BANGLADESH JOURNAL OF PROGRESSIVE SCIENCE & TECHNOLOGY BJPST

BJPST: 14(1): 001-006 [Jan, 2016] ISSN: 2305-1809 (Online version)

Available online at ***http:/www.bjpst.net***

VEGETABLE MARKETING SYSTEM AND ROLES OF MIDDLEMEN IN BANGLADESH

Md. Rashidul Hasan[1*] and Hu Bai[2]

[1]*Dept. Agribusiness & Marketing, Sher-e-Bangla Agricultural University, Bangladesh*

[2]*Faculty of Agriculture, Ehime University, Japan*

**Corresponding Author's Email: rashidul_prince@yahoo.com*

ABSTRACT

This study attempts to identify vegetable marketing channels in three districts in Bangladesh. For investigating marketing channels, identify market actors, their function, corresponding marketing cost and margin, and major business obstacles were also highlighted. Data were collected primary source from 354 farmers and 129 middlemen by using pretested semi-structured questionnaire in 2014. The results showed that farmers, *Faria, Bepari, Aratdar* and retailers were the major markets actors in the study areas. Middlemen were followed different payment methods, price fixation procedures and they graded and stored their vegetables for selling timely. Most of the intermediaries buy vegetables from farmhouses and village markets and sell mostly in the urban markets. Among the market intermediaries, net margin was highest for *Bepari* and lowest for retailer. Net margin and purchase price percentage was highest for retailer and lowest for *Bepari*. Middlemen used different sources of market information in their marketing activities and mobile phone is very popular for collecting price information. Both farmers and middlemen are in the shortage of capital. So Government, NGOs and other institutional credit should be available.

Keywords: *Vegetables, marketing channel, intermediaries, transaction, Bangladesh*

INTRODUCTION

Traditionally, vegetables farmers have scattered production and are not integrated. Capital dependent on money lender, lack of storage facilities in the rural area and insufficient price information further weaken farmers' bargaining power (Lantican, 1997; Banskota and Sharma, 1999; Shrestha and Shrestha, 2000; Khushk, 2001). In Bangladesh, marketing systems are not well developed. Because of this, farmers are deprived from adequate returns, which eventually disappoint them from venturing on the commercial agricultural production (Ervin and Ervin, 1982; Blaikie, 1985).

Middlemen's roles are very important for marketing of vegetables in Bangladesh. As farmers cannot effectively organize their marketing activities, they need support of middlemen for selling their products (Ellis et al., 1997; Sidhu, 1997; Fuentes, 1998; Lyon, 2000; Gandhi et al., 2001). Many studies found that the role of middlemen in farm product marketing of the developing countries is provocative. Intermediaries exploit farmers by giving low prices to farmers (Pradhan, 1998; Shrestha, 2000). In Bangladesh, marketing activities were dominated by the middlemen such as *Faria, Bepari, Aratder* and retailer. However, few studies are conducted about their marketing activities and roles in vegetable marketing. This study attempts to recognize the major market actors, their marketing practices, and to clear existing vegetable marketing channels for three districts namely Comilla, Rajshahi and Mymensingh. The marketing costs, margins and the major obstacles are also examined.

METHODOLOGY

Three districts namely Comilla, Rajshahi and Mymensingh were selected and purposive sampling technique was used for collecting the data. Farmers were selected from Nimshar village under Mokam union in Burichong Upazila of Comilla district. In Rajshahi district, Quithipur village under Baragachi Union in Sadar Upazila was selected. Char Kalibari under Char Ishwardi union in sadar Upazila of Mymensingh district was selected. Large portion of vegetables were come from these selected areas. Middlemen were selected from Nimshar bazar under Comilla district and Boyra bazar under Mymensingh district. In Rajshahi district middlemen were selected from Saheb bazar. In the year 2010-2011, total production area of summer vegetables were 6355.0 and 7467.6 hectares in Comilla and Mymensingh, 12131.9 hectares were cultivated in Rajshahi respectively. Total production area of winter vegetables in Comilla and Rajshahi were 10119.0 and 5546.1 hectares and 10220.24 hectares were cultivated in Rajshahi (Yearbook of Agricultural Statistics of Bangladesh, 2011). A preliminary survey was conducted in these three districts by using pretested semi structured questionnaire during May to July, 2014. As listed in the table 1 and 2, sample sizes of vegetable farmers were 354 and that of traders were 129.

Table 1. The distribution of sample farmers in different districts

Vegetables	Burichong Upazila (Comilla)	Sadar Upazila (Mymensingh)	Sadar Upazila (Rajshahi)	Total
Bean	24	24	-	48
Bottle gourd	30	27	30	87
Brinjal	30	30	30	90
Cauliflower	33	-	21	54
Tomato	30	21	24	75
Total	**147**	**102**	**105**	**354**

The major market actors are mainly comprised by farmers, *Faria, Bepari* and *Aratdar* in the vegetables marketing system. Farmers are the supplier's chain of vegetables. Traditionally they sell their vegetables to the intermediaries either in the local markets or at the farm yards. *Faria* purchase vegetables from farmers at the farm yard or at local vegetables market and sell their vegetables to *Bepari* or retailers and in some portion to the consumers only in the Rajshahi region. They invest small amount of capital in their business and buy small amount of vegetables. *Beparis* purchase large quantity of vegetables from *Faria* and sell vegetables to the city markets or retailers through *Aratdar*. Most of the *Beparis* have long experience in vegetables marketing and carry their activities in cash. *Aratdars* act as owner of Arat[1)] and indirectly involved in vegetables trading. They act as commission agents with fixed establishment in the market place. Their commission changes by the weight and size of vegetables. Their interest is only profit. Their business were independently organized and self-financed, employ labors on daily and monthly payment. *Aratdar* lend loan to *Bepari* on the condition that *Bepari* have to trade vegetables through them. Generally, they provide shelter and daily meal to *Beparis* who come from distant places. Retailers are the small traders and they involved in the last link in vegetable marketing channels. They buy vegetables from farmers, *Farias* and *Beparies* and they sell vegetables to the final consumers through *Aratder*. They are independently organized and have permanent or rent shop in the market or different convenient places. Some retailers have no permanent shop and they commonly use open market place for selling their vegetables. There have some big retailers who employ labors in their business.

Table 2. The distribution of sample intermediaries in different districts

Intermediaries	Nimshar bazar	Boyra bazar	Saheb bazar	Total
Faria	11	11	11	33
Bepari	10	10	10	30
Aratdar	11	11	11	33
Retailer	11	11	11	33
Total	**43**	**43**	**43**	**129**

The following indices were used to calculate the margin from different vegetables and margin of intermediaries:
Margin of individual vegetables = Purchase price (Tk. / Kg) – Sells price (Tk. / Kg)
Margin of intermediaries = Sells price – Purchase cost
Net margin of intermediaries = Margin – Market expenses
Net Margin and purchase price percentage

$$= \frac{\text{Net margin}}{\text{Purchase price}} \times 100$$

RESULTS AND DISCUSSION

Place of purchase and sell of vegetables by market actors

Table 3 shows the place of purchase and sell of vegetables by market actors. Ninety one percent *Faria* purchase bottle gourd from farm house and 51.5 percent sell out of district market. About sixty four percent *Faria* purchase brinjal from farm house and 42.4 percent sell out of district market. Seventy percent *Bepari* purchase tomato from village market and 53.3 percent sell out of district market. Twenty three percent *Bepari* purchase bean from farm house and 50 percent sell out of district market. About thirty one percent retailer purchase brinjal in the farm house and 58.3 percent retailer sell out of district market. Twenty five percent retailer purchase tomato from farm house and sixty four percent sell out of district market.

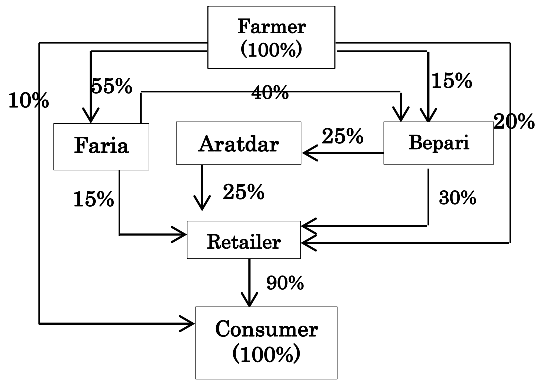

Figure 1: Marketing channels of vegetables in Mymensingh district

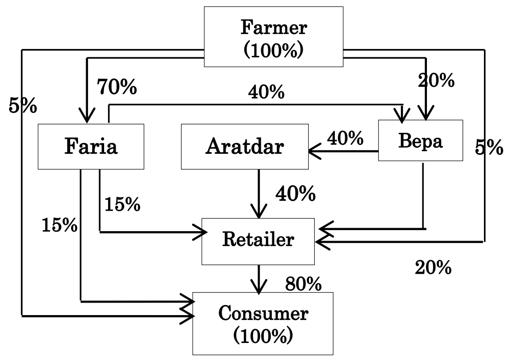

Figure 2: Marketing channels of vegetables in Rajshahi district

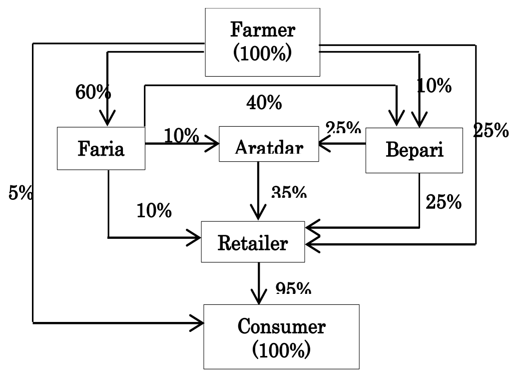

Figure 3: Marketing channels of vegetables in Comilla district

Table 3: Place of purchase and sell of vegetables by market actors

Items		Places or markets				
		Farm house	Village market	Upazila market	District market	Out of district market
Faria						
Brinjal	Purchase	63.6	45.5	-	-	15.2
	Sell	-	-	30.3	27.3	42.4
Bottle gourd	Purchase	90.9	18.2	-	-	21.2
	Sell	-	-	30.3	18.2	51.5
Tomato	Purchase	72.7	27.3	-	-	18.2
	Sell	-	-	27.3	21.2	54.5
Cauliflower	Purchase	75.8	24.2	-	-	6.1
	Sell	-	-	27.3	24.2	57.6
Bean	Purchase	69.7	33.3	-	-	-
	Sell	-	-	9.0	7.0	17.0
Bepari						
Brinjal	Purchase	36.6	66.6	23.3	26.7	30.0
	Sell	-	13.3	26.7	50.0	73.3
Bottle gourd	Purchase	30.0	70.0	20.0	30.0	53.3
	Sell	-	10.0	40.0	70.0	50.0
Tomato	Purchase	40.0	70.0	23.3	26.7	53.3
	Sell	-	6.7	33.3	26.7	66.7
Cauliflower	Purchase	36.6	66.6	26.7	46.7	56.7
	Sell	-	13.3	30.0	23.3	76.7
Bean	Purchase	23.3	70.0	40.0	40.0	50.0
	Sell	-	16.7	26.7	36.7	73.3
Retailer						
Brinjal	Purchase	30.5	36.1	41.6	19.4	-
	Sell	-	-	13.9	27.8	58.3
Bottle gourd	Purchase	30.5	36.1	44.4	13.8	-
	Sell	-	13.9	22.2	2.8	61.1
Tomato	Purchase	25	27.7	50.0	16.6	-
	Sell	-	5.6	19.4	11.1	63.9
Cauliflower	Purchase	27.7	38.8	58.3	11.1	-
	Sell	-	13.9	16.7	8.3	61.1
Bean	Purchase	30.5	33.3	52.2	11.1	-
	Sell	-	5.6	19.4	27.8	47.2

Source: Field survey, 2014

Distribution channels of vegetable marketing in three districts

The major marketing channels of vegetables and market participants corresponding percentage values handled or marketed in different districts are presented in Figure 1, 2 and 3. In Mymensingh, farmers sell 55% to *Faria*, 15% to *Bepari*, 20% to retailer and 10% to consumer. *Faria* sells 40% to *Bepari* and 15% to retailer. *Bepari* sells 30% directly to retailer and 25% to retailer through *Aratdar*. Retailer sells 90% to consumer. In Rajshahi, farmer sells 70% to *Faria*, 20% to *Beapri* and 5% (for both) to retailer and consumer. *Faria* sells 40% to *Bepari*, 15% to retailer and 15% to consumer. Retailers sell 80% vegetables to the consumer. In Comilla, farmers sell 60% to *Faria*, 10% to *Bepari*, 25% to retailer and 5% to consumer. *Faria* sells 40% to *Bepari*, 10% directly to retailer and 10% to retailer through *Aratdar*. Bepari sells 25% to retailer and 25% to retailer through *Aratdar*. Retailers sell 95% to consumer. In Rajshahi, farmers sell highest 70% of their vegetables to *Faria*. In Comilla, *Faria* uses Arat which is dissimilar to other district.

Marketing functions and performance of middlemen

i) Marketing functions

a. Payment methods and price fixation procedure

Table 4 shows the payment methods and price fixation procedure by the middlemen. Most of the middlemen use cash method for trading their vegetables. Twenty three percent of *Bepari* and 21.2% of *Aratdar* made payment through credit system. *Bepari* handled large amount of vegetables and they have long term business relationship with other traders. *Faria* (57.6%) mainly use bargaining while *Bepari* mainly use markup but also use bargaining and market observation. Retailers mostly used bargaining and market observation for fixing market price.

b. Transportation modes and marketing information sources

Table 5 illustrates different transportation modes and marketing information sources of middlemen. Different intermediaries used different kind of transportation viz. rickshaw, van, votvoti, tractor and truck to transport vegetables. Sixty four percent of the retailers used rickshaw as a mode of transport. About half of the *Faria* and retailers used van. Seventy percent of the Beparis used truck.

Almost one third of middlemen used radio to collect up-to-date market information. Mobile phone is very popular among all the intermediaries to collect regular price information

Table 4. Payment methods and price fixation procedures by the middlemen

Items	*Faria*	*Bepari*	*Aratdar*	*Retailer*
Payment methods				
Cash	93.9	76.7	78.8	94.4
Credit	6.1	23.3	21.2	5.6
Both	24.2	20.0	15.2	22.2
Price fixation procedures				
Bargaining	57.6	60.0	-	63.9
Market observation	24.2	53.33	-	50.0
Mark up	18.2	80.0	-	41.7
Both bargaining and mark up	30.3	16.7	-	30.6

Source: Field survey, 2014; Notes: Figure in the table indicates the percentage of total; Some middlemen reported more than one answer.

Table 5. Transportation modes and marketing information sources by the middlemen

Items	*Faria*	*Bepari*	*Aratdar*	Retailer
Transportation modes				
Rickshaw	30.3	6.7	-	63.9
Van	51.5	26.7	-	52.8
Votvoti	36.4	30.0	-	27.8
Tractor	36.4	40.0	-	11.1
Truck	-	70.0	-	-
Marketing information sources				
Radio	27.3	33.3	33.3	36.1
Television	21.2	6.7	12.1	5.6
Local Newspaper	9.1	3.3	21.2	5.6
Mobile phone	75.8	80.0	63.6	72.2
Market visit	57.6	53.3	-	13.9

Source: Field survey, 2014

Notes: 1) Figure in the table indicates the percentage of total.

2) Some middlemen reported more than one answer.

3) Rickshaw is a small vehicle with three wheels, which is pulled by a man and this is used in some Asian countries.

4) Votvoti is a specialized vehicles usually used to transport bulky goods in the rural area. This vehicle is not as costly a truck, that's why votvoti is a popular means of transportation in the rural area.

5) Van is a three wheels vehicle which is pulled by a man. This vehicle is used to transport small amount of vegetables.

c. Grading and storage practices

Table 6 shows grading and storage practices followed by middlemen. More than ninety percent of *Farias* and retailers graded their vegetables. Fifty eight percent of the retailers stored their vegetables. Most of the middlemen grade their vegetables because of grading facilitating for sell and getting high prices. Other reasons for grading vegetables are decreasing marketing cost, reduction of risk and increasing demand of vegetables.

ii) Marketing cost

Table 7 shows the marketing cost among different intermediaries. *Faria's* total marketing cost was Tk. 749.1. Transportation cost was the highest for *Bepari* (Tk. 736.7) than all other intermediaries. Among all the intermediaries, highest marketing cost was incurred by *Bepari*, which is Tk. 2054. Labor cost is the highest for *Aratdar* (Tk. 531) than all other intermediaries. Traditionally, they hire temporary and permanent labor to handle huge amount of vegetables. Most of the retailers have permanent shop in the market place and their house rent was Tk. 91.7, a highest level in all cost items followed by transportation cost Tk. 82.2.

Table 6. Grading and storage practices by the middlemen

Items	*Faria*	*Bepari*	*Aratdar*	Retailer
Grading vegetables	90.9	46.7	-	97.2
Storing vegetables	3.0	33.3	-	58.3
Reasons for grading vegetables				
Facilitating for sell	84.8	43.3	-	69.4
Decreasing marketing cost	36.4	23.3	-	88.9
Reduction of risk	27.3	33.3	-	77.8
Increasing demand	42.4	26.7	-	63.9
High price	93.9	63.3	-	97.2

Source: Field survey, 2014; Notes: Figure in the table indicates the percentage of total; Some middlemen reported more than one answer.

Table 7. Marketing cost of different intermediaries

Items	*Faria*	*Bepari*	*Aratdar*	Retailer
Transportation related costs				
Labor	159.7	508.4	531.8	-
Transportation	236.4	736.7	-	82.2
Market related costs				
Loading and unloading	57.3	117.0	-	-
Packaging	-	126.0	-	-
Grading	54.8	128.7	-	14.9
Market fee	35.0	61.7	47.9	20.8
House rent	-	-	181.8	91.7
Electricity bill	-	-	109.1	-
Aratdari commission	76.7	121.0	-	-
Contribution for market cooperative	-	-	13.3	-
Other costs				
Wastage of vegetables	56.8	130.7	-	14.0
Personal expenses	43.9	82.0	28.2	11.9
Mobile bill	28.5	42.0	11.66	12.4
Total marketing cost	749.1	2054.2	923.8	247.9

Source: Field survey, 2014; Notes: Tk. means Taka, which is the currency of Bangladesh and exchange rate for United States dollar to Bangladeshi Taka, 1 USD = 77.61 Taka (approximately). The exchange rate for Japanese yen to Bangladeshi Taka, 1 yen = 0.64 Taka (approximately) ; Transportation cost is different according to the means of transportation and distance; Marketing cost was calculated for one day transaction of vegetables of all intermediaries

iii) Marketing margins

Table 8 shows the marketing margins of intermediaries by vegetables. Among all intermediaries retailer got highest margin and *Bepari* got lowest margin by selling their farm products in all vegetables. *Bepari's* handle huge amount of vegetables and sell their products taking small amount of margin. Margin purchase ratios were highest in *Faria* and lowest in *Bepari*. *Aratdar* do not buy or sell the farm products. They only facilitate for selling farm product taking commission from the facility uses.

Table 8: Performance of intermediaries by farm selling products

Places or markets	Brinjal	Bottle gourd	Tomato	Cauliflo-wer	Bean
Faria					
Purchase price (Tk./kg)	17.4	13.4	17.8	11.6	17.9
Sells price (Tk./kg)	22.8	20.0	23.2	15.7	23.8
Margin	5.4	6.6	5.4	4.1	5.9
Margin/Purchase price (%)	31.0	49.2	30.3	35.3	32.9
Bepari					
Purchase price (Tk./kg)	22.7	19.9	23.1	14.1	23.5
Sells price (Tk./kg)	25.4	22.3	25.7	16.0	27.6
Margin	2.7	2.4	2.6	1.9	4.1
Margin/Purchase price (%)	11.9	12.1	11.2	13.5	17.4
Aratdar					
Purchase price (Tk./kg)	n/a	n/a	n/a	n/a	n/a
Sells price (Tk./kg)	n/a	n/a	n/a	n/a	n/a
Commission (Tk./kg)	0.25	0.20	0.25	0.16	0.25
Retailer					
Purchase price (Tk./kg)	25.6	22.2	25.5	15.7	27.3
Sells price (Tk./kg)	30.6	33.3	32.3	21.0	35.5
Margin	5	11.1	6.8	5.3	8.2
Margin/Purchase price (%)	19.5	50.0	26.6	33.7	30.0

Source: Field survey, 2014; Margin of all intermediaries was calculated for one day transaction.

Table 9 shows the performance of intermediaries. Among all the intermediaries, *Bepari's* margin were the highest, Tk. 3,073.1 and retailer's margin was the lowest, Tk. 561.1. Net margin was also highest for *Bepari*, Tk. 1,018.9 and retailer's was the lowest, Tk. 313.2. The highest net margin purchase ratio was retailer (14.9%) followed by 14.4% of *Faria*. The lowest was *Bepari* (4.3%).

Table 9: Performance of intermediaries

Places or markets	*Faria*	*Bepari*	*Aratdar*	Retailer
Sells	4842.2	26900.1	n/a	2659.7
Purchasing cost	3575.6	23827.0	n/a	2098.5
Margin	1266.6	3073.1	1516.7	561.1
Market expenses	749.1	2054.2	923.8	247.9
Net margin	517.5	1018.9	592.9	313.2
Net margin/ Purchase price (%)	14.4	4.3	n/a	14.9

Source: Field survey, 2014; Performance of intermediaries was calculated for one day.

Table 10. Problems faced by the intermediaries

Problems	*Faria* (33)	*Bepari* (30)	*Aratdar* (33)	Retailer (33)
Inadequate capital	96.9	76.7	66.7	78.8
Price instability	69.7	76.7	n/a	69.7
Wastage and damage	24.2	40.0	n/a	42.4
High transport cost	57.6	56.7	n/a	57.6
Inadequate storage facilities	n/a	33.3	n/a	48.5
Inadequate market facilities	48.5	36.7	54.5	33.3
Political unrest	69.7	73.3	66.7	66.7
Lack of information	60.6	36.7	27.3	57.6
Loss due to robbed in transportation	n/a	63.3	n/a	n/a
High price of shop	n/a	n/a	30.3	54.5
High electricity price	n/a	n/a	27.3	n/a
High tips and donation	30.3	36.6	30.3	42.4

Source: Field survey, 2014

Table 10 presents the problems faced by the vegetable traders. It shows that lack of capital was the most important problem for all traders mentioned by *Faria* (96.9%), *Bepari* (76.7%), *Aratdar* (66.7%) and retailer (78.8%). Except *Aratdar*, price fluctuation was also vital problem for traders. *Faria* (69.7%), *Bepari* (73.3%), *Aratdar* (66.7%) and retailer (66.7%) pointed out the problems of political unrest, suggesting that, this problem hampered their business. Lack of proper information was important problems for the traders, mentioned by *Faria* (60.6%), *Bepari* (36.7%), *Aratdar* (27.3%) and retailer (57.6%). Inadequate market facilities and storage facilities hamper traders business. Except *Aratdar*, high transport cost was the important problems mentioned over 50% of all traders. High tips and donation hamper traders business which mentioned by less than 50% of all traders. The other problems for traders are wastage and damage of vegetables, loss due to robbed in transportation, high price of shop and high electricity price.

Possible improvement of vegetable marketing system

I. It is essential to develop and disseminate up-to-date price information not only for the farmers and traders levels but also to the consumers' level. DAE (Department of Agricultural Extension) can also play a vital role in this aspect. This organization can organize farmers and traders training about collecting and using systemic price information in their respective field.
II. Middlemen desire more infrastructure and market facilities, which can be provided by investment more in the market by local government. Moreover extending more storage facilities and ensuring safe transportation of vegetables will improve the situation. These measures will reduce marketing cost and minimize wastage and loss.
III. The lack of business capital is directly related with monetary and fiscal policy as well as agricultural policy of the country. Government can create favorable conditions for loan sanction to agricultural traders, which will definitely enhance vegetable trade. Government's subsidies for interest rates may also be effective.
IV. Effective management of market with effective rules, uniform market fees, systematic auction procedure, scientific handling and packaging of vegetables should be introduced. In addition high political involvement in the trade and collecting tips and donation must be eliminated.
V. All middlemen choose cash method for the transaction of vegetables and middlemen use bargaining method to fix vegetables prices. So it is necessary to increase credit facilities among the middlemen and involve them for all transaction by using bank which will improve the existing vegetable marketing systems.

CONCLUSION

This article finds out major marketing channels of vegetables in three districts and the corresponding market actors. In the study areas, marketing systems of vegetables are still underdeveloped. Scientific handling and transportation of vegetables are still not developed. In general, most of the intermediaries buy vegetables from farm houses and village markets and sell mostly in the urban markets. Different middlemen preform different marketing practices. Among all the intermediaries, highest marketing cost was found in Bepari and they also get the highest levels of margin. The most common problem of intermediaries is inadequate capital. This problem needs to solve by agricultural policy by providing soft loan to the traders. Additional infrastructures, market facilities, scientific handling and transportation system need to be introduced to develop the vegetables marketing system in Bangladesh.

REFERENCES

Banskota, K., and Sharma, B. (1999). Traded resource flows from highland to lowland. International center for integrated mountain development, Kathmandu.

Blaikie, P. (1985). The political economy of soil erosion in developing countries. Longman scientific and technical, London.

Ervin, C.A, and Ervin, D.E. (1982). Factors affecting the use of soil conservation practices: hypothesis, evidence and policy implications. Land Econ., 58(3), 277-292.

Ellis, F., Senanayake, P., and Smith, M., (1997). Food price policy in Sri Lanka. Food Policy 22(1), 81-96.

Fuentes, G.A., (1998). Middlemen and agents in the procurement of paddy: Institutional arrangements from the rural Philippines. J. Asian Econ. 9(2), 307-331.

Gandhi, V., Kumar, G., and Marsh, R., (2001). Agroindustry for rural and small farmer development: issues and lessons from India. Int. Food Agribus. Manag. Rev., 2(3/4), 331-344.

Khushk, A.M., (2001). Marketing of vegetables and fruits in Pakistan: problems and constraints. In: APO (Ed.), Marketing of vegetables and fruits in Asia and the Pacific, Asian productivity organization, Tokyo, 81-97.

Lantican, J.M., (1997). Market prospects for upland crops in the Philippines. CGPRT Centre, Indonesia.

Lyon, F., (2000). Trust, networks and norms: the creation of social capital in agricultural economics in Ghana. World Devel. 28(4), 663-681.

Pradhan, T., (1998). Nepal agriculture perspective plan implementation status and future action. Citrus fruit producing and marketing, IAU/APP-TA, NPC, Kathmandu, Nepal.

Shrestha, B., and Shrestha, R.L., (2000). Marketing of mandarin orange in the western hills of Nepal: Constraints and potentials. Lumle agricultural research station, Nepal.

Sidhu, D.S., (1997). Measures to enhance the efficiency of agricultural marketing system. In: APO (Ed.), Marketing system for agricultural products, Asian productivity organization, Tokyo, 104-132.

UNDP, (2005). Report on identification of employment oriented export sectors. Dhaka, Bangladesh.

Yearbook of Agricultural Statistics of Bangladesh, 2011.Ministry of planning, Government of the People's Republic of Bangladesh, Dhaka, pp 137-154.

Notes

1.) *Arat means storage house and Aratdars use this for their vegetables business. In this Arat many labors are working and Aratdars pay monthly rent for their Arat.*

2.) *Bangladesh is divided into 64 districts or Zillas and the districts are further subdivided into 493 sub-districts or towns, or upazila. Moreover, upazilas are the second lowest tier of regional administration in Bangladesh.*