A Study of Organized Milk Marketing in Bihar

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INTRODUCTION

Milk production in Bihar has increased from 1.88 million tons in 1950-51 to 3. 56 million tons in 1995-96 and is estimated to be 4.27 million tons in 2000-2001.The value of milk produced also increased from Rs.60 crores in 1950-51 and is expected to be Rs.2447.25 crores in 2000-2001. This increase in value of milk has been mostly contributed by the increase in milk prices, especially during the last decade. However, the state's share in national milk production declined from 11.10 percent in 1950-51 to 5.33 percent in 1995-96 and in 2000-2001 it is expected to be about5.06 percent. Per capita availability of milk has also declined from 133 gm/day to 112 gm/day compared to the national availability that increased from 128 gm/day in 1950-51 to 226 gm/day in 2000-2001(Anon., 1998). On the other hand, the national scenario of milk production has also been quite encouraging as it increased from 16.93 million tons in 1950-51 to 84.46 million tons in 2000-2001. (Table-1).

With higher pace of urbanization and development in the country in general and Bihar in particular the demand for milk and milk products is likely to increase in future. The elasticity of demand for milk is estimated to be 1 for urban Bihar. This implies that with rising urbanization and per capita income, the demand for milk would rise faster in the state of Bihar. There is little local demand for milk produced in rural areas. The milk must, therefore, find an outlet in urban centers. Lack of infrastructural facilities along with low, scattered and seasonal milk production poses a serious problem of marketing that compels dairy farmers either to sell milk to the middlemen or to convert it into less remunerative milk products. Under the situation, the organization of Dairy Cooperative Societies (DCS) seems to be only viable alternative for rural milk marketing under organized system. In Bihar, the number of dairy cooperative societies increased from 1030 in 1985-86 to 2041 in 1993-94 crossing members over 1 lakh, and increasing the number of member-farmers per DCS from 21 in 1985-86 to 52 in 1993-94. This involved less than 3 percent of villages and less than one percent of

rural households covered under the organized milk-marketing network in Bihar. (Singh, 1994). The present study aims to find some relevant information relating to the organized milk markets in Bihar.

MATREIAL AND METHODS

The data were obtained from milk producers, dairy cooperative societies, and consumers, through prepared schedules, covering operative areas of two milk unions namely, Vaishal Patliputra Milk producers Union and Barauni Milk Unions for the period 1995-96 to 1997-98. Total 60 dairy cooperative societies were then randomly selected for detailed study. The size of identified cooperative societies varied from 22 to 235 member- farmers and their annual raw milk supply varied from 35 lt. to 9000 litres. An analysis has been done to study the dimension of milk collection through different size of dairy cooperative societies. DCS were categorized in three classes, i.e. less than 50 members, 50-100 members, and more than 100 members. Simple tabular analysis was done to arrive at meaningful conclusions. Data from published sources were also used for this study. To study the availability/production of milk, the whole year was divided in four seasons as Slack (April-June), Pre-flush (July-September), Flush (October-December), and Post-flush (Jan.-March) on the basis of climatic conditions (Shadura et.al, 1981). The marketing channel was studied using the prepared schedules and through personal interviews to all the market intermediaries. The institutional milk-marketing channel includes, producers, dairy cooperative societies, milk unions and consumers in the sequence. The process of milk marketing was also studied.

RESULTS AND DISCUSSION

A. Milk Assembling

Season-wise per member per-day milk collection for identified 60 DCS was computed and results have been presented in Table- II. An analysis of season-wise milk collection revealed that per member-per day milk collection increased from 1.18 liters in 1995-96 to 1.38 litre in 1997-98, however, it remained same during first two consecutive years under study. It also indicated a clear trend of lowest milk collection in slack period (ranging from 0.54 to 0.68 litre) and highest in flush period (ranging from 1.96 to 2.06 litres). The average milk collection in slack period was only one fourth of that in flush season. The inadequate availability of green fodder coinciding with marriage season during slack period might possibly have resulted in decline in milk collection through dairy cooperative societies in Bihar. Any proper arrangement to make milk available to producers for

marriage ceremony in rural area would help stabilizing its collection through dairy cooperative societies during slack period (Ranade et.al, 1988).

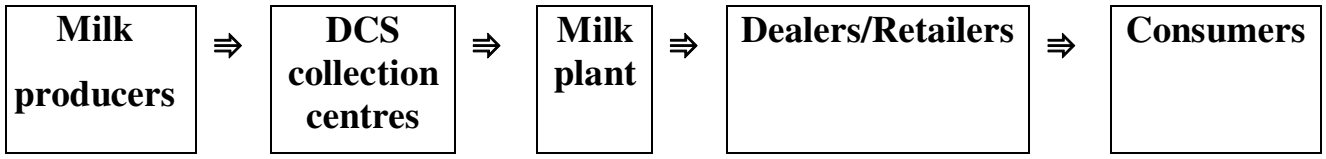
An analysis of data (Table-III) revealed that the per member - per day average quantity of milk collected was inversely related with size of the societies; comparatively higher on small size societies (1.83 litre), followed by medium size societies (1.42 litre) and large cooperative societies (0.97 litre). The observed trend held true for all the three years under study. The overview of data indicated increasing trend, in general, in milk collection during the period under study with exception of declining or remaining constant in few instances. In the large size DCS milk collection remained same (0.91 litre) for two consecutive years (1995-97) and increased to 1.10 litre in the year 1997-98. However, collection of milk by medium sized DCS continuously progressed during the period under study.

B. Institutional Milk Marketing Channel:

Milk was collected twice (morning and evening) at the collection center of DCS and delivered to transporting vehicle of the milk union at predetermined point of milk route. Milk was chilled and processed at the milk plant, and delivered to different dealers in urban area for selling to consumers. There were some milk unions in the state, which did not have milk plant; such Unions were engaged only in collection and chilling of milk and selling the chilled milk to the adjacent union for further processing and marketing.

The cost of milk transportation from DCS to milk route was borne by the concerned DCS and onward transportation cost up to the dealer's booth was generally borne by the concerned milk union.

Organized Milk Marketing Channel:



Producer's Share in Consumer's Rupee:

The detailed information on transportation and processing cost, and profit margins were not readily available, hence the analysis had been made on producer and consumer's price of milk during the period 1995-98 (Table IV).The producers received only 75.24 percent of Consumer's rupee in the Year 1995-96, which declined to 71.65 percent in 1997-98. The processing cost and profit margin to

the unions increased from 24.76 percent of consumer's rupee in the 1995-96 to 28.35 percent in 1997-98. During the period 1995-98 there was an increase of 23.30 percent in consumer's price of milk but the producer's price increased by only 17.42 percent. The increase in producer's price did not seem sufficient to neutralize the inflation rate during the period under study (Thakur, 1975). On the other hand, the processing cost and profit margin to milk unions increased by a 38.46 percent during that period which was supposed to be more than average increase in these costs (Singh, 1994).

CONCLUSIONS

The milk producers have been deprived of their due share in increased consumer's price of milk in Bihar. Almost two times increase in the processing cost and profit margin to milk unions might be due to inefficient use of milk plants and perhaps cheap availability of labour resource.

The smaller dairy cooperative societies in general and medium sized in particular performed comparatively better in collection of milk from their members. The average collection of milk in lean (slack) period went down as low as 35 percent as that of flush season because of several reasons. Hence, there is an urgent need to make available required technology and input to farmers for growing green fodder in slack season. An arrangement is also required to be made to supply milk for marriage parties in rural areas, which will help in sustaining the supply of milk to the dairy cooperative societies. Producer's share in consumer's rupee declined during the period under study, which needs to be increased by efficient management of Dairy plants and marketing system.

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Table 1: Milk Production and per capita availability of milk (1950-51 to 2000-01)

Year	Milk Production (million tons)		Per capita availability gms/day	
	India	Bihar	India	Bihar
1950-51	16.93	1.88 (11.10)	128	133
1960-61	19.84	1.91 (9.62)	124	133
1970-71	22.51	1.54 (4.44)	104	75
1980-81	31.57	1.94 (6.15)	126	93
1990-91	53.94	3.11 (5.77)	174	98
1995-96	66.75	3.56 (5.33)	199	104
2000-01	84.46	4.27 (5.06)	226	112

Figures in the parentheses show the percentage in Bihar vis-à-vis. India

Source: Various publications

Table 2: Season-wise milk contribution in Identified Dairy Cooperative Societies.

Season↓ Year→	Milk contribution per pourer member per day (in Litres)		
	1995-96	1996-97	1997-98
Slack season	0.54	0.68	0.58
Pre-flush	1.10	1.24	1.52
Flush	1.96	1.66	2.06
Post-flush	1.34	1,38	1.66
Annual average	1.18	1.18	1.38

Table 3: Size-wise average milk contribution in identified cooperative societies

Size of cooperative	Milk contribution per pourer member per day (in Litres)			Average
	1995-96	1996-97	1997-98	
Less than 50members	1.86	1.78	1.86	1.83
50-100 members	1.33	1.35	1.59	1.42
More than 100 members	0.91	0.91	1.10	0.97

Table 4 : Producers and consumers price for standardized (cow+buffalo)milk in Bihar

(1995-96 to 1997-98)

Particulars	Price of milk (in Rupees)			Increase during1997-98 over 1995-96 (percent)
	1995-96	1996-97	1997-98	
Producer's price	7.75 (75.24)	8.50 (73.91)	9.10 (71.65)	17.42
Cost of processing & margin	2.60 (24.76)	3.00 (26.09)	3.60 (28.35)	38.46
Consumer's price	10.30 (100.00)	11.50 (100.00)	12.70 (100.00)	23.30

Figures in parentheses indicate the percentage of consumer's price.