

Farmers' Responses about Subsidy in Sugarcane

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ABSTRACT

The present study was conducted to explore the impact of subsidy for farmers as well as sugar mills and to assess the farmers responses about the subsidy in sugarcane. Data were collected from primary as well as secondary sources. Due to subsidy cane yield was increased by 22.73 t ha^{-1} and found that due to subsidy an additional 1000.7 ton sugarcane were produced. Thus additional return from those were taka 1.3 million among the respondents and total extra money flow was taka 1.6 million. Data also expressed that the sugar mills received a total benefit of Tk. 0.44 million, 7.77 million and 17.58 million during 2003-04, 2004-05 and 2005-06 cropping year respectively. Farmers' responses were collected and ranked as per weight. Top three responses were as 'amount of subsidy is poor, it should be increased'; 'subsidy should be distributed by Sept-Oct,' and 'subsidy helps to increase production of sugarcane per unit area'.

Key words: Subsidy, sugarcane, farmers' response

INTRODUCTION

Paying subsidy to the farmers is a great social welfare activity of the Government. Almost all the developed countries including USA, EU and developing countries pay subsidy on agriculture either directly as cash incentive or on agricultural production inputs. Subsidy on agricultural input is now treated as social investment as it can boost agricultural production. However, developing countries are assured to pay subsidy upto 10% of its GDP and LDCs have no such obligations as per WTO rules of business.

Economy of Bangladesh depends mainly on its agriculture. About 66.18 percent farm families of the country depends on farming businesses which influences their lives each year (BBS, 2003). Agriculture sector is contributing 23.5 percent GDP to the national economy (BBS, 2003). Among this 5.52 percent GDP is coming from crop sub-sector of which 0.74% is from sugarcane (Pal *et al.*, 2005). Sugarcane is an industrial crop which is contributing more than 15 billion taka to the national economy. It is the most important cash-cum industrial crop of northern and north-western part of the country. About 0.17 million hectare land is utilized for the crop of which 0.086 million hectare in sugar mill zone and 0.084 million hectare in non-mill zone. About 0.6 million farmers depend directly on sugarcane (Pal, *et al.*, 2005). But the Socio-economic conditions of these farm families are not satisfactory. Because sugarcane is a long durational (12-18 month) crop and its production cost is much higher than many other crops. Per hectare cost of production of sugarcane is taka 55 thousand (Rahman *et al.*, 2005).

The major cost involved in inputs like seed (11.44%), fertilizer (10.58%), pesticide (3.40%), irrigation (1.90%) and transport for cane supply to the mills 8.79% for sugarcane production (Alam and Pal, 2006; Alam *et al.*, 2007). Under the present socio-economic condition sugarcane farmers can not pay all these inputs correctly which results ultimate decreasing in sugarcane production. Thus decreasing yield makes the crop unprofitable which ultimately hampers the production of sugar and gur. Hence, it is necessary to subsidize the production cost of sugarcane for its survival.

Government of Bangladesh decided to pay subsidy to the sugarcane farmers since 2003-04 considering the poor conditions of the farmers and vulnerability of frequent natural disaster. With the increasing rate of production cost of sugarcane, authorities has increased the payable amount of subsidy per hectare and also extended the area of payments. Earlier, the farmers received only Tk. 1740.00 per acre if he/she produced any one of six selected varieties and followed the plantation method of Spaced Transplanting Technology (STP). From the year (2005-06) the amount and the number of selected varieties were increased from Tk. 1740.00 to 2500.00 and from six varieties to ten varieties. Moreover, it has included intercrop, seed plot and ratoon technologies within the subsidy programme. From the year 2006-07, the amount and the number of selected varieties were further increased from Tk. 2500.00 to 3000.00 and they have included intercrop, seed plot and methodological ratoon technologies within the subsidy programme. Thus this study was undertaken to ascertain the farmers response on subsidy and its impact on their socio-economic conditions.

MATERIALS AND METHODS

For this study Natore Sugar Mills area was purposively selected. Data were collected from both primary and secondary sources. A pre structured questionnaire was used to collect information regarding farmers' response. Other data were collected from sugar mills record. Data were collected during December 2007 and analyze after that. Descriptive statistics were employed to analyze the data of the study.

RESULTS AND DISCUSSION

It was found that subsidy was paid to the all kind of farmers from illiterate to highly educated; marginal land holder to big farmers and poor farmers to rich farmers. It helped to increase the yield of sugarcane by 22.73 t ha^{-1} among the 73 respondents (Table 1). Average yield of sugarcane with and without subsidy were 83.73 t ha^{-1} and 61.0 t ha^{-1} respectively. The additional production of sugarcane due to subsidy was 1000.7 ton from the subsidized 44.0 ha of land. Although the total land areas of the respondents were 344.90 ha but they received subsidy only on 44.0 ha, because of its condition. Additional return from additional production was Tk. 13,00,889.20 and total amount of money received as subsidy was Tk. 3,08,235.00. Thus the total extra flow of money was taka 16,09,124.20. These additional money flow helped them positively in their farming business as well as living condition.

Table 1. Effect of subsidy on farmers economy

No. of respondents	Total area of land (hectare)	Land occupied in subsidy (ha)	Total amount of money received as subsidy (Tk)	Yield sugarcane in subsidy plot (t ha ⁻¹)	Yield of sugarcane in other plot (t ha ⁻¹)	Yield increased (t ha ⁻¹)	Additional cane production from subsidy plot (Ton)	Additional return from subsidy plot (Tk)	Total extra money flow (Tk) (column 4+9)
1	2	3	4	5	6	7	8	9	10
73	344.90	44.01	3,08,235	83.73	61.0	22.73	1000.7	13,00,889.2	1609124.2

Benefit accrued by the sugar mills was also identified and presented in Table 2. It is clear that Natore Sugar mills was able to produce additional sugar on an average of taka 1,03,26,300 by distributing average amount of taka 17,29,078 during the cropping year 2003-04, 2004-05 and 2005-06. Thus the average national benefit of those 3 years was taka 85,97,222. This was due to an average extra production of 13.33 t ha⁻¹ of those 3 years. Thus an average of 4917.29 ton cane was produced as extra which worth Taka 63,60,155.69 (as the price of cane Tk. 1300 per ton). All the canes of subsidy plots were supplied to the mills. Thus from the mean additional 4917.29 ton sugarcane a mean additional 344.21 ton sugar were produced. The market price of 344.21 ton sugar was taka 1,03,26,300. The achievements of subsidy were 24.99, 360.73 and 581.37 hectare during 2003-04, 2004-05 and 2005-06 respectively. Thus the trends of total benefits were also very positive which were Tk. 4,37,355; Tk. 77,74,227 and Tk. 1,75,80,084 respectively.

Table 2. Total Benefits of Rajshahi Sugarmills due to subsidy in sugarcane

	2003-04	2004-05	2005-06	Mean
Sugarcane yield in subsidized plot (t ha ⁻¹)	57.19	62.96	66.69	62.28
Sugarcane yield in non-subsidized plot (t ha ⁻¹)	46.81	50.65	49.40	48.95
Additional yield (t ha ⁻¹)	10.38	12.31	17.29	13.33
Land area where subsidy was given (Hectare)	24.99	360.73	581.37	322.36
Total additional sugarcane production (ton)	259.39	4440.58	10051.89	4917.29
Price of additional sugarcane (Tk.)	3,00,647.98	57,12,362.11	1,30,67,457	63,60,155.69
Additional sugar yield from additional sugarcane (ton)	18.16	310.84	703.63	344.21
Market price of additional sugar (Tk.)	5,44,800	93,25,200	2,11,08,900	1,03,26,300
Amount of given subsidy (Tk.)	1,07,445	15,50,973	35,28,816	17,29,078
Total National benefit (Tk.)	4,37,355	77,74,227	1,75,80,084	85,97,222

Recording farmers' responses were also the major scope of the study and were collected through an open question. Farmers' responses were arranged and ranked as per total weight, which were presented in Table 3. It was found from the table that 'amount of subsidy is poor it should be increased' ranked top of the list with a total weight of 60. 'Subsidy money should be distributed by Sept.-October' and 'subsidy helps to increase production per hectare ranked 2nd and 3rd with the total score weight of 50 and 47 respectively. Equal weight of 45 was received by two points 'subsidy money motivated farmers for sugarcane cultivation' and 'interim benefit helps to meet up family needs'. These two were ranked 4. Other responses were as follows: Irrigation, early plantation etc. should be included as different items in subsidy (weight 40, rank 5); subsidy should be continued (weight 39, rank 6); best plots of conventional plantation should be included in subsidy (weight 37, rank 7); subsidy ensures intercrop (weight 32, rank 8); best producers should be awarded with subsidy (weight 20, rank 9); sugarcane farmers should be trained regularly (weight 18, rank 10); all the farmers should be included in this program (weight 16, rank 11); subsidy money helps to buy inputs (weight 12, rank 12); authorities should be alert about mis-use or wrong of subsidy money (weight 8, rank 13); subsidy can be treated as a big-business of the Govt. (weight 7, rank 14); Government is thankful for this decision (weight 6, rank 15).

Table 3. Farmers Responses

	Topic	Total weight	Rank
1	Subsidy money helps to buy inputs	12	12
2	Subsidy ensures intercrop	32	8
3	Subsidy money motivated farmers for sugarcane cultivation	45	4
4	Subsidy helps to increase production per hectare	47	3
5	Interim benefit helps to meet up family need	45	4
6	Amount of subsidy is poor, it should be increased	60	1
7	It should be distributed by Sept-Oct.	50	2
8	Irrigation, early plantation etc. should be included as different items in subsidy	40	5
9	Best producers should be awarded with subsidy	20	9
10	Best plots of conventional plantation should be included in subsidy	37	7
11	It should be continued	39	6
12	Sugarcane farmers should be trained regularly	18	10
13	Authorities should be alert about mis-use or wrong of subsidy money	8	13
14	Government is thankful for this decision	6	15
15	All the farmers should be included in this program	16	11
16	Subsidy can be treated as a big-business of the Govt.	7	14

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