

NEED FOR CAPACITY DEVELOPMENT OF FARMERS TOWARDS EFFICIENT USE OF FARM MACHINERIES

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Abstract: The main objectives of the study were to determine the extent of need for capacity development of farmers and to explore the relationships between some selected characteristics of the farmers with their extent of need for capacity development towards efficient use of farm machineries. The study was conducted in three unions under sadar upazila of Mymensingh district. Personal interview and FGD were used to gather data for the study. Most of the farmers had high (70%) extent of need for capacity development. They had the highest extent (70%) of need for capacity development in financial ability and the lowest extent (45%) of need for management skill. Their age, years of schooling, household size, household farm size, annual family income, extension media contact and training exposure showed significant relationships with the extent of need for capacity development. Lack of educational facilities regarding proper utilization of implements, deficiency of knowledge on aspects of implements utilization, machine price fluctuation etc. were the main problems faced by the farmers in using farm machineries. Training and educational facilities on utilization and maintenance of farm machineries were deemed desirable by them to overcome the constraints. Thus, it is necessary to undertake and follow up farmer focused development initiatives by The Department of Agricultural Extension and other allied organizations through better access to resources, inputs and services.

Keywords: Capacity development, farm machinery, need.

INTRODUCTION

Mechanization is an important tool for profitable and competitive agriculture. Without mechanization it will not be possible to maintain multiple cropping patterns, which need quick land preparation, planting, weeding, harvesting, threshing, processing etc.[1]. Mechanization has a great impact on all aspects of economic life. It is inevitable and essential for accelerated development of under-developed countries. In fact, appropriate agricultural technology provides a valuable weapon in the war against poverty by making better use of available resources. This ultimately brings about prosperity for the entire population.

Currently, more than 550,000 power tillers, the vast majority of Chinese origin are used to

prepare over 80% of Bangladesh's cropland [2]. A total of 1.63 million tube wells and Low Lift Pumps are also used to irrigate nearly 55% of all cropland [3] [4]. In 2012-13, 112 importers invested USD 35 million to import 30,771 2WTs. In the same year, USD 0.1 million of mechanical seed drills and rice trans planters were also imported, the former of which can be attached to 2WTs for direct seeding [5], along with USD 2.5 million worth of spare parts [6]. In land and capital constrained rural Bangladesh, owners of agricultural machinery also tend to work as service providers (e.g. providing mechanized land preparation and irrigation) on a fee-per-service basis to other farmers. As a result, even the smallest farm households can usually access relatively affordable machinery services

through custom hiring systems [7] [8], although the factors influencing adoption and ownership of machinery remain unclear. The contribution of agricultural mechanization has been well recognized in enhancing the production, productivity, cropping intensity together with irrigation.

Mechanization in the country is always associated with some inherent drawbacks like, fragmented lands, poor buying capacity of farmers, lack of quality machines for farm operation, inadequate knowledge of the users about machines, insufficient awareness building activities etc. In 1980, the average farm holding was 0.91 ha which decreased in 2010 to 0.60 ha [9]. It has been found that many farmers cultivate only about 1.0 decimal land by traditional method. Further, the total holding of land is not located in one place, rather, it is found in split plots in several places. This restricts power operated tilling, seeding and harvesting machines to perform at optimal efficiency. Even two wheel tractors, reapers and combine-harvesters face tremendous problems from frequent turnings in such fragmented lands. On the other hand rural labor force has started to shift from agricultural to industrial and service sector, creating an acute agricultural labor shortage during peak planting and harvesting times. Due to labor shortage, timeliness of operation can't be maintained, resulting in yield reduction. However, in view of the above issues the following objectives were set: a. to assess extent of need for capacity development of farmers towards efficient use of farm machineries; b. to find out relationships of selected personal characteristics of farmers with their extent of need for capacity development; and c. to explore problems of farmers in developing capacity towards efficient use of farm machineries.

METHODOLOGY

The Khagdahar, Ghagra, and Dapunia unions of Mymensingh sadar (central) upazila (sub-district) were purposively selected for conducting the study. For further clarity about the locale of the study, a map of Mymensingh district showing Mymensingh sadar upazila and another map of sadar upazila showing study

area have been presented in Figures 1 and 2, respectively. The study considered those farmers as respondents also have been using their own heavy to light machineries like combine-harvester, tractor, power tiller, sprayer, thresher, reaper etc. There were about 200 farmers of this type and they were considered as population of the study. Data were collected from purposively selected 60 farmers with specified members from each union as shown in the following way:

Name of union	Total users of machines	Machinery owner
Khagdahar	79	24 (Ch.-2; Pt.-12; T.-2; Sp.-3; Rp.-3; Th.- 2)
Ghagra	63	19 (Ch.-1; Pt.-10; T.-2; Sp.-2; Rp.-2; Th.- 2)
Dapunia	58	17 (Ch.-1; Pt.-7; T.-1; Sp.- 3; Rp.-1; Th.- 2)
Total	200	60

Note: Ch.-Combine-harvester; Pt.-Power tiller; T.-Tractor; Sp.-Sprayer; Rp.-Reaper; Th.-Thresher

Measurement of extent of need for capacity development of farmers

Capacity development is the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and to achieve their own development objectives over time. Capacity development is about supporting growth – within individuals, groups and across societies as a whole [10]. Five dimensions for measuring extent of need for capacity development towards efficient use of farm machineries have been used in this study.

They were-

- Need for financial ability (*Capital, Credit, Labor purchase & Farm machineries purchase*)
- Need for decision making ability (*Type of land, Topography of land, Capability of old machineries to use in land, Cost of operation, Cost of operation, Operation of time, Proper knowledge about farm machineries, Price of machineries*)
- Need for access to support services (*Equipment facilities, Labor market, Co-operative organization, Credit, Repair, Development workers for advice*)
- Need for management skill (*Labor*



Figure 1: Map of Mymensingh district showing Mymensingh sadar upazila



Figure 2: Map of Mymensingh sadar upazila showing the study areas

management, Equipment maintenance, Economical, Operating, Time management, Farm planning)

- Need for physical facilities (Farm structure, Irrigation facilities, Road connectivity, Fuel, Market)

In this study, five dimensions were measured by a four-point rating scale with corresponding issues as presented above with the dimensions. Scores were assigned as 0, 1, 2 and 3 for no, 'low', 'medium' and 'high', respectively to each of the issues. Finally, the scores of all the issues of five dimensions formed the total score of the extent of need for capacity development of farmers for a respondent. Possible score of extent of need for capacity development could range from 0 to 84.

Measurement of problem confrontation

Problems faced by the farmers in using farm machineries were measured by asking their opinion on the selected problems which were identified earlier through Focus Group Discussion (FGD) [11]. A four point rating scale was used for computing the problem score of a respondent. For each problem score of '3', '2', '1' and '0' was assigned to indicate extent of problem as 'high', 'medium', 'low' and 'not at

all' respectively. The possible range of problem score could range from '0' to '33' where '0' indicated no problem and '33' indicated highest level of problems.

Data Collection and Analysis

Data were collected through personal interview schedule from the farm machinery owners of the selected villages during April 2020. Pearson's Product Moment Correlation Co-efficient (r) [12] was used to explore the relationship between the extent of need for capacity development of the farmers and their personal characteristics.

RESULTS AND DISCUSSION

Characteristics Profile of the Farmers

The salient features of the characteristics of the respondents are presented in Table 4.1. Age of the respondents ranged from 23 to 65 years with a mean of 47.27 years and a standard deviation of 10.12 years. Data revealed that 81.6% of the respondents were middle-aged, 11.7% young and 6.7% were old. Kowsari [13] and Nasrin [14] found 54% and 51.2% middle-aged respondents, respectively. It should be mentioned that farmers involved in using farm

machineries were mostly covered by the middle-aged to young farmers (about 93.3%). This seems logical, because it is expected that the young and middle-aged farmer were more active, energetic and enthusiastic in performing their activities using farm machineries.

Table 1: The salient features of personal characteristics of the farmers (n=60)

Characteristics (Measurement units)	Range		Mean	Std. Dev.
	Possible	Observed		
Age (year)	-	23-65	47.27	10.12
Years of schooling (year)	-	0-10	4.32	3.61
Household size (No. of members)	-	2-9	5.65	1.53
Household farm size (hectare)	-	0.4 - 1.952	0.91	0.33
Annual family income ('000' Taka)	-	98-595	211.62	104.08
Training exposure (days)	-	0-22	1.73	3.64
Ability to cope with uncertainty (score)	0-24	8-21	12.80	2.83
Organizational participation (score)	-	0-6	2.43	1.49
Extension media contact (score)	0-45	10-27	21.88	4.15
Decision making capacity in the family (score)	0-40	11-31	20.78	3.92
Credit received ('000' TK)	-	0-80	22.25	25.58

Among the respondents 33.3% were illiterate, 35% had education at primary level and 31.7% had education at secondary level. In case of household size 15% of the respondents possessed small sized household, 55% medium household and 30 had large household. The highest proportion of the farmers (66.7%) had marginal farm size, 23.30% had small, 6.70% had medium and 3.30% were landless respectively and there were no large farm sized farmers in the study area. Again, the highest proportion of the farmers (58.3%) was in medium income category, while 25% and 16.7% of them were in low and high income category, respectively.

Majority of the farmers (58.3%) had no training exposure, while 38.3 having short-term,

1.7% having mid-term and 1.7% having long-term training exposure. The highest proportion (86.7%) of the respondents had moderate ability, while 11.7% had strong and only 1.7% of them had weak ability to cope with uncertainty. It was found that most of the respondents (61.7%) had less participation while 23.3% had medium participation, 11.7% had high participation and only 3.3 had no participation in different organizations. Again, it was found that 10% of the respondents had low extension media contact, while 90% had moderate media contact. None of the respondents had high media contact.

In case of decision making capacity in the family, the highest proportion (88.40%) of the farmers had moderate capacity while 8.30% of them had strong and the rest 3.30% had weak decision making capacity in the family. Finally, most (38.3%) of the respondents had no credit received while 31.7% had low credit received, 21.7% had medium credit received and 8.3% of the respondent had high credit received.

Extent of Need for Capacity Development of Farmers towards Efficient Use of Farm Machineries

The possible score of the extent of need could range from 0 to 84, while observed score ranged from 45 to 74. The mean was 59.10 with a standard deviation of 7.05. Based on their score of the extent of need, the farmers were classified into three categories as shown in Table 2.

Table 2: Overall extent of need for capacity development of farmers (n=60)

Score range: Possible= 0-84 and observed= 45-74

Respondents			Mean	Std. Dev.
Categories of need	No.	%		
Low (≤ 28)	0	0	59.10	7.05
Medium (29 - 56)	18	30		
High (>56)	42	70		

The data show that 70.0% of the respondents had high extent of need for capacity development, 30% of them had medium extent of need for capacity development and none of them had low extent of capacity development in using farm machineries. While collecting the data, it was observed in the study area that there was scarcity of different facilities i.e. financial, physical,

support services, managerial and ability to make decision regarding proper utilization of farm machineries and even a little facility was available but those were not in easily accessible form for the farmers. Thus, the respondents logically felt high extent of need for their capacity development towards proper utilization of farm machineries. Moreover, having similar socio-economic background, the farmers included in the sampling expressed similar opinion for their extent of need for capacity development. However, they all feel under same category of extent of need for their capacity development. Ahmed [15] and Rahman and Begum [16] also showed similar outcomes in their respective studies.

Five aspects of capacity development were selected to assess the extent of need for capacity development of farmers for proper utilization of farm machineries. The computed need score of all the aspects have been shown in Table 3.

The data indicated that most of the respondents felt medium extent of need for capacity development in all five dimensions. The highest proportion (70%) of the respondents was in high extent of need for financial capacity with a mean of 9.17 and a standard deviation of 1.28. This was logical because financial ability like capital, credit, labor purchase and farm machineries purchase present in the study area but not in a satisfactory level. These issues were connected to purchase and utilization of farm

Table 3: Aspect-wise extent of need for capacity development of farmers towards efficient use of farm machineries

Dimensions	Range		Respondent			Mean	Std. Dev.
	Possible	Observed	Category	No.	%		
Need for financial ability	0-12	6-12	Low (≤ 4) Medium (5-8) High (9-12)	0 18 42	0 30.0 70.0	9.17	1.278
Need for decision making ability	0-21	7-19	Low (≤ 7) Medium (8-14) High (15-21)	1 30 29	1.7 50.0 48.3	14.68	2.740
Need for access to support services	0-18	8-16	Low (≤ 6) Medium (7-12) High (13-18)	0 22 38	0 36.7 63.3	13.18	2.318
Need for management skill	0-18	8-17	Low (≤ 6) Medium (7-12) High (13-18)	0 33 27	0 55.0 45.0	12.12	2.373
Need for physical facilities	0-15	5-14	Low (≤ 5) Medium (6-10) High (11-15)	2 29 29	3.4 48.1 48.5	9.95	2.346

machineries, that's why farmers in the study area felt high extent of need for those issues.

Second highest proportion (63.3%) of the respondents was in high need for access to support services. Support services was directly associated with proper utilization of farm implements. If their existing skill increased, they would contribute more effectively. The third and fourth highest proportion of 48.5% need for physical facilities and 48.3% need for decision making ability respectively. Thus, it was a simple analogy that the dimensions available in low quantity would be felt as high need components.

Figure 4.1 shows that the highest extent of need score according to mean value (14.68) of

the respondents was in decision making ability followed by access to support services (13.18), management skill (12.12), physical facilities (9.95) respectively and the lowest extent of need (9.17) of the respondents was in financial abilities.

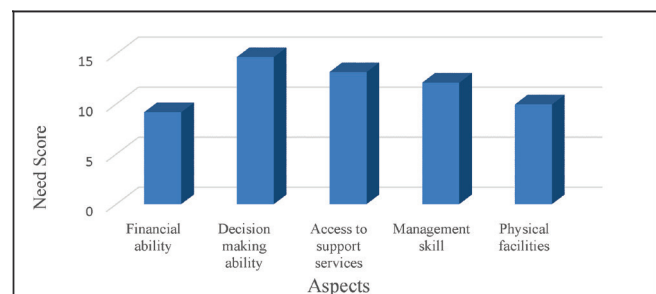


Figure 3: Comparison of different aspects of need for capacity development of farmers

It might be worthy to mention that the differences among the aspects of capacity development in respect of extent of need felt by the respondents were small. Therefore, the farmers felt more or less same need for all the aspects of capacity development towards efficient use of farm machineries. Different issues associated with extent of need for capacity development of farmers has been examined by computing rank order through score are shown in Table 4. Data show that score of the issue associated with extent of need for capacity development of farmers ranged from 0 to 151 against a possible range 0 to 180. The value of score of one issue exceeded 150 and twenty seven issues exceeded 100.

However, top one issue in each four aspects of extent of need for capacity development of farmers have been discussed here. Capital (151) shows higher score in need for financial ability. In most cases farmers take decision about use of farm machineries. But they were not at satisfactory level that is why they felt high need for ability of capital.

Table 4: Ranking of the issues of need for capacity development of the respondents

Issues	Score	Rank
<i>Need for financial ability</i>		
Capital	151	1
Credit	147	2
Labor purchase	125	3
Farm machinery purchase	119	4
<i>Need for decision making ability</i>		
Cost of operation	147	1
Operation of time	136	2
Price of implements	130	3
Capability of old machineries to use in land	129	4
Proper knowledge about farm machineries	120	5
Type of land	118	6
Topography of land	106	7
<i>Need for access to support services</i>		
Credit	150	1
Development workers for advice	145	2
Equipment facilities	134	3
Labor market	132	4
Repair	122	5
Co-operative organization	121	6
<i>Need for management skill</i>		
Equipment maintenance skill	134	1

Issues	Score	Rank
Operating skill	133	2
Labor management skill	128	3
Time management skill	127	4
Farm planning	124	5
Economical skill	107	6
<i>Need for physical facilities</i>		
Farm structure	131	1
Market	117	2
Fuel	116	3
Irrigation facilities	115	4
Road connectivity	105	5

Relationship between the Selected Characteristics of Farmers and Their Extent of Need for Capacity Development

The relationship between the characteristics of farmers and focus variable has been presented in Table 5. Among eleven characteristics of the respondents, seven characteristics namely age, years of schooling, household size, household farm size, annual family income, extension media contact and training exposure showed positively significant relationships with their extent of need for capacity development towards efficient use of farm machineries.

Table 5: Relationship between the selected characteristics of farmers and their extent of need for capacity development

Personal characteristics of the farmers	Correlation Co-efficient (r)
Age	-0.531**
Years of schooling	-0.525**
Household size	0.494**
Household farm size	0.550**
Annual family income	0.511**
Training exposure	0.403**
Ability to cope with uncertainty	0.174
Organizational participation	0.068
Extension media contact	-0.523**
Decision making capacity in the family	-0.036
Credit received	-0.108

*Correlation significant at 0.05 level (2-tailed); ** Correlation significant at 0.01 level (2-tailed); Tabulated values (r) significant with 58 df: 0.250 (at 5%) and 0.325 (at 1%)

Age is a key factor influencing the physical efficiency, as well as performance in one's profession. It is linked with individual's participation and their skills in a particular activity, both mentally as well as physically. It is said that the younger and the middle age

group members are more active and more prone to change; they are more motivated than those of elder members. Obaniyi et al.[17] and Umar et al. [18] found similar relationship between age and capacity development. Based on the negatively significant relationship between the two concerned variables [i.e. age (-0.531) and years of schooling (-0.525)], the concerned null hypotheses were rejected. Obaniyi et al.[17], Ogundele et al. [19] and Umar et al.[18] found similar relationships between years of schooling and capacity development. That is, extent of need for capacity development decreases with the increase of age and years of schooling of the respondents.

Based on the significantly positive (0.494) relationship between the household size and need for capacity building, the concerned null hypothesis was rejected. Obaniyi et al. [17] found almost similar relationships in his respective studies. Again, it was found that household size was significant with household farm size and annual household income. When the farm size increases, huge numbers of implements are used in different purpose. So, the farmers felt extent of need in these aspects.

Based on the significantly positive (0.550) relationship between household farm size and need for capacity building, the concerned null hypothesis was rejected. Obaniyi et al. [17] found similar relationship between farm size and capacity development in their respective studies. Farm size is an important indicator of power. When the farm size increases the owners bear an increased extent of power. Thus, the farmers having more farm size felt high extent of need for capacity development for proper utilization of farm machineries.

The household income of the farmers showed significant relationship on their extent of need for capacity development towards efficient use of farm machineries, it means that extent of need for capacity development increases with the increase of family income. Obaniyi et al. [17] found similar relationship between annual income and capacity development in their respective studies. It was so, because the families having higher income may be able to buy different types of implements. So they felt higher extent of need

for capacity development for proper utilization of farm machineries. The positively significant (0.403) relationship indicates that the extent of need for capacity development increases with the increase of training exposure. Obaniyi et al. [17], Ogundele et al. [19] and Yaseen et al. [20] found similar relationships between training exposure and capacity development. Training is an important component for developing capacity on any matter. But most of the respondents received less training from different types of organizations about maintenance and operation of machineries.

The negatively significant (-0.523) relationship with extension media contact of the farmers showed that their extent of need of capacity development for proper utilization of farm machineries decreases with more contacts. It was observed that most of the farmers had more or less connection with extension workers and media which asserts that concerned negative relationship. Ahmed [15] and Rahman and Begum [16] mentioned similar relationship in their respective studies. On the other hand, extension media contact was correlated positively with years of schooling.

4. PROBLEMS FACED BY THE FARMERS IN USING FARM MACHINERIES

The observed score of the problems faced by the farmers in using farm machineries ranged from 14 to 30 against a possible range of 0 to 33. Data presented in Table 6 showed that the mean and standard deviation of this score was 23.85 and 3.75 respectively. The highest proportion (66.7%) of the respondents in the study area faced high extent of problem, while the rest 33.3% of the respondents faced medium extent of problem towards utilization of farm machineries and

Table 6: Categorization of farmers based on their problems faced in using farm machineries

Score range: Possible= 0-33 and observed= 14-30

Respondent			Mean	Std. Dev.
Categories of problem	No.	%	23.85	3.75
Low (≤ 11)	0	0		
Medium (12-22)	20	33.3		
High (> 22)	40	66.7		

none of the respondents in the study area faced low level of problem.

The mean and standard deviation of the scores were small. This means that almost all of the respondents faced similar problems to a similar extent. This might be due to the similar socio-economic background of the respondents. Khalak [21] found almost similar outcomes in his study.

The extent of problems faced by the farmers in using farm machineries with their rank order values have been presented in Table 7. Data indicated that the problem which ranked first was "Lack of educational facilities regarding proper utilization of machineries" followed by "Deficiency of knowledge of different aspects of machineries utilization" and third one "Machine price fluctuation". "Lack of personal interest in using farm machineries" was the least important problem among those faced by the farmers for proper utilization of farm machineries.

In the study area, lack of educational facilities regarding proper utilization of machineries was a common problem. Adequate education facilities regarding proper utilization of machineries are very much needed. Though the condition is improving day by day, it's not at a satisfactory level. That's why they ranked it first. Most of our farmers were illiterate or had minimum level of education. As there were insufficient activities of GOs and NGOs, majority of them had no training exposure.

Probable suggestions to solve the problems

The probable solutions to the problems were identified with the help of the farmer which are noted here. If government and non-government organizations take initiatives to involve farmer in different types of training and educational facilities regarding proper utilization and maintenance of farm machineries, they would have been able to increase their capacity in using farm machineries. These could help them increase their interest, operate the machineries properly and increase their production. Awareness developed through training will also help them to increase their decision making ability regarding farm management. Training and educational facilities should be provided to

Table 7: Rank order of the problem faced by the farmer in using farm machineries

<i>Problems faced by the farmers</i>	<i>Score</i>	<i>Rank order</i>
Lack of educational facilities regarding proper utilization of machineries	171	1
Deficiency of knowledge of different aspects of machineries utilization	161	2
Machine price fluctuation	145	3
Lack of effective organization and mobilization	136	4
Insufficient money for purchasing machineries	135	5
Machineries operating skill	134	6
Insufficient money for lending farm machineries	130	7
Poor farming techniques	110	8
Lack of contact with communication media	105	9
Small and fragmented land holdings	103	10
Lack of personal interest in using farm machineries	99	11

Possible score range: 0-180

Table 8: Suggested solutions with way to achieve solutions

#	<i>Suggested solutions</i>	<i>Way to achieve</i>
1.	Training and educational facilities should be provided regarding proper utilization and maintenance of farm machineries	Needs GOs and NGOs initiatives and functional collaboration
2.	Easy and low interest credit facilities should be provided by different GOs and NGOs so that they could buy different types of implements or easily lend machineries	Bangladesh Krishi Bank and other NGOs who operate microcredit program may extend their cooperation in this regard
3.	Machine price should be kept at optimum level	Government should monitor market regularly
4.	Communication facilities should be improved	GOs and NGOs can help by providing different communication media for mass awareness
5.	Information about different types of machineries and related program regarding this should be provided	GOs and NGOs can help by providing proper up to date information about machineries.
6.	SAAOs should visit the households regularly	DAE should take proper steps regarding ensured visit by the SAAOs
7.	Poor farming techniques should be avoided	GOs and NGOs can help by providing knowledge about benefits of modern machineries.

the farmer regarding utilization of machineries, so that they can broaden their outlook and be able to take part in utilizing their machineries effectively.

When GOs and NGOs provide easy and low interest credit facilities to the rural households the farmers would be able to buy different types of machineries which will help them increase their machinery facilities. If communication facilities could be improved, farmers will be able to increase their capacity. From their practical view point, they set forth the following recommendations to overcome the constraints:

CONCLUSIONS

Despite all the developments and constraints, mechanization is still essential for transporting, weeding, harvesting, threshing, drying and many other related activities. The farmers and rural entrepreneurs are trying to further mechanize some of these operations to reduce cost of production and time of operation. Based on the findings of the study and their logical interpretations, the following conclusions could be made:

The medium status of farmers to their machineries utilization should be increased by enhancing their training exposure and extension media contact. Government and non-government organizations may take appropriate initiatives to create different types of facilities and opportunities so that the farmers can show interest in using farm machineries. Government and non-government organizations may conduct training according to need of farmer for increasing management skill and operational ability in conducting proper utilization of machineries as well as to develop manpower.

All of the respondents felt high extent of need for capacity development in using farm machineries. The felt need for capacity development must be fulfilled to ensure better involvement of farmers in machinery utilization. But it is not an easy task alone for government to discharge the responsibilities. NGO and others may come forward to help government. Government organizations like Department of Agriculture Extension, Ministry of Health and other Non-Government organizations like

BRAC, GRAMEEN BANK may take proper initiative to provide different types of facilities, information about mechanization for the farmers so that they can improve their capacity towards machineries utilization.

Age, years of schooling, household size, household farm size, annual family income, extension media contact and training exposure were some the personal characteristics of the farmers found to be significantly linked to their felt need for capacity development in utilizing farm machineries. In formulating any action plan for the farmers regarding such activities, at least these variables might be considered on priority basis.

Farmer of the study area faced various types of problems towards proper utilization of farm machineries. DAE and other NGOs working in that area may motivate farmers to be aware of the proper utilization of machineries and try to solve their problems themselves. Further, steps may be taken by these organizations to assist farmers to solve the problems which the farmers cannot solve without technical and financial cooperation from the organizations.

The present study was conducted in three unions under sadar upazila under Mymensingh district. Similar studies may be conducted in other parts of the country. It will help achieve a clear picture of the whole country which could be helpful for effective policy formulation.

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