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## A CROSS-SECTIONAL STUDY ON LEVEL OF PARTICIPATION OF WOMEN IN FARM DECISION MAKING PROCESSES: HOUSEHOLD APPROACH IN MZIMBA NORTH, MALAWI

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## ABSTRACT

Against the background of low women's participation in farm decision making processes, Malawi's agriculture sector adapted and up- scaled Household Approach, a gender transformative tool known for its impact in enhancing participation of women in farm decision making processes. In this study, participation in farm decision making is defined as the involvement of women, men and youth in decision making process in relation to visioning, planning, implementation, monitoring and evaluation. The objective of this study was to determine level of participation of women under Household Approach in farm decision making processes. This was a cross- sectional study. Using a semi-structured interview, a quantification of the extent of participation of various gender categories in decision making in various areas was determined. Thirty- three households were purposively selected due to their participation in Household Approach. Analysis of women participation in decision making, was done by computing women's decision score. Decision score for men and youth was also computed so that a comparison is made to women's level of participation. Women took joint decisions in all farm decision making processes with a higher participation score in household visioning (0.91) compared to men (0.83) and youth (0.44). When it came to implementing production activities of an enterprise (maize) which is a major source of their livelihood determining fulfilment of their visions, there were significant variations among their participation score in decision making in relation to maize enterprise production ( $\chi^2 (2) = 40.282, p = 0.000$ ) with a mean rank participation score of 25.00, 39.94 and 8.56 in men, women and youth, respectively. This implies that much as implementation of maize production activities are jointly done with men, women still do a greater part of maize production work. When it came to monitoring, women had a lower participation score (0.68) compared to men (0.81), but higher than the youth (0.33). The lower participation score in monitoring among women was due to multiple roles the women have. This study recommends that sharing of roles be encouraged among peer households.

**Key words:** Level, Women, participation, Household Approach, Farm, Decision making, Pragmatic, Cross- sectional



## INTRODUCTION

Agriculture accounts for 30 % of Gross Domestic Product (GDP), generates over 80% of national export earnings in Malawi [1] and employs 76 % of the country's workforce [2]. In Malawi, women provide 70% of the work force and produce 80% of food for home consumption [3].

Despite the fact that women play a crucial role in the economic development of the country, their participation in decision making processes in the agricultural sector is limited as the process itself is dominated by men [3]. A report on the cost of gender gap in agriculture productivity reveals that Malawi stands to gain if women are involved in the entire agriculture value chain resulting in an increase in crop production, USD 100 million increase in Gross Domestic Product and lift 238,000 people out of poverty if the gender gap is closed [4]. It is further recommended that agriculture and development projects should be gender responsive, and take into consideration the needs, aspirations, knowledge, opportunities, constraints and challenges faced by men and women farmers including the young and old if hunger and poverty are to be alleviated in Africa [5]. Enhancing participation of women in Malawi's agriculture sector has involved adoption of a number of development views which have graduated to promoting gender and development, operationalized through a gender transformative tool known as the Household Approach (HHA) in 2009. Household Approach encourages households to build a coherent livelihood strategy in an inclusive manner [6]. The objective of this study was to determine the level of participation of women under Household Approach in farm decision making processes in Mzimba North, Malawi. Overall, this study was guided by pragmatic research paradigm. The researchers with this view are concerned with applications- what works-and solutions to the problem [7], which is similar to the interest of this study, after implementation of HHA which aims at enhancing participation of women, and how are women participating in farm decision making processes?

## MATERIALS AND METHODS

The objective of this study was to determine level of participation of women under Household Approach in farm decision making processes in Mzimba North, Malawi. This was a cross- sectional study. Using a semi- structured interview, a quantification of the extent of participation of various gender categories in decision making in various areas was determined. Thirty- three households were purposively selected due to their participation in Household Approach. Decision making processes referred to in this study are: visioning, planning, implementation, monitoring and evaluation.



When it came to assessing implementation, special interest groups were asked to rank three priority enterprises by order of their importance. Maize was ranked number one because it is used as food and if in abundance, it is also sold. Beyond maize enterprise, a number of enterprises were mentioned and these included soya, tobacco and groundnuts. For the sake of comparison among the targeted participants, maize was picked as a common enterprise where participation of men, women and youth in implementation of an enterprise was assessed. Maize enterprise production is a major source of their livelihood, determining fulfilment of their vision.

Regarding this objective, the unit of analysis was the peers' home where men, women and youth, were purposively targeted in 33 peer homes. Much as the interest was women participation, men and youth were also interviewed for comparison.

In the interview, they were asked to mention their degree of involvement in the various decision-making areas. Responses were considered on five-point scale [11] (Table 9.0).

The decision score was calculated using the adapted formula [11]:

$$\text{Decision score} = \frac{(NI \times 0) + (OS \times 1) + (OC \times 2) + (JD \times 3) + (ID \times 4)}{100}$$

In analysis of level of participation of women in decision making processes of farming activities, farm decision making areas under study were: visioning, action planning, implementation, monitoring and evaluation. Analysis of women participation in visioning, planning, monitoring and evaluation was done by computing women's decision score in these stipulated decision making areas using an adapted formula [11]. Decision score for men and youth in these decision-making areas was also computed so that a comparison is made to women's level of participation.

Analysis of level of participation in implementation as another decision-making area, involved the following: firstly, computing decision score for each enterprise activity under implementation for women, men and youth. Secondly, using Statistical Package for Social Scientists (SPSS), mean scores were then computed from decision scores. To test if there were significant variations among the mean scores of respondents (men, women and youth) in relation to their participation in decision making process, normality test was done on the mean scores of respondents. This assumption was tested using the Shapiro Wilk test for normality [12]. Based on this test, if a p-value greater than 0.05 is obtained, then the assumption of normality is satisfied for the sample being tested. Where normality



assumptions are not satisfied, a corresponding non-parametric Analysis of Variance test that does not impose distribution assumptions was used. In this case the Kruskal Wallis test was used; however, the Kruskal Wallis H test assumes that the distributions in each group (the distribution of scores for each group of the independent variable) have the same shape. Means test of imaginative variance was run to check for similarity in shapes of distribution. When a p-value larger than 0.05 is obtained, then the assumption of similarity in shapes of distribution is not violated. A test for imaginative variance, indicated that the distribution of scores for each group of the independent variable was not similar, hence mean ranks were used to compare scores among women, men and youth. Post hoc tests were done to test significant differences between pairs.

## RESULTS AND DISCUSSION

### Participation of Women, Men and Youth in Visioning

Among the responding women (n=33), 28 women representing 85% of the responding women, took joint decisions in setting visions for their families, implying that most women participated in joint decision-making during visioning. Apart from having most women participate in joint decision making in visioning, women had also a higher participation score (0.91) in household visioning compared to men and youth who had a participation score of 0.83 and 0.44, respectively. This implies that apart from just physically availing themselves, women had a stake in discussing the future they want to see together with family members. Report of women's preferences finding their way into joint visions was also reported [8], suggesting that women's voice are being heard in household decision making. Overall, most men and women took joint decisions while most youth respondents had no participation in household visioning (Table 1).

### Participation of Women, Men and Youth in Action Planning

Women and men had the same participation score (0.80) in action planning, implying that women equally contributed to what needs to be done to achieve the joint vision. Similar reports on joint decision making in planning between men and women as a result of Household Approaches were also reported [8]; however, in this study, more women (26), representing 80% of responding women (n=33), took joint decisions compared to men (23), representing 70% of the responding men (n=33) who also took joint decisions. Most youths (14) representing 42% of responding youths (n=33), had no participation in decision making in the area of action planning. Overall, men and women took joint decisions in action planning and most youth respondents had no participation in action planning (Table 2).



### **Women, Men and Youth Participation in Implementation**

Among men, participation score was highest in the area of re-planning (0.95), while women and youth had their highest participation score in shelling as 1.05 and 0.68, respectively. Mean (SD) decision score for men respondents was 0.84 (0.76) and for women and youth respondents, it was 0.95 (0.41) and 0.87(1.66), respectively, (Table 3).

Comparing the Mean Rank for men, women and youth as regards their participation in implementing various activities in maize production, it appears that the youth had the lowest mean rank compared to women and men (Table 4).

Regarding types of decisions taken by various gender categories in implementation of maize as a major enterprise for realisation of household visions, most women respondents (80%; n=33), participated in joint decision making, compared to men respondents (74%; n=33) and youth respondents (64%; n=33). Overall, there were significant variations among their participation score in decision making in relation to maize enterprise production ( $\chi^2 (2) = 40.282, p = 0.000$ ) with a mean rank participation score of 25.00, 39.94 and 8.56 in men, women and youth, respectively (Table 5). This implies that much as implementation of maize production activities are jointly done with men, women still do a greater part of maize production work. Significant differences in participation scores between gender categories was found in all groups: men and women ( $p = 0.000$ ), men and youth ( $p = 0.000$ ), women and youth ( $p = 0.000$ ) (Table 6).

### **Women, Men and Youth Participation in Monitoring of Farm Plans**

In most cases (24) men representing 73% of responding men (n=33) and 18 women, representing 55% of responding women (n=33), took joint decisions. Most youths (20), representing 61% of responding youths (n=33), had no participation in decision making in the area of monitoring. Overall, most men and women took joint decisions in monitoring although men had a higher participation score (0.81) compared to women (0.68). Most youths did not participate in monitoring (Table 7). This implies that much as implementation is mostly done by women, crop management was compromised demonstrated by low level of monitoring, which may result in low production levels. Similar findings [9]. on low level of decision making in crop management among women farmers was also reported.

### **Women, Men and Youth Participation in Evaluation**

Lastly, contrary to findings that household members just participated in household visioning, without proceeding to evaluating their vision [10], it was observed that most men (55%) n=33 and most women (58%) n=33, took joint decisions in evaluation with a participation score of 0.64 and 0.71, respectively, implying a mutual desire to reflect on milestones (Table 8).



## CONCLUSION, AND RECOMMENDATIONS FOR DEVELOPMENT

The objective of this study was to determine level of participation of women under Household Approach in farm decision making processes. Women took joint decisions in all farm decision making processes with a higher participation score in most farm decision making processes. By 2030, all nations are working towards achieving zero hunger for all according to Sustainable Goal number two. Malawi is one of the countries that committed to working towards achievement of sustainable development goals. Recently, Malawi launched the National Agriculture policy which envisages Sustainable Agricultural Transformation with consideration of increased engagement by women, youth and vulnerable groups in agriculture policy processes and programs. Findings of this study will inform policy makers on up-scaling of Household Approach which enhances women's participation in programme processes, thereby contributing towards agriculture transformation.

### **Ethics approval and consent to participate**

Approval to collect data was given by the department of Agri-Sciences at Mzuzu University. Written consent from participants was sought.

### **Consent for publication**

Not applicable

### **Availability of data and material**

Data is available upon request from corresponding author

### **Competing interests**

All authors declare no competing interest

### **Funding**

There was no funding for this study

### **Authors' contributions**

All authors contributed adequately towards completion of this study. Their career background played important roles. All authors read and approved the manuscript.

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**Table 1: Participation of women, men and youth in household visioning**

|       | NI | OS | OC | JD | ID | Score |
|-------|----|----|----|----|----|-------|
| Men   | 4  | 0  | 4  | 25 | 0  | 0.83  |
| Women | 1  | 1  | 3  | 28 | 0  | 0.91  |
| Youth | 13 | 6  | 4  | 10 | 0  | 0.44  |

Key: NI=Not involved, OS=Opinion sought, OC=Opinion considered, ID = Independent decision and JD = Joint Decision

**Table 2: Participation of women, men and youth in action planning**

|       | NI | OS | OC | JD | ID | Score |
|-------|----|----|----|----|----|-------|
| Men   | 6  | 1  | 3  | 23 | 0  | 0.80  |
| Women | 4  | 1  | 2  | 26 | 0  | 0.80  |
| Youth | 14 | 7  | 5  | 7  | 0  | 0.38  |

Key: NI=Not involved, OS=Opinion sought, OC=Opinion considered, ID = Independent decision and JD = Joint Decision



**Table 3: Women, men and youth participation score in implementation**

| Activity          | Participation Score |             |             |
|-------------------|---------------------|-------------|-------------|
|                   | Men                 | Women       | Youth       |
| Buying            | 0.88                | 0.91        | 0.37        |
| Land clearing     | 0.86                | 0.92        | 0.51        |
| Ridge making      | 0.89                | 0.95        | 0.52        |
| Planting          | 0.85                | 0.99        | 0.54        |
| Bottom dressing   | 0.81                | 0.96        | 0.49        |
| First weeding     | 0.89                | 0.97        | 0.51        |
| Top dressing      | 0.85                | 0.95        | 0.50        |
| Second weeding    | 0.80                | 0.97        | 0.44        |
| Harvesting        | 0.78                | 0.99        | 0.51        |
| Shelling          | 0.61                | 1.05        | 0.68        |
| Bagging           | 0.80                | 0.92        | 0.42        |
| What to sell      | 0.87                | 0.90        | 0.19        |
| How much to sell  | 0.88                | 0.93        | 0.36        |
| Actual selling    | 0.87                | 0.91        | 0.42        |
| Use of proceeding | 0.89                | 0.91        | 0.41        |
| Re-planning       | 0.95                | 0.91        | 0.42        |
| Mean (SD)         | 0.84 (0.76)         | 0.95 (0.41) | 0.87 (1.66) |

SD=Standard deviation

**Table 4: Mean- Ranks: Kruskal- Wallis Test for men, women and youth participation score**

|  | Gender group | N  | Mean Rank |
|--|--------------|----|-----------|
| Participation score in decision making | Men          | 16 | 25.00     |
|  | Women        | 16 | 39.94     |
|  | Youth        | 16 | 8.56      |
|  | Total        | 48 |           |

**Table 5: Test Statistic - Kruskal- Wallis test among men, women, youth and participation score in decision making**

| Participation score in decision making |        |
|--|--------|
| Chi-Square                             | 40.282 |
| Df                                     | 2      |
| Asymp. Sig.                            | .000   |

**Table 6: Test Statistic- Post hoc Men and women, men and youth, women and youth**

|             | Men and women | Men and youth | Women and youth |
|-------------|---------------|---------------|-----------------|
| Chi-Square  | 20.208        | 23.367        | 22.978          |
| Df          | 1             | 1             | 1               |
| Asymp. Sig. | .000          | .000          | .000            |

**Table 7: Participation of women, men and youth in monitoring (n=33)**

|       | NI | OS | OC | JD | ID | Score |
|-------|----|----|----|----|----|-------|
| Men   | 5  | 1  | 2  | 24 | 1  | 0.81  |
| Women | 10 | 0  | 3  | 18 | 2  | 0.68  |
| Youth | 20 | 2  | 2  | 9  | 0  | 0.33  |

Key: NI=Not involved, OS=Opinion sought, OC=Opinion considered, ID = Independent decision and JD = Joint Decision



**Table 8: Participation of gender categories in evaluation**

|       | NI | OS | OC | JD | ID | Score |
|-------|----|----|----|----|----|-------|
| Men   | 10 | 2  | 2  | 18 | 1  | 0.64  |
| Women | 8  | 2  | 2  | 19 | 2  | 0.71  |
| Youth | 20 | 3  | 3  | 7  | 0  | 0.30  |

Key: NI=Not involved, OS=Opinion sought, OC=Opinion considered, ID = Independent decision and JD = Joint Decision

**Table 9.0: Ratings on degree of involvement**

| Decision                  | Score |
|---------------------------|-------|
| Not involved (NI)         | 1     |
| Opinion sought (OS)       | 2     |
| Opinion considered (OC)   | 3     |
| Joint decision (JD)       | 4     |
| Independent decision (ID) | 5     |

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