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Short Research Article

Level of Competitiveness Building of Farm Women in Assam through Extension Services

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Abstract

Women plays a significant and crucial role in agricultural development and allied fields including in the main crop production, livestock production, horticulture, post-harvest operations, fisheries etc., the nature and extent of women's involvement in agriculture, no doubt, varies greatly from region to region. But despite their importance to agricultural production, women face severe handicaps. Agricultural development programmers are usually planned by men and aimed at men. All agricultural services still have a sex bias in favors of men. Women are generally by-passed in development efforts. They are in urgent need of understanding and acquiring new knowledge and skills on cultivation of crops, so that they could contribute more effectively to the production process. Thus the important contribution made by women of Assam in agriculture, provides the necessary basis and justification for the present research study. The study was conducted in three agro-climatic zones of Assam. A multistage purposive cum random sampling design was followed. Altogether 1200 farm women were included as sample of respondents. Data were collected with the help of structured interview schedule and questionnaire. 52.60% of farm women belonged to low socio-economic status. 51.92% of farm women had medium level of achievement motivation. Majority (54.75%) of farm women had medium level of economic motivation. Majority (55.17%) of farm women had medium level of innovation proneness. 48.25% of farm women had medium level of self-confident. 49.33% of farm women had medium level of risk bearing ability.

1. Introduction

Women plays a significant and crucial role in agricultural development and allied fields including in the main crop production, livestock production, horticulture, post-harvest operations, fisheries etc., the nature and extent of women's involvement in agriculture, no doubt, varies greatly from region to region. But regardless of these variations, there is hardly any activity in agricultural production except ploughing in which women are not actively involved. In some of the farm activities like processing and storage, women predominate and therefore men workers are numerically insignificant. Studies on women in agriculture conducted in India and other developing and underdeveloped countries all point to the fact that women contribute far more too agricultural production than has generally been acknowledged. Recognition of their crucial role in agriculture should not obscure the fact that farm women continue to be concerned with their primary functions as wives, mothers and homemakers.

According to FAO (2010), women comprise just over 40% of the agricultural labour force in the developing World, a figure that has risen slightly since 1980 and ranges from about 20% in the America to almost 50% in Africa. The global average is dominated by Asia. Within Asia, the sub-regional averages range from about 35% in South Asia to almost 50% in East and Southeast Asia. The Asian average is dominated by China, where the female share of the agricultural labour force has increased slightly during the past three decades. These very large countries mask changes in some smaller countries where the female share of the agricultural labour force appears to have increased dramatically, now exceeding 50% in Bangladesh. Other Asian countries such as Malaysia have seen declining female labour shares in agriculture. In India about 75% women workers were engaged in agriculture, either as cultivators or as laborers, as compared to 59% of male workers NSSO (2010).

Women are usually employed in most difficult field operations like sowing, transplanting, weeding, intercultural operations,

harvesting, threshing and agro-processing. It can be seen that mechanization and modernization of agriculture have led to increased agricultural productivity and decreased drudgery, but mechanization has occurred for activities usually carried out by men, women continue to toil in labour intensive chores.

The crucial importance of women's contribution to food security is widely recognized. Yet they faced with a number of constraints for participation in agriculture such as, there is (a) discrimination in wages, low wages for women, (b) gender based technology, training and extension services, (c) women have limited access to modern technical viz., credit and training, to other facilities etc. (Rath et al., 2007). Thus the important contribution made by women of Assam in agriculture, provides the necessary basis and justification for the present research study with the following objectives:

(i) To study the socio-economic status of farm women.
(ii) To find out the competitiveness building of farm women through extension services.

2. Materials and Methods

2.1. Sample and sampling procedure

The study was conducted in the state of Assam in three agro-climatic zones namely Upper Brahmaputra Valley Zone, Central Brahmaputra Valley Zone and North Bank Plain Zone, in the year 2013. A multistage purposive cum random sampling design was followed. From each selected agro-climatic zone two districts, total six (6) districts were selected purposively. Again from the selected district one sub-division total six (6) sub-division were selected purposively considering the involvement of farm women in agricultural activities.

From the selected sub-division two blocks total twelve (12) blocks were selected purposively. From each selected block four (4) villages were selected randomly. Thus forty eight (48) villages were selected for carrying out the study. From each selected village 25 farm women, total one thousand and two hundred (1200) farm women were selected randomly.

2.2. Variable and its measurements

2.2.1. Socio-economic status

This refers to the position of the respondent in society and was determined by various social and economic variables such as caste, land holding, education and type of house, main family occupation, family type, family size, material possession and organizational membership of farm women. The socio-economic status of farm women was measured by the socio-economic scale developed by (Trivedi,1963) with slight modification. On the basis of scoreobtained by the farm women they were categorized into the 3 categories: Low with score range below (X-Sd), medium with X-Sd to X+Sd and high with above X+Sd.

2.2.2. Level of competitiveness building of farm women

Level of competitiveness building of farm women is operationally defined as the building of characteristics of farm women such as their level of achievement motivation, economic motivation, innovation proneness, self-confidence and their risk bearing ability for increasing productivity of rice through extension services.

2.2.2.1. Achievement motivation

It refers to the farm woman desires to do something well for success in her life. It was measured by using achievement motivation scale developed by Devi (1987). The scale has 10 statements, out of which 5 are positive statement and 5 are negative statements. Each statement was provided with a five point response categories as strongly agree, agree, undecided, disagree and strongly disagree and score as 5, 4, 3, 2, 1.

The achievement motivation score of a farm women was the sum total of scores for all the statements in the scale. Based on mean and standard deviation of the obtained scores, farm women were classified into 3 category: Low with score range below (X- Sd), medium with X-Sd to X+Sd and high with above X+Sd.

2.2.2.2. Economic motivation

For the present study, economic motivation is operationalized as the degree to which a farm woman attains occupational success in terms of profit maximization. It was measured by the economic motivation scale developed by Singha (1991) with slight modification in the scoring procedure. The scale has eight statements out of which four are positive statements and 4 are negative statements. Each statement was provided with a five point response categories as strongly agree, agree, undecided, disagree and strongly disagree and score as 5, 4, 3, 2, 1.

The economic motivation score of a farm women was the sum total of scores for all the statements in the scale. Based on mean and standard deviation of the obtained scores, respondents were classified into 3 category: Low with score range below (X-Sd), medium with X-Sd to X+Sd and high with above X+Sd.

2.2.2.3. Innovation proneness

It is operationalized as the degree of farm women's interest in and a desire to seek changes in farming techniques and to introduce such changes into their own fields, when practical and feasible.

The variable was measured with the help of self-rating scale developed by Moulik and Rao (1965) with slight modification. The scale comprised of three groups of statements each having three statements. Each statement was provided with

a three point response categories as agree, undecided, and disagree and score as 3, 2, 1. The total score obtained in the scale indicated the respondent's degree of innovation proneness. On the basis of mean (x) and standard deviations (Sd) of obtained, scores farm women were classified into three categories as Low with score range below (X-Sd), medium with X-Sd to X+Sd and high with above X+Sd.

2.2.2.4. Self confidence

In the present study, self confidence has been operationalized as the degree to which a farm woman has belief and confident over herself.

The variable was measured with the help of Scale developed by Thakur (2009) with slight modification. The scale has 8 statements, out of which 4 are positive statement and 4 are negative statements. Each statement was provided with a five point response categories as strongly agree, agree, undecided, disagree and strongly disagree and score as 5, 4, 3, 2, 1.

The Self confidence score of a farm women was the sum total of scores for all the statements in the scale. Based on mean and standard deviation of the obtained scores, farm women were classified asLow with score range below (X-Sd), medium with X-Sd to X+Sd and high with above X+Sd.

2.2.2.5. Risk bearing ability

For the present study, risk bearing ability is operationalized as the degree to which a farm woman is oriented towards risk and uncertainty in running the farm and nonfarm activities as an enterprise.

The scale developed by Supe (1969) was used to measure the risk bearing ability of the farm women with slight modification of statements to bring it in line of the investigator's present study. The scale contains eight statements, each statement was provided with a five point response category as strongly agree, agree, undecided, disagree and strongly disagree and score as 5, 4, 3, 2, 1.

The risk bearing ability score of a farm women was the sum total of scores for all the statements in the scale. Based on mean and standard deviation of the obtained scores, respondents were classified as Low with score range below (X-Sd), medium with X-Sd to X+Sd and high with above X+Sd.

2.3. Statistical analysis

A pre-tested interview schedule was used for getting the complete and desired information. The collected data were coded, tabulated and analyzed by using appropriate tests and techniques. The statistical techniques along with their uses were:

Percentage: It is a fraction expressed with 100 as its denominator. It is used to any set of data for comparison.

Mean: It is the arithmetic average and was used to measure the type of the observation as a whole. The mean for all the readings were worked out as mentioned below.

$$\text{Mean } \overline{X}=\frac{\sum X}{n}$$

Where, $\sum X$=Summation of item values

N=Number of item

Standard deviation: To find out the extent of variability shown by the variables, i.e., the dispersion of the variables around the mean, standard deviation (SD) was used. The formula is mentioned below:

$$SD=\sqrt{\frac{\sum(Xi-\bar{x})^2}{n-1}}$$

Where, d=Standard deviation
n=Total number of respondent
Xi=Variables of the study
$\overline{X}$=Mean of the distribution

Co-efficient of variation (C.V): This index was used to find out the relative variability of dispersion of a given set of scores. The C.V of a given distribution was worked out as follows:

$$\text{Co-efficient of variation (C.V)}=\frac{Sd}{\overline{X}}\times 100$$

Where, SD=standard deviation
$\overline{X}$=Mean of the distribution

3. Results and Discussion

3.1. Socio-economic status of farm women

Majority 55.08% of farm women of the study areas belonged to middle age group i.e. 30−40 yrs. Large majority (91.66%) of farm women were married. 44.75% of farm women belonged to general caste. 41.33% of farm women belonged to the category of marginal farmer. 38.50% of farm women had education up to middle school. 46.42% farm women had mixed type of house. 46.50% of the farm women's family occupation was farming. Majority (77.89%) of farm women belonged to nuclear family. The data reveals that majority (63.95%) of farm women belonged to small family. Per cent of farm families possessed hoe and hand tools, followed by desi plough (99.08%) and bullock (98.25%). Majority 60.91% of farm families possesses two wheelers. 87.08% of farm families possess mobile followed by television (70.42%). Large majority (95.42%) of farm families possess traditional chullah. 64.09% of farm women were member of one organization. 52.60% of farm women belonged to low socio-economic status.

3.2. Achievement motivation

It can be observed from the Table 1 that 51.92% of farm women had medium level followed by 36.16% had low level of achievement motivation. It is interesting to note that 11.92% of farm women had high level of achievement motivation. It

Table 1: Distribution of farm women according to achievement motivation, N=1200

Sl. No.	Category	Frequency	Percentage	Mean	S.D	C.V
1.	Low<17.57	623	36.16			
2.	Medium 17.57 to 29.19	434	51.92	23.38	5.81	24.85
3.	High>29.19	143	11.92			

might be due to the reason that they were not motivated by agriculture extension services to do commercial cultivation or not enthusiastic and less interest to achieve more success. This study is in line with Kacharo (2007); Boruah (2009).

The information on achievement motivation as perceived by farm women helps the extension planner for planning extension training programmed in need areas and for improving the women's access to extension services.

3.3. Economic motivation

The data presented in the Table 2 reveals that majority (54.75%) of farm women had medium level of economic motivation followed by 36.42% had low level and only

Table 2: Distribution of farm women according to economic motivation, N=1200

Sl. No.	Category	Frequency	Percentage	Mean	S.D	C.V
1.	Low<22.07	437	36.42			
2.	Medium 22.07 to 25.93	657	54.75	24	1.93	8.04
3.	High>25.93	106	8.83			

8.83% high level of economic motivation. The medium level economic motivation of the farm women might be due to realizations of the economic importance in their society which leads to economic empowerment of the farm women. This finding is in line with Singh and Mathur (2005); Saikia et al. (2013).

3.4. Innovation proneness

It is evident from Table 3 that majority (55.17%) of farm women had medium level of innovation proneness followed by 34.42% had low level of innovation proneness. The table further shows that 9.42% of farm women had high level of innovation proneness. It may be due to the fact that as the farm women had less contact with extension agent and get all knowledge about new technology from husband, friends and relatives therefore they had less confidence to adopt new

Table 3: Distribution of farm women according to innovation proneness, N=1200

Sl. No.	Category	Frequency	Percentage	Mean	S.D	C.V
1.	Low<11.43	425	34.42			
2.	Medium 11.43 to 3.29	662	55.17	12.36	0.93	7.52
3.	High>13.29	113	9.42			

technology.

3.5. Self-confidence

From Table 4 it can be observed that 48.25% of farm women had medium level of self-confident and it is interesting to note that very less percentage of farm women (5.58%) had high level of self-confident. This might be due to less exposure to mass media and extension services, through which they might have gained knowledge and skill to increase their self-

Table 4: Distribution of respondents according to self-confident

Sl. No.	Category	Frequency	Percentage	Mean	S.D	C.V
1.	Low<21.27	554	46.17			
2.	Medium 21.27 to 27.11	579	48.25	24.19	2.92	12.07
3.	High>27.11	67	5.58			

confidence. This finding is in line with Borkakoty (2013).

3.6. Risk bearing ability

Table 5 indicates that 49.33% of farm women had medium level followed by 44.77% in low level of risk bearing ability. Only 5.92% of farm women had high level of risk bearing ability. This finding is similar with the findings of Gupta (1999) but is inconsistent with the findings of Nagaraja (2002).

This low and medium level of risk bearing ability of farm women might be due to low knowledge, low economic motivation, and low innovation proneness and less exposure to agriculture extension services by the farm women.

Table 5: Distribution of farm women according to risk bearing ability, N=1200

Sl. No.	Category	Frequency	Percentage	Mean	S.D	C.V
1.	Low<21.20	537	44.75			
2.	Medium 21.20 to 22.14	592	49.33	21.67	0.47	2.17
3.	High>22.14	71	5.92			

4. Conclusion

Farm women belong to low socio-economic status. 51.92% of farm women had medium level of achievement motivation. Majority (54.75%) of farm women had medium level of economic motivation. Majority (55.17%) of farm women had medium level of innovation proneness. 48.25% of farm women had medium level of self-confident. 49.33% of farm women had medium level of risk bearing ability, which indicate that level of competitiveness building of farm women were not high.

5. Recommendation

The extension service should be more gender sensitive when organizing extension activities at different levels, so that women farmer's have full and appropriate access to extension meetings, demonstrations, field days and other activities. A proportion of women farmer's participants should be targeted in each extension activity that can specifically benefit them.

Women farmers need to be involved in production oriented training and extension programmers, not only as beneficiaries but also as a change agent to have access to credit, technology, and skill to increase their efficiency.

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