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Need Assessment for Capacity Building of Women in Practicing Post Harvest Activities of Vegetables

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Abstract

The main focus of this study was to determine the extent of need for capacity building of women for practicing post harvest activities of vegetables and to explore the relationships of the selected characteristics of the women with their extent of need for capacity building. The study was conducted with randomly selected 100 women of Ashulia union under Savar upazila of Dhaka district during April to May 2007. Need for capacity building of women was the dependent variable and the twelve selected characteristics of the respondents constituted the independent variables of the study. The highest proportion (57%) of the respondents had high need while the rest (43%) of them had medium and none of them had low extent of need for capacity building. The women had the highest (22%) need for capacity building in management skill and their lowest extent (18%) of need was for capacity building in physical facilities. Among the characteristics of the respondents, family farm and homestead size, annual family income and use of post harvest technology showed significant negative relationship with their need for capacity building but credit received by the respondents was positively significant. The major problems faced by the women in utilizing the post harvest facilities of vegetables are lack of credit, inadequate marketing facilities and inefficient manpower.

***Keywords**: Need assessment, capacity building, post harvest facilities, vegetables.*

Introduction

A major precondition for participation of women in development to be effective is the empowerment and enhancement of their capabilities as well as of their status to exercise rights in decision making. Consequently, women in Bangladesh have long been subjected to discrimination mostly due to gender bias in social traditions and practices. In Bangladesh 24% rural and 10% urban women are under extreme poverty line. Moreover, Millennium Development Goals (MDGs) put the first goal as eradicating extreme poverty and hunger (UNDP, 2004). Therefore, it is urgent to mainstream the women in the income generating activities to make them self reliant. Though women in Bangladesh work 21 hours more than men do in a week, it is not counted for in estimating national income (Banglapedia, 2004). Even within the family, specially in rural areas, women get the lesser share of food and healthcare as well as of inherited property. Thus, there is considerable evidence that women are more disadvantaged than men in relation to the opportunities arising from social structure and dynamics: First, most women are not much aware of their own abilities due to lack of education and restricted social mobility. Second, even if otherwise qualified, women often do not have the kind of access to credit or control over capital. Third, there are legal barriers or conventions that create bottlenecks for women. They work at grass root level for poverty alleviation and employment generation. Women's need to improve their

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capacity with household activities to some commercial point of view demands intellectual consideration.

Vegetables, with increasing recognition of their value in the human diet, are gaining commercial importance. Vegetable production is one of the most important income generating activities (IGAs) in alleviating poverty. The post harvest losses of vegetables in Bangladesh could be as high as 43% (Sharma, 1987). However, the average post harvest loss is estimated to be 26% (Khan, 1991) due to rough and improper post harvest handling, transportation and storage practices, and the variation often depends on the type of vegetables. These losses of vegetables can be minimized through improving storage facilities and taking care while handling, packaging and transporting. Another way to tackle this problem is to process the vegetables for different purposes like pickle, jam, jelly etc. In addition, processed vegetables have considerably increased market price than that of unprocessed vegetables.

Women are the pioneer and chief producer of vegetables. Capacity building of them for practicing post harvest activities of vegetables is the extent to which they have the accessibility to financial, physical, managerial support services as well as the ability to make decision about utilizing the post harvest facilities of vegetables. Therefore, their capacity of handling post harvest operations needs to be improved. The specific objectives of the study were: to determine the need for capacity building of women for practicing post harvest activities of vegetables; to explore the relationships between 12 selected characteristics of the women with their need for capacity building for practicing post harvest activities of vegetables and to find out the problems faced by the women in using the post harvest facilities of vegetables.

Methodology

The study was conducted in two purposively selected villages namely Kalma and Charabag of Ashulia union under Savar upazila of Dhaka district. The reason for selecting the site was that Horticulture Development Project of DAE had been operated in that area. The population of the study comprised 430 households who received training from the projet and among them 100 households were randomly selected for data collection. Thus, the sample comprised of 23% of the total households. Data were collected by using a structured interview schedule during 15 April to 10 May 2007.

To measure the extent of need for capacity building of women, five dimensions of capacity building were included. These were: need for financial ability (capital, credit, labor purchase and processing-equipment purchase), need for decision making ability (collection, grading, packaging, processing, storing and selling of vegetable), need for access to support services (preservation facilities or cold storage, labor market, marketing channel\facilities, access to credit, transport and development workers for advice), need for management skill (knowledge on post harvest activities, operational ability, market facility exploitation and financial management), and for physical facilities (processing

materials\equipment, processing ground, transport\vehicles, store house and sale centres). The dimensions were measured on a four-point rating scale i.e. 'no', 'low', 'medium', 'high' and scores were assigned as 0, 1, 2, 3 respectively. Thus, total score of a subject for this variable could range from 0 to 78.

To ascertain the comparison among the problems, Problem Facing Index (PFI) was computed by using the following formula after Afique (2006):

$PFI = (Ph \times 3) + (Pm \times 2) + (P1 \times 1) + (Pn \times 0)$

Where,

PFI=Problem facing index

Ph = Number of respondents having high problem

Pm = Number of respondents having medium problem

P1 = Number of respondents having low problem

Pn =Number of respondents having not any problem at all

Descriptive statistics and Pearson Product Moment Coefficient of Correlation test was computed to fulfill the objectives of the study. The analysis of data was performed by using SPSS and at least 5% level of probability was used as a basis for rejecting a null hypothesis.

Findings and Discussion

Characteristics of the Women

Among the respondents 68% were middle-aged, 32% were young and none of them was old. Rasel (2004) and Sharmin (2005) also found similar distribution of respondents in different age categories in their respective studies. But 15% of the respondents were illiterate, 30% had education at primary level, 51% had education at secondary level and 4% of them had education at higher secondary level. In case of dependency ratio of the family, 33% of the respondents had low dependency ratio, 57% of the respondents had medium and 10% of them had high dependency ratio of the family.

More than three-fourths (79%) of the respondents had small family farm and homestead size. Again, most of the respondents (77%) had low and medium annual family income. But, a vast majority of the respondents (79%) had less participation in different organizations. Among the respondents, 81% had moderate capacity to make decision in the family and the highest (87%) proportion of them had short-term training exposure.

On the other hand, the highest proportion (76%) of the women fell in small credit received category. But majority (65%) of the respondents had moderate ability to cope with uncertainty. In case of knowledge on vegetable production, most of the respondents (68%) had good extent of knowledge on vegetable production. Finally, about two-thirds (67%) of the respondents had medium use, while the rest 33% had medium and none of them had high use of post harvest technology.

Table1. Main features and categorization of the respondents (n=100)

Characteristics (measurement units)	Range		Respondents		Mean	Std. Dev.
	Possible	Observed	Categories	%		
Age (year)	-	23-44	Young (≤30) Middle-aged (31-45) Old (>45)	32 68 0	33.62	4.832
Education (year of sc`hooling)	-	0-13	Illiterate (0) Primary (1-5) Secondary (6-10) Higher secondary (>10)	15 30 51 4	5.62	3.190
Dependency ratio of the family (ratio)	-	0.67-7	Low (≤2) Medium (3-4) High (>4)	33 57 10	3.02	1.169
Family farm and homestead size (hectare)	-	0.03-1.78	Marginal (0.021-0.2) Small (0.21-1.0) Medium (1.1-3)	12 79 9	0.49	0.331
Annual family income (‘000’ tk)	-	20-400	Low (≤50) Medium (51-100) High (>100)	35 42 23	82.30	62.204
Organizational participation (score)	-	0-6	Less (≤2) Moderate (3-4) High (>4)	79 19 2	1.40	1.333
Decision making capacity in the family (score)	0-32	6-24	Weak (≤11) Moderate (12-22) Strong (>22)	5 81 14	17.35	3.526
Training exposure (day)	-	0-12	Short-term (≤5) Mid-term (6-10) Long-term(>10)	87 11 2	2.10	2.769
Credit received (‘000’ tk)	-	0-50	Small (≤10) Medium (11-20) High (>20)	76 18 6	7.66	9.820
Ability to cope with uncertainty (score)	0-24	9-19	Less (≤8) Moderate (9-16) Great (>16)	0 65 35	15.46	2.298
Knowledge on vegetable production (score)	0-60	35-46	Poor (≤20) Fair (21-40) Good (>40)	0 32 68	41.41	2.527
Use of post harvest technology (score)	0-12	4-8	Less (≤4) Medium (5-8) High (>8)	33 67 0	5.11	1.053

Need for capacity building of women

The extent of need for capacity building of women was assessed in terms of need index for capacity building (NICB). The NICB values ranged from 58.67 to 77.33 with an average of 68.11 and standard deviation of 4.50. The highest proportion (57%) of the respondents had high extent of need while the rest 43% of them had medium and none of them had low extent of need for capacity building of women which is similar to the study of Rahman (2007). It was observed in the study area that there was scarcity of post harvest facilities of vegetables and even a little facility was available but those were not in accessible form for the rural women. Thus, the respondents logically felt high need for their capacity building for practicing post harvest activities of vegetables.

Table 2. Need for capacity building of women (n=100)

Respondents		Mean	Std. Dev.
Categories	%		
Low (≤33.33)	0		
Medium (33.34-66.67)	43	68.11	4.598
High (>66.67)	57		

[*Possible range of score 0-100 and Observed range of score 58.67-77.33]*

Figure 1 shows that the highest extent of need (77.83) of the respondents was in management skill and the lowest extent of need (61.33) was for physical facilities. It might be worthy to mention here that the differences among the components of capacity building in respect of need felt by the respondents were small. Therefore, the respondent women felt need more or less same for all the dimensions of capacity building for practicing post harvest activities of vegetables. This findings support to the research of Rahman (2007) which explored that the women did not have low need for any dimensions of capacity strengthening. It seems logical because none of the dimensions existed in satisfactory level rather at low level. Thus, it was simple that the components available in low quantity would be felt as high need components.

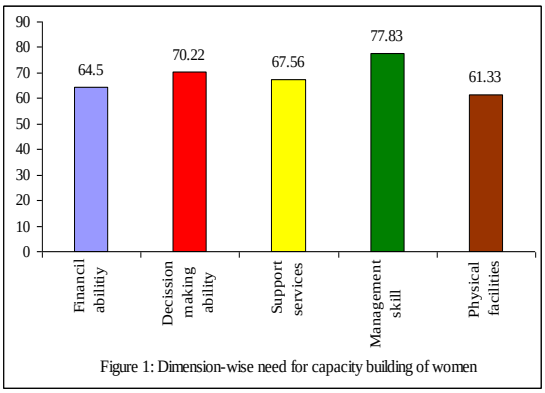

Figure 1: Dimension-wise need for capacity building of women

Relationship between the Selected Characteristics of the Women and Their Extent of Need for Capacity Building

Among twelve characteristics of the respondents, three namely family farm and homestead size, annual family income and use of post harvest technology showed significant negative relationship with their extent of need for capacity building for practicing post harvest activities of vegetables. But credit received by the respondents was positively and significantly correlated with their extent of need for capacity building and the rest of the characteristics did not show any significant relationship with their extent of need. Family farm size is an important indicator of power. When the farm size increases the owners bear an increased extent of power. Thus, the women having more family farm size felt less need for capacity building for practicing post harvest activities of vegetables.

Table 3. Relationship between dependent and independent variables

Independent variables	'r' values
Age	0.021
Education	-0.059
Dependency ratio of the family	0.143
Family farm and homestead size	-0.243*
Annual family income	-0.399**
Organizational participation	0.035
Decision making capacity in the family	-0.032
Training exposure	-0.036
Credit received	0.207*
Ability to cope with uncertainty	-0.047
Knowledge on vegetable production	0.023
Use of post harvest technology	-0.325**

*Significant at 0.05 level of probability;
** Significant at 0.01 level of probability

Relationship between annual family income and extent of need for capacity building for practicing post harvest activities of vegetables was significant and followed a negative trend. Hence, the concerned null hypothesis was rejected. Thus, it could be said that at least for the present study, family income of the women played significant role on their extent of need for capacity building for practicing post harvest activities of vegetables. Similar relationships were observed by Sarkar (2005) and Asaduzzaman (2003) in their respective studies. It was so, because the families having higher income might need fewer amounts of post harvest facilities of vegetables. Thus, annual family income exerted significant negative effect on the need for capacity building for practicing post harvest activities of vegetables. During data collection it was observed that, the respondents used credit mostly in other business than to invest in post harvest or processing of vegetables due to lack of sufficient facilities. This may be the reason behind the findings that the women who received high credit felt more need for capacity strengthening in carrying out PHAs of vegetables. The respondents who had been using post harvest technology they felt that they should carry out PHAs of vegetables with better capacities.

Problems in Utilizing Post Harvest Facilities of Vegetables

The problems faced by the respondent women in utilizing the post harvest facilities of vegetables according to rank order were unavailability of sale center, lack of knowledge on post harvest activities of vegetables, scarcity of money, lack of marketing facilities, inefficient manpower, lack of operational ability, insufficient training, inadequate time, low transport facility and low access to communication media. It was reasonable because without sufficient sale centre women have no scope to sell their products. Lack of knowledge creates various problems which caused no involvement in carrying out post harvest activities. Scarcity of money creates inability to conduct PHAs of vegetables. Marketing facilities play a vital role for any product to sustain. So the problems arose in the study area affected considerably the post harvest activities of vegetables.

Table 4. Rank order of problems according to problem facing index (PFI)

Problems	PFI	Rank order
Scarcity of money	266	3
Lack of knowledge on post harvest activities of vegetables	273	2
Inadequate time	149	8
Low access to communication media	107	10
Unavailability of sale center	274	1
Low transport facility	109	9
Lack of operational ability	212	6
Inefficient manpower	221	5
Insufficient training	165	7
Lack of marketing facility	228	4

The suggestions for the solution of the problems made by the respondents have been given below:

- Establishment of sale center in the rural areas through government and private initiatives to improve marketing facilities for the rural women.
- Increased training facilities according to the need of rural women for increasing their knowledge, management skill and operational ability for practicing post harvest activities of vegetables as well as to have efficient manpower.
- Increased credit availability on the basis of need of the rural women regarding post harvest facilities of vegetables.
- Provision of increased transport and communication facilities by the concerned agencies.

Conclusion

More than half (57%) of the respondents had high need to strengthen their capacities in conducting PHAs of vegetables. So there was ample scope to provide facilities regarding post harvest operations of vegetables which would improve the capacity of the women. Women having small family income and small family farm and homestead size felt more need for capacity building. Again most of the women had small credit received and it was important for capacity building of the women. The highest proportion (67%) of the respondents had medium use of post harvest technology. This variable was negatively correlated with the need for capacity building. Thus, increased use of post harvest technologies facilitated them to utilize more post harvest facilities of vegetables. Women could achieve much more in vegetables production and utilization if agricultural researchers, plant scientists, extension agents and policymakers could play a better role in agricultural development. Specifically, a great potentiality stays behind for the women involvement in practicing PHAs of vegetables although their existing status is not up to the expectation. More support to women in income generating activities (IGAs) through agro-based activities should be under utmost care of the government strategic plan. Based on aforesaid issues and concerns, it is recommended that post harvest facilities of vegetables could be made available and accessible, sale centers should be established in the rural areas. Training facilities have to be increased according to their needs. One of the most important facilities is to improve their transport and communication system by the government.

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