different studies in Bangladesh [6]. Kulla union was randomly chosen as the research area among 16 (sixteen) unions in Dhamrai upazila, including two villages. Chandrail and Sastapur were the villages.

2.2. Data Collection

The researcher gathered data for this study by personal interview between August 20 and September 20, 2020. The researcher gathered information using the interview program he or she had previously developed. Every attempt was taken to communicate the study's aims to respondents in order to get accurate and useful information from them. The respondents were interviewed at their homes. While conducting an interview with any respondent, the researcher took every precaution to establish rapport with them so that they would not feel uncomfortable or hesitant to provide adequate replies to the interview program's questions and remarks. When a responder expressed confusion about a question, it was answered and clarified. During the final data gathering phase, none of the agrarian women on the reserve list were questioned. Two villages from the research region were chosen at random. These two villages have a total of 2084 rural households. As a result, the research population consisted of 2084 housewives (rural women) from these families. Among them, one hundred rural women were randomly chosen as the study's sample using a random selection approach that took 5% of the population into account. The sample data were compiled using a pre-tested interview plan. Additionally, 10% of the samples, or ten rural women, were chosen from the community as reserves to be interviewed solely in the event that respondents on the initial list were unavailable during data collection.

2.3. Selection of Variables

There are some variables in this study. These variables are: Age, Level of Education, Farm size, Annual Family Income, Cosmopolitaness, Extension Contact, Agricultural Training, Knowledge on Dwelling Agricultural Activities and Attitude towards Dwelling Agricultural Activities.

2.4. Measurement of Variables

2.4.1. Age

The peasant woman's age is defined as the time span between her birth and the moment of the interview. It was consistent with her answer to item No. 1 of the interview schedule in terms of actual years.

2.4.2. Education

The number of years spent in school was used to determine a respondent's education. Each year of education completed was assigned a score of one (1). For example, if a responder completed class five studies, his education level was given to be 5. A respondent who could only sign was awarded a score of 0.5 for knowledge, whereas a respondent who could not read or write was assigned a score of 0. Additionally, if a responder did not attend school but studied at home and his knowledge level was equivalent to that of a fifth-grade student, he was assigned a score of 5.

2.4.3. Farm Size

A respondent's farm size was determined by the amount of land she owned. The data collected in answer to item No. 3 of the interview program were used to calculate the respondent's farm size. The following formula was used to determine the size of the farm:

$$\text{Farm size} = A_1 + A_2 + A_3 + A_4 + A_5 + A_6$$

Where, A_1 = Dwelling area;

A_2 = Own pond and garden;

A_3 = Own land under cultivation;

A_4 = Land given to others as barga;

A_5 = Land taken from others as barga;

A_6 = Land taken from others as lease.

The responder provided information about the size of their farm in terms of resident count. Finally, it was converted to hectares and used to calculate a respondent's farm size score.

2.4.4. Family Income

Income is a significant determinant of household dietary diversity in Bangladesh [12]. The technique used to determine a respondent's household income has two components. Agriculture is the first component, whereas non-agriculture is the second. When calculating a respondent's family income, the respondent's income and that of her family members (earned from various sources) were combined together in a given year to produce the respondent's total family income. For Tk. 1000, a score of 1 was assigned. A fraction score was computed and added to the main score for amounts less than Tk.1000. The income score of a respondent was calculated using data obtained in answer to question No. 4 of the interview program.

2.4.5. Cosmopolitaness

A respondent's cosmopolitaness was linked to her frequent visits to diverse locations outside of her community. Such as Visit to other villages, Visit to own upazila town, Visit to own district town, Visit to other district town, Visit to capital city/divisional town.

2.4.6. Extension Contact

Extension contact refers to the agricultural woman's disclosure or interaction with certain information sources and personalities. A respondent's extension contact score was determined based on her degree of contact with the designated information sources during a certain time period

in order to get the needed information. Extension contacts are classified into three categories. These include the following: Personal Contact, Group Contact and Mass Contact.

2.4.7. Agricultural Training

A respondent's agricultural training score was derived by the number of days she had received agricultural training throughout her life. It was shown by the total number of days spent by a responder acquiring agricultural training via various training programs. The data acquired in answer to question No. 7 of the interview program were utilized to calculate a respondent's agricultural training score.

2.4.8. Knowledge on Dwelling Agricultural Activities

According to Nehar 2018 [7], the rural women's knowledge of dwelling agricultural activities was quantified by asking 15 chosen questions on different aspects of household agriculture. Each accurate response received a complete score of 1 (one), while the incorrect answer received a score of 0 (zero). Thus, a respondent who correctly answers all questions will get a total score of '15,' whereas a respondent who incorrectly answers all questions would receive a score of '0.' However, respondents' knowledge scores were derived by summing their values on all 15 questions. Thus, the knowledge score would range between '0' and '15,' with '0' (zero) indicating 'no understanding of dwelling agricultural activities' and '15' indicating 'great knowledge of dwelling agricultural activities.'

2.4.9. Attitude Towards Dwelling Agriculture

Another variable in the research was rural women's attitude toward housing agriculture. According to Nehar (2018) [8], an attitude scale was developed using sixteen independent assertions. Essentially, the Likert Method of Summarized Ratings was employed to accomplish the goal. The scale had eight positive and eight negative notifications. These statements were arranged in no particular order. A responder was asked to rate his level of agreement with each of the announcements on a five-point scale, which included 'strongly agree', 'agree', 'no opinion', 'disagree', and 'strongly disagree'. Scores of 4, 3, 2, 1 and 0 were assigned to these five possible replies for each positive statement. However, the ratings for unfavorable announcements were reversed. A respondent's attitude toward dwelling agriculture was calculated by aggregating her scores for all 16 statements. This score may vary from '0' to '64', with '0' indicating the most negative attitude toward dwelling agriculture and '64' indicating the most positive attitude toward dwelling agricultural.

2.4.10. Measurement of Problem Confrontation Index (PCI) in Participating Dwelling Agricultural Activities

Even if a household fulfils the food energy requirement, it does not guarantee whether it could manage the required nutrient to maintain a healthy life [13]. Rural women in the research region may have encountered a variety of

difficulties while engaging in domestic agriculture tasks. However, the investigator obtained knowledge via personal interaction with respondents about common challenges encountered during data collecting. Additionally, the researcher obtained expertise by consulting with specialists, doing pre-testing, and evaluating past study results. Finally, the researcher compiled a list of 10 potential difficulties in this area. A scale was developed to measure the extent to which each of the 10 difficulties applied to the respondent's situation. The respondents were asked to rank the severity of the difficulties on a five-point scale: 'very high problem', 'high problem', 'moderate problem', 'minor problem', and 'no difficulty at all'. Weights of '4', '3', '2', '1', and '0' were assigned to such replies.

The Problem Confrontation Index (PCI) for each problem was calculated by using the following formula:

$$PCI = (P_{vh} \times 4) + (P_h \times 3) + (P_m \times 2) + (P_l \times 1) + (P_n \times 0)$$

Where,

P_{vh} =Percentage of rural women who meet very high problems.

P_h =Percentage of rural women who meet high problem.

P_m =Percentage of rural women who meet moderate problem.

P_l =Percentage of rural women who meet little problem.

P_n =Percentage of rural women who meet no problem at all.

To define comparative importance of those ten problems, PCI was calculated for each of the ten problems by summing up the scores of all the respondents. Problem Confrontation Index (PCI) of a specific problem would range from '0' to '400', where '0' shows 'no problem confrontation' and '400' shows 'high problem confrontation'.

3. Result and Discussion

3.1. Selected Characteristics of the Rural Women

A summary of the analysed results for the selected personal, economic, social and psychological characteristics of the rural women (independent variables) for this study were shown in Table 1.

Table 1. Rural Women's Characteristics Profile.

Sl. No.	Characteristics	Measuring Unit	Possible range	Observed range	Mean	Standard deviation
1.	Age	Actual years	Unknown	19-55	33.25	8.97
2.	Education	Year of schooling	Unknown	0-12	3.44	3.65
3.	Farm size	Hectare	Unknown	0.02-4.92	.79	.92
4.	Family income	In Tk..1000	Unknown	8.50-342.00	58.52	62.29
5.	Cosmopolitaness	Score	0-15	0-9	5.35	1.83
6.	Extension contact	Score	0-36	1-21	7.44	3.91
7.	Agricultural training	Score	Unknown	0-15	2.97	3.61
8.	Knowledge on dwelling agricultural activities	Score	0-15	5-13	8.11	1.72
9.	Attitude towards dwelling agriculture	Score	0-64	21-57	38.35	6.87

3.2. Age

Age scores for agricultural women were reported to vary between 19 and 55, with an average of 33.25 and a standard deviation of 8.97. The agricultural women were divided into

three groups based on their age scores: "young" (under 30 years), "middle aged" (31-45 years), and "elderly" (above 45 years). The I age distribution of rural women is given in Table 2.

Table 2. Distribution of the rural women according to age.

Categories	Rural Women		Mean	Standard Deviation
	Number	Percent		
Young (up to 30 years)	41	41	33.25	8.97
Middle aged (31-45 years)	49	49		
Old (above 45 years)	10	10		
Total	100	100		

The study discovered that a substantial number (46%) of rural women were of middle age, compared to 44 and 10% of young and elderly women, respectively. It was shown that respondents in their middle years are more keen in engaging in residential agricultural activities. Extension organisations should examine this age group of agrarian women and engage them in efforts to increase their household agricultural productivity.

3.3. Education

Education scores of agricultural women were discovered to vary from 0 to 12, with an average of 3.42 and a standard deviation of 3.63. Rural women were divided into four groups based on their educational attainment: "illiterate" (0), "primary level" (1-5), "secondary level" (6-10), and "above secondary level" (above 10). Table 3 illustrates the distribution of rural women according to their degree of education.

Table 3. Distribution of the rural women according to education.

Categories	Rural Women		Mean	Standard Deviation
	Number	Percent		
Illiterate (0)	41	41	3.44	3.65
Primary level (1-5)	29	29		
Secondary level (6-10)	23	23		
Above secondary level (above 10)	7	7		
Total	100	100		

The study discovered that the vast majority (41%) of rural women lacked any kind of schooling. On the other side, 29% of respondents had an elementary education, compared to 23% and 7% who had a secondary or higher

education, respectively. It was considered that the majority of respondents were conservative and unimaginative in their approach to dwelling agricultural operations.

Table 4. Distribution of rural women according to farm size.

Categories	Rural iWomen		Mean	Standard Deviation
	Number	Percent		
Marginal farm size (up to 0.5 ha)	51	51	0.79	0.92
Small farm size (0.51-1.00 ha)	19	19		
Medium farm size (1.01-2.00 ha)	21	21		
Large farm size (above 2.00 ha)	9	9		
Total	100	100		

3.4. Farm Size

The observed farm sizes of rural women ranged between 0.02 and 4.95 hectares. The average farm was 0.79 hectares in size, with a standard variation of 0.92 hectares. Rural women were grouped into four groups based on their farm size scores: "marginal farm size" (less than 0.5), "small farm size" (0.51–1.00), "medium farm size" (1.01–2.00), and "big farm size" (more than 2.00). (above 2.00 ha). Table 4 shows the distribution of rural women by farm size.

The study discovered that 51% of rural women had a marginal farm, compared to 19%, 21%, and 9% who had a small, medium, or big farm, respectively. The average farm size of rural women was 0.79 hectares, somewhat less than the national average of 0.80 hectares [7]. This shows that the farm sizes of the agrarian women in the research region were comparable to those of a typical Bangladeshi agricultural farming community.

3.5. Family Income

Average annual income of the farmers was Tk.195,189 and Tk.121,813 for Cumilla and Rangpur districts respectively [10]. Rural women's household income was reported to vary between 8.50 and 345.00, with an average of 58.52 and a standard deviation of 62.29. Rural women were divided into three income groups based on their family income: "low income" (up to 100 thousand Taka), "middle income" (101-200 thousand Taka), and "high income" (above 200 thousand Taka). Table 4 shows the distribution of rural women by household income. Rural women's household income was reported to vary between 8.50 and 345.00, with an average of 58.52 and a standard deviation of 62.29. Rural women were divided into three income groups based on their family income: "low income" (up to 100 thousand Taka), "middle income" (101-200 thousand Taka), and "high income" (above 200 thousand Taka). Table 5 shows the distribution of rural women by household income.

Table 5. Distribution of rural women according to annual family income.

Categories	Rural Women		Mean	Standard Deviation
	Number	Percent		
Low income (up to 100 thousand Taka)	72	72	58.52	62.29
Medium income (100-200 thousand Taka)	23	23		
High income (above 200 thousand Taka)	5	5		
Total	100	100		

Parvin and Sarker [9] found that the family income of Comilla and Rangpur are 195189 and 121813 taka respectively. The study discovered that the majority (72%) of rural women had a low family income, while 23 and 5% had a medium or high family income, respectively. This suggests that 95% of rural women had a low to moderate household income.

3.6. Cosmopolitaness

The observed scores of rural women's cosmopolitaness varied from 0 to 9, with an average of 5.35 and a standard deviation of 1.83, compared to a potential range of 0 to 15. Rural women were divided into four groups based on their cosmopolitaness scores: "no cosmopolitaness" (0), "low

cosmopolitanism" (1-3), "medium cosmopolitanism (4-6), and "high cosmopolitanism" (above 6). Table 6 depicts the distribution of rural women according to their cosmopolitanism.

Table 6. Distribution of rural women according to cosmopolitanism.

Categories	Rural Women		Mean	Standard Deviation
	Number	Percent		
No cosmopolitanism (0)	2	2	5.35	1.83
Low cosmopolitanism (1-3)	23	23		
Medium cosmopolitanism (4-6)	61	61		
High cosmopolitanism (above 6)	14	14		
Total	100	100		

The findings indicated that the majority (61%) of rural women had a moderate level of cosmopolitanism, compared to 23 and 14% who had a low or a high level of cosmopolitanism, respectively. On the other hand, just 2% of rural women were cosmopolitan. It was shown that rural women with a moderate level of cosmopolitanism participated in more domestic agriculture tasks. Additionally, it was discovered that social barriers, economic difficulty, and illiteracy hindered people from venturing outside their immediate vicinity.

3.7. Extension Contact

Rural women's extension contact scores varied from 1 to 21 out of a potential range of 0 to 36, with an average of 7.44 and a standard deviation of 3.91. Rural women were divided into three groups based on their extension contact scores: "low extension contact" (up to 7), "mid extension contact" (8-14), and "high extension contact" (above 14). Table 7 shows the distribution of rural women according to their extension contact ratings.

Table 7. Distribution of rural women according to extension contact.

Categories	Rural Women		Mean	Standard Deviation
	Number	Percent		
Low extension contact (up to 7)	57	57	7.44	3.91
Medium extension contact (8-14)	31	31		
High extension contact (above 14)	12	12		
Total	100	100		

The findings indicated that the majority of rural women (57%) had low extension contact, compared to 31 and 12 percent who had medium or high extension contact, respectively. Thus, it may be inferred that the majority of rural women either did not get assistance from extension workers or were unaware of the services offered by various extension organisations. As a result, extension service organisations should strengthen their connections.

3.8. Agricultural Training

The agricultural training scores of rural women were reported to vary between 0 and 15, with an average of 2.97 and a standard deviation of 3.61. Rural women were divided into four groups based on their agricultural training scores: "no training" (0), "low training" (up to 5), "medium training" (6-10) and "high training" (11-20). (above 10). Table 8 shows the distribution of rural women according to their agricultural training ratings.

Table 8. Distribution of rural women according to agricultural training.

Categories	Rural Women		Mean	Standard Deviation
	Number	Percent		
No training (0)	43	43	2.97	3.61
Low training (up to 5)	37	37		
Medium training (6-10)	15	15		
High training (above 10)	5	5		
Total	100	100		

The study discovered that 43% of rural women lacked agricultural training. On the other side, 37% of respondents reported having little training, while 15% and 5% reported having medium or high training, respectively. As a result, rural women must be trained in a variety of agricultural vocations.

3.9. Knowledge on Dwelling Agricultural Activities

The rural women's knowledge of domestic agricultural

operations varied from 5 to 13, with an average of 8.81 and a standard deviation of 1.72, compared to a potential range of 0-15. Rural women were divided into three groups based on their understanding of household agricultural activities: "poor knowledge" (up to 7), "medium knowledge" (8 to 10) and "high knowledge" (above 10). Table 9 shows the distribution of rural women according to their expertise of domestic agricultural operations.

Table 9. Distribution of rural women according to knowledge on homestead agricultural activities.

Categories	Rural Women		Mean	Standard Deviation
	Number	Percent		
Poor knowledge (up to 7)	21	21	8.81	1.72
Medium knowledge (8-10)	61	61		
High knowledge (above 10)	18	18		
Total	100	100		

The findings suggested that the majority (61%) of rural women had medium knowledge of homestead agricultural operations, compared to 21 and 18% who had low and high knowledge, respectively, of homestead agricultural activities. According to the statistics above, almost one-fourth of respondents lacked appropriate understanding regarding household agricultural operations. Rural women acquired expertise about domestic agriculture operations mostly from their husbands and parents. Additionally, individuals acquired information about domestic agricultural operations through time and via experience, which is not an efficient method of learning.

3.10. Attitude Towards Dwelling Agriculture

The observed scores of rural women's attitudes regarding housing agriculture varied from 21 to 57, with an average of 38.53 and a standard deviation of 6.78, versus a potential range of 0 to 64. Rural women were divided into three groups based on their attitude toward dwelling agricultural scores: "unfavorable attitude" (up to 33), "mid attitude" (34 to 45), and "high attitude" (above 45). Table 10 illustrates the distribution of rural women according to their attitude toward dwelling agriculture.

Table 10. Distribution of rural women according to attitude towards homestead agriculture.

Categories	Rural Women		Mean	Standard Deviation
	Number	Percent		
Unfavorable attitude (up to 33)	18	18	38.35	6.87
Moderately unfavorable to moderately favorable attitude (34 to 45)	67	67		
Favorable attitude (above 45)	15	15		
Total	100	100		

The study discovered that the majority of rural women (67%) had a somewhat good opinion about dwelling agricultural, compared to 18 and 15% who had a negative attitude toward dwelling farm, respectively. As a result, it may be inferred that the majority of rural women in the research region expressed an interest in dwelling agriculture.

4. Conclusion

A conclusion can be thought of as a hypothesis based on the results of an experiment, relevant information, and unbiased assessments. The researcher came to the following conclusions based on the study's findings and logical clarifications of their significance in light of other pertinent facts: To meet the ever-increasing need for food and nutrition, the rate and extent of rural women's participation in various residential agricultural operations must be increased. Through continuing improvements in extension and other support services, employees from both Government Organizations (GO) and Non-Governmental Organizations (NGO) should give convenient technical and management related information to all rural women in the research region. It may be argued that extension workers should place a greater emphasis on agrarian women of all ages in order to stimulate participation in household agricultural operations. Household welfare is directly and significantly associated with food security [11]. Given that the majority of rural women are in their forties and fifties, it would be prudent to focus on these women first and aim to encourage them to

participate in various domestic farming activities. Rural women's education had little correlation with their participation in domestic agricultural chores. As a result of this finding, we may deduce that greater literacy rates and higher educational levels among rural women in the research area had little impact on their participation in domestic agricultural activities. Though rural women's education has little direct impact on their participation in various residential agricultural activities, it can indirectly assist rural women in being aware of the benefits of such activities. As a result, significant efforts should be implemented to raise the educational level of the study area's rural women. The size of a rural woman's farm has a positive link with her participation in domestic agricultural activities. The study's findings revealed that rural women's extension contacts had a favorable significant link with their participation in domestic agricultural activities. As a result, it is possible to conclude that better communication planning and implementation by extension workers from Government Organizations (GOs) and Non-Governmental Organizations (NGOs) with agrarian women using effective methods will result in a greater number of agrarian women participating in dwelling agricultural activities. Agrarian women's agricultural training demonstrated a favorable substantial link with their participation in household agricultural operations. Farmers with advanced training gained a greater understanding of housing agriculture, and as a result, they adopted new dwelling agriculture technologies more quickly. The findings revealed that rural women's knowledge of dwelling

agricultural activities had a positive significant link with their participation in dwelling agricultural activities. Individual farmers become aware of the latest information on the many prospects of modern agricultural operations related to homestead agriculture as a result of this type of knowledge. As a result of the foregoing facts, it is concluded that required measures should be made to expand rural women's knowledge of dwelling agricultural activities, hence increasing their participation in various dwelling agricultural activities. The findings revealed that rural women's attitudes regarding dwelling agriculture had a favorable link with their participation in dwelling agricultural activities. In the field of human behavior, it's critical to understand that the nature of human behavior is extremely complicated, and that the personality's high complexity displays itself in a variety of behaviors. The response to a new innovation is highly influenced by the respondent's attitude regarding that innovation. The majority of the respondents (67 percent) had a moderately favorable attitude of housing agriculture. As a result, it is possible to conclude that rural women who have a positive attitude toward dwelling agriculture are more likely to engage in dwelling agricultural activities.

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