CHAPTER II
REVIEW OF LITERATURE

This chapter reviews the studies of different aspects of regulated markets connected directly as well as indirectly with the present study. The review of literature is highly useful to design the present study. It provides the researcher a proper direction to carry out her research work and enables her to arrive at meaningful results. The study of regular markets has attracted the attention of many researchers and research organizations in other countries. Their experiences may be of relevance and significance to us. Therefore, studies of such countries are also discussed and reviewed in this chapter. The divergent perceptual frameworks involving various theoretical issues and problems of regular markets are scrutinized through the review of literature.

Ranade, Singh and Rao Hanumantha (1979)\(^1\) examined the price spread in co-operative and private marketing channels in Gujarat. According to the authors, if cotton production is to be encouraged in India, and if economic status of cotton growers is to be enhanced, the cotton growers should get a fair price for the produce they sell. A hypothesis behind this study is that the price received by farmers depends upon the

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channel through which they sell kapas. They have selected two major cotton growing districts in Gujarat, viz., Surendranagar and Sabarklantha. In Surendranagar, the authors find four distinct types of private channels. Out of these four, only one is under regulated market system. The study has found that in all the channels under private trade, the small farmers are receiving lower price than that received by the large and medium farmers. In cooperative channel, large as well as small farmers receive an equal share in the price of lint and seeds. The study shows that the share of farmers in the price of seeds is lower in an area dominated by private trade than in private channel where cooperatives also function simultaneously. The survey of farmers reflects that the farmers do require much higher marketing advance when they deliver kapas to cooperatives than currently offered by cooperative credit institutions. Further, economic variables do have an influence over the acreage allocation decisions. Cooperative marketing is found much more beneficial to small farmers. The study suggests that in areas where private trade is dominant and the benefits of regulated market do not percolate to farmers, government should intervene, so that farmers can sell kapas in regulated market.

Bhat Vishwanath (1980)\(^2\) studied the temporal and spatial variations in arrivals and prices of paddy and groundnut in selected markets of Karnataka: An Economic

Karnataka. He employed zero order correlation coefficient analysis for analyzing market integration. The results show that ‘r’ values are higher in the cases of bigger markets compared to smaller markets indicating the influence of traders’ participation in determining the degree of market integration. He suggests a strong integration of markets in price formation indicating the influence of price in one market over the prices in other markets.

Balakrishnan, et al. (1981)³ studied the arrivals and prices of potatoes at Mettupalayam market in Tamil Nadu, and the specific relations between them, using time-series data for 16 years from 1962 to 1977. The study showed that potato price fluctuations in the selected market were governed not only by the supply of potatoes from Nilgiris, but also by the arrivals from the upcountry markets and their price. The authors suggest that warehousing and cold storage facilities need to be expanded to store the produce when the price is not attractive.

Charan, Seetharaman and Bapna (1983)\textsuperscript{4} studied the agricultural marketing system in Gujarat. Regulated markets are more in number in south, middle and north Gujarat and relatively few in Saurashtra. Among many commodities only a few are brought under regulation. The study found that out of 184 taluks, 143 taluks in Gujarat had market yards which were brought under regulation by the government. The arrivals in regulated markets were found to be increasing over the years. In case of food crops where limited processing is required, private trade is very active. Many market committees over a period of time have not gone beyond performing the function of regulation. The value addition tasks like arranging transportation, grading, providing price information at different markets, developing better packaging practices, etc. have been neglected. The study suggests that the function of regulated markets needs to be completely revamped. Regulated markets, as they function at present, provide only physical and regulatory facilities. Real benefits to the farmers would accrue only when the price determination process is strengthened and facilities like transportation, storage, grading, packaging, price information and institutional financing are developed.

Raju and Kakadia (1984)\textsuperscript{5} found that the farmers of Rajkot District have sold most of their production of groundnut making provision mainly for seed. The percentage of sales of groundnut to total production increased with the increase in the size of holding. The regulated markets were found to be the important marketing channels followed by cooperative and village merchants for groundnut marketing. The price of groundnut in Gondal market and Rajkot market showed an increasing trend. The correlation coefficient between monthly prices and arrivals was found negative in both the markets indicating a definite inverse relationship i.e. groundnut arrival increases, price decreases and vice versa.

Kalyankar and Rajmane (1987)\textsuperscript{6} in their article titled “Marketing of Potato in Jalna District of Maharashtra State” reported that March was the peak month for arrivals, while minimum arrivals were recorded in November. Seasonal price indices showed that the increase in the off-season price compared with the immediate postharvest price was around 30 per cent. The producer's share in consumer's rupee was 65.71 per cent, the remaining 34.29 per cent being spread over different marketing agencies. The study emphasized the need to stabilize prices during peak harvesting periods by providing cold storage facilities in the producing centre and


establishing wholesale and retail markets in the potato producing area to minimize the marketing costs of potatoes.

Ajjan (1987)\textsuperscript{7} made an attempt to evaluate operational aspects of the regulated markets for their impact on their performance, to identify the constraints for efficient functioning and specific measures to overcome them, and to suggest policy options to improve their functional efficiency. Anaimalai Regulated Market was purposively selected. In order to select the sample farmers, the villages in the operational area of the market were listed in the ascending order. Next the area of operation of market was divided into three regions around the main market yard in radial distribution by equal distance. From each region three villages and in each village 10 farmers were randomly selected. Thus, the sample consisted of 90 farmers equally distributed in nine villages. Similarly, 20 traders of the market were selected at random from the list of licensed traders in the market. The results of the study revealed that the real problems are operational bottlenecks rather than structural defects, and to solve them, a policy suggestion can be made. The author states that to fill in the gap between awareness and conviction on the part of farmers, wide publicity on various advantages of regulated market is essential. It may be achieved either by appointing propaganda assistants and training them in communication

methods or by assigning this job to agricultural officers in the area. Delay in transaction, in making payment and absence of drying warehousing facilities and desire to have a commercial bank branch at the yards are problems that need only administrative action and it can be solved by the market committee. It has been observed that some brokers and village traders buy the produce from small and marginal farmers and place it at the market yard in the name of farmers. It will be easy to legalize this activity by licensing brokers at fixed rates of charges and authorizing them to sell at the market yard and make payment to introducing middlemen and violating the rules it prevents all malpractices, allows transport of the produce in bulk and thereby reduces the cost of marketing.

Thakur, Chauhan and Sharma (1988)\(^8\) made an attempt to give in their paper a brief history, growth and coverage and the functioning of regulated markets in Gujarat and Himachal Pradesh. They used two criteria for analyzing the economic or pricing efficiency viz. market integration and price spread. The degree of market integration is estimated by working out correlation coefficients between wholesale prices in the markets. It was found that coefficients for prices of bajra are high only for Borsad, Harij, Mehsana and Unjha and for other markets; it is low and even negative. The analysis of market margins and price spread for those commodities showed

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that the net price given to farmers ranges from 68 to 75 per cent of the consumers’ price and the rest goes for marketing margins and costs. The largest slice of the marketing cost is taken by traders as their commission or profit which accounts for 70 to 80 per cent of marketing cost which is again a clear sign of marketing inefficiency.

Madalia (1988)\textsuperscript{9} studied the functioning of regulated market in Surat. The study showed that the total benefits accrued to the farmers during 1985 were of the order of Rs.1.90 crores and the cumulative benefits since 1951 were of the order of 14.51 crores. The authors suggested that clearance of land acquisitions cases by the government, providing training to the supervisory staff, creation of cold storage facility and provision of transportation facility and starting of a journal on marketing will improve the functioning of regulated markets. Further, the cooperatives should involve themselves as commission agents and traders.

Bhatt, Antaniasd and Shiyani (1988)\textsuperscript{10} studied the monthly and annual market arrival and prices for nine years from 1978-79 to 1986-87 at Ahmedabad Regulated Market. The linear growth rates worked out from the annual data revealed the prices of potato and onion as well as arrival of


chilies increased significantly. The authors observed that the seasonal and
cyclical variations of prices were higher than the variations of arrivals in all
the crops except chilies. The fluctuations were higher in respect of arrival
as compared to the prices of all the crops except brinjal. The coefficients
influenced more due to cyclical variations and the prices of chilies were
influenced comparatively more due to trend variation.

Bhaskar (1989)\textsuperscript{11} studied the marketing of groundnut through
regulated markets in Anantapur drought-prone district of the Andhra
Pradesh. An examination of the functioning of regulated markets in
Anantapur district reveals that they are not playing an effective role,
especially in regard to marketing of groundnut. It was found that groundnut
produce marketed through regulated markets, even during bumper
production years, is negligible to the total marketable surplus available for
sale. It clearly exhibits the fact that the regulated markets have not
succeeded fully in prohibiting the grade outside the yard. Furthermore,
facilities provided by the market yards are woefully inadequate. Grading of
goods in market yards is conspicuous by absence. On the whole, regulated
markets have not proved efficient in marketing of groundnut produce.

\textsuperscript{11} Bhaskar (1989). “Need for Linking of Regulated Markets with Cooperative
Marketing Societies”, \textit{The Cooperator}, Vol.XXVII, No.3, pp.53-55.
Rajagopal (1989)\textsuperscript{12} in his article entitled “Planning Agricultural Marketing: A Farmer’s Participatory Approach,” criticizes the existing multi-channel marketing systems as they lead to imperfect marketing organizational structure. According to him, it is an appropriate idea to mitigate the whole market regulation measures through asserting the need of marketing from village to the higher-level spatial hierarchies for strategy formulation and percolation of funds. It would be an organizational approach of the farmers’ associations interlinking with the government machinery. This model presents the farmer to farmer and farmer to state linkages in formulating agricultural marketing strategy. It is by and large a multi-stage concept, which involves organizational, and behavioural dimensions of the trade economy may be formulated with regard to various aspects, viz., organizational, functional pattern, resource allocation, backward and forward linkages, extension training and government support.

Banakar (1992)\textsuperscript{13} conducted a study to identify the factors influencing the performance of the regulated markets in Karnataka. The principal component analysis was employed to analyze the performance indicators of the regulated markets during pre- and post-investment period. It was identified that there were 34 impact indicators for pre-investment


period and 35 impact indicators for post-investment period. These indicators were then grouped into physical and financial indicators. Out of 18 variables relating to physical performance, 12 variables showed higher factor loadings on the first dimension followed by 3 variables in the second and third factors during pre-investment period. Among the three factors first one explained 56.70 per cent of variation. Among all the physical variables, number of commission agents and number of wholesalers influenced the competition in the markets during the pre-investment period.

With respect to post-investment period, utilization of market yard, age of the market, number of commodities notified, average size of the market and average turnover of the selected crops reflected the physical performance.

Thakur and Shandil (1993)\textsuperscript{14} conducted a study on steps to increase market arrivals and efficiency of regulated markets in Himachal Pradesh. The study clearly showed the scope for large-scale increase in agricultural produce and market arrival in the regulated markets in future. It is in fact that the lack of efficient regulated markets, poorly equipped both in terms of infrastructure and personnel. Marketing problems faced by farmers prohibited the increased quantum of arrivals in the regulated markets. The study suggests that the state government and chairpersons of marketing board and market committee must personally ensure and oversee that the

staff of the board and committees work and act as the true servants of the farmers and public at large. The involvement and competition among three groups namely, private traders, cooperatives and government agencies in the regulated markets will eliminate the malpractices of traders and middlemen and help the free market economy function more efficiently to attract and fetch increased volume of market arrivals in the regulated markets.

Banakar Basavaraja and Sundaraswamy (1993)\textsuperscript{15} in their article on “Investments in Regulated Markets vis-à-vis their Physical Performance in Karnataka”, observed that the investments made in the regulated markets have impact on the performance. Principal component analysis was employed to analyze performance indicators during pre-and post-investment periods. Variations in amount invested between markets indicated that only some markets have been developed. Comparison of factor loadings indicated that competition, commodity arrivals and number of notified commodities in regulated markets increased during the post-investment period. The study showed reduced importance of regulated markets during post-investment period indicating the need to strengthen their function. Secretary cadre staff should be increased to have more effective regulation.

Bansal (1994)\textsuperscript{16} in his study on “Development of Rural Market: As Nucleus Growth Centres” highlights the significance of rural markets by classifying the rural markets into three categories, viz., regular periodic market, general market and daily market. He observes that at present there is no uniformity among the selected markets, regarding administration. In Uttar Pradesh and Orissa, the markets are mostly owned by Panchayats. In Tamil Nadu, private individuals own a number of markets and in Karnataka, Panchayats and market committees jointly supervise rural markets. The author highlights certain strategies for the development of rural markets, especially, on legal framework and training of rural market managers. Considering the vast growth potential, development of rural market should receive a high priority in the plan of development of agricultural marketing in the country.

Gopalappa (1996)\textsuperscript{17} in his study found that the annual growth rate of paddy area declined at the rate of 3.01 per cent on the marginal farms and 5.44 per cent on the small farms. Paddy yielded an annual real income of Rs.696 per acre as compared to Rs.5,391 for sericulture in 1993-94. It was also found that the net return from paddy cultivation was declining over time, whereas it was increasing for sericulture. Analysis of impact on


consumption expenditure indicated that people had consumed more nutritious food such as fish, meat, vegetables, etc. as well as spent more on entertainment. The study concluded a significant change in the income levels and standard of living of the marginal and small farmers due to diversification of the farm activities.

Keith, (1997)\textsuperscript{18} examined the economies of potato storage in northern India. He observed the seasonal potato price indices for two major wholesale potato markets of Delhi and Kolkata. It was cleared that potato prices typically double between the end of harvest in March and the onset of summer in July and August. The most rapid increase in potato prices occurs in April and May. There was a slight dip in price in the Delhi market in midsummer which may reflect the arrival of a summer crop. Prices then continue to rise until peaking in September or October when existing stocks are lowest and just prior to the arrivals on the market of early potatoes in months of November and December.

Brahm Prakash and Omkarnath (1998)\textsuperscript{19} reviewed the history of farmers’ agitations, to identify the reasons for farmers’ movements and to suggest solutions to the problems. He concluded that the problems of


farmers can be solved by early announcement of agricultural policy giving the status of industry to agriculture, review and removal of malpractice in agricultural marketing system, increasing production, productivity and planning in price determination process with the involvement of farmers.

Atibudhi (1998)\textsuperscript{20} analyzed the operational and organizational structure of regulated markets and ascertained the farmers’ attitude towards regulated market committee and regulatory measures of the market in Orissa. It was observed that out of about 1250 primary and 76 wholesale markets existing in the state, only 30 per cent has been brought under regulation. Only 57 regulated market committees have been established in the state. As regards the organizational structure at the apex level, an Agricultural Marketing Board has been constituted. The main functions of the Board include superintendence and control over market committees, approving proposals for new sites and building infrastructural development. Agricultural marketing is one of the unorganized and under-managed sectors in the state. The findings of the study showed that about 76 per cent of the farmers, on an average, have no specific idea about the regulated market committee and its functions, although all the farmers are aware of the existence of regulated market. Only 17 per cent of the farmers are aware of some of the regulatory measures whereas an overwhelming majority of the

farmers have no idea about the regulatory and promotional measures as introduced by the regulated market committee from time to time. He concluded that even though the state has not yet achieved substantial results in the development of agricultural marketing system, it is moving in the right direction and more attention needs to be paid to the improvement of infrastructure and successful enforcement of market regulation.

Chhikara, Kuldeep, Kumar and Himmat Singh (1998) deals with the problems and prospects of agricultural regulated markets in Haryana. The paper suggests that there is an urgent need to create a market structure which is flexible enough to handle changing supply and demand for a variety of farm commodities. Policies and actions need to be based on empirical evidence rather than on administrative hunches. Adequate representation may be given to growers in the affairs of market committee. The chairmen and vice-chairmen of all agricultural marketing committees should invariably be the representatives of growers. Grading and standardization have to be made compulsory in all transactions relating to agricultural produce and it must cover all the agricultural commodities. Marketing facilities should be made available to the farmers within a radius of 5 km. The study concludes that although some steps have already been taken in this direction, progress is not very encouraging.

Bhag Chandra Jain (1998)\textsuperscript{22} emphasizes on the structure of the regulated market, physical marketing facilities and position of market functionaries. In the regulated market committee, the farmers constituted 56 per cent of the total representation and the representatives of farmers always had the interest of the producers. The study reports that most of the farmers are not aware of the functioning of regulated market due to lack of proper propaganda. Adequate storage facilities are not available in the selected market. Marketing efficiency measured in terms of better prices to the producers, lower marketing charges and adequate availability of market amenities/facilities, is found to be relatively better in the regulated market. The study suggests the need for imparting training in grading and standardization to the staff of the regulated market for efficiently integrating the market functions and functionaries.

Singh, Singh and Singh (1998)\textsuperscript{23} examined the organization, structure, function and performance of one of the primary agricultural regulated markets, Krishi Utpadan Mandi Samiti, Doharighat of Uttar Pradesh, which is actively involved in the marketing of food grains. The primary data were collected from the various market functionaries and


producer-sellers with the help of schedule through personal interviews. The study revealed that the objectives of regulated market were not practiced in the sample market. Grading and standardization of produce are not done as accepted by the officials of the Mandi Samiti. The farmers’ representation is ignored due to absence of elected Mandi Samiti Board. Auction method is not adopted and sometimes conventional method of sale is used in determining the price of the produce in the sample market, which does not safeguard the interest of the farmers. All these shortcomings and malpractices in the functioning of the requested market need to be removed with a view to improving its efficiency. Provision should be made at a higher level to review the Act, rules and bye-laws of the market committee to meet the need-based emerging requirements.

Pant and Bajrolia (1998)\textsuperscript{24} analyzed the existing components of market structure such as the market committee, the market functionaries, association of functionaries, integration, backward and forward linkages, control over functionaries and concentration of market power in a primary regulated market in Nagaur district Rajasthan. Kuchaman city primary regulated market was purposively selected as it has position in respect of arrivals of commodities brought by producer-sellers among all the primary regulated markets of the district. Fifteen per cent of the traders of each type

were randomly selected. Thus, 15 partially shifted and 10 wholly shifted traders were selected. An association of traders exists in the old mandi and new market yard separately, to protect the interest of their members. Sixty and seventy per cent of the marketing firms were integrated vertically in new and old mandis respectively. On the basis of the arrivals from and dispatches of the commodities to other markets, the selected market acquired forward and backward linkages in many of the markets within and outside the state. The degree of concentration of market power was found to be relatively low in the new mandi compared to the old mandi, which indicates that the business in the new market yard is concentrated among more firms as compared to the old mandi.

Selvaraj, Sundaravaradarajan and Raveendran (1998) studied the performance of ten regulated markets in Tamil Nadu in terms of arrivals and receipts and factors determining the farmers’ awareness about the existence of regulated markets. To measure the growth of market arrivals and receipts, both linear and exponential growth curves were fitted. In order to identify the factors responsible for such awareness a binary model was used. The study revealed that the notification of commodities was not uniform among the regulated markets. Of the 14 commodities notified in the state, the extent of notification varied between 4 per cent in Keeranur

regulated market and 56 per cent in Aranthangi, Ponnamaravathy and Illuppur regulated markets. The growth analysis indicated that all the regulated markets witnessed positive growth rate in terms of arrivals and receipts. The highest growth rate of arrivals was 45 per cent in case of Aranthangi regulated market and the lowest in Pudukkottai regulated market. Similarly, the highest growth in receipts was per cent, which was observed in Keeramangalam regulated market and the lowest was in Aranthangi regulated market. It was observed that most of the farmers were not aware of the functioning of regulated markets. Hence, efforts should be taken to disseminate the benefits of the regulated markets among all the farmers through publicity and propaganda activities.

Archna Singh and Rohal (1998) studied the production and marketing pattern, costs and margins and price spread in the marketing of gur and khandsari in Mazaffrnagar district of Uttar Pradesh. The study reveals that gur production is more than khandsari in the district during the year 1996-97. More quantity of gur was sold at doorsteps than khandsari, due to the local purchase by village consumers for home consumption. About 76 per cent of gur and 73 per cent of khandsari were sold in the regulated markets. The producers’ share in the consumer’s price worked

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out to about 75 per cent. Although regulation has been effective in lowering the margins of middlemen and increasing the share of the producer in the consumer’s price, still there is large scope to eliminate the large number of market intermediaries. To minimize the costs and margins in the marketing of gur and khandari, it is suggested that integration of various co-operative institutions with those of regulatory measures would go a long way to improve the whole agricultural marketing system. The long chain of marketing functionaries from the producing centers to the ultimate consumers needs improvement at every stage.

Shiyani and Pandya (1998)\textsuperscript{27} examined the performance of two regulated markets in Saurashtra region, i.e. Rajkot Regulated Market and Junagadh Regulated Market. The data pertaining to the performance of regulated markets were collected from the annual reports of both the markets for the period from 1981-82 to 1996-97. The principal components analysis was used to assess the magnitude of all the 30 selected indicators which are closely associated with the performance of regulated markets. The results of the principal components analysis indicated that there existed four main underlying dimensions in the performance of regulated markets, namely, income indicators, development indicators, sundry indicators and market intelligence indicators. These four dimensions explained 74 per cent

of the total variation in the configuration. The total weightage assigned to
the income indicators significantly increased during the period of sixteen
years, whereas the weighing of sundry indicators declined drastically in the
same period. Wide fluctuations in the relative performance indices of
Junagadh and Rajkot regulated markets were noted, which suggest that if
the vertical and horizontal integrations of the markets are made, the
interests of both the producers and consumers could be protected.

Nahatkar, Kiradiya and Sharma (1998)\textsuperscript{28} examined the nature and
magnitude of price fluctuations of cotton in Kukshi Regulated Market,
considering secondary time-series data for the period of 11 years from
1986-87 to 1996-97. The analysis of the data shows that seasonal index of
cotton prices was minimum (96.45 per cent) in the second quarter (January-
March) and maximum (106.73 per cent) during the third quarter (April-
June). The range of difference between the two was 10.28 per cent, clearly
indicating high seasonal fluctuation of cotton prices. Besides, the price
movement of cotton was identified as below 100 in the first and second
quarters leaving much price uncertainty to cotton growers in the study area.
The coefficient of price trend shows that price hike was higher during the
first quarter to attract more cotton growers to sell their produce at lower

\textsuperscript{28} Nahatkar, S.B, Kiradiya, B.S and Sharma, H.O (1998). “Price Variation of
Cotton: A Case Study of Kukshi Regulated Market of Dhar District of Madhya
Pradesh”, \textit{Indian Journal of Agricultural Economics}, Vol.53, No.3, July-
September, p.378.
prices. The data on cyclical variations show that after every three years, the cycle of cotton prices changes irrespective of the variations in price in the three quarterly periods, revealing that within a year there is no sudden shortfall or boom of cotton arrival in the market. The variation in arrivals of cotton was found to be higher than that of variation in prices.

Mundar Ram (1999) in his study titled “Agricultural Marketing Issues and Challenges” analyzed the existing marketing channels of food grains as well as fruits and vegetables. The author suggests that the concept of direct marketing by farmers to consumers in urban areas increases their share in consumers’ rupee. The experiences of direct marketing in Punjab, Maharashtra and Rajasthan have also been stated appreciably. The author highlights the recommendations made by the 9th Working Group that all the cities in the country with a population of one lakh and above are provided with financial assistance to set up “Apni mandis” or similar marketing system.

Krishnamurthy (2000) in his study entitled “Indian Rural Market: Problems and Prospects” examined rural prosperity, growing rural market challenges and career in rural marketing. He reiterates that delivering a

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better standard of living and quality of life will be the new role for rural marketing. The study reveals that in the near future, the purchasing power of rural consumer will be much more than his counterpart in urban markets. The author concludes that rural market is like a goldmine and future marketing in India will be in rural India.

Narasaiah and Sivamani (2001) in their study on “Rythu Bazaar: A New Era in Agricultural Marketing” rightly point out the effective and efficient system of marketing of agriculture produces as the need of the hour to protect the farmer from middlemen. The authors have made an attempt to analyze the deficiencies in the existing marketing system of horticulture crops, particularly, fruits and vegetables and assess the effectiveness of Rythu Bazaars in overcoming such deficiencies. They suggest that certain steps are to be initiated to encourage the existing farmers and new ones to grow vegetables which are usually brought from the nearly States.

Ravi Kumar, Sree Lakshmi and Raju (2001) in their paper titled “Trends in Arrivals and Prices of Selected Commodities in Anakapalle Regulated Market” reported that in general, arrivals showed mixed trend,
whereas prices showed an increasing trend for the selected commodities in Anakapalle regulated market of Andhra Pradesh. There exists an inverse relationship between seasonal indices of arrivals and prices of selected commodities. Therefore, the policy implication lies in encouraging the farmers to dispose their produce at the opportune time to get good remunerative prices. It requires providing finance to farmers and better storage facilities either at village level or at market level to be created so as to spread the arrivals reasonably in the lean months of the year.

Ann-Christin Sorensen and Berit Tennbakk (2002)\textsuperscript{33} analyzed the market regulation in a situation with multifunctional agricultural production, i.e. a public good produced jointly with a private good, and where there is imperfect competition in processing. They have also analyzed the impact on welfare of two archetype regulatory institutions formed to overcome the market imperfections. The institutions, a Regulatory Marketing Board and a Regulatory Marketing Cooperative, are both represented in the Norwegian agricultural market. Taking into account the cost of public funds, they find that the Board in general ensures the highest social welfare. The cooperatives do not replicate the Board solution unless restricted by a price cap and in combination with a production subsidy.

Bhag Chandra Jain (2002)\textsuperscript{34} studied the marketing functions and functionaries of Dumoh Regulated Market in Madhya Pradesh. The study reveals that regulated market of Damoh could not attract the producers in a broader way as the market has no proper infrastructure facilities. Therefore, special attention should be given to provide better storage, transport, processing, and financing and standardization facilities to all the functionaries and farmers. This regulated market can play a vital role in developing economic status of the producers as well as the other functionaries. Propaganda and publicity of the benefits of regulated market to the farmers were important aspect of marketing.

Jairath (2002)\textsuperscript{35} made an attempt to study the institutional reforms of agricultural markets. There was uneven spread of 395 regulated markets in the districts of Rajasthan. The average area served by each regulated market was about 900 sq. km in Rajasthan as against only 75 sq. km area in Punjab and 175 sq. km area in Haryana. The cold storage capacity available in the state was about 68 thousand tonnes and it was inadequate as compared to the available quantity of perishable products. Over 50 per cent of the storage capacity of State Warehousing Corporation was located in three districts. There was only one cotton-grading center to serve an area of

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16,297 sq. km. and handled about 7,207 tones of produce in the state. On the basis of average area served and average quantity handled, the study concluded that available infrastructure facilities were poor.

Mishra, Fahim Uddin and Bajpai (2002)\textsuperscript{36} undertook a study on “Regulated Agricultural Markets in Uttar Pradesh Policy, Performance and Problems.” The study revealed that the state intervention attempted to standardize and organize agricultural marketing on a widespread geographical basis, but at the minimum cost to itself, with the purpose of protecting the interest of farmers. The authors analyzed the impact of implementation of regulation on food grains marketing in Uttar Pradesh by using the co-efficient of price variation and correlation matrix. The results show that market regulations have reduced the degree of imperfection in marketing of food grains in Uttar Pradesh.

Rajesh and Sundaresan (2002)\textsuperscript{37} studied the attitude of farmers towards regulated markets and constraints with respect to physical facilities at regulated market namely storage, grading and market information in Madurai district. The authors found that village traders dominated in disposing majority of farm products in the study area. The marketing cost


was the highest for commission. The net price received was higher when sold through the commission agent as compared to all other sources for paddy. A large number of farmers reported that due to lack of owned transport facilities followed by market information, they were unable to take correct decision on storage. They were also not aware of the actual market conditions with regard to price. The study showed that the majority of the farm products were disposed off at the farm gate to meet out the immediate expenditure. More than 90 per cent of their marketable surplus was sold immediately after harvest with practically no storage at all.

Shivaraya and Hugar (2002)\(^{38}\) in their article titled “Pace and Pattern of Arrivals and Prices of Vegetables in Karnataka” inferred that the prices of onion and potato increased with increase in arrivals in Belgaum, Hubli, Raichur and Gulbarga markets. However, reverse trend was observed in other markets. The correlation co-efficient between arrivals and prices of onion showed negative association in storage cost in Dharwad, Bijapur and Raichur markets and potato only in Dharwad market. This clearly indicated that the prices of onion and potato were mainly influenced by their arrivals in these markets in accordance with the law of demand and supply. The substantial quantity of arrivals during post-harvest months led to decline in prices. The development of warehousing facilities and provision of credit to

the farmers against warehouse receipts would go a long way in reducing the variation in arrivals and prices. This calls for dissemination of market information relating to arrivals, prices, etc, by the respective agricultural produce market committees.

Senam Raju (2002) observed that a number of regulated markets have been setup to fulfill the aspirations of Indian farmers who have marketable surplus. With the establishment of regulated markets, many fraudulent practices in the unregulated markets have been overcome such as forced sales. Market charges are clearly defined and specified, undesirable activities are brought under control, and correct weighing is ensured. Reliable and up-to-date market news is made available, suitable arrangements for the settlement of disputes are provided and open auction method is strictly followed. Other amenities like sheds for the sale of produce, rest house, parking place, grading and warehousing are provided. Hence, regulated markets have become an important institutional framework of rural development.

Deshpande and Gopalappa (2003)\(^{40}\) studied the agricultural marketing policies in India. The policies were reviewed under policy intervention, market regulations, institutions in agricultural marketing sector, market infrastructure and agricultural marketing under the WTO regime. Market regulations were grouped into two, regulations governing functioning of primary agricultural produce markets and a series of legal instruments. Institutions involved in marketing were documented under public, co-operative and farm sectors. It was pointed out that private sector investment in this area was totally lacking. Clearing the existing inefficiencies, connecting the domestic market with international trade and creating proper safety nets are the challenges to face the WTO regime.

Parminder Kaur and Arjinder Kaur (2003)\(^{41}\) ascertained the role of regulated markets in the marketing development in Punjab. The results of the study revealed that over the years, not only the number of regulated markets have increased but the infrastructure facilities required for orderly marketing of agricultural produce have grown at a faster rate with increased arrivals. Income of market committees has also increased significantly which is being flown back for further expansion of infrastructure facilities


including development of rural roads and other facilities which are conducive to the interest of primary producers and ultimate consumers.

Pendnekar (2003)\textsuperscript{42} examined the performance of regulated markets in Goa. The study revealed that during the peak seasons of marketing, the producer-sellers were observed to have been selling their produce at lower prices and middlemen used to take the advantage of the seasonal effect. Further, the godown facilities were inadequate and there is a delay in payment even after a period of 30 days particularly peak seasons of marketing. He suggests that the role of Food Corporation of India, Cooperative Marketing Societies, Civil Supplies Corporation is essential because it will not only help to create competition but also help the farmers to get remunerative price for their produce.

Tale, et al. (2003)\textsuperscript{43} conducted a study on economics of flowers marketing in Nagpur district of Maharashtra. The study revealed that as the number of market functionaries increases, they add value to the commodity in marketing channel resulting in a fall in the producer’s share in consumer’s rupee. Producers get 52 to 62 per cent shares in consumers price. The share of commission agent in consumer price varied from 31 to 40 per cent. Market intermediaries like commission agents and retailers earn


huge profit over cost. In any conditions commission agent and retailers try
to maintain their margin irrespective of price existing in the market.
Unorganized marketing, lack of transportation, absence of regular buyer,
delayed payment, etc. the most important problems facing the flower
growers. The study suggested that government should take proper efforts
to minimize marketing cost through regulatory authority and should provide
sufficient marketing facilities.

Kulkarni (2004)\textsuperscript{44} analyzed the state-wise number of principal
markets and submarkets in India and area and number of villages served by
these markets. The results revealed that out of 2,253 principal markets,
maximum number of markets were established in Madhya Pradesh (292)
followed by Tamil Nadu (270). Goa and Chandigarh have only one
principal regulated market. The states like Kerala, Tamil Nadu and Tripura
were having only principal markets. In case of number of villages served by
the principal market, the lowest of 25 villages were observed in
Chandigarh as against the highest of 2,428 villages in Himachal Pradesh by
each sub-market. As regards sub-markets in India, on an average 127
villages were served. The lowest (12) villages were served by each sub-
market in Chandigarh. The study pointed out that there is a need for the

\textsuperscript{44} Kulkarni, S.N (2004). “Study of Regulated Markets”, \textit{Indian Journal of
establishment of more regulated markets so as to extend marketing facilities to large number of producer-sellers.

Ramkishan (2004)\textsuperscript{45} in his book entitled “New Trends in Rural and Agricultural Marketing”, studied the role of agriculture developmental agencies like Agricultural and Processed Food Products Export Development Authority, National Agricultural Co-operative Marketing Federation of India Limited, State Level Marketing Federations and the Horticultural Produce Marketing and Processing Corporation Limited. The author analyzed the defects in agricultural marketing such as distress sale, heavy village sale, inadequate marketing infrastructure, too many middlemen and so on. Based on these defects, suggestions are made by the author to make agricultural marketing more effective.

Barman and Namita Devi (2004)\textsuperscript{46} in their study titled “Infrastructure of Agricultural Marketing: A Study of Three Regulated Markets in Assam”, revealed that despite the non-availability of required infrastructure, most of the farmers of Assam used to sell their produce in traditional “hattis” or weekly bazaar instead of carrying their products to the regulated markets. The organized traders in the present system of agricultural marketing


exploited the weak and unorganized peasant class. The infrastructure facilities required for efficient working of regulated markets are lacking and hence the market regulation in Assam has failed to eradicate market imperfections, especially in the food grains marketing. The study suggests minimum requirement of infrastructure facilities like storage facilities, auction platform, buying and selling complex, grading, drainage facilities, electrification, drinking water, and provision of parking loading and unloading space to strengthen the efficiency of regulated market.

Pant, et al . (2004) studied the utilization of infrastructural facilities of a primary regulated market in Nagaur district. Kurchamancity primary regulated market was purposively selected for this study. Fifteen per cent of market functionaries and 15 farmers, who came to the market for sale of their produce, were randomly selected to obtain the information. The study revealed that the utilization of physical facilities such as shops, auction platforms, bank, communication facilities and post office, market committee office, etc. by the traders was poor in some cases and moderate in others. There was less utilization of shops as all the existing shops were not allotted to the traders. The existing godowns facility was fully utilized but considered inadequate. Rural warehouse was not utilized by any agency, which shows poor management of market committee. There was no proper

canteen facility, and toilets, urinals and bathrooms were not cleaned regularly.

Pawar (2004)\textsuperscript{48} studied the present status in respect of operational area, infrastructural facilities, and market arrivals with financial status of Parbhani Agricultural Produce Market Committee. The data were collected from annual reports published by Parbhani APMC. The study indicated that Parbhani APMC is the oldest one covering 125 villages as operational area along with three sub-markets. The study revealed that the main market is well developed with infrastructural facilities. However, sub-markets are in need of creation of more marketing facilities. Zari sub-market is the most underdeveloped one. The major means for transport of produce was through bullock cart.

Sing and Rekha Dayal (2004)\textsuperscript{49} assessed the impact of market infrastructural development on market arrivals in Uttar Pradesh. The study observed that the number of regulated markets increased from 88 in 1981-82 to 106 during the year 2002-03. The regulated markets have regularized the market fee structure, commission agents and fairness in weighing of goods. The number of sub-yards also increased from 92 in 1981-82 to 177 in the year

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2002-03. The infrastructure development took place at a higher rate in relative terms, during the last two decades. The decline in number of villages and area covered per regulated market both in absolute and relative terms is a good sign for market infrastructure development. The cold storage facility created has benefited the state farmers as the storage of perishable agricultural commodities has been facilitated. The distress sale of some of the commodities just after the post-harvest season has been reduced and farmers could reap the benefit of off-season price fluctuation. The market infrastructure has benefited the farmers by providing remunerative prices through storage facilities and reducing malpractices in the transaction and weighing of the products. The marketing cost, margins and other charges have been regularized through regularization of markets and thus, efficient marketing of agricultural products is being practiced.

Rangi and Sidhu (2005)\textsuperscript{50} studied the role of commission agents in agricultural marketing in Punjab. The data were collected from 144 principal regulated markets in Punjab. About 25,000 commission agents operate in the principal yards, sub-yards and purchase centers. A sample of 135 commission agents had been taken from nine regulated markets. The results revealed that on the market arrivals of wheat and paddy, the total

commission received by the commission agents was worked out at Rs. 337.86 crores in the state during the year 2002-03. The average amount of credit given to the farmers by the selected commission agents was as high as compared to the institutional sources. The total estimated credit to the Punjab farmers given by the commission agents was to the extent of Rs. 7,415 crores during the year 2002-03. About 19 per cent of the selected farmers reported the cases of purchase of agricultural land of the farmers by the commission agents. The study concluded that this problem is going to be aggravated in the years to come, which would have wider social, economic and political implications for the Punjab economy in general and agriculture sector in particular.

Amit Patel, Mahendra Sharma and Maurvi Pandya (2006)\textsuperscript{51} focused on finding the lacunas of existing APMC Act, current trading practices and availability of infrastructure. They viewed that there has been great concern in the recent years regarding the efficiency of marketing of agriculture produces in India. It is believed that poor linkages in the marketing channels and poor marketing infrastructure are leading to high and fluctuating consumer prices, and to only a small proportion of the consumer rupee reaching the farmers. There is also substantial wastage, deterioration

in quality and frequent mismatch between demand and supply spatially and over time. Agricultural markets in most parts of the country are established and regulated under the State APMC Acts. The paper suggested a Public Private Partnership model for creating a competitive advantage for APMCs of Gujarat in world market in the new economic regime, which enables farmers to undertake market driven production plan and adoption of modern marketing practices. The paper concludes that because of many strengths and well-developed infrastructure facilities, there is enough scope for developing and upgrading agriculture infrastructure in the area of specialized storage facilities, primary and secondary transportation, mechanization, grading standards, export promotion, processing industry support, market intelligence, etc. to establish effective linkages between the farm production to market to retail chains to end consumers.

Gauraha (2006)\textsuperscript{52} examined the improvement in regulated market infrastructure in the state of Chhattisgarh after its formation. The data pertaining to a number of regulated markets and sub-yards, income, expenditure, arrival of agricultural commodities and the amenities available were collected for the years 2000-01 to 2005-06 from the Office of Chhattisgarh State Agricultural Marketing Board. Chhattisgarh state adopted Madhya Pradesh Krishi Upaj Mandi Act, 1972 in the year 2000.

Under this Act, all the markets have been regulated. The study revealed that there has been slow growth in the infrastructural facilities which are required for effective marketing of agriculture produce in Chhattisgarh. The financial performance of regulated market in Chhattisgarh during the period under investigation has been satisfactory indicating healthy growth of agricultural markets. The expenditure pattern shows an increasing trend for the various activities mainly construction, establishment expenses and other developmental works. After the formation of the new state, there has been expansion of basic amenities along with expansion of market arrivals showing healthy signs of proper development of agricultural marketing system in the state. The study concluded that over the years it was not only the number of regulated markets that have increased but the infrastructure facilities required for orderly marketing of agricultural produced have also increased. Over the years with an increasing trend in arrivals, the income from regulated markets has also increased which is being ploughed back for further expansion of infrastructure facilities including development of rural roads conductive to the interest of primary producers.

Punitha (2007) assessed the performance of groundnut and maize marketing system in Davangere and Hubli markets. The information on price and arrivals of maize, groundnut and market functionaries was

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collected from the respective APMC’s. In case of maize, Davangere market showed increasing trend in arrivals but Hubli market showed stagnant trend and both the markets showed an increasing trend in prices. Davangere groundnut market showed decreasing trend in arrivals and an increasing trend in prices. Hubli market showed an increasing trend both in arrivals and prices. No cyclical trend was observed in both arrivals and prices of maize and groundnut in selected markets. In Davangere market, significant and positive relationship between arrivals and prices was observed for maize, whereas in Hubli market non-significant and negative relationship was observed. In the case of groundnut, Davangere market showed significant and negative relationship. As far as groundnut was considered, both markets showed higher degree of competitiveness in trade.

Chahal and Kataria (2008)\textsuperscript{54} examined the impact of various infrastructural facilities and incentives on trade in regulated markets of Punjab. The study was conducted in three districts, namely Jalandhar, Patiala and Sangrur, which were selected randomly. The primary data relating to various incentives such as credit facility, supply of inputs, timely payments, premium for quality, remunerative prices, free consultancy, etc. were collected. The secondary data on production and procurement of paddy and wheat and infrastructural facilities affecting the volume of trade

were collected for the period from 1980-81 to 2005-06. The Kendall’s Coefficients of Concordance Test revealed that the sample farmers were not in agreement as far as the ranking/rating of the incentive on which the information was collected from them. The results showed that there has been a marked change in all the parameters affecting the volume of trade in the regulated markets. The coefficients of correlation between regulated markets for wheat and paddy were estimated to be 0.647 and 0.645 respectively and was significant statistically. The coefficients of correlation of paddy procurement with average number of village per regulated market and area served were estimated to be -0.626 and -0.643, respectively. The study concluded that the various infrastructural facilities and incentives provided to the producer-sellers affect the trade in the regulated markets which is clearly evident from the increasing volume of market arrivals in the state.

Kerur, et al. (2008)\textsuperscript{55} have conducted a study in regulated markets of Karnataka. The results revealed that among the market functionaries, the traders accounted for 16.26 per cent in the state indicating large quantity of market arrivals. Growth of market arrivals of all selected commodities in the state registered a negative growth rate due to low productivity and low prices. Performance of financial indicators for the state as a whole revealed

that income is higher than expenditure. Income-expenditure ratio remains above unity throughout the study period and showed an increasing trend, showing better financial performance. Market fee registered a significant growth and license fee collection showed a marginal increase, indicating that number of traders and other market functionaries was not increased in accordance with the increase in arrivals. Therefore, the absorption of trade was mainly in the hands of few traders and market functionaries.

Kerur, et al. (2008)\textsuperscript{56} examined the performance of various schemes introduced by Government of Karnataka and Karnataka State Agricultural Marketing Board. The study was conducted for a period of 1990-91 to 2004-05. The data pertaining to different schemes like pledge loan scheme, revolving fund scheme, Raitha Sanjeevini scheme, housing scheme for cartmen and weighmen and other schemes were collected. The data so collected were analyzed by using averages, percentages and compound growth rate to draw policy decisions regarding market reforms. Performances of both economic and social schemes operated in regulated markets in Karnataka have not made good progress. Therefore, the awareness programme should be conducted for educating the policy changes. Further, efforts should be made to popularize the pledge loan scheme and allocate more and more funds under this scheme.

Khunt, Vekariya and Gajipara (2009)\textsuperscript{57} studied the performance of regulated markets of Gujarat. The study is based on a survey of six regulated markets, 60 farmers, and 30 traders collected during the period 1994-95 to 2003-04 from various published sources. All regulated markets under study have succeeded in increasing their arrivals and economic efficiency but with high instability. The major constraints felt by the farmers in regulated markets were shortage of labour, delay in marketing process, lack of insurance facilities for grading and market finance. The study suggests measures like maintaining harmony and linkage among all the regulated markets in respect of administration and operation, intermarkets transfer of core staff, computerization of administrative procedure, amendment in old Acts and conversion of Agricultural Marketing Board into corporation, etc. for the efficient functioning of regulated markets.

Sakthivel and Selvaraj (2009)\textsuperscript{58} examined farmers' satisfaction and problems in regulated market. In Tamil Nadu, there are 292 regulated markets and 20 market committees. Among the 20 market committees, Erode market committee is the largest one in terms of number of regulated


markets. In Erode district, totally there are 25 regulated markets. Among the 25 regulated markets, Sathyamangalam regulated market was selected for the present study by considering the significance of largest cotton arrival. In Sathyamangalam regulated market, there are 573 farmer members. 200 farmers were selected by applying the simple random sampling technique. For studying the farmers’ satisfaction and problems in the regulated market, primary data were collected through well-structured interview schedule. The study concluded that if concerned authorities seriously consider the suggestions, the functioning and performance of regulated markets may be improved and farmers will get benefits in marketing their agricultural produces.

Dharmpal Malik (2010) examined the availability of amenities in regulated markets, incentives for producers and contribution of regulated markets in rural development in Haryana state. The study reveals that the total market arrivals of agricultural commodities increased up to 12.26 million tonnes during the year 2006–07 due to vast network of 105 principal yards, 178 sub-yards and 142 purchasing centers in the state. The capacity of storages, cold storages and cover sheds registered significant increase and it reached up to 4.90 lakh tonnes. The number of regulated markets and sub-yards, capacity of storages and cover sheds exhibited positive growth

rate indicating healthy sign of market infrastructure development. Most of
the markets possessed all types of amenities as per norms of Bureau of
Indian Standards, except parking place, medical facilities and sundry shops.
The Marketing Board has made investment on various development
activities like establishment of grain and vegetable markets, renovation of
old markets, construction of rural roads, repair of rural and municipal roads
for easy accessibility for transport of farm produce. The Board has
introduced various schemes like compensation to victims hurt during
agricultural operation, awards for innovative farmers, Krishak Upchar
Yojana, bonus of sale of produce through cooperating marketing society
and agri-business information.

Gauraha, et al. (2010)\textsuperscript{60} examined the improvement in regulated
market infrastructure in the state of Chhattisgarh by collecting secondary
data on the number of regulated markets and sub-yards, income,
expenditure, arrival of agricultural commodities and amenities available
from the period 2000–01 to 2009–10. The study revealed that over the
years, the number of regulated market has increased. With an increasing
trend in arrivals of major crops, the income at regulated markets has also
increased which is being ploughed back for further expansion of
infrastructural facilities including development of rural roads, etc. Recently,

\textsuperscript{60} Gauraha, et al. (2010). “Role of Regulated Markets as Supportive Activities in
Value Chains of Agricultural Commodities”, \textit{Agricultural Economics Research
the state has also designed a market network scheme to cover rural areas with collection centres for grains.

Govindarajan and Shanmugam (2010)\textsuperscript{61} in their article titled “Measuring Market Efficiency of Regulated Markets for Effective Performance in Tamil Nadu” stated that the efficiency of regulated markets could be vastly improved by market efficiency. The market efficiency of the regulated markets can be increased by management of the markets and allocation of factors such as number of employees involved in publicity and propaganda work, number of villages covered by the regulated markets. They concluded that improving market efficiency of the regulated markets is necessary to meet the requirements of the economy in the context of globalization.

Kerur, Gaddi and Vilas Kulkarni (2011)\textsuperscript{62} have undertaken a study in the selected regulated markets of Karnataka to elicit opinions from farmers and traders about the performance and policy reforms of regulated markets. 60 farmers were selected. To elicit the opinion, in each selected commodity from the selected markets ten traders comprising five commission agents


and five wholesalers were selected randomly among those who handled commodities. Hence, total samples of 60 traders were selected from the selected markets. The study suggests measures such as payment for the produce, accuracy of market information, weighing charges and deceit in prices for the better functioning of the regulated markets. Further, spot payment is necessary; otherwise farmers look for alternative selling arrangements, which lead to loss of income to the market committee. In this context, introduction of Clearing House Scheme with the help of merchant association may help.

Kerur, et al. (2010) conducted a study to examine the physical and financial performances of the regulated markets in Karnataka. At the first stage one important commodity in each of the crop groups’ viz. Jowar from cereals, groundnut from oilseeds and cotton from fibre was selected. The study extensively used the secondary data. The data were collected from the Karnataka State Agricultural Marketing Board, Department of Agricultural Marketing and DES, Bangalore. The data for market arrivals and prices of selected commodities in selected markets were collected for 15 years from 1990-91 to 2004-05. The average and compound growth was computed to ascertain the growth performance of the regulated markets. Growth performance of total market functionaries in the selected markets found that

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market functionaries declined in Ranebennur market due to stagnation or decline in production and market arrivals of major commodities mainly cotton. Income of regulated markets has increased, mainly because of increase in arrivals and increase in rate of market cess. Therefore, liberalization of markets may be undertaken to improve the absorption and equalization of trade and competition. Efforts should be made to increase income of the market either by attracting more and more arrivals or reduce the office expenditure of Bagalkot market and Raichur market because income-expenditure ratio was negative on account of higher office expenses.

Rajib Mallik (2010)\textsuperscript{64} in his article titled “Present Status of Regulated Markets in Tripura” viewed that rural markets should be brought into regulation in a phased manner. Professionally qualified managerial talent should replace the officers on delegation to facilitate long term planning and development of marketing institutions. Then the imperfections in the market should be reduced in the regulated marketing system. Though there are not significant changes of regulated market in Tripura, it will not remain static in the competitive environment. The regulated markets in Tripura are not adequate enough for the expected benefits from the markets. Therefore, more number of regulated markets should be introduced. Thus,

the population load per regulated market will decrease and also the markets will renovate into competent and effective market.

Rajib Mallik (2010)\textsuperscript{65} studied the growth and development of regulated markets in Tripura. The study is based upon both primary as well as secondary data. The primary data for the study have been collected with the help of questionnaires from growers, commission agents, traders and committee officials selected in the concerned regulated markets. Out of 21 regulated markets in the state, 8 markets have been selected as sample regulated markets in dealing with growth and development of regulated markets in Tripura. Out of eight markets four have been taken from west Tripura district, two are from the south Tripura district and one from north and one from Dhalai district has taken. The study emphasized the requirement of the regulated market and for its developments in a State as a whole. The study suggests that financing institutions both at state and national level should be preferred on investment for market development within the framework of a state master plan.

Anita Dagar, Sandeep Kumar and Mukesh Kumar (2011) viewed that efficient regulated agricultural marketing system helps in optimization of resource use, output management, increase in farm incomes, widening of markets, growth of agro-based industry, addition to national income through value addition and employment creation. Keeping in view the importance of physical infrastructure facilities in regulated agricultural markets, an attempt has been made to examine the availability of physical infrastructure facilities in regulated markets in Sirsa district of Haryana. The results of the study are based on the primary data collected from farmers through pre-tested open ended questionnaire as well as secondary data taken from Haryana State Agricultural Marketing Board and Agricultural Department of Haryana. The study reported that the condition of the infrastructure facilities in the selected mandi yard is not very good. The physical infrastructure facilities are available to a very small number of the farmers as well as they are not in good condition.

Bhanumate (2011) studied the trend analysis of agricultural commodities in APMC Solapur. This study focuses its main attention on the Siddheshwar Market Yard, Solapur. It covers two taluks out of eleven, viz. North Solapur and South Solapur. The main objective of this study is to

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examine the performance of arrivals of agricultural commodities. It is observed that out of 13 agricultural commodities, 5 agricultural commodities proved positive performance during study period. But 8 commodities have not proved positive performance. The study suggests that the APMC Solapur must take efforts for more and better arrival of food grains and oilseeds.

Robita Sorokhaibam and Brahmacharimayum Tarunbala Devi (2011)\textsuperscript{68} carried out a study titled “Agricultural Marketing and its Impact in North East India with Special Reference to Manipur”. The objectives of the study are to analyze the various crops production in Manipur, to study the consumption of chemical fertilizers, to examine the socio-economic factors of the cultivators, and to suggest remedial measures to overcome the problems. The study is based on both primary and secondary data. About 120 cultivators representing all the districts in Manipur have been selected on a random basis for the purpose of gathering primary information through the administration of questionnaire to cultivators. The secondary data have been gathered from published reports related to agricultural marketing. The state government should act as a facilitator in marketing. However, the producers should neither depend totally on the government support nor on themselves in the rural marketing at the embryonic stage. A single active

development agency needs to be identified to develop awareness on the diversified agricultural activity and to boost the marketing of agro-processed products tremendously. It would be helpful to avoid multi-development agencies functional conflicts. Another prerequisite to organize agri-business effectively is to conduct product specific surveys successfully for ensuring marketability and the type of venture to be set-up.

Jawan and Lokhande (2011)\textsuperscript{69} studied the role of agricultural regulated market centres in agricultural development in Solapur district of Maharashtra. They observed that agricultural regulated market centers are economically most important and represent the regional pattern of agricultural development. They provide trade and commerce to the region and also help in increasing social contact, serve as centers of diffusion and become focus for political and other activities. Therefore, the market centers have predominant economic important in any region.

Madhusudan Ghosh (2011)\textsuperscript{70} examined the impact of agricultural policy reforms on spatial integration of food grain markets in India. The extent of spatial integration of food grain markets improved during the post-reform period, as the regional markets, which were either segmented or


poorly integrated during the pre-reform period, are found to be strongly integrated and in most cases to such an extent that satisfies the relative version of the law of one price. The agricultural policy reforms undertaken by the Indian government seem to contributed towards improving the extent of spatial integration of food grain markets. The results offer important policy implications.

Dealluck Irengbam (2012)\textsuperscript{71} in his paper entitled “Agricultural Marketing in Punjab and North East India with Special Reference to Manipur” states that the agriculture marketing system in developing countries like India can be understood to be composed of two major sub-system viz. product marketing and input marketing. The factor in the product marketing sub-system includes farmers, wholesalers, importers, marketing co-operatives, regulated market committees and so on. The inputs subsystem includes input manufactures, importers, related associations and others who make available various form of production inputs to the farmers. The author explains that agriculture marketing plays an important role in accelerating the pace of economic development in addition to stimulating production and consumption. Agriculture marketing development of region is measured by the strength and efficiency of the

linkages established in various sectors to operate the production and business cycle.

Nizamuddin Khan and Mohammad Muqeet Khan (2012)\textsuperscript{72} carried out a study titled “Marketing of Agricultural Crops in Rural Indian Economy”. The study examined the transaction of agricultural crops through rural markets and the price structure of different crops in rural markets of Ambedkarnagar district. The study has highlighted the composition and structure of sellers and traders engaged in the marketing process. Local rural markets are the best option for the marginal and small farmers to dispose off their perishable surplus to get quick returns. Due to the lack of good infrastructural facilities in the study area, most of the farmers prefer local rural markets instead of going to the specialized markets or nearby town area. The variation in the transaction of agricultural produce is mainly due to a number of factors like higher market demand, accessibility, nature of produce, transportation facility, market-size, fair price and so on. The average price of individual crop also varies from market to market due to the various socio-spatial factors.

Shakeel-Ul-Rehman and Selvaraj (2013) studied the perception of farmers towards regulated agricultural markets in Salem district of Tamil Nadu. The study includes a sample of 260 farmers who sell their agricultural produce in the regulated agricultural markets in the study area. 13 regulated markets working in Salem district were selected for the survey. The sample was chosen by convenience sampling method for the ease of the researcher as the total population was unknown. The sample size consists of 20 respondent farmers from each of the 13 regulated markets respectively summing the overall sample to 260. A structured questionnaire was administered to collect the response as primary data. The findings of the study revealed that majority of the respondents feel a positive perception towards working of regulated markets in Salem district, but there still seems inadequacy of infrastructural facilities in these markets. The farmers are not fully satisfied with price stability in the markets, reasonable rates of produce in the market, reasonable methods of sale, price awareness, grievance redressal mechanism, transport facilities provided by the markets, internal road facilities and parking facility in the markets. The study suggests that the government must examine its policies and regulations with a view to strengthen the marketing network and ensure that prices are being determined on competitive basis and markets are being manipulated.

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The above reviews show that most of the studies on working of regulated markets have been carried out. These studies have not covered the entire facets of working of regulated markets i.e. perception of the farmers and operational performance of the regulated markets. Selection of limited years and lack of studying the perception of farmers towards working of regulated markets are the limitations of the above studies. Moreover, selection of limited samples and lack of studying the relationship between demographic variables of the farmers towards their satisfaction and problems with the working of regulated markets are the limitations of these studies. Hence, a careful study is essential in this regard. With this background, the present study is an attempt to fill in the research gap in these areas. The outcome of the study will give more perspectives and knowledge to the farmers and government on the subject and will help in redesigning agricultural marketing in general and regulated markets in particular. The present study covers 8 regulated markets situated in 3 districts of Tamil Nadu, with a sample of 480 farmers.