CHAPTER - I

INTRODUCTION AND RESEARCH DESIGN

1.1 PRELUDE

Agriculture continues to occupy a prime place in the priority sector of the Indian Economy. Warrior Tamil poet Bharathiyar and the world famous couplets poet Thiruvalluvar had high regards for agriculture and the farmers were placed on high esteem, since farming is not a mere money making mechanism but a divine duty of feeding the entire population – young and old; men and women; educated and less lettered; rural folk and urbanites. But in reality, the pity is that the so called farmers languish and wallow in poverty, forcing the rural young generation to refrain from agriculture and distancing themselves from parched lands and scorching sun.

Over the centuries little progress has been made to ameliorate the status of poor peasants. Farmers are yet to see the light at the end of the tunnel. It is said that “Indian farmers are born in debt, live in debt, die in debt and bequeath debt,” thus pressurizing farmers to take the extreme decision of ending their lives by suicides. Governments, Non-Government Organisations and Social activists have been making a series of efforts to uplift the economic status of farmers in India.

1.2 REGULATED MARKETS – A WAY OUT

*Inter alia* many measures have been mooted to improve the economic conditions of farmers and one among them is the establishment of Regulated markets. Markets play a vital role in fostering the all-round growth of agricultural production and consumption in both developed and under-developed countries. Agro-economic researches have proved that an efficiently organised marketing system would, not only facilitate the proper and smooth disposal of what the farmer produces, but
would also act as a catalyst to stimulate production.\textsuperscript{1} Hence, ceaseless efforts are made to revolutionise the process of modernising the agricultural marketing system.

A key element in the process of agricultural development is the marketing infrastructure which affects the basic economic functions of production, distribution and consumption. Improved marketing infrastructure and appropriate organisation of marketing are essential, if full advantage is to be taken of favourable production opportunities. The impressive gains made in production with the help of new agricultural technology have indicated long-term growth potentials. The increased surplus available for market calls for a rapid improvement in the marketing system.

The accelerated growth of agriculture mainly depends on the provision of farm and non-farm services. Among the non-farm services, marketing is the most important one. According to National Commission on Agriculture, “agricultural marketing is a process which starts with a decision to produce a saleable farm commodity and it involves all aspects of market structure or system, both functional and institutional, based on technical and academic considerations and includes pre-and post-harvest operations, assembly, grading, storage, transportation and distribution”.\textsuperscript{2}

Agricultural marketing is concerned with demand and supply conditions, marketing operations including marketing functions, functionaries, costs, price fixation, market structure, conduct, performance and marketing efficiency.\textsuperscript{3} The vital role played by efficient marketing system in the planned economy of a country can never be undervalued. The success of any agricultural development programme depends ultimately on the efficiency of the marketing system. Marketing

\textsuperscript{2}Government of India, Ministry of Agriculture and Irrigation, Report of the National Commission on Agriculture, Part XII, Supporting Service and Incentives, New Delhi, 1979, P. 110.
of agricultural produce is as important as the production itself.⁴ Marketing of agricultural produce has been described as the most important multiplier of agricultural development.⁵

1.3 AGRICULTURAL MARKETING IN INDIA

In India, the efforts to develop agricultural sector seems to be directed more towards production than marketing. It is to be realised that even the most sophisticated productive system would be incapable of attaining the maintenance of its peak efficiency levels, if the distributive system fails to function at the desired level of efficiency.⁶ A mere call to ‘produce more’ without providing an efficient marketing machinery which could assure a fair return to the producer-seller carries no conviction with the farmer.⁷

Agricultural marketing is plagued by various market imperfections and lack of adequate infrastructure such as exploitative market charges, unauthorised deductions, defective weighments, lack of scientific grading system, lack of physical facilities in the markets, etc. This is partly due to the unorganised nature of farm community in contrast with the trading community which is well-organised and in part due to the indebtedness of most farmers which forces them to sell at a most disadvantageous time and at unfavourable prices. Among other deficiencies, lack of pledge finance, quick

---

dissemination of meaningful market intelligence and efficient mechanised transport facilities deserve special attention.

To overcome these defects, among other things, regulation of markets was suggested by Royal Commission on Agriculture, 1928 and Central Banking Enquiry Committee, 1932. In pursuance of their recommendations suitable market legislations were passed in several regions to regulate the markets. The ex Hydrabad State, predecessor of part of Andhra Pradesh, was the pioneer in enacting legislation on regulated markets, followed by other States.

The primary objective of regulated markets is to equalise the bargaining power of the parties to transactions which under the existing conditions tantamount to raising the power of producer-sellers. To achieve this objective, regulated markets provide for the conduct of market transactions at a centralised place and provide facilities for trading of agricultural commodities.

They also provide for fair trade practices and prohibition of unwarranted and excessive deductions. For enforcing discipline among the trading community, licensing system has been introduced for various functionaries including traders. Further, the management of markets is entrusted to the market committees which are corporate bodies. These committees are represented by all interested parties, namely traders, producers, co-operative societies, local bodies and government officials. The producers have thus a voice in the management of markets.8

Now, regulated markets have become an essential and important feature of agricultural marketing. Almost a century has passed since the beginning of regulation of agricultural marketing in the country. While the regulation has brought certain benefits to the farmers, it has not achieved its objectives to the desired extent. Very few studies were made to go into the operational aspects of regulated markets and to identify the problems confronted by them in efficient functioning.

---

The importance of orderly marketing of agricultural commodities in the overall welfare of the Indian economy was realised in late fifties of the 20th century. Though a model bill was prepared in 1938 by the Central Agricultural Marketing Development based on the findings of the report of the Royal Commission on Agriculture submitted in 1928, the regulation of markets got momentum only after Indian independence in 1947.

As on 30th June, 1995, 7,026 regulated markets including sub-yards were functioning in the country. There are about 22,000 primary rural periodic markets and more than 6,000 wholesale assembling markets. It may not be possible to convert all these periodic markets into full-fledged assembly markets. The National Commission on Agriculture has estimated the number of such markets to be 38000 by 2020 A.D.⁹

1.4 STATEMENT OF THE PROBLEM

In view of the importance of agricultural sector in national economy, the schemes for increasing agricultural production have received quite a lot of attention. But in the context of its developing agriculture, India’s marketing infrastructure is still under transition from the previous subsistence agriculture to that of a surplus – producing and market-oriented agricultural economy. Consolidation of gains in the field of production depends upon efficiency in managing the marketable surplus.

The marketing system should be such as to ensure reasonable benefits both to the producers and consumers. The principal goals of the marketing system are to minimize the costs of distribution, reduce the seasonal price difference and to handle efficiently the increased marketable surpluses.

It is generally believed that the growers do not get remunerative prices for their produce, while the consumers have to pay higher prices for what they buy. The various costs incurred in the marketing of farm produce and the margin of profits fixed by different categories of market functionaries have worsened the situation. The producer-sellers are deprived of their legitimate share in the prices paid by the consumers.

To eliminate all such maladies, regulated markets have been formed. Regulated markets have taken cognizance of the sufferings of the farmers at the hands of greedy merchants and introduced many measures which are beneficial to the farmers. They do not charge any commission in any form, and weighment is made free of cost to the growers. The main aim of the regulated market is to ensure reasonably good price for the farmers. Moreover correct weight and ready payment are guaranteed by the regulated markets. Further, more grading facilities are available to the growers and traders in the regulated markets.

The existence of regulated markets can be justified only when a reasonable number of farmers are utilising the markets to attain the proposed benefits. Therefore, it is necessary to know about the performance of regulated markets and the perceptions of farmers and traders in this regard.

There are seven regulated markets spread over the Virudhunagar District. They are 1.Watrap, 2.Srivilliputtur, 3.Rajapalayam, 4.Virudhunagar, 5. Sattur, 6. Aruppukottai, and 7. Vembakottai. Latest technologies in agriculture, institutional and policy support that come in the form of special schemes such as ‘Small Farmers Development Agency’ and several intensive cultivation schemes contributed to the emergence of marketable surpluses in agricultural produce in the study area. Hence, in
the present study, an attempt is made to analyse the workings of regulated markets in Virudhunagar district.

1.5 OBJECTIVES OF THE STUDY

The followings are the main objectives of the present study.

1. To study the origin and growth of Regulated markets in India, Virudhunagar District in particular.

2. To analyse the structure and workings of regulated markets in Virudhunagar District.

3. To study the production in terms of cost and returns of the selected crops namely paddy, chilli and cotton.

4. To identify the factors influencing the market arrivals and prices of the chosen produce.

5. To analyse the performance of the regulated markets in terms of price advantage to farmers and reduction in cost of marketing.

6. To discuss the extent of utilization of regulated markets by farmers and traders.

7. To offer suitable suggestions to improve the functions of regulated markets based on the findings.

1.6 HYPOTHESES

Based on the above objectives the following null hypotheses have been framed and tested in the study:
1. There is no relationship between educational background of sample farmers and the workings of regulated markets.

2. There is no relationship between the size of land holdings of the sample farmers and the workings of regulated markets.

3. There is no relationship between farmers’ awareness about regulated markets and the workings of regulated markets.

4. There is no relationship between the methods of sales preferred by sample farmers and the workings of regulated markets.

**1.7 GEOGRAPHICAL COVERAGE**

The Virudhunagar Market Committee is one of the biggest in the State of Tamil Nadu and it was established in 1963. The Committee has established seven regulated markets in various places of the Virudhunagar district. All the seven regulated markets functioning in the district have been taken for the present research work.

**1.8 METHODOLOGY**

Research design is the blueprint of methods and materials used for research work. This section provides the details of sample design, collection of data, period of study and the statistical tools employed for analyzing the data.

**1.8.1 SAMPLING DESIGN**

The following SIX crops have been declared by the Virudhunagar Market Committee as notified crops:

1. Paddy
2. Chilli
3. Cotton
4. Groundnut
5. Blackgram
6. Coriander

Among the notified crops three crops namely paddy, chilli and cotton have been chosen. The selected three crops are frequently arriving with high quantity in the regulated markets in the study area. Since the farmers and traders population is infinite, 350 sample farmers, 50 from each of the seven regulated markets and 175 traders, 25 from each of the seven regulated markets have been selected for the study. The farmers and traders are classified as small, medium and big as stipulated in the Agricultural Marketing Committee Manual of Tamil Nadu.

Small Farmers are those who hold, not more than half a hectare of irrigated land or one hectare of unirrigated land. Medium Farmers are those who hold, more than half a hectare of irrigated land or two hectare of unirrigated land. Big farmers are those who are not included in the above stipulation.

Small traders are those whose turnover is below Rs. 2 lakhs per annum. Medium farmers are those whose turnover is Rs. 2 lakhs and above but below Rs.5 lakhs per annum. Big traders are those whose turnover is Rs, 5 lakhs and above per annum.
The following Table 1.1 shows the details of sample respondents selected for the present study.

### TABLE 1.1
DETAILS OF SAMPLE RESPONDENTS

<table>
<thead>
<tr>
<th>S.No</th>
<th>Category of Farmers and Traders</th>
<th>No. of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>1.</td>
<td>Farmers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Small</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Big</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>50</td>
</tr>
<tr>
<td>2.</td>
<td>Traders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Small</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Big</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>25</td>
</tr>
</tbody>
</table>

I. Watrap    II. Srivilliputtur   III. Rajapalayam  
IV. Virudhunagar  V. Sattur  VI. Aruppukottai  
VII. Vembakottai

### 1.8.2 COLLECTION OF DATA
The present study is based on both primary and secondary data. Primary data collected from the farmers includes information regarding cropping pattern, mode of sales, marketing costs, facilities available in the regulated markets and the overall attitude of farmers. Information regarding method of purchase, financial requirements, crop wise distribution of total purchase from regulated market and open market, reasons for preferring regulated markets and other connected issues were collected from the traders. For this purpose two different comprehensive interview schedules were used. Interview schedules were finalized after making pretest.

The secondary data regarding marketable surplus, market arrivals, prices, market fee, licence fee, weigh men fee, receipts and expenditure of the regulated markets were collected from the various issues of Annual Administrative Reports of the Virudhunagar Market Committee, and the monthly magazines published by the Tamil Nadu Agricultural Marketing Board, Chennai.

The data for the description of the study area, pattern of land utilization, distribution of land holdings, production, yield, procurement and wholesale prices of the three notified crops, were obtained from the various issues of Season and Crop Reports of Tamil Nadu, Directorate of Statistics, Chennai, District Statistical Hand Book for 2009-10, Office of the Assistant Director of Statistics, Virudhunagar District, Agricultural Census 2009-10. Bulletin on Food Statistics (various issues), Government of India and also the Office of the Tamil Nadu Civil Supplies Corporation Ltd., Virudhunagar.

1.8.3 PERIOD OF STUDY
The present study covers a period of ten years from 2000-01 to 2009-10. The field survey was carried out during the year 2009-10 for primary data collection.

1.8.4 TOOLS OF ANALYSIS

The classical time-series analysis was employed to understand the effect of trend, cyclical, seasonal and irregular elements of arrivals and prices of three notified crops namely paddy, chilli and cotton. The ratio to the moving average\textsuperscript{10} method was used in the computation of seasonal indices.

Seasonal relatives were calculated by dividing the original data with 12 month-centered moving averages and they were expressed in percentages. They were further arranged for each month and the median was taken as the average of each month. Lastly, with the help of corrected factor, they were adjusted to 1200. The method points out the multiplicative relationship between four components namely, Trend (T), Seasonal variation (S), Cyclical movement (C) and irregular variation (I).

The multiplicative model is as follows:

\[ Y \, (A/P) = T \times C \times S \times I \]

Where

\[ Y \, (A/P) = \text{Monthly average arrivals/Prices.} \]

Trend and linear growth rate\textsuperscript{11} were worked out by using the formulae

\[ b \]

\[ Y = a + bX \]

--- \[ x \] 100 respectively. Cyclical and irregular variations were computed by using the following residual method.\textsuperscript{12}

\[
\begin{array}{c}
TC \\ \text{C} = ------- \\
\text{T}
\end{array} \quad \text{and} \quad \begin{array}{c}
SI \\ \text{I} = ------- \\
\text{S}
\end{array}
\]

In order to measure the variability due to trend, cyclical, seasonal and irregular fluctuations, the co-efficient of variation (C.V. \%) were calculated over time, for the period from 2000-2001 to 2009-2010.

To study the special variations in the prices of the notified crops for the period of 3 years from 2007-2008 to 2009-2010, the Analysis of Variance Technique (ANOVA) was used.

In identifying the factors influencing the market arrivals, the following form of regression model was used.

\[ \log y = \beta_0 + \beta_1 \log X_1 + \beta_2 \log X_2 + \beta_3 \log X_3 + \beta_4 \log X_4 + U \]

Where

\[ Y = \text{Market arrivals in quintal}, \]

\[ X_1 = \text{Marketable surplus in quintal}, \]

\textsuperscript{11}Acharya and Madnai, Applied Econometrics for Agricultural Economists, Himansu Publication, Udaipur, 1988, P. 84.

\textsuperscript{12}Grewal, P.S. op.cit., P. 557.
\(X_2 = \text{Area under cultivation in hectare,}\)

\(X_3 = \text{Production in quintal,}\)

\(X_4 = \text{Price relative i.e., Regulated Market Price deflated by the Open Market Price, and}\)

\(U = \text{Disturbance term.}\)

\(\beta_0, \beta_1, \ldots, \beta_4\) are the parameters to be estimated.

The above model was estimated by the method of least squares for each notified crop over a period from 2000-2001 to 2009-2010.

### 1.9 Concepts Used in the Study

The concepts used in this study are quite ordinary and simple. But yet they have to be understood in their proper perspective to carry on the analysis.
along scientific lines. Hence efforts are made here to define some of the important concepts and technical expressions used in the course of the discussions.

1.9.1 Agricultural Marketing

Newberry, R.R., observes that agricultural marketing includes everything done with the commodity from the time it leaves the farm gate or where it first changes hand whichever is sooner, until it is in the hands of the consumer and that it includes the functions of transportation, processing, storage, wholesaling, retailing and of the related services.13

1.9.2 Producers

Producers want to sell their products without loss of time and to get the maximum share in the consumers’ rupee. They want the maximum possible price for their surplus produce.

1.9.3 Consumers

‘Consumer’ has been termed as ‘Black Box’ a mysterious one which can never be looked into and can only broadly understood by grasping the outputs as a result of many marketing stimuli along with the influence of certain exogenous variables such as culture, time and income.14

1.9.4 Middlemen

“Middlemen are those who specialised in performing operations or rendering services that are directly involved in the purchase and sale of goods in the process of their flow from producers to final buyers. They do not take title to merchandise”.15

1.9.5 Regulated Market

Regulated market is a wholesale market wherein buying and selling are regulated and controlled by the State Government through a Market Committee that consists of representatives of farmers, traders, agents, local bodies, co-operatives and Government. In other words, it is a market where activities are to take place under set rules and regulations and malpractices like incorrect weighing and unauthorised deductions are curbed and settlement of disputes on amicable grounds is provided.

1.9.6 Market Regulations

According to Johnson, market regulation comprises a set of legislative acts deliberately designed “as a protective shield to farmers against traders’ capacity”.16

1.9.7 Marketing Cost and Margin

The marketing cost and margin involved in the marketing of agricultural commodities refer to the difference between the price paid by the ultimate consumer and the price received by the farmer. The difference is often known as ‘farm retail

---

spread’ or ‘price spread’. Marketing margins include all costs of assembling, processing, storage, transportation and wholesaling and retailing in moving the produce from the farmer to the ultimate consumer.¹⁷

1.9.8 Market Structure

A market structure, according to George and Singh refers to “those characteristics of the market which influence the nature of competition and pricing in the market and the conduct of business firms. Conduct refers to the behaviour of firms in adopting or adjusting to the changes in the conditions of the market in which they buy or sell.”¹⁸

1.9.9 Marketing Channel

In the marketing of any produce it is found necessary to identify the channel or path through which the produce passes from the farmer to the consumer.

Buzzel, R.D. and Mathews, K.M., hold the view that “marketing channel is a series of marketing institutions through which title or control of produce or service is transferred from producer to consumer or to business user”.¹⁹

1.9.10 Marketable Surplus

Marketable surplus is the total quantity of the commodity available for sale, out of the current production after meeting the normal requirements of the producers for

---

household consumption, necessary payment for wages, rent, share of produce, etc., in kind, seed and stock to cover the future exigencies including wastage.

1.10 LIMITATIONS OF THE STUDY

The present study is based on primary data collected from farmers and traders in Virudhunagar district only. Therefore, the generalization of the findings should be made carefully taking into account the differences in agro-climatic conditions and farmers attitude. The study is restricted to three selected notified major crops, namely- paddy, chilli and cotton.

The period of study is confined to ten years from 2000-2001 to 2009-2010. The study is based on a limited sample and not the entire population. The study relies on the expressed opinion of the farmers and traders. Hence, such opinions may be arbitrary, biased or impulsive.

1.11 CHAPTERISATION

The present study entitled “Production and Marketing of Agricultural Produce Through Regulated Markets in Virudhunagar District” is divided into nine chapters.

Chapter I “INTRODUCTION AND RESEARCH DESIGN” covers the role of regulated markets in ensuring a fair deal between farmers and traders, statement of the problem, objectives of the study, hypotheses, methodology adopted, concepts used, limitations of the study and the scheme of Chapterisation.
Chapter II “REVIEW OF RELATED LITERATURE” presents the past studies pertaining to the production and marketing of agricultural produce in general and regulated markets in particular.

Chapter III “PROFILE OF THE STUDY AREA” throws light on the location, physical features and resources of Virudhunagar District.

Chapter IV “REGULATED MARKETS – AN OVERVIEW” presents the predicaments faced by farmers in the hands of private traders and thus forming a strong case for the need of Government’s intervention, leading to the formation of regulated markets.

Chapter V “PRODUCTION AND MARKET ARRIVALS OF CROPS” analyses the production of the selected three notified crops namely paddy, chilli and cotton in Virudhunagar District. Further, an attempt is made to examine the cost, returns, marketable surplus and determinants of market arrivals of the chosen produce.

Chapter VI “IMPLICATIONS OF REGULATED MARKETS ON FARMERS” covers the marketing impact on farmers by way of quantity of arrivals, profile of the farmers and the extent of utilization of regulated markets by the stakeholders. It also attempts to test the hypotheses and the results thereof.

Chapter VII “ANALYSIS OF VARIATIONS IN PRICES OF PRODUCE” pertains to the discussion on quantum of inflow of the selected crops and their price variations in regulated markets in Virudhunagar District.

Chapter VIII “TRADERS’ RESPONSE TOWARDS REGULATED MARKETS” reflects the distribution of traders according to market utilization with reference to the three selected notified crops namely paddy, chilli and cotton.