

STUDY OF URBAN MILK SUPPLY SCHEMES - 1974

1. The Study

The Royal Commission on Agriculture constituted in 1919 by the Government of India had recommended, inter-alia, the setting up of cattle colonies outside the municipal limits and of milk processing plants to cater to the urban population. However, dairy development was actively taken up by the Government of India under the 'Grow More Food Campaign' in 1944. Though no specific allocation was made for dairy development in the First Five Year Plan in the central sector, yet the State Plans provided for 27 schemes for the development of dairying and milk supply to towns. The Second Five Year Plan provided for Rs.17.44 crores for dairy development schemes. Nevertheless, implementation was restricted to projects for which foreign aid was available or for which the equipment required could be found within the country. The Third Five Year Plan envisaged to expand the existing milk supply schemes, to set up 55 new milk supply schemes, to establish salvage farms near big cities to preserve the stock of good cattle and to link milk supply schemes with the Intensive Cattle Development Projects (ICDPs). The National Dairy Development Board was set up in 1965 which developed the 'Operation Flood' scheme for dairy development and milk marketing. The Annual Plans 1966-67 to 1968-69 emphasised the consolidation and expansion of the existing milk plants to increase their daily throughput. During the Fourth Five Year Plan, an allocation of about Rs. 139 crores was made in the dairy sector for completing the spill-over milk schemes, correcting the loss incurred by most of the schemes and extending dairy industry to smaller towns, etc. The Indian Dairy Corporation was set up in 1971 to step up planning and execution of Dairy Development Programme and to provide technical guidance to states in setting up milk schemes. Despite these efforts and having the largest cattle population in the world, the daily per-capita availability of milk was considerably less than the minimum quantity of milk required under nutritional standards. It was against this grim background that the Programme Evaluation Organisation (PEO), on the request of the Planning Commission, took up an evaluation study of the Urban Milk Supply Schemes in 1970-71.

2. Objectives

- i) To review the trend and level of achievement and mode of working of the urban milk supply schemes;
- ii) To study the problems of organisation and administration of the schemes;
- iii) To examine the problems of procurement, processing and distribution of milk and milk products;
- iv) To analyse the cost and return of schemes and to study the price structure of milk from procurement to processing and distribution.
- v) To study the problems of suppliers of raw milk; and
- vi) To ascertain the views of the consumers on the quality of coverage and service by the schemes.

3. Sample Size/Criteria for Selection of Sample

Large-sized milk supply schemes of the four metropolitan cities (Bombay, Calcutta, Delhi and Madras) were excluded from the perview of the study as their problems were different from those of small sized schemes. Of the remaining schemes operating at the end of 1968-69, 13 milk supply schemes were selected for the study. The sample was selected in such a manner that large, medium and small schemes operating in public sector, co-operative sector and Municipal Corporation would be adequately represented. In addition, two schemes were selected in Gujarat and Kerala raising the sample size to 15. Finally 14 schemes were covered as the records of Kanpur scheme were sealed pending a judicial enquiry. Of the final sample, 10 schemes were in the public sector, 3 in the co-operative sector and one under the Municipal Corporation. In each selected scheme, two chilling centres with the maximum daily throughput during the month preceding investigation were selected. From each selected chilling centre, six milk suppliers were sampled with probability proportional to the quantity of milk supplied by them during the full week preceding the first visit of the Investigator. The selection of consumers was done in two stages. In the first stage, three to seven supply points (the exact

number depending on the size of the scheme) were selected at random from each scheme. From each chosen supply point, seven card-holders registered with it were selected at random. Three unregistered consumers were also randomly chosen from each selected supply point. The final sample size consisted of 14 urban milk supply schemes, 17 chilling/heat treatment centres, 157 milk suppliers, 66 milk booths, 548 registered consumers and 112 unregistered consumers.

4. Reference Period

Data, both primary and secondary, were collected and collated for the period 1955-56 to 1973-74.

5. Main Findings

1. The plan allocations as well as the utilization of funds in respect of the urban milk supply schemes showed wide variations among the 13 states surveyed.

2. The utilization of the installed aggregate milk processing capacity was generally low among the schemes. On an average, only two third of the aggregate installed capacity in the States was being utilized.

3. Out of the 14 schemes surveyed, eight had received foreign assistance and the remaining six were initially started as pilot schemes and later on converted into full-fledged schemes. In the public sector schemes, the management and policy-making bodies were generally the same. In the Co-operative sector schemes, the Board of Directors was responsible for policy-making and management. Delay in decisions and lack of consistent policies were reported from all the public sector and municipal corporation schemes. Too many formalities in financial matters often caused delays in the release of funds.

4. Procurement of milk was channelised through milk producers' co-operative societies, milk unions, private contractors, middlemen, state-owned farms and individual producers. The principal problems beset with milk procurement included the scattered and small scale production of milk, inadequate transport and marketing system, stiff competition from private vendors and substantial seasonal fluctuations in milk production. The last of the above mentioned problems made the schemes

to use milk powder for reconstituting liquid milk to sustain the milk supply throughout the year. Most of the schemes converted unsold milk into various milk products. The measures adopted by the schemes to tackle the aforesaid problems included the setting-up of milk collection centres in the neighbourhood of milk-shed areas, fixation of remunerative procurement prices, strengthening of co-operatives, integration of Intensive Cattle Development Projects (ICDPs) with milk supply schemes and extension of existing milk-shed areas.

5. There were wide differences in the average quantity of milk sold per day per booth and in the operational cost per litre of milk sold. It was due to dependable quality, regularity of supply and hygienic preparation that the consumers preferred purchasing milk from the schemes. Though the quality of processed milk was generally appreciated, seasonal fluctuations in quality were reported in some cases. The location of milk booths was generally satisfactory.

6. Poona, Jaipur and Karnool had no chilling centres of their own. In the Cuttack scheme, milk was treated by heat treatment method. The Ahmedabad Scheme received chilled milk directly from the district milk producers' union. The remaining 9 schemes had, in all, 19 chilling centres. In the schemes of Maduari, Amritsar and Gauhati, the total installed chilling capacities exceeded their respective processing capacities. Capacity utilisation was very poor in many chilling centres. Chemical tests were conducted on the collected milk in all the centres. All the selected chilling centres, except those of Ahmedabad and Trivandrum, were suitably located. The average capital investment per thousand litres of chilling capacity was Rs.31,300. The average operational cost of chilling per thousand litres of milk was Rs.14.

7. As regards milk supply, the co-operative societies were supplying milk to the schemes in all sectors while individual suppliers made supplies only to the public and co-operative sector schemes. Contractors supplied only to public sector schemes. The average quantity of milk supplied was the highest by the co-operatives. Contractors and co-operatives employed fast moving vehicles as modes of transport whereas the direct suppliers relied on bicycles or human labour. Timings fixed for supply of milk were generally satisfactory. So was the milk supplied by the selected suppliers. Difficulties of long distances, non-adherence to scheduled timings, inadequacy of transport and of sterilised cans and undue rigidities in testing were

reported from certain centres. For ensuring regular supply of milk, the schemes entered into informal and formal agreements with the suppliers, which were generally acceptable to the latter. Stringent penalty clauses and irrational procurement prices were reported from some schemes.

8. Two-third of the members of the selected co-operatives were milk producers. The average share capital and working capital per society were Rs.11,520 and Rs.1,05,380 respectively. Many sops were offered by the societies to its members. They included provision for credit facilities for purchase of cattle, construction of cattle sheds, payment of security deposits, supply of fodder, etc. Many societies were facing acute competition from local milk vendors in milk procurement.

9. Milk contractors, for ensuring regular supply of milk, offered advance payments for milk and interest free loans to producers for purchase of cattle.

10. The schemes were to run on a 'no-profit-no-loss basis' with the objective of providing incentives to the producers so as to stabilize ultimate consumer prices. These social bindings made rational pricing difficult. For want of comprehensive cost of production data, procurement prices of milk were fixed on the basis of fat and SNF contents and the prevalent market rates. Procurement prices were generally fixed higher in the lean season than in the flush season. These prices exhibited an upward trend between the years 1967-68 to 1969-70 in some schemes while they remained more or less constant in the other schemes. Again, dearth of reliable data on processing, transportation and distribution of milk crippled the fixation of sale prices. The processing cost shot up due to the obsolescence of plant and machinery and to the low capacity utilization. Sale prices remained more or less sticky over seasons.

11. Liquid milk accounted for more than 80% of the total value of production of the sample schemes except in Amritsar and Mahesana. A variety of milk products (ghee, butter and cream being the important ones) was produced by the schemes, partly due to economic considerations and mainly to utilize the unsold milk. They, generally, were ill-equipped for the purpose and reported difficulties in marketing the by-products.

12. For all the schemes except those of Amritsar, Mahesana and Ahmedabad, the 'value added' was negative. Balance sheets and profit and loss accounts were generally not available. All the sample schemes, except one or two were making losses. No direct subsidy or price support was extended to any of these schemes.

13. There was no personnel or training policy. Employment of staff was not related to capacity.

6. Major Suggestions

1. The study recommended institutional improvements which include (a) the formation of State Dairy Corporations in all States and their linking with the schemes, (b) the setting up of balancing plants, i.e. dairy plants which can produce milk products, especially milk powder, to take care of the seasonal fluctuations in the supply of milk, (c) the creation of Milk Control Boards in each State to regulate the distribution of milk powder, (d) the formation of Milk Consumers' Advisory Committees, (e) the enforcement of Milk Control Act to regulate the diversion of liquid milk for the production of luxury milk products and to preclude adulteration, (f) the setting up of additional milk producers' co-operatives and the rejuvenation of the existing ones through credit facilities, subsidies and rebates, and (g) the effective integration of the ICDPs and milk supply schemes.

2. The two axis pricing policy on the basis of fat contents and SNF for fixation of procurement prices of milk should be universally adopted. Payments to milk supplies should promptly be made in cash. All costs should be precisely estimated for fixing sale prices. Liquid milk should be supplied at reasonable prices to the vulnerable sections and the loss, if any, on this account should be balanced by providing subsidies and by gearing the existing plants to take up other profitable lines of production than liquid milk.

3. To preserve the quality of milk, it is suggested that the time lag between time of milking and delivery should be reduced by improving transportation facilities, that suitable equipments for milk testing should be provided at all collection centres, that records of samples of milk checked should be maintained and that quality control should more strictly be enforced on private vendors.

4. Steps to fully utilise the installed capacities of chilling centres should be implemented. Maintenance and timely replacement of equipments and transport vehicles should be undertaken. Minimum viable size for milk processing units should be determined on the basis of detailed study of factor costs and requirements of fixed and working capital.

5. The schemes should take their consumers into confidence through better services. Publicity and mass media campaign should be geared for educating the public of the desirability of hygienically processed milk and of the risk of adulterated milk.

6. The indiscriminate slaughter of dry cows and buffaloes of superior breeds should be banned. Instead, they should be sent to salvage farms for protection and can later be distributed as milch cattle in the rural areas.

7. In the milk-shed areas demarcated for the milk supply schemes, the sale of milk to private vendors should be either banned or the suppliers should be under obligation to supply their milk to the schemes first and only the balance to the vendors.

8. Delegation of financial and administrative powers to Managers of Milk Supply Schemes should be liberalised.

9. Immediate steps should be taken for proper maintenance of all statistics and accounts. Suitable machinery should be set up for the systematic collection, compilation and maintenance of comprehensive statistical information on different aspects of the dairy industry from milk production to milk distribution.