

CHAPTER: I
INTRODUCTION

The Problem:

Sugarcane has the pride of place among the commercial crops of India and provides raw material for the second largest industry in the country. The Sugar milling industry employs three lakh persons and provides livelihood for 25 million people who are linked with the Sugarcane cultivation and marketing. Jaggery making is an important cottage industry in the villages. The development of this industry is contributing to the industrial growth and to the general well being of the rural people. India, the original home of sugarcane, stands first in the area among the sugar producing countries and accounts for seven per cent of the world sugar production (Appendix: I). Sugar brings in every year foreign exchange to the tune of Rs. 36 Crores.

Sugar is being used in increasing quantities year after year by the people of this country. The rising level of income arising from the economic development of the country generates steadily rising demand for sugar in the domestic market while the demand for export too, is increasing. However, the low income groups in rural, urban and semi urban areas prefer jaggery to sugar. The per capita consumption of jaggery during the year 1982-83 is estimated

at 11.8 kgs compared to 9.1 kgs of sugar during the same year (Appendix: II). But, the consumption of sugar shows an up-trend from about 4.8 kgs in 1960-61 to 9.1 kgs in 1982-83 with a peak of 9.6 kgs in 1978-79. In contrast per capita consumption of Gur and Khandasari has declined from 15.2 kgs in 1960-61 to 11.8 kgs in 1982-83, with the lowest consumption of 10.9 kgs in 1981-82.

The other side of the picture, viz. the production and the cost of production, is quite disappointing. The average yield of cane and jaggery per ha. has not improved much as can be seen in Appendix: III. When the productivity of cane is compared with those of progressive sugar producing countries like the United States of America, Mexico, Australia and Indonesia, yield in this country is very low, and it has to be improved (vide Appendix: I).

Tamil Nadu stands third among states in India in respect of area and production of sugarcane and second in the production of cane jaggery as can be seen in Appendix: IV and V. It has got the possibilities of producing cane and sugar at costs comparable to the rest of the world. The area under Sugarcane has recorded a steady increase in Tamil Nadu (Appendix: VI). The establishment of sugar mills has encouraged sugarcane production in this state by

providing ready market outlet for cane growers. In turn, it increases income and employment on farms growing cane. With the adoption of improved practices, better seeds, better fertilizers, the yield of sugarcane in Tamil Nadu has reached 87 tonnes per ha. during the year 1982-83.

As against this impressive growth in area under sugarcane in the state as a whole, the inter district differences in area, productivity, and production are significantly large.¹ The localization and concentration of sugarcane crop in certain regions of the state is due to agro-climatic conditions, establishment of sugar mills and the existence of large assembling markets. North Arcot District ranks first among the districts in Tamil Nadu by area under sugarcane followed by South Arcot and Coimbatore districts with second and third ranks respectively. Periyar district ranks fourth. But the districts have different ranking by productivity criterion. The Periyar district ranks first with a productivity of 337 tonnes of cane per ha. It is followed by Coimbatore and South Arcot, while North Arcot ranks poor seventh. In production, South Arcot ranks first followed by North Arcot, Coimbatore,

¹S.Varadarajan, "Cost Price Relationship in Sugarcane" Project No.R.1, Tamil Nadu Agricultural University, Coimbatore, 1982, p.14 (Mimeo).

Periyar, Salem in that order. Thus, North Arcot is an important district for sugarcane by its first and second ranks in area and production respectively, among the districts of Tamil Nadu.

Sugarcane is utilised for different purposes viz., production of white sugar, seed, chewing and making jaggery/khandasari. The proportion of sugarcane used for different purposes is presented in Appendix:VII. The percentage of Sugarcane utilized for making jaggery is higher than that for white sugar. In 1982-83, 44.5 per cent of sugarcane produced in India was diverted for making jaggery, and khandasari, whereas 43.9 per cent was utilised for producing white sugar. The quantity of sugarcane utilised for seed, feed, and chewing purposes, has remained constant over the years. The utilisation of sugarcane for the production of the two close substitutes, white sugar, and jaggery has contributed to the development of the two markets, one for white sugar and the other for jaggery.

Jaggery was made by boiling cane juice to solidify it. It is known as 'Vellam' in Tamil, 'Bellam' in Telugu and 'Gur' in North India. Jaggery making is a very ancient industry in India. It is not only a sweetening agent in food and drinks, but in itself is an article of food. Old

jaggery has the reputation of being used in medicine and is prescribed for use in the indigenous system of medicine both for men and beasts. Jaggery is considered as mild lactative, and is supposed to have more warming effect than sugar. It contains proteins, fat, calcium, and phosphorus. The higher iron, copper, vitamin contents and its medicinal value, compared to sugar explain the continued use of jaggery in large quantities.

Since jaggery is produced on a small scale in the farm itself, the farmers and the members of their family are employed in it particularly during the post harvest period. However, jaggery making requires skilled labour for processing cane juice. Development of post harvest technology has led to the adoption of power crushers.

Sugar market has been functioning with dual policy viz. administered levy price and the free market price. The price of levy sugar, and the free market sugar that prevailed in various states during the year 1982-83 can be seen in Appendices:VIII and IX. The wholesale prices of jaggery in important centres during the year 1982-83 are presented in the Appendix:X. It can be seen that the jaggery price is more fluctuating than the sugar price. It is because the price of jaggery is determined by the

forces of supply and demand in the free market. On the other hand the price of sugar is administered and the price fluctuation in sugar market is not high. However, sugar and jaggery are close substitutes, and the changes in the price of one commodity affecting the price of the other. It is generally observed that the high price of jaggery in one year induces the farmers to make jaggery in the following year rather than supplying cane to the mills. Therefore, the production and marketing of sugar depends to a very great extent upon the price of jaggery in the market. A study of marketing of jaggery will therefore throw light upon the nature and the extent of impact of jaggery trade on sugar production.

Due to seasonal production and perishable nature of jaggery, the whole-sale market for cane jaggery is concentrated in the hands of a few buyers who set the tone of the market. Therefore, an increase in production without complementary improvement in marketing will only be harmful to the producers, because the market is dominated by a few well organised traders, who have market power to set prices to their advantage. Farmers incur huge expenses for processing and transporting jaggery to the market. In order to meet production, processing and marketing costs, they borrow from traders on preharvest contracts.

The amount borrowed together with the interest and various other charges are deducted from the sale price. Since major portion of jaggery is disposed off in other districts of Tamil Nadu and in places outside the state, jaggery has to travel long distances before it reaches the ultimate consumer or users further complicating the process. It is in this context, that several pertinent questions are raised: whether the market for Jaggery is efficient to determine prices by free play of forces of demand and supply?, Whether the farmers producing jaggery get their due share in consumer's price?, and whether the farmers need support of government in prices and institutional facilities to sustain growth trends in production. The present study makes an attempt to find answers to the questions and thereby to bring forth practical solutions to the problems in marketing of jaggery.

Objectives:

The overall objectives of the study is to evaluate the performance efficiency of the market for jaggery in North Arcot District and to study its scope for improvement. The specific objectives are:

1. to identify the structure and evaluate the conduct of jaggery market in North Arcot District;

- ii. to measure the performance efficiency of the jaggery market and its relationships to the structure and conduct;
- iii. to study the cost-price relationship in jaggery production and marketing;
- iv. to analyse temporal variation in the price of jaggery; and
- v. to identify policy alternatives to protect the interest of jaggery producers to sustain and improve economic efficiency in production.

Hypotheses:

In the light of the objectives presented above, the study proposes to examine the following specific hypotheses in respect of jaggery marketing in North Arcot district.

- i. while there are many producer sellers of jaggery, the buyers are fewer than sellers; further buyers are more organised. Therefore, the jaggery trade at farm level is not perfectly competitive;
- ii. the imperfect market structure contributes to particular conduct of market functionaries - commission agents and wholesalers, that is not favourable to producer-sellers;

- iii. The production and supply of Jaggery depend upon the price of inputs which determine the price policy for jaggery.
- iv. The price policy for Jaggery resulting from the performance efficiency of the market does in practice imply: (a) either direct policy intervention through price support and movement regulation, (b) or indirect policy intervention through institutional innovations (such as cooperative or regulated marketing, credit policy and so on), (c) or both.

Importance of the study:

The findings of this study would throw light on the existing nature of the structure and conduct of market for cane jaggery. It would enable the producers and processors of jaggery to take suitable decisions with regard to production and marketing of jaggery. The study is useful to the Government in formulating policies on tariffs, taxes, and price structure for internal trade. The findings of the study would enable the marketing scientists to undertake innovations on marketing institutions and its improvements.

Limitations of the study:

The required data were collected only for two agricultural years, namely, 1981-82 and 1982-83 by personal

interview method. Since the farmers did not keep records for the data on the different socio-economic aspects, they recollected and furnished the information from their memory and hence recall bias was unavoidable in this study. However, the response of the farm respondents was satisfactory and the recall bias was minimised due to their experience and by several cross checks made while interviewing them. The recalcitrant market agencies and their refusal to divulge the details did affect the quality of data furnished by them. But this difficulty was overcome by long acquaintance with agents, frequent visits to their shops and trading centres, and by imbibing a spirit of confidence in them. Since it was an attempt to evaluate the market performance in North Arcot District, generalisation of the results of this study to other areas should be done with care. The inferences of the study would be applicable to similar situation elsewhere.

Plan of Thesis:

- Chapter I : Introduction, statement of the problem, objectives, hypotheses, scope, and limitations of the study are stated.
- Chapter II : Previous work and concepts relevant to the study are reviewed to define concepts and scope of the present study.

- Chapter III : A brief description of the study areas is presented.
- Chapter IV : Design of the study, model formulation, and conceptual definition of specific variables are outlined.
- Chapter V : Results of analysis are presented and discussed with reference to the specific objectives to draw useful inferences.
- Chapter VI : Summary of findings, conclusions, and implications of the results for policy and research are presented.