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Level of capacity building of farm women of 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 programmes are usually planned by men and aimed at men. All agricultural services still have a sex bias in favour 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 on "Level of capacity building of farm women in Assam through extension services. 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 per cent of farm women belonged to low socio-economic status. Majority (61.17%) of farm women had low level knowledge on rice production technology. 53.34 per cent of farm women had medium level of attitude towards improved agricultural technology. 62.17 per cent of farm women had low level of skill on rice production technology.

Key Words : Knowledge, Attitude, Skill and farm women

INTRODUCTION

Women are the backbone of agricultural workforce and make essential contributions to the agricultural and rural economies in all developing countries. Their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Compared to men, women are generally involved in a wider range in crops, livestock and agro-based activities.

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Many of these activities are not defined as "economically active employment" in national accounts but they are essential to the well-being of rural households.

According to FAO (2010), women comprise just over 40 per cent of the agricultural labour force in the developing world, a figure that has risen slightly since 1980 and ranges from about 20 per cent in the America to almost 50 per cent in Africa. The global average is dominated by Asia. Within Asia, the sub-regional averages range from about 35 per cent in South Asia to almost 50 per cent 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 per cent in Bangladesh. Other Asian countries such as Malaysia have seen declining female labour shares in agriculture. In India about 75 per cent women workers were engaged in agriculture, either as cultivators or as laborers, as compared to 59 per cent 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 are (i) discrimination in wages, low wages for women, (ii) gender based technology, training and extension services, (iii) women have limited access to modern technical *viz.*, credit, training and 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 on "Level of capacity building of farm women in Assam through extension services ," with the following objectives:

- To study the socio-economic status of farm women .
- To find out the capacity building of farm women through extension services.

METHODOLOGY

Sample and sampling procedure *:*

The study was conducted in the state of Assam in three agro-climatic zone namely Upper Brahmaputra Valley Zone, Central Brahmaputra Valley Zone and North Bank Plain Zone. 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.

Variable and its measurements :

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, 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 were measured by the socio-economic scale developed by (Trivedi,1963) with slight modification. On the basis of score obtained 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.

Level of capacity of farm women :

Level of capacity of farm women is operationally defined in the present study as the existing knowledge, skill and attitude of farm women towards improved rice production technology through different extension services.

Existing knowledge of farm women on rice production technology :

English and English (1958) defined knowledge as a body of understood information possessed by an individual. They further explained that knowledge is that part of a person's information which is in accordance with established fact.

In the present study, knowledge refers to the amount of detailed information possessed by farm women on rice production technology.

A knowledge check was developed to measure the knowledge of farm women about improved rice production technology. The scale consisted of 12 (twelve) statements and farm women's responses were recorded on a three point continuum as know thoroughly, know somewhat and not known and scored as 3, 2,1. On the basis of score obtained 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.

Existing skill of farm women on rice production technology :

The skill in the present study refers to the ability of farm women to perform a particular practice in the area of rice production accurately. The existing skill of farm women on selected rice production technology was measured on three point continuum as very frequently, frequently and not known and scored as 3,2, and 1. On the basis of score obtained 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.

Attitude of farm women towards improved agricultural production technology :

In this study it refers to the farm women's own degree of agreement or disagreement to each of the stated items towards improved agricultural technology.

Attitude was measured in this study by using standardized scale developed by Rao (1993) with slight modification. The scale consists of 18 attitude statements where 9 statements

were positive and the remaining 9 statements were negative. The 3 points continuum were 'agree', 'undecided' and 'disagree' with respective weight age of 3, 2, 1 for positive items and with 1,2, and 3 for negative items. On the basis of the scores obtained by the farm women, they were categorized into 3 category : Low with score range below (X- Sd), medium with X-Sd to X+Sd and high with above X+Sd.

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.

$$\text{Mean : } \bar{X} = \frac{\Sigma X}{n}$$

where, ΣX = 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:

$$\text{S.D.} = \sqrt{\frac{\Sigma(xi - \bar{x})^2}{n-1}}$$

where, d = Standard deviation

n = Total number of respondent

x_i = Variables of the study

$\bar{x}$ =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:

$$\text{Co-efficient of variation (C.V)} = \frac{sd}{\text{EMBED Equation.3}} \times 100$$

where, sd= standard deviation

$\bar{x}$ =Mean of the distribution

RESULTS AND DISCUSSION

Socio-economic status of farm women

Majority 55.08 per cent 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 per cent of farm women belonged to general caste. 41.33 per cent of farm women belonged to the category of marginal farmer. 38.50 per cent of farm women had education upto middle school. 46.42 per cent farm women had mixed type of house. 46.50 per cent 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. Cent per cent of farm families possessed hoe and hand tools, followed by desi plough (99.08%) and bullock (98.25%). Majority 60.91 per cent of farm families possesses two wheelers. 87.08 per cent of farm families possess mobile followed by television (70.42%). Large majority (95.42%) of farm families possess traditional chullah. 64.09 per cent of farm women were member of one organization. 52.60 per cent of farm women belonged to low socio-economic status.

Existing knowledge of farm women on rice production technology:

Knowledge is one of the important components of behaviour and plays an important part in covert or overt behaviour of an individual. A knowledgeable person is capable of clear and balanced thinking. She/he is able to take right decisions at the appropriate time. The results of the existing knowledge of the farm women on rice production technologies have been presented in Table 1.

Table 1 : Existing knowledge of farm women on rice production technology

Sr. No.	Category	Frequency	Percentage	Mean	S.D	C.V
1.	Low < 7.58	734	61.17			
2.	Medium 7.58 to 12.46	323	26.92	10.02	2.44	24.35
3.	High > 12.46	143	11.92			

The table reveals that majority (61.17%) of farm women had low level knowledge followed by medium level knowledge (26.92%) and high level of knowledge (11.92%). The low level of knowledge may be due to the fact that farm women had no exposure to training on rice production technology.

These findings are in line with the findings of Singh and Singh (1981), Govind *et al.* (1991), Bhople and Patki (1992) and Kaur and Mahajan (1993).

Attitude of farm women on improved agricultural technology :

It is apparent from the Table 2 that 53.34 per cent of farm women had medium level of attitude towards improved agricultural technology followed by 36.33 per cent had low level and 10.33 per cent had high level of attitude towards improved agricultural technology.

The medium level attitude of farm women towards improved agricultural technology

Table 2 : Distribution of farm women according to attitude towards improved agricultural technology (N=1200)

Sr. No.	Category	Frequency	Percentage	Mean	S.D	C.V
1.	Not favourable < 32.31	436	36.33			
2.	Favourable 32.31 to 37.05	640	53.34	34.68	2.37	6.83
3.	Highly favourable > 37.05	124	10.33			

Table 3 : Distribution of farm women according to their existing skill on rice production technology (N= 1200)

Sr. No.	Category	Frequency	Percentage	Mean	S.D	C.V
1.	Low < 10.8	746	62.17			
2.	Medium 10.8 to 21.6	342	28.50	16.2	5.4	33.33
3.	High > 21.6	112	9.33			

might be due to the fact that they were convinced about the benefit of improved agricultural technology for getting higher yields. This finding is in agreement with the findings of Singh (1990), Manohari (2001) and Bharali (2003).

Existing skill of farm women on rice production technology :

The skill of farm women is defined as the level of capability of farm women in applying their gained knowledge of rice production technology accurately in her field. More skilled farm woman have the capacity to produce and earn more. The existing skill of farm women are presented in the Table 3.

The Table 3 shows that majority (62.17%) of farm women had low level of skill followed by medium level of skill (28.50%). It is interesting to note that only 9.33 per cent of farm women had high level of skill. This might be due to lack of taking initiatives by the Government/ Private extension functionaries for inclusion of women farmers in agricultural training programme. This finding is in contrast to those of Misro (1996) and Wasnik (2005) who found that farm women had high level of skills in agricultural practices.

Conclusion:

The findings presented in this study show that farm women belong to low socio- economic status. They had low level of knowledge and skill on rice production and medium level attitude towards improved agricultural technologies, which indicate that level of capacity building of farm women were not high. Therefore, extension service should be more gender sensitive when organizing extension activities at different levels, so that women farmers have full and appropriate access to extension meetings, demonstrations, field days and other activities. A proportion of women farmers participants should be targeted in each extension activity that can specifically benefit them.

Recommendation :

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

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REFERENCES

Bharali, P. (2003). Attitude of tribal farm women of Assam towards improved agricultural technology. Unpublished M.Sc. Thesis, Assam Agricultural University, Jorhat -13

Bhopale, R.R. and Patki, A. (1992). Socio- economic dimensions of farm women labor. *Rural India,* **61** (9 ^ 10) : 192-194.

English, H.B. and English, A.C. (1958). A comprehensive dictionary of psychological analytical terms. Green and Co Longman's, New York.

FAO (2010). National Gender Profile of Agricultural Households, 2010. Report based on the 2008 Cambodia Socio-Economic Survey. Food and Agriculture Organization of the United Nations, Rome and General Statistics Office and Ministry of Planning, Phnom Penh.

Govind, S.; Subramanyam, V.S. and Alagesan, V. (1991). Knowledge level of farm women on farm operations. *Tamil Nadu J. Extn. Edn*. **II**(4): 365-368.

Kaur, R. and Mahajan, N. (1993). Performance of agricultural related roles by farm women. *Agril. Extn. Rev.*, pp. 19-23.

Manohari, P.L. (2001). Attitude of primitive tribal groups towards improved agricultural technology. *Manage Extn. Res. Rev*., **25**(2): 125-138.

Misro, R.C. (1996). A study on utility and impact of training under the project " Training and extension for women in agriculture" in Ganjam district of Orissa. Unpublished M.Sc thesis, Assam Agricultural University, Jorhat -13.

NSSO (2010). Employment and unemployment situation in India. Available at *www.indiaenvironmentportal.org.in/.../NSS_Report_employment%20an.*

Rao, P.P. (1993). Study on adoption of improved agricultural technology by tribal farmers in high altitude and tribal zone of Andhra Pradesh .Ph.D. Thesis, ANGRAU, A.P.

Rath, N.C., Das, L., Mishra, S.K. and Lenka, S. (2007). Social and Institutional Framework for Mainstreaming women in Agriculture. *Kurukshetra,* **55**: 23.

Singh, A.K. and Singh, D.K. (1981). Participation of rural women in agriculture in hills of Uttar Pradesh. *J. Rural Develop.,* **7**(3).

Singh, B. (1990). Socio-personal correlates of adoption behavior and information needs of tribal farmers in respect of rainfed technology. *Indian J. Extn. Edn*. **26**(3 & 4): 55.

Trivedi, G. (1963). Measurement and Analysis of Socio-Economic Status of Rural Families, Ph.D Thesis, Indian Agricultural Research Institute, New Delhi.

Wasnik, K.P. (2005). Women in agriculture strategy for socio-economic empowerment. Kalpaz Publication, Delhi

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