# Training Needs of Tribal People Regarding Income Generating Activities

#### M. Rokonuzzaman<sup>1</sup>

1. Asstt. Prof., Department of Agricultural Extension & Rural Development
Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur-1706, Bangladesh
Corresponding author e-mail: rokon\_agext@yahoo.com

#### **ABSTRACT**

The ultimate objectives of the study were to asses the training needs of the tribal people and to find out their problem confrontation in carrying out income generating activities (IGAs). The study was conducted in eight villages of Sherpur district in Bangladesh. Data were collected from a randomly selected sample of 95 tribal household head (25.00%) by using an interview schedule during 23 November to 19 December, 2011. Data revealed that majority (52.00%) of the tribal people had medium training need compared to 39 per cent of them had high training need in case of homestead vegetable production. In term of training need in nursery establishment, about half (49.00%) of the tribal people fell under medium training need category while 43 per cent of them fell under high training need category. As regards to their training needs in livestock & poultry rearing, the majority (55.00%) of the tribal people had high training needs compared to 36 per cent of them having medium training needs. A big share (52.00%) of the tribal people had high training needs in cottage industry while 42 per cent of them had medium training needs. Farmers' education, farm size, annual income, organizational participation and agricultural knowledge showed negative significant correlation, while fatalism had significant positive association with the training needs. The major problems faced by the tribal people in carrying out their IGAs were: lack of capital/credit, lack of irrigation water, lack of land, lack of knowledge about insect/disease control, marketing & communication facilities and attack of wild elephant, etc.

**Key words**: Training need; Tribal people and income generating activities;

Bangladesh has been a promising country of the world in its development having a total population of 142,319, 000 (BBS, 2011) of which approximately 1.4 million are tribal people. There are about 29 tribes in Bangladesh. Of them Chakma, Marma, Tripura, Garo, Hajong, Koach, Murang, Shautal, Munipuri Chak, Kuki, Tonchanga are significant. These tribal people are occupying 1.2 per cent of the total number of households in Bangladesh (BBS, 2010). They have maintained their cultural peculiarity and individuality over the years. They have somewhat made progress in social and religious reformation but economically they are very much backward as compared to other societies (Ruram, 2002). Again, the tribal people belongs to Garo, Hajong, and Koach in Bangladesh live in around greater Mymensingh precisely in Jhenaigati, Nalitabari and Sribardi upazila under Sherpur district in Bangladesh. There are 6000 tribal people out of 1,51,940 total mass

constitutes about 4.00% of the total population in Jhenaigati upazila (SAIP, 2007;). These tribal people have significant contributions to the local and national economy by being participated in IGAs such as vegetable production, nursery establishment, livestock and poultry rising, cottage industry and small business etc. Unfortunately, the tribal people community is almost unknown to modern agricultural technology and has been left out from the main stream of economic development. Considering their socioeconomic upliftment, it is reported that the various economic activities that can profitably be carried out by the tribal people include: agricultural production, eg. vegetables, fruits and field crops; livestock production, eg. poultry rearing, cow rearing, beef fattening and pig rearing etc; and non-agricultural, eg. handicrafts, cottage industry, small business, tailoring and nursery establishment, etc. (Shaha, 2003 and Mondol, 2006).

An effective extension programme might be a tool in order for carrying out IGAs to train and educate its client system. Agricultural extension services, NGOs' and other development agencies, therefore, need to develop a suitable mechanism for imparting knowledge and skills to the tribal people on various aspects of IGAs. Through effective training, tribal people are more likely to acquire up-to-date knowledge on IGAs and refresh their existing knowledge (Fatema, 2008). As a result, the tribal people will favourably be disposed towards adoption of various agricultural and non-agricultural IGAs. In fact, any training programme for the tribal people should be designed based on their felt needs they are struggling with. Training needs of the tribal people refers to one's need for gaining knowledge and skills on different aspects of IGAs . Effective training program designed for the Tribal people in carrying out their IGAs for better livelihood will go a long way in their required daily expenditure. Hence, it is necessary to have a complete understanding of the needs of the tribal people before launching aforementioned training programme.

In order to give proper direction to the study, the following objectives were set forth, which were: to study the extent of training needs of the tribal people in carrying out various income generating activities; to determine the problem confrontation of the tribal people in carrying out various income generating activities; and to explore the relationships between the selected characteristics of the tribal people and their extent of training needs.

#### **METHODOLOGY**

The study was conducted in eight villages of three unions namely, *Nolkura*, *Gauriour and Kangsha of Jhenaigati* upazila under Sherpur district in Bangladesh. Data were collected from a randomly selected sample of 95 tribal people from a population of 380 by using an interview schedule during 23 November to 19 December, 2011. The interview schedule contained both open and closed form questions.

Eleven selected characteristics of the tribal people were considered as the independent variables of this study. These were age, education, family size, farm size, annual income training experience, cosmopolitness, organizational participation, extension media contact, fatalism and agricultural knowledge. Training needs of tribal people in carrying out income generating activities was the dependent variable in this study. The training need of the respondent were divided into four broad areas of IGAs, viz., homestead vegetables production,

nursery establishment, livestock & poultry rearing, and cottage industry. Twenty nine specific tasks were included under these four broad areas to measure the extent of training needs of the tribal people. To do so, the four broad areas were splited into 29 specific tasks. The respondent was asked to indicate the extent to which he/she needed training to perform the tasks properly along a 5-point rating scale: 'very high need', 'high need', 'medium need', 'low need' and 'no need'. These responses were given weights as 4, 3, 2, 1, and 0 respectively. Thus, the training need of a respondent could range from 0 to 116, where sero (0) indicates no training need at all and 116 indicates, highest level of training need. (Modified methodology of Karim and Hossain (2000). Problem refers to the difficulties faced by the tribal people in carrying out various IGAs. A number problem was hypothesized. Then respondents were asked to indicate the problem they usually encountered in performing the IGAs of major areas. The problems were presented on the basis of the frequency of citation against a specific problem under a specific major area. The collected data were coded, compiled, tabulated, and analyzed in line with the objectives of the study. Qualitative data were converted into quantitative data by means of suitable scoring, wherever necessary. Descriptive statistics such as range, mean and standard deviation were used for describing the variables of the study. Pearson's coefficient of correlation was used to explore the relationships between any two concerned variables.

## **RESULTS AND DISCUSSION**

The average age of the tribal people was 34.67 years and majority (96.00%) of them was young to middle aged. Their average educational qualification was 3.70 years of schooling and most of them (67.00%) were literate but 43 per cent of them could not exceed primary level, while rest of them were illiterate. Average family size of the tribal people was 4.77 and most of them were belonged to medium to small category. Average farm size of them was 0.28 ha and almost all (98.00%) of the tribal people were marginal to small category. Their average annual income was 22.79 thousand taka and most of them (77.00%) were placed in low to very low income category. Almost half of them had no training at all. Only 39 per cent of them had short training experience. Their mean cosmopoliteness score was 4.95 and around eighty eight per cent of them were low to very low in the said regard. In terms of organizational participation, average was 11.75 and almost all (98.00%) of the tribal people had very low to low participation in social organization. Their average extension media contact score was 8.26 and overwhelming majority (95.00%) of them was very low to low in this respect. The average fatalism score of the tribal people was 16.03 within a possible range of 10-50 and more than four-fifths (82.00%) of them were less fatalistic. In term of agricultural knowledge, the average score was 20.04 and more than three-fourths (62.00%) of the tribal people had medium agricultural knowledge. However, one-fourth of them belonged to poor knowledge category (Table 1).

Training needs of the tribal people in carrying out IGAs: Findings indicated that more than half (52.00%) of the tribal people had medium training needs in homestead vegetable production compared to 39 per cent of them having high training needs, 6 per cent having very high training needs and only 3 per cent having low training need. Thus, nine-tenth (90.00%) of the respondents had medium to high training needs in homestead vegetable production. These facts indicate that if proper arrangements are made for training of the tribal people in homestead vegetable production then that might have positive contributing effect on improving their work efficiency in carrying out various vegetable production activities (Table 2).

About half (49.00%) of the tribal people had medium training needs in nursery establishment compared to 38 per cent of them having high training need, 7 per cent low training need and only 5 per cent having very high training need. Thus almost nine-tenths (87.00%) of the respondents had medium to high training need in nursery establishment. Establishment of nursery is an important potential activity for the tribal people for increasing their family income leading to better livelihood. Feeling of high to very high training needs in this area is an indication that the tribal people might lack needed knowledge and skills in establishing a nursery.

More than half (55.00%) of the tribal people had high training needs in livestock & poultry raising compared to 36 per cent of them having medium training needs, 6 per cent having very high training need and only 3 per cent having low training need. The findings of the study indicate that overwhelming majority (90.00%) of the tribal people had high to medium training need in livestock & poultry rising. It is, thus, imperative that the concerned authorities should provide training opportunities for the tribal people if their income levels are to be improved through livestock and poultry rising.

Table 1. Salient feature of the tribal people with their characteristics (N=95)

characteristics (N=95)						
Characteristics	No.	%	Mean	SD		
Age						
Young aged (20-33)	41	43.16	34.67	6.16		
Middle aged(34-45)	50	52.63				
Old aged (above 45)	4	4.21				
Education						
Illiterate (0-0.5)	31	32.63	3.70	2.95		
Primary (1-5)	41	43.16				
Secondary(6-10)	22	23.16				
Above secondary (above 10)	1	1.05				
Family size						
Small family(up to 4)	45	47.37	4.77	1.51		
Medium family(5-6)	41	43.16				
Large family(above 6)	9	9.47				
Farm size						
Landless (above 0.2)	3	3.16	0.28	0.17		
Marginal farmer (0.2-0.6)	36	37.89				
Small farmer(above 0.6)	56	58.94				
Annual income*						
Very low income (up to 18)	35	36.84	22.79			
11.48						
Low income (19-24)	38	40.00				
Medium income(25-36)	17	17.89				
High income (above 36)	5	5.26				
Training experience						
No training(0)	49	51.58	1.45	2.14		
Short training(1-3)	37	38.95				
Medium training(4-12)	9	9.47				
Cosmopoliteness						
Very low cosmopolite(1-4)	38	40.00	4.95	1.81		
Low cosmopolite (5-7)	46	48.42				
Medium cosmopolite(above 7)	11	11.58				
Organizational participation						
No participation (0)	1	1.05	11.75	2.88		
Very low participant. (1-12)	70	73.68				
Low participation (13-20)	23	24.21				
Medium participant. (above 20)	1	1.05				
Extension media contact						
Very low (1-7)	37	38.95	8.26	4.01		
Low (8-14)	53	55.79				
Medium (above 14)	5	5.26				
Fatalism						
Low fatalism (10-20)	78	82.11	16.03	3.63		
Medium fatalism(21-23)	17	17.89				
Agricultural knowledge						
Poor knowledge (up to 17)	24	25.26	20.04	4.29		
Medium knowledge (18-25)	60	63.16				
High knowledge(above 25)	11	11.58				
6		-1.50				

<sup>\*1\$ = 75.00</sup> BD Taka

More than half (52.00%) of the respondent, had high training needs in cottage industry compared to 42 per cent of them having medium training needs, 4 per cent having very high training needs and only 2 per cent having low training need. Thus, the overwhelming majority (94.00%) of the tribal people had high to medium training needs regarding the cottage industry. The findings indicate that if arrangements are made for training of the tribal people in cottage industry then that would have a conducive effect in carrying out income generating activities (Table 2).

Task wise extent of training needs in different broad areas: In case of vegetable production task, insect and disease infestation in vegetables was a major problem mentioned by the tribal people. As a consequence, the overwhelming majority (92.00%) of the respondents indicated high to very high training needs in this aspect (Table 3). Similarly, soil and fertilizer management was an important operation in vegetable production. More than four-fifths (83.00%) of the respondents expressed their training needs to the extent of high to very high in this respect. The training needs in selection of quality seeds and seedlings, seedbed preparation and seed sowing, land preparations and seedling transplantation, and irrigation and drainage management were mostly high to medium.

Table 2. Distribution of the tribal people according to their training need on different broad area (N=95)

Broad Areas	No.	%	Mean	SD
Homestead veg. production				
Low training need	3	3.16	19.25	3.17
Medium training need	49	51.58		
High training need	37	38.94		
Very high training need	6	6.31		
Nursery establishment				
Low training need	5	5.26	12.29	2.24
Medium training need	47	49.47		
High training need	36	37.89		
Very high training need	7	7.36		
Livestock & poultry raising				
Low training need	3	3.16	19.43	3.13
Medium training need	34	35.79		
High training need	52	54.74		
Very high training need	6	6.32		
Cottage industry				
Low training need	2	2.10	18.92	2.94
Medium training need	40	42.10		
High training need	49	51.57		
Very high training need	4	4.21		

The respondents either felt low training needs (42.00%) or no training needs at all (32.00%) in performing various intercultural operations in vegetable production, while their training needs in vegetable harvesting, preservation and marketing were mostly medium (43.00%) to low (37.00%).

These facts lead to the conclusion that deriving meaningful income from the homestead vegetable production will be difficult unless effective steps are taken to provide effective training in insect & disease control, soil & fertilizer management, and other important aspects of the vegetable production.

In case of nursery establishment, almost nine-tenths (90.00%) of the respondents had high to very high training needs in asexual propagation of planting materials such as cutting, budding and grafting management while about 90 per cent of them had high to medium training needs in site selection for establishment of a nursery (Table 3). The training needs were also high to medium on seed bed preparation and seedling rising (87.00%). Although management of mother plants is a very important task for the establishment and management of a nursery, more than three-fourths (78.00%) of the tribal people expressed their training needs with extent of medium to low. Similarly, medium to low training needs in nursery product marketing were expressed by 78 per cent of the respondents. Possibly there might have some gaps in the proper knowledge and understanding of these tasks in nursery management among the respondents.

The most important aspect of the livestock and poultry rising in which the overwhelming majority (92.00%) of the tribal people expressed their high to very high training needs was 'disease control of livestock and poultry'. In other aspects the training needs were mostly high to medium (Table 3). The tribal people expressed medium to low training needs in preservation and marketing of livestock & poultry products. Pig rearing is a special enterprise for the tribal people, more than one-third (35.00%) of them did not feel that they need any training on pig rearing while another one-third of them expressed low training need.

For increasing their family income through various cottage industry activities, the overwhelming majority (88.00%) of the tribal people expressed their feelings for high to very high training needs in toy and showpiece making. The other two important activities under cottage industry in which the majority of the respondents expressed high to very high training needs were: block

and batik printing, and cloth weaving. High to medium training needs existed among most of the tribal people on such activities as: tailoring, bamboo/cane product making and paper bag/ packet making.

Problem confrontation of the tribal people in carrying out IGAs: The tribal people faced different kinds of problem in selected IGAs. The cited most important problems included: lack of capital, lack of irrigation facilities, lack of training, lack of knowledge of disease/insect control, lack of land/suitable soil, attack of wild elephant, lack of marketing facilities and lack of

resources. Lack of capital, lack of training facilities, lack of knowledge of disease/insect control were the major problems in livestock & poultry raising of the tribal people (Table 4).

Relationship between selected characteristics of the tribal people and their training needs in IGAs: Education, farm size, annual income, organizational participation and agricultural knowledge had negative significant correlation, while fatalism had positive significant correlation, but rest of the variables had no significant correlation (Table 5).

Table 3. Distribution of the tribal people according to their task wise extent of training needs in different broad area (N=95)

Broad Areas/Items	Extent of training needs				
	Very high	High	Medium	Low	No need
Vegetable production					
Selection of quality seed & seedling of vegetable	5(5)	57 (60)	28 (29)	5 (5)	0
Seedbed preparation, seed sowing & seedling raising	4(4)	43 (45)	42 (44)	6(6)	0
Land preparation & seedling transplantation	3(3)	35 (37)	41 (43)	16(17)	0
Soil & fertilizer management	31 (33)	48 (51)	10(11)	6(6)	0
Irrigation and drainage management	13(14)	32 (34)	35 (37)	15(16)	0
Insect and disease control	38 (40)	49 (52)	7(7)	1(1)	0
Intercultural operation	0	4(4)	21 (22)	40 (42)	30(32)
Vegetable harvesting, preservation & marketing	0	15 (16)	41 (43)	35 (37)	4(4)
Nursery establishment					
Site selection for nursery	2(2)	60 (63)	26(27)	7(6)	0
Seedbed preparation, & seedling raising	9(9)	52 (55)	30(32)	4(4)	0
Asexual propagation of planting material	35 (37)	50(53)	5(5)	5(5)	0
(cutting, budding & grafting) management					
Mother plant management	0	16(17)	54(57)	20(21)	5(5)
Nursery products marketing	1(1)	17(18)	47 (49)	28 (29)	2(2)
Livestock & poultry raising					
Breed selection & housing of livestock	2(2)	61 (64)	26(27)	6(6)	0
Livestock & poultry products preservation & marketing	3(3)	22(23)	44 (46)	24(25)	2(2)
Livestock feed management	5(5)	42 (44)	43 (45)	5 (5)	0
Breed selection & housing of poultry	2(2)	42 (44)	43 (45)	8(8)	0
Poultry feed management	7(7)	38 (40)	42 (44)	8(8)	0
Disease control of livestock & poultry	43(45)	45(47)	6(6)	1(1)	0
Beef fattening	10(11)	60(63)	20(21)	5 (5)	0
Pig rearing	9(9)	12(13)	11 (12)	30 (32)	33 (35)
Cottage industry					
Tailoring	16(17)	34(36)	39(41)	3(3)	3(3)
Toys & showpiece making	5 (5)	79 (83)	8(8)	3(3)	0
Bamboo/cane products making	4(4)	38 (40)	36(38)	16(17)	1(1)
Agricultural implements (dhuli, chalun, plough, etc.) making	5 (5)	10(10)	35 (37)	32 (34)	13 (14)
Nakshi Kantha sewing	5 (5)	8(8)	8(8)	45 (47)	29 (30)
Block & batik printing	22 (23)	47 (49)	22 (23)	4(4)	0
Cloth weaving	23 (24)	58(61)	8(8)	5 (5)	1(1)
Paper bag / packet making	5 (5)	52 (54)	24(25)	13 (14)	1(1)

Note: Figures in parentheses indicate percentages

These indicated that the tribal people with higher level of education had less training needs in nursery establishment. Education enables individuals to gain knowledge which influenced to increase their skills in carrying out income generating activities. Because of the interplay of these variables, the educated tribal people might have gained adequate knowledge and skills on various activities of IGAs from different sources viz. electronic media, printed material, agricultural office etc. and consequently expressed lower training needs. In addition, the tribal people with bigger farm size were expected to produce more diversified field crops and look for other off-farm or on-farm occupations because of their better economic standing, higher contact with extension media, and possession of higher agricultural knowledge. On the other hand, the tribal people having smaller farms and being economically poor would be willing to increase their family income by growing vegetables in and around their homesteads. As they had less extension media contact and less agricultural knowledge, it was obvious that they would try to improve their knowledge and capabilities of producing vegetables through the process of training. Accordingly, a significant negative relationship between farm size and training was observed. Moreover, it was concluded that the annual income of tribal people had a negative significant relationship with their training. This means that the tribal people with higher annual income had lower training needs. High annual income makes the economic base of a family strong which contributes to the development of cosmopolite behaviour among the individuals. Furthermore, the tribal people with high annual income were more educated and cosmopolite as well as they had more extension media contact and more agricultural knowledge. Therefore, they would logically express lower training needs. Besides, the tribal people who had higher organizational participation also had higher agricultural knowledge and higher extension media contact. Organizational participation increases individual's opportunities to gain knowledge and experiences through mutual interaction and sharing of ideas and opinions. Those who had higher organizational participation also had larger farms and higher extension media contact. As large farmers with higher extension

Table 5. Correlation between independent and dependent variables (Training Needs in IGAs) (N=95)

Independent Variables	Correlation co-efficient (r)
Age	-0.035
Education	-0.203*
Family size	-0.137
Farm size	-0.271*
Annual income	-0.262*
Training experience	-0.128
Cosmopoliteness	-0.121
Organizational participation	-0.326**
Extension media contact	0.159
Fatalism	0.282*
Agricultural knowledge	-0.234*

<sup>\*</sup>Significant at 5 per cent level; \*\* Significant at 1 per cent level; and Table value at 0.05 level= 0.202 and at 0.01 level= 0.333 with 93 df

Table 4. Problem confrontation of the tribal people in carrying out IGAs according to their citation (N=95)

Name of the problems	Number and percentages of citation				
	Homestead vegetable production	Nursery establishment	Livestock & poultry raising	Cottage industry	
Lack of capital /credit facilities	32 (34)	42 (44)	63 (66)	34 (36)	
Lack of training facilities	25 (26)	34(36)	30(32)	46 (48)	
Lack of irrigation water	59 (62)	48 (51)	0	0	
Lack of marketing & communication facilities	26(27)	26(27)	18 (19)	20 (2)	
Lack of land/suitable soil	39(41)	22(23)	0	0	
Attack of wild elephant	35 (37)	25 (26)	10(11)	0	
Lack of knowledge about diseases/insect control	18(19)	17 (18)	36 (38)	0	
Lack of extension contact	19 (20)	18(18)	22 (23)	21 (22)	
Lack of time/ scarcity of labour	3(3)	6 (6)	10(11)	26(27)	
High cost of fertilizer, seed & fuel	25 (26)	7(7)	0	0	
Lack of HYV seed/improve breed	7(7)	12 (13)	13(14)	0	
Lack of feed of livestock & poultry	0	0	32 (34)	0	
Lack of resources	0	0	0	33 (35)	

**Note:** Figures in parentheses indicate percentages

media contact might not be so interested in IGAs, their training needs in this respect were also lower. On the other hand, the tribal people who had higher fatalism also had higher training needs in homestead vegetable production. Tribal people with such characteristics are likely to engage different IGAs as a source of their family income. They are quite likely to feel the need for more training on various aspects of activities. However, the tribal people, who had higher agricultural knowledge, had lower training needs in IGAs. The explanation put forward for the negative relationship between agricultural knowledge of the Tribal people and their training needs in this case.

### CONCLUSION

The tribal people are a special interest group of the population of Bangladesh. Accordingly a good number of GOs and NGOs are involved in undertaking various programmes designed for improving their social and economic condition to uplift the quality of life. Among the programmes studied, homestead vegetable production has been found as one of the major areas. Tribal people engaged in homestead vegetable production need training for improving their work efficiency in carrying out various vegetable production activities. They need effective training specifically on insect and disease control, soil and fertilizer management, and other important aspects of the vegetable production for getting desired output from homestead vegetable production. Establishment of nursery is also a potential aspects for the tribal people to maximize family income leading to better livelihood. Unfortunately they do not have proper knowledge and skills in establishing a nursery, where training need is pressing. In addition, they need proper training on asexual propagation for establishing nursery. It is also imperative for respective authorities to offer training opportunities on livestock and poultry rising for the tribal people to augment their income levels. Training on disease control of livestock and poultry is also a major thrust sector for getting attention of authority. It might also be said that if arrangements are made for training of the tribal people on cottage industry, it would have a salutary impact on the livelihood of the tribal people.

Paper received on : November 23, 2012 Accepted on : January 12, 2013

#### **REFERENCES**

BBS (2011). Population & Housing Census 2011: Preliminary Results. Bangladesh Bureau of Statistics, Statistics Division. Ministry of Planning, Government of the People's Republic of Bangladesh. p.3. Downloaded from the following link: <a href="http://www.bbs.gov.bd/Home.aspx">http://www.bbs.gov.bd/Home.aspx</a> (dated: 06/11/2011).

BBS (2010). Statistical Yearbook of Bangladesh. Bangladesh Bureau of Statistics. Statistics Division, Ministry of Planning, Government of the People's Republic of Bangladesh. p133.

Fatema, K. (2008). Training Needs of the Farm Women in Increasing Homestead Agricultural Production in the Project Villages of BAU Extension Center. M.S. (Ag.Ext.Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh, Bangladesh. p 58.

Karim, M. and Hossin, M.D. (2000). Analysis of Farmers' Agricultural Knowledge in Sugarcane cultivation. *Bangladesh J. Agril. Eco.*, **23** (2): 68-69.

Mondal, H. (2006). Women in Rice Post Harvest Activities and Their Training Needs in Kaligong Upazilla of Lalmonirhat District under RDRS. *M.S.* (*Ag.Ext.Ed.*) *Thesis*, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh, Bangladesh. p 87.

Rurarm, J. (2002). Essay on Garo Society (compiled publication), Garo National Council of Bangladesh, Birishiri, Netrakona, Bangladesh. p11.

SAIP (2007). Baseline Survey Report of Jhenaigati Upazila, Smallholder Agricultural Project (SAIP), Department of Agricultural Extension, Ministry of Agriculture. Dhaka. p15

Shaha, B.K. (2003). Kowledge and Training Needs of the Farmers for System of Rice Intensification Programme of CARE-RDS in Sherpur District. M.S. (Ag.Ext.Ed.) Thesis, Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh, Bangladesh. p 56.

• • • • •