

**STUDY OF DAIRY ANIMAL MARKETS IN SOUTHERN TELAN-  
GANA ZONE OF ANDHRA PRADESH**

**By  
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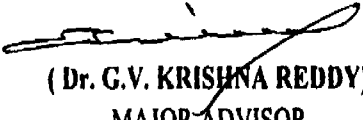
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**January, 2000**

## **CERTIFICATE**

**Mr. S. ASHOK KUMAR** has satisfactorily prosecuted the course of research and that the thesis entitled "**STUDY OF DAIRY ANIMAL MARKETS IN SOUTHERN TELANGANA ZONE OF ANDHRA PRADESH**" submitted is the result of original research work and is of sufficiently high standard to warrant its presentation to the examination. I also certify that the thesis or part thereof has not been previously submitted by him for a degree of any university.

Date: 19-01-2000

  
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MAJOR ADVISOR

Place : Hyderabad

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This is to certify that the thesis entitled "**STUDY OF DAIRY ANIMAL MARKETS IN SOUTHERN TELANGANA ZONE OF ANDHRA PRADESH**" submitted in partial fulfilment of the requirements for the degree of **MASTER OF VETERINARY SCIENCE** of the Acharya N.G. Ranga Agricultural University, Hyderabad, is a record of the bonafide research work carried out by **Mr. S. ASHOK KUMAR** under our guidance and supervision. The subject of the thesis has been approved by the Student's Advisory Committee.

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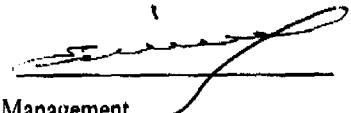
  
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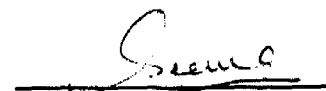
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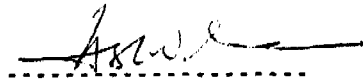
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## DECLARATION

I, **S. ASHOK KUMAR** hereby declare that the thesis entitled "**STUDY OF DAIRY ANIMAL MARKETS IN SOUTHERN TELANGANA ZONE OF ANDHRA PRADESH**" submitted to the **ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY** for the degree of **MASTER OF VETERINARY SCIENCE** is the result of original research work done by me. I also declare that any material contained in the thesis has not been published earlier.

Date : 19/1/2022



(S. ASHOK KUMAR)

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## **ABSTRACT**

The study was conducted to find out the structure functioning of dairy animal markets, various categories of animals marketed, their prices and costs of marketing and problems faced in marketing, in Southern Telangana zone (Agro-climatic zone V) of Andhra Pradesh. A total of 44 markets identified which included regulated and unregulated. The data collected with help of schedule by interview method.

Most of the markets were regulated (41) out of 44. There was lack of basic amenities in most of the markets studied, and majority of them were medium in size. Generally animal markets worked once in a week and majority of the assembling agencies were farmers. Where it is observed mutual negotiation as the prime mode of animal transaction. Among dairy animals, buffaloes (ND, GM) contributed maximum share and among the draught animals, local cattle contributed the maximum share in arrivals and sales of animals. The cost of marketing was highest in Hyderabad district and milch buffaloes were priced highest when compared to other categories. Milk yield was major contributor for variation in the prices of milch animals studied. There was acute lack of basic amenities in most of the markets studied. It is suggested to the ear mark, more budget for the improvement in basic amenities to animals and men, to improve efficiency in the marketing of dairy animals.

# INTRODUCTION

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## **CHAPTER I**

### **INTRODUCTION**

India is ranked first in the world, in terms of milk production. This was possible due to rich wealth of our livestock and programmes like Operation Flood and Technology Mission for Dairy Development. The Government of India and all the state governments have taken up several livestock improvement schemes using the reputed breeds of livestock of India and Abroad, to produce high yielding livestock. Livestock development starts with the marketing as it provides the necessary incentives to the producers so as to adopt the new technologies in animal husbandry. The marketing of dairy animals is important as it constitutes a big business in Animal Husbandry and Dairying sector.

Planning and development of cattle markets has not been given serious attention and is neglected. However, on the recommendations of Royal Commission on Agriculture in 1928 and the Banking enquiry committee in 1931, Government of India has set up a central organisation known as the Agricultural Marketing Advisor to the Government of India in 1935. Later on this organisation was renamed as Director of Marketing and Inspection (Dhume, 1985) and it made the pioneer efforts for the regulation of markets dealing in Agricultural, Livestock and Livestock produce. However till date much information is not available on livestock

markets and even today the marketing of cattle is not generally done on systematic lines in India.

The demand for milk and milk products has been increasing as India's population touched one billion at the turn of this new millennium. This demands increase and improvement of dairy animals by expanding the cattle trade. Efficient marketing system is essential to sustain the accelerated dairy development.

Marketing efficiency to a large extent depends upon the organisational structure of the market and its conduct. Market structure depends upon the volume of the trade in a particular market. Hence there is a obvious need for research in various issues of dairy animal marketing.

The present study has been undertaken in Andhra Pradesh which is one of the largest milk producing states in India possessing 10.95 million cattle and 9.1 million buffaloes (Directorate of Economics and Statistics, A.P, 1993). Andhra Pradesh is divided into seven agroclimatic regions. The agroclimatic zone - V comprises the districts of Mahaboobnagar (excluding Alampur, Waddepalli, Monabad and Itikyal mandals) Rangareddy, Hyderabad, Nalgonda, (excluding 24 mandals in Southern part) North eastern parts of Warangal and Southern parts of Medak has been undertaken for the study. The region is rich in dairy animals and have good potential for dairy animal marketing.

Hence the present study on dairy animal markets has been undertaken to study the market structure, mode of functioning, categories of animals transacted, the marketing costs involved and the problems faced in their marketing with the following objectives.

1. To study the market structure for Dairy Cattle and Buffaloes in the Southern Telangana Region of Andhra Pradesh.
2. To find out the mode of functioning of Cattle and Buffaloes Markets/Shandies.
3. To assess the proportion of various cattle and buffalo breeds marketed for various purposes.
4. To work out cost of marketing of Dairy animals
5. To identify the marketing problems and suggest suitable remedial measures.



## **REVIEW OF LITERATURE**

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## **CHAPTER II**

### **REVIEW OF LITERATURE**

Research on marketing of dairy animals and its products received very little attention in India and this aspect was not given much attention even by the researchers abroad. The available literature relating to dairy animal marketing has been reviewed in this chapter.

#### **2.1 STRUCTURE OF DAIRY ANIMAL MARKETS**

Rajkumar Grover and Singh (1983) studied the nature of cattle marketing in Haryana and observed that marketing of cattle and buffaloes constitute a big business for farmers and traders. They classified all the sixty six cattle markets of the state as small, medium and large on the basis of annual revenue collected.

Gaikwad (1985) reported that there were 230 principal markets of which 170 markets were regulated. They further observed that there were 138 weekly cattle markets in Maharashtra.

A study was conducted for assessing the functioning of the regulated cattle markets in Maharashtra by Dhume (1985). According to him the cattle markets can be grouped into four categories based on the legislative provision viz., (1) Cattle markets under Agricultural Produce Market Committees under Agricultural Producer Market Acts. (2) Cattle markets

under Gram Panchayats or Municipalities under the local self-government acts. (3) Cattle markets under fair acts and (4) Private cattle markets controlled by private parties.

According to the Director of Agricultural Marketing, Pune, there were 292 livestock markets in Maharashtra during the year 1979 and out of these, 174 markets are regulated. These are controlled by 93 Agricultural Produce Market Committees.

Arora and Pandey (1987) examined the structure and conduct of cattle markets in Haryana state. They classified all the markets into three categories viz., small, medium and large based on the amount of income received from fairs.

Gopala Rao and Iqbaluddin (1988) broadly categorised the livestock markets in India into 1. markets controlled by local bodies namely Panchayats, Municipalities, Corporations, 2. markets controlled by fair committees, under the supervision of controller of fairs, 3, markets controlled by the Agricultural Produce Market Committees (APMc"s) called regulated markets and 4. markets owned privately where livestock assemble in private landed property or enclosures. They opined that there would be more than 2000 markets in India to transact livestock. They recorded that Delhi has four livestock markets, all of which are unregulated, while Gujarat and Rajasthan had 16

and 3 regulated markets, respectively. They further reported that there were 2 regulated and 11 unregulated markets in West Bengal.

Mandal and Pandey (1993) studied the milch buffaloes markets in Haryana. They classified the markets by the cumulative total method into three categories viz, small, medium and large markets based on amount of income received from cattle fairs during the last three years.

Talukdar and Singh (1994) examined the cattle market structure in Baridua cattle market in Meghalaya. They observed that the middle men formed several distinct channels for movement of the cattle from rearers to the ultimate users and the prices in the market were controlled by the sellers.

Manojkumar Singh and RP Singh 1996 found traditional livestock marketing system in Panagar area of Jabalpur, district of Madhya Pradesh. They found large numbers of respondents using the marketing channel involving maximum number of intermediaries and they attributed it to the absence of organised marketing facilities to sell livestock.

Jaisingh *et al.* (1996) found decline in the interest of buyers and sellers, in the cattle fairs as indicated by number of animals transacted. They studied various cattle fairs in livestock marketing in Haryana. They indicated lack of basic amenities which resulted in declined interest of

buyers and sellers and suggested for improvement of basic amenities in the cattle fairs.

Pandey *et al.* (1996) while analysing the structure of cattle fairs in Haryana, noted that mostly the cattle fairs were fixed as for Vikrami calendar months and their periodicity included both of short and long duration i.e., 5-10 days. The number of cattle fairs held during the period of study in Hissar, Rohtak, Rewari and Karnal circles were 121, 66, 43 and 39 respectively. Amongst the four circles, Hissar circle had the highest number of cattle fairs followed by Rohtak, Rewari and Karnal.

Ponnambalam (1996) compared agriculture produce marketing with local body livestock marketing. With respect to the cattle marketing, he found handfull of registered traders, and cattle auctionary system was not open which has given a chance for the middle men to play a key role in negotiating the prices. The under cover system was still prevailing the records were not maintained. No regulation on charges levied and expenditure incurred in providing basic amenities for livestock marketing was very less, giving a scope for negligency. There was no separate license prescribed for local bodies. He suggested for an effective regulation, an unique licencing system for local body livestock markets under farm produce market acts.

Varghaese and Sharma (1996) observed that the four tier cattle fairs viz, State level, Municipality level, Panchayat Samiti level and gram Panchayat level are prevalent in Rajasthan state. This provided lot of opportunities to the animal breeders for buying and selling of animals. They reported that the cattle fairs and localised buyer-seller agreements form major means of marketing for cattle and buffaloes. They also reported that the cattle breeders from within the state and outside the state participated in the cattle fairs and the periods of these cattle fairs were fixed according to the dates of the samvat calender and is spread over the year with the minimum over lapping in dates, so as to help breeders to participate in as many fairs as possible.

## **2.2 MODE OF FUNCTIONING OF CATTLE MARKETS**

Sosnick (1961) gave a theoretical frame work for analysing structure, conduct and performance of livestock markets. According to him the market performance well depend on the quality, a buyer would buy from a seller, market price, transportation cost, and profit of the firms operating in the market.

Central council of Gosamvardhana (1967) in its report on cattle keeping in India discussed the market functionaries and itinerant traders. The persons attending the cattle fairs were grouped as sellers, buyers and brokers.

Ono (1969) studied the organisation of cattle marketing in Japan and discussed marketing channels. He observed that local cattle dealers, particularly those who brought cattle either directly from farmers or at auctions, played an important role in cattle marketing.

Himmat Singh and Patel (1982a) studied the method of functioning of buffaloes market of Haryana. They identified different channels of buffalo marketing at various levels of markets.

Arora and Pandey (1984) identified the organisational structure and different market functionaries for smooth functioning of livestock trading. They found mutual negotiation between buyers and sellers as one of the ways of transaction of product. They also mentioned several malpractices adopted by the sellers/dealers and other functionaries involved in the cattle trade.

Mandal and Pandey (1993) studied the milch buffalo markets in Haryana. They observed that there were four marketing channels viz, 1. producer - consumer/final buyer 2. producer trader-consumer/final buyer 3. producer-village agent-consumer/final buyer and 4. producer-local trader-trader in consuming area-consumer/ final buyer, prevalent for the buffalo trade.

Talukdar and Singh (1994) found unorganised marketing system in Meghalaya. In their market of study they found number of middlemen and they had listed different middle men with different names such as Itinerant traders cum wholesaler IIW, distant/local wholesaler (DLW) butcher cum

retailer (BCR) and wholesaler cum retailer (WCR). They formed several distinct channels for movement of the cattle from producer to the ultimate users. They concluded that the Government of 'Meghalaya' should intervene in procurement, buying and selling and overall organisation of marketing.

Krishnaiah (1996) studied the existing marketing system for livestock around Hyderabad city in Andhra Pradesh, he found various malpractices in the marketing of animals. He suggested the elimination of practice of mutual negotiation, formation of co-operative marketing society, regulation of livestock markets and development of organisational facilities.

Mishra *et al.* (1996) found structure of cattle markets as affected by the pricing of livestock. They observed that the marketing costs of farmer is affected by the number of intermediaries.

Rasane *et al.* (1996) studied the marketing of buffaloes and cross bred cows in Dhule market in Maharashtra state. They observed that there were 145 traders and 18 authorised dealers involved in the livestock trade in Dhule market. They concluded that the arrivals and sales of cows were low during the period from April to July and increasing during August to December. Arrivals of cross bred cows is quite high during February, March and also the arrivals and sales of buffaloes were quite high during January, July and August as compared to other months of the year.



Varghease and Sharma (1996) elaborately discussed the functioning of cattle markets in Rajasthan. They studied the various procedures for the farmers from entry to exit point. They concluded that cattle fairs and localised buyer - seller agreement form major means of marketing, for cattle, buffalo, camel and other big size animals.

### **2.3 MARKETING OF VARIOUS CATTLE AND BUFFALOE BREEDS**

Verma *et al.* (1989) studied the existing situation of important cattle markets in the state of Rajasthan. The study was conducted in markets organised by State Department of Animal Husbandry. These markets were classified into four categories based on type of cattle breeds brought for sale. Growth rates in total arrivals of Haryana breed cattle markets like Gomatisagar and Jasvant areas, were positive but negative in Shivratri, Gogameri and Chandarbhaga markets.

Krishnaiah (1996) studied the trends in arrivals of various categories of animals. He observed highest numbers of slaughter purpose animals were marketed when compared to other categories of animals in Narsingi cattle market in Medak district of Andhra Pradesh.

Jadhav and Bagire (1996) identified various cattle and buffalo breeds marketed in Dhule market of Haryana. He observed that mostly Jaffarabad

and Maharashtra buffalo breeds were brought to the market from other states.

Pandey *et al.* (1996) in their study conducted on cattle marketing structure in Haryana noticed four cattle fair circles and found circle wise differences in the number of animals transferred, their composition into breeds etc. They identified four circles namely Karnal, Rewari, Rohtak and Hissar in which Karnal circle held highest number of cattle fairs followed by Hissar, Rohtak, Rewari and Karnal circles.

## **2.4 MARKETING COSTS, PRICES OF DAIRY ANIMALS**

### **2.4.1 Marketing Costs**

Sidhu and Johl (1966) studied the transportation cost of trade cattle and buffaloes. Their study revealed that the transportation cost per animal for long distances was lowest by rail transport, where as for short distances the transportation cost by road was cheaper than that of rail transport.

Patil *et al.* (1979) studied the price spread of livestock in Dhule market of Maharashtra state. They worked out the average total cost of marketing per cow as Rs. 383.94 and the average marketing cost per buffalo was worked out to be Rs. 405.39. The cost of transportation which was an important item of marketing cost and accounted for 71.86 per cent of the total marketing cost. The other important items of marketing cost

were the feeds and fodder (15.74 %) followed by pocket expenditure of traders (7.54 %), attendant charges (4.08 %) etc.

Himmath Singh and Patel (1982b) analysed the costs and margins in marketing of buffaloes in Haryana. They found that the buffalo sellers spend maximum amount on the feeding of buffaloes followed by the brokerage charges. They suggested that the brokerage charges can be eliminated by direct transaction between sellers and buyers. For buyers the major cost item was the transportation cost which accounted for about 50 per cent of the total marketing cost.

Mondal and Pandey (1993) analysed the market performance of Dairy animal markets of Jind and Rohtak districts of Haryana. The net share of producer in the consumer's price of Murrah buffalo was found to be about 88 per cent. Buffalo seller had to incur the maximum amount on feeds and labour cost before the sale of buffaloes while for buyers, the major cost item pertained to market charges. They concluded that small markets were relatively more efficient in the buffalo trade as compared to other.

## 2.4.2 Factors Affecting Market Price of Animals

### 2.4.2.1 Season

Minhas (1966) observed that the prices of buffaloes and cows were 2 and 11 per cent higher, respectively, in spring season over the autumn season.

Autkar *et al.* (1996) studied the price spread of Murrah buffaloes in Akhola district of Maharashtra. In their study they observed that per buffalo producer cost was found to be 5,778; which constituted 3.49 per cent share in consumer rupee. Transport charges formed the major expenses incurred by the wholesalers and was found to be rupees 1444.44 per buffalo, with a share of 15.47 per cent in consumer rupee.

Singh and Patel (1981) conducted an economic study on buffalo price structure in Haryana during 1965-75. They observed the buffalo prices to be maximum in the month of July and the prices decreased persistently in the successive months. Buffalo prices again raised in the months of February and March and the lowest prices were recorded in the month of April.

Himmat Singh and Patel (1982a) studied export of buffalo from Haryana with the help of time series data for the period between 1970 to 1978. They observed that the exports are maximum in the month of August and

minimum in the month of July. The prices were observed to be above normal in the months of January, August, October, November and December.

Arora and Pandey (1984) studied the price variations in cattle markets of Haryana. In their observation maximum price of bullocks existed in rainy season than summer and winter season because of their great demand for kharif operations.

Mishra and Nayak (1991) studied the factors which affect the bullock prices in the three leading cattle markets of Cuttack and Puri districts in Orissa during 1989-90. Their findings revealed that the price of bullocks remained high in summer followed by rainy season and winter.

#### **2.4.2.2 Breed and Other Characteristics**

Sidhu (1960) studied the economics of cattle and buffalo trade in Punjab. His study revealed that factors like breed, performance, colour and temperament of the animal affected the prices of dairy animals.

Sidhu (1965) observed that on an average the Murrah breed buffalo fetched about 5 and 13 per cent higher price than Nili and non descript types respectively. General appearance of the milch animals and other virtues like thin skin, short and smooth horns, wide hip, long tail with a good switch, large udder, zig zag milk vein, uniform teats of convenient

size were found to have positive effect on the prices. Cool and calm temperament of the dairy animals also had an influence on their prices.

Minhas (1966) in a study on price variations in cattle and buffalo markets in Punjab reported that factors like breed, age, colour, temperament, pregnancy etc., contribute to pricing of animal.

McIntosh and Hawkins (1971) used dummy variable technique in cattle price analysis, the study sought to identify and measure the effects of certain pertinent variables in the marketing system. Cattle prices in different market terminals and auctions were compared. Among the variables hypothesized affecting cattle prices are class, grade and weight were the most important for both feeder and slaughter cattle. Low prices were associated with the presence of horns and also with a full condition of body.

Arora and Pandey (1984) analysed the factors influencing price variations in bullocks. Rajasthani bullocks were priced higher than that of Haryana. White colour bullocks fetched more price than mixed coloured bullocks. The net effect of Rajasthani breed on Price had turned out to be positive and a Price premium of Rs. 168, Rs. 208, Rs. 189 and Rs. 197 existed over the average price of Haryana breed in small, medium, large and overall markets, respectively.

Kareemulla and Srinivasan (1992) reported that the Hallikar breed bullocks were paid higher prices than that of crossbred and local bullocks. Price of local cow was the lowest and highest for exotic cross bred for the same level of productivity in Baridua cattle market of Megahalaya according to the study conducted by Talukdar (1994). He also observed that draught cattle were marketed based on their number of teeth. The prices of regional breeds were the lowest whereas the Haryana and Tharaparker breed fetched the highest price.

#### **2.4.2.3 Milk Yield**

Singh and Patel (1981) studied variations in the price of Murrah buffaloes in Haryana over a period of 12 years extending from 1964 to 1976. They observed that milk yield was the single most important factor influencing the price of buffaloes followed by stage of lactation and order of lactation.

Gangwar (1985) studied the factors affecting the price of milch buffaloes. Milk yield had more effect on buffalo prices than order of lactation. He observed that buffalo price increased by Rs. 106.80 for every one litre increase in the milk yield. He further noticed that if the order of lactation is increased by one, the buffalo price was declined by Rs. 25.89. During early stage of lactation, the buffalo prices were higher.

Kareemulla and Srinivasan (1992) conducted an empirical analysis of cattle pricing in Andhra Pradesh. Single calved cows and she buffaloes received highest prices and the prices is inversely correlated with the number of lactations. Milk yield is the significant variable that influences the price of milch buffaloes. They observed that one litre of additional milk would increase the price of milch buffalo by Rs. 266.

Mondal and Pandey (1993) studied the factors influencing the market price of lactating Murrah buffaloes in Haryana. Among the quantitative characters, milk yield made the highest contribution, followed by stage and order of lactations. Milk yield, order of lactations and stage of lactations contributed about 47 %, 3 % and 7 % respectively to the price of buffaloes. It was revealed that a freshly calved Murrah buffaloe of 2nd lactation yielding about 12 litres of milk a day had the potential to fetch the maximum market price. Further more, the market prices of lactating Murrah buffaloes were greatly affected by the milk yield as compared to the stage and order of lactations. The market price of lactating Murrah buffaloes increased by Rs. 769 with the increase in milk yield by one litre but declined by Rs. 135 and Rs. 199 with lactation order and the stage of lactation respectively.

Patil and Kawadgave (1996) observed that there were positive relationships between market price of cows with that of stage and order of lactation



and milk yield. Overall maximum market price of lactating cows (Rs. 6243) was observed in cows whose milk yield is above six litres per day.

Pandey *et al.* (1996) studied the structure of cattle fairs in Haryana. Milch cows and buffaloes were priced on the basis of milk yield per day. While heifers were priced on the basis of their age, the price of pregnant cows, buffaloes and some of their heifers were based on stage of pregnancy and post lactation or Dam's milk yield. Drought cattle and buffaloes were priced on the basis of their number of teeth.

Singh *et al.* (1996) studied the factors affecting market price of lactating buffaloes in cattle fairs of Punjab. It was found that, among the quantitative characters milk yield made the greatest contribution towards the market price of buffaloes followed by stage and order of lactation. A freshly calved buffalo of 3rd lactation and yielding about 14 litres of milk a day had the potential to fetch the maximum market price.

#### **2.4.2.4 Impact of Age on Price**

Raut and Singh (1974) analysed the factors influencing price of bovine stock. They opined that age was the only quantitative character in bullocks which could be utilised to study the pricing of bullocks. It was further observed that bullock fetched maximum price at the age of 45 months.

Rathod *et al.* (1978) performed an econometric analysis of price variation in cattle market by using three different models. It was noticed that bullocks of 5 years age received maximum price.

Kareemulla and Srinivasan (1992) conducted an empirical analysis of cattle pricing in Chittoor district of Andhra Pradesh and found the price of bullocks to be highly correlated with their age. Hallikar breed bullocks in the age group of 4 to 7 years were paid the highest price than that of crossbred or local.

Arora and Pandey (1992) studied the cattle, marketing costs and margins using data collected from three markets from each of small, medium and large categories of markets in Hissar, Sirsa and Bhiwani districts in Haryana state. The producer/seller earned Rs. 65 more from cattle trade in large markets as compared to small markets, but their share in the consumer price was lower (68 %) in large markets than in small markets (73 %) because the final consumer price was higher in large markets.

## **2.5 PROBLEMS FACED IN MARKETING OF DAIRY ANIMALS**

Jayaraman (1961) analysed the cattle market performance in India and highlighted the need for regulation of these markets. He identified various defects in the marketing system existing at that time. The defects identified were (1) The malpractices adopted by the buyers and intermediaries in the form of trade- tricks and ingenious means in order to force the

owners to part with their animals at lower prices. (2) The excessive market charges payable by the buyers and sellers which result in non- remunerative prices received by the breeders in the markets and (3) Total lack of amenities like provision of shelter, water troughs, light etc., both for human and animals resulting in an extra expenditure to the buyers and lower return to the sellers.

Dhume (1985) studied the problems faced by the Agricultural Produce Market Committees to manage the cattle markets. They identified two major problems faced by the committees to manage the cattle markets. They were inadequate land and lack of funds. The consequences arising out of lack of funds were non- construction of compound wall, absence of cattle sheds, improper drainage, absence of farmers rest house and lack of water arrangement for the cattle. The problems confronted in providing sufficient space are inadequate land, absence of land exclusively for the establishment of cattle markets, delay in allotment of land by Government/local bodies, inadequate land, problems in the acquisition of land from the Government, local bodies as well as private parties and transportation problems etc.

Gopala Rao and Iqbaluddin (1988) studied the main constraints in marketing of livestock. The constraints identified included involvement of too many agencies in exercising control over livestock markets, inadequate attention paid to livestock as food grains and livestock are sold in a

common place, non payment of sale proceeds, marketing of stolen animals and variation in collection of fee from market to market etc.

Gopala Rao and Jaman Lal (1991) reported the problems encountered in marketing of livestock and livestock products. The main problems of livestock markets in villages are inadequacy of place for assembling of five animals conductance of markets at long intervals.

Autkar *et al.* (1996) has found most unorganised and exploitative form of market in his study on "malpractices of buffalo marketing in Akala district of Maharashtra state". He identified absence of market intelligence services, non display of prevailing prices of buffaloes etc as some of the important reasons.

Patel (1996) studied the problems faced by the different market functionaries during buffalo transactions. The study revealed that the small markets were relatively more efficient in buffalo trading. High registration fee, sale tax and transportation cost, lack of boarding and lodging facilities, adoption of malpractices, presence of unauthorized brokers in the market, lack of security, feeds, water and health care in the buffalo markets were the major problems faced by the major functionaries.

## **MATERIAL AND METHODS**

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## **CHAPTER III**

### **MATERIALS AND METHODS**

#### **3.1 AREA OF STUDY**

Andhra Pradesh is divided into seven agro-climatic zones. The present study of dairy animal markets pertaining to the agro-climatic zone V (Southern Telangana zone) which comprise, the districts of I. Mahaboobnagar (excluding Alampur, Waddepalli, Monabad and Itikyal mandals), Nalgonda (excluding 24 mandals, in south eastern boarder), Ranga Reddy, Southern part of Medak, North eastern part of Warangal and Hyderabad.

#### **3.2 IDENTIFICATION OF DAIRY ANIMAL MARKETS**

First hand information regarding the location of dairy animal markets in the six districts was obtained from Directorate of Agricultural Marketing, Animal Husbandry department and Directorate of Economics and Statistics, Government of Andhra Pradesh. A total of 44 existing markets were identified and information was collected by visiting these markets.

#### **3.3 COLLECTION OF DATA**

Data pertaining to the markets and animals being marketed was collected by personal visits to the markets on the respective days of market. A detailed schedule was prepared taking into consideration the objectives of the study. Information was collected by interview method through

schedule (Appendix II) from the market management authorities, farmers and traders involved in animal transactions.

### **3.4 PERIOD OF STUDY**

The present study is based on the data collected during the period from December, 1996 to July, 1997.

### **3.5 PARAMETERS STUDIED**

#### **3.5.1 Structure of Market**

Organisational structure, infrastructure facilities and market size taken into study.

Organisational structure, those registered under Agricultural Produce Market act, Local self government act; Gram Panchayats/Municipalities considered regulated markets. Those owned by Private individuals were considered as unregulated markets.

#### **3.5.2 Infrastructure Facilities**

Infrastructure facilities like total area, sheds, roads, fencing, loading/unloading dock, weigh bridge, water/feed troughs, veterinary facilities etc. available in the markets along with the market size has been taken into study.

### **3.5.3 Market Size**

Based on the arrivals per day, the markets were categorised into small (less than 100 animals/day) medium (101-300 animals/day) and large (above 300 animals/day) markets. Further the number of animals being brought to the market per day, number of animals sold and the category of animals (Milch, dry heifers, calves, draught, slaughter) were recorded.

## **3.6 MODE OF FUNCTIONING**

Periodicity and day of market, assembling agencies, method of sale studied.

### **3.6.1 Periodicity and Day of Market**

Information on the periodicity of the market i.e. whether weekly or biweekly and day(s) of market were recorded.

Information regarding the method of sale i.e. either by mutual agreement or through brokers was recorded.

### **3.6.2 Assembling Agencies**

Agencies involved in assembling the animals at the market i.e. farmers, village merchants, brokers/traders, wholesalers and their contribution to assembling of animals were recorded.



### **3.6.3 Method of Sale**

Mode of transaction of animal recorded.

## **3.7 NUMBER AND CATEGORIES OF ANIMALS MARKETED**

The average number of dairy animals being marketed in each market on their respective days of market were recorded for different categories of cattle and buffaloes and their breeds.

### **3.7.1 Arrivals and Sales**

No. of animals arrived and sold recorded.

### **3.7.2 Various Breeds of Dairy Animals**

Various breeds of cattle and buffaloes marketed were recorded.

## **3.8 MARKETING COSTS AND PRICES OF ANIMALS**

Various marketing charges incurred included, marketing fee, feeding and labour charges, transportation costs, brokerage charges in various markets.

### **3.8.1 Maximum and Minimum Prices of Animals**

Maximum and minimum prices for various categories of animals were recorded. Factors that influenced the price of animals such as breed, lactation, age, milk yield, physical appearance etc. were identified.

### **3.9 PROBLEMS FACED IN MARKETING**

Difficulties faced in the marketing of animals such as insufficient infrastructural facilities, non-cooperation of traders, lack of transport facilities for despatch of animals to distant places were identified.

### **3.10 STATISTICAL ANALYSIS**

Data on the maximum and minimum prices of each of the categories of dairy animals in various markets of each district were pooled. District wise mean values for cattle and buffaloes were calculated separately. District wise comparison of minimum and maximum prices for various categories of animals was done by one way analysis of variance technique (ANOVA) (Snedecor and Cochran, 1994).

$X^2$  test using 2 x 6 contingency Table was employed to test the significant differences if any between the district with means for the number of graded Murrah and non descript buffaloes, similarly for local and cross bred cattle being marketed per day as per the methods given by Snedecor and Cochran (1994) and conclusions were drawn accordingly.

## RESULTS

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## **CHAPTER IV**

### **RESULTS**

Information available on dairy animal markets in Andhra Pradesh is scanty. So an attempt has been made in this study to find out the structure of dairy animal markets in the Southern Telangana zone (agroclimatic zone V) of Andhra Pradesh. The data obtained in the study is tabulated and statistical analysis is carried out. The results are presented in this chapter.

#### **4.1 MARKET STRUCTURE FOR DAIRY CATTLE AND BUFFALOES**

##### **4.1.1 Statistical Information on Markets/Controlling authorities**

Information pertaining to the controlling authorities over the dairy animal markets in the region are presented in Table 1. Out of the total 44 markets studied, 29 markets were under gram panchayats, 12 under Agricultural Market Committees and 3 were controlled by private individuals. Nalgonda had the higher number of markets under the control of Agricultural Market Committees and Hyderabad has the least number of markets governed by Agricultural Market Committees.

##### **4.1.2 Markets Classified**

All the markets are classified into regulated and unregulated markets as indicated in Table 2. Those markets which are governed by Agricultural

Table 1 : Controlling authorities on dairy animal markets in Southern Telangana of Andhra Pradesh

S. No.	Districts	Number of markets controlled by			Total
		Agricultural Market Committee	Local bodies	Private	
	Mahabubnagar	Nil	12	-	12
	Nalgonda	5	5	1	11
	Ranga Reddy	2	4	1	7
	Medak	2	5	-	7
	Warangal	2	2	-	4
	Hyderabad	1	1	1	3
		12	29	3	44

Table 2 : Markets classified

Districts	Regulated				Unregulated				Grand total
	Small	Medium	Large	Total	Small	Medium	Large	Total	
Chaboonagar	4	6	2	12	-				12
Gonda	3	4	3	10	-	1	-	1	11
Ga Reddy	2	3	1	6	-	1	-	1	7
Lak	2	4	1	7					7
Angal	1	2	1	4					4
Erabad	-	1	1	2	-	1	-	3	3
Total	12	20	9	41	-	3	-	3	44

Market Committees and local bodies were considered as regulated markets and those which are controlled by private individuals were classified under unregulated markets. Out of the total 44 markets studied 41 markets were regulated and 3 were unregulated markets.

#### **4.1.3 Infrastructure Facilities**

As a part of the survey, availability of common facilities in the markets were studied. Out of 44 markets, 40 markets had potable water supply for the animals. This minimum requirement was not available in 4 markets. All the markets has been given ranks (Table 3) depending on the facilities available.

#### **4.1.4 Market Size**

The markets are further classified into small (less than 100 animals/day), medium (101 to 300/day) and large markets (above 300 animals/day) under each district based on the number of animals being marketed per day on the day of market and the data is presented given in Table 2. Out of total 41 regulated markets in six districts studied, majority of them (20) were medium sized, while large and small markets numbered 9 and 12 respectively. Under unregulated markets, small and large sized markets were not observed. There are only three markets under medium category of unregulated markets. Mahaboobnagar, Nalgonda, Medak and Ranga Reddy districts were having more number of regulated markets

**Table 3 : Distribution of markets as per availability of common facilities**

	<b>Amenities and facilities</b>	<b>No. of markets involved</b>	<b>Percentage</b>	<b>Rank</b>
1.	Potable water supply for animals	40	90.9	I
2.	Water/feed troughs	37	84.1	II
3.	Road connection	35	79.5	III
4.	Post office	33	75.0	IV
5.	Kachha roads	31	70.5	V
6.	Parking for trucks/carts	30	68.2	VI
7.	Veterinary facilities	26	59.1	VII
8.	Banking facilities	24	54.5	VIII
9.	Water supply for cleaning and drains	22	50.0	IX
10.	Railway connection	21	47.7	X
11.	Canteens	18	40.9	XI
12.	Pucka roads	16	36.4	XII
13.	Garbage disposal methods availability	10	22.7	XIII
14.	Electricity (lighting arrangements)	9	20.5	XIV
15.	Office	8	18.2	XV
16.	Toilets/Bath rooms	7	15.8	XI
17.	Telephone	6	13.6	XVII
18.	Fencing sheds	6	13.6	XVIII
19.	Animal sheds	6	13.6	XIX
20.	Weigh bridge	4	9.1	XX
21.	Guest house	-	-	-
22.	Residential quarters	-	-	-



12, 10, 7 and 6 respectively out of total 41 existing in the zone where the study was conducted.

## **4.2 MODE OF FUNCTIONING OF CATTLE AND BUFFALO MARKET**

### **4.2.1 Method of Sale of Animals/Mode of Functioning**

Transaction of animals in all the district markets were found to be either by mutual agreement or through brokers. The number of animals being sold by each mode in various markets is presented in Table 4. In regulated markets the percentage of animals sold by mutual agreement was 49.5, 49.12, 48, 44, 41.25 and 41.10 respectively for Mahaboobnagar, Nalgonda, Ranga Reddy, Medak, Warangal and Hyderabad markets. In these districts the percentage animals sold through brokers in regulated markets ranged between 50.5 to 58.91.

In unregulated markets, majority of the animals are traded through brokers (59.5 to 63.6 %). Percent of animals sold in unregulated markets by mutual agreement was only 38.2, 40.5 and 36.4 respectively in Nalgonda, Ranga Reddy and Hyderabad.

### **4.2.2 Periodicity of Markets**

According to periodicity of market the individual markets were classified into weekly and biweekly (twice in a week) markets and the number was consolidated for each district and presented in Table 5. Details

Table 4 : Method of sale of animals

	Regulated						Unregulated					
	Mahaboob-nagar	Nalgonda	Ranga Reddy	Medak	Warangal	Hyderabad	Mahaboo bnagar	Nalgonda	Ranga Reddy	Medak	Warangal	Hyderabad
Through Agency Farmer												
Through Mutual Agreement)												
No. of Animals (Sold)	870	1540	1225	749	705	409	.	133	156	.	.	80
Per cent	49.5	49.12	48	44	41.25	41.1		38.2	40.5	.	.	36.4
Through broker												
No. of Animals (Sold)	885	1595	1343	450	1004	586		205	229	.	.	140
Per cent	50.5	50.88	52.1	56	58.75	58.9		61.8	59.5	.	.	63.6

Table 5 : Periodicity of dairy animal marketing in Southern Telangana zone of Andhra Pradesh

Districts	Regulated							Unregulated						
	Small		Medium		Large		Total	Small		Medium		Large		Total
	Weekly	Bi-weekly	Weekly	Bi-weekly	Weekly	Bi-weekly		Weekly	Bi-weekly	Weekly	Bi-weekly	Weekly	Bi-weekly	
Mahabubnagar	4	.	6	.	1	1	12	.	.	.	.	.	.	.
Nalgonda	3	.	3	1	3	.	10	.	.	1	.	.	.	1
Ranga Reddy	2	.	3	.	1	.	6	.	.	1	.	.	.	1
Medak	2	.	4	.	.	1	7	.	.	.	.	.	.	.
Warangal	1	.	2	.	1	.	4	.	.	.	.	.	.	.
Hyderabad	.	2	.	.	.	.	2	.	.	.	1	1	.	1
Total	12	2	18	1	6	2	41	.	.	2	1	1	.	3

regarding periodicity and day (5) of market for each individual market are given in Appendix I. Majority of the regulated markets, i.e. 36 out of 41 were weekly held while the remaining 5 were held biweekly (twice in a week). Among the weekly regulated markets medium and small size market number dominated over large markets. Out of the 5 biweekly regulated markets 2 each in small and large, while 1 was a medium market. Out of the 3 unregulated markets, 1 was biweekly and remaining two were weekly all of them came under medium size markets.

#### 4.2.3 Assembling Agencies

Various agencies were involved in assembling of animals in the markets. They include farmers, village merchants, brokers/traders and wholesalers. The contribution by various assembling agencies for a given market were pooled up in each district for regulated and unregulated markets and are furnished in Table 6. Farmers formed the major assembling agency in both regulated and unregulated markets while the wholesalers are contributing the least in assembling the animals both in regulated and unregulated markets. Village merchants purchase animals from villages and assemble them in the markets. The percentage of animals brought by village merchants varied between 25.32 and 33.13 among the districts. Brokers/traders who stay in the markets purchase the animals in the markets itself and assemble them as their group. The percentage of animals assembled by

Table 6 : Assembling agencies in dairy animal markets

Agency	Regulated						Unregulated					
	Mahabub-nagar	Nalgonda	Rangareddy	Medak	Warangal	Hyderabad	Mahabub-nagar	Nalgonda	Rangareddy	Medak	Warangal	Hyderabad
1. Farmers												
No. of animals assembled	1060	2330	1415	1155	1095	425		215	230			40
% contribution	38	40.5	36	42.5	29.15	26		45.5	42.5			15
2. Village merchants :												
No. of animals assembled	890	1745	1300	690	770	500		140	140			88
% contribution	32	30.35	33.13	25.3	27.52	29.20		30.5	25.6			30
3. Brokers/Traders												
No. of animals assembled	530	122.5	570	415	520	425		90	110			75
% contribution	19	27.31	20.53	15.3	18.5	25		18	20.5			25
4. Wholesaler												
No. of animals assembled	305	452	635	500	415	290		25	65			904
% contribution	11	7.83	10.19	16.7	24.83	17.8		5.1	14.5			30
Total animals assembled day	2785	5752	3920	2720	2800	400		410	546			292

this group ranged between 10 and 50 per cent among the districts in the zone studied.

### **4.3     MARKETING OF VARIOUS CATTLE AND BUFFALOE BREEDS**

#### **4.3.1   Number of Arrivals and Sale of Animals**

District wise number of arrivals and sale of animals per day are presented in Table 7. Under regulated markets highest arrival of animals were recorded in Nalgonda (5752) and least was observed in Hyderabad (1700) district. The highest percentage sale of animals was recorded in regulated markets of Ranga Reddy (65 %) and least was noticed in Nalgonda district (54.5 %).

The number of animals arrived in unregulated markets are low i.e. 546, 473 and 292 in Ranga Reddy, Nalgonda and Hyderabad districts, respectively when compared to regulated markets. In general the percentage of animals sold was higher in unregulated markets than regulated markets. Among the unregulated markets the highest percentage of sales was seen in Hyderabad districts (75.4%) when compared to Nalgonda and Ranga Reddy districts (73.5%).

Statistically significant difference was noticed in sale of cattle among six districts and within each category differences were noticed between local cattle and crossbred cattle.

**Table 7 : Arrivals and sales of animals per day in regulated and unregulated markets of dairy animals in Southern Telangana zone of Andhra Pradesh**

Districts	Regulated markets			Unregulated markets		
	Arrivals	Sales	%	Arrivals	Sales	% sold
Mahabubnagar	2785	1755	63.0	.	.	.
Nalgonda	5752	3139	54.5	473	348	73.5
Ranga Reddy	3920	2548	65.0	546	385	73.5
Medak	2720	1699	62.5	.	.	.
Warangal	2800	1709	61.0	.	.	.
Hyderabad	1700	995	58.5	292	220	75.4

Note : Blank spaces indicate non-existence of unregulated markets in those districts.

The particulars of number of animals being marketed in regulated markets under various categories of buffaloes and cattle are presented district wise in Table 8.  $X^2$  test was performed to find out the variation between non descript and graded Murrah buffaloes under each category and to find out the variation between districts in a given category of animal. The statistical analysis of the data had shown significant variations in sale of different categories of buffaloes between six districts studied (Table 8). Irrespective of category of buffaloes, statistically significant differences were noticed in sale of non descriptive animals and graded Murrah buffaloes. Similar variations were noticed in cattle categories also.

The information regarding sale of different categories of animals in unregulated markets of six districts is furnished in Table 9.  $X^2$  test could not be conducted in unregulated markets as some of the districts did not have unregulated markets in their area. In general it was observed that sale of different categories of animals is comparatively low in unregulated markets than in regulated markets. Among the various categories of animals, milch buffaloes and draught purpose animals constituted the major group of animals sold under buffalo category, but milch and slaughter animal constituted major category for cattle. It is also observed that number of cattle sold in unregulated markets were comparatively lower than that of the number sold in regulated markets.





**Table 9 : Sale of different categories of animals/day in unregulated markets**

	Ma- haboob- nagar	Nalgonda	Ranga Reddy	Medak	Warangal	Hydera- bad
<b>Buffaloes</b>						
Milch-ND	-	175	150	-	-	50
GM	-	30	75	-	-	40
Draught ND	-	20	40	-	-	20
GM	-	15	10	-	-	15
Dry ND	-	35	40	-	-	25
GM	-	20	10	-	-	15
Slaughter ND	-	10	5	-	-	15
GM	-	5	-	-	-	10
Total	-	1310	330	-	-	195
<b>Cattle</b>						
Milch Local	-	5	-	-	-	-
CB	-	10	5	-	-	15
Draught Local	-	8	25	-	-	-
CB	-	10	10	-	-	-
Dry Local	-	-	15	-	-	-
CB	-	5	5	-	-	10
Total	-	38	60	-	-	25

## **4.4 MARKETING COSTS AND PRICES OF ANIMALS**

### **4.4.1 Marketing Costs**

The components contributing towards the cost of marketing are presented in Table 10. There was no registration fee for any animal marketed. Out of many factors, marketing fees, labour charges, feeding charges are the highest contributors for the marketing cost of animal in all the districts. Cost of marketing per animal was highest in Hyderabad (Rs. 171.00) while it is the lowest in Warangal district (Rs. 101.50). The marketing cost was 121.5, 126.5, 141.0, 106, 101.5 and 171 for Mahaboobnagar, Nalgonda, Ranga Reddy, Medak, Warangal and Hyderabad districts, respectively.

### **4.4.2 Average of Minimum and Maximum prices for Various Categories of Animals**

Average minimum price of different categories of animals in various districts is given in Table 11 and their analysis of variance in Tables 12, 13, 14 and 15. The average minimum price of a graded Murrah milch buffalo ranged between Rs. 9600 and 11125. A higher minimum price for graded Murrah milch buffaloes was recorded in Ranga Reddy and Hyderabad districts. The price of non-descriptive milch buffaloes were lowest and averaged between Rs. 2175 and 3125. Among the various categories of buffaloes, milch animals had the highest minimum price for ND and GM followed by draught, dry, slaughter animals and slaughter. The average

Table 10 : Average cost of marketing per animal

Factors	Mahabub-nagar	Nalgonda	Rangareddy	Medak	Warangal	Hyderabad
1. Feeding charges (Rs/animal)	25	20	25	20	20	30
2. Labour charges	40	35	40	30	30	50
3. Transportation cost (Rs/km animal)	1.50	1.50	1.0	1.0	1.5	1.0
4. Brokerage	35	30	30	25	25	40
5. Marketing fee	20	40	45	30	25	50
Total marketing cost	121.50	126.50	141.00	106.00	101.50	171.00

**Table 11 : Minimum Price (Rs) for different animals**

Special/Category	Mahaboob nagar	Nalgonda	Ranga Reddy	Medak	Warangal	Hyderabad
<b>Buffaloes</b>						
Milch ND	2175	2945	2965	2950	2425	3125
GM	9600	10000	11125	9980	9750	11100
Draught ND	2450	2450	2250	2275	2575	2200
GM	3650	3050	2680	2320	2950	2350
Dry ND	1455	1425	1150	1190	1475	1190
GM	2825	2875	2360	2170	2890	2170
Slaughter ND	900	800	990	975	850	1000
GM	1110	1010	1010	1000	1020	1150
<b>Cattle</b>						
Milch Local	945	960	1250	1300	980	975
CB	2300	2810	2210	2190	2280	2330
Draught Local	3225	3490	3375	4860	3925	3300
CB	4390	4410	3950	3910	3890	3850
Dry Local	1025	1075	1090	1000	1075	1005
CB	1960	2360	2410	2215	1925	2600
Slaughter Local	725	775	775	900	740	740
CB	1090	1575	1590	1325	1250	1600

minimum price of draught buffaloes ranged between Rs. 2150 and 3650 while the minimum price of dry animals was between Rs. 1150 and 2890 only. The slaughter buffaloes fetched a minimum prices from Rs. 800 to 1150.

Under milch cattle, crossbred cattle are priced high Rs. 2810 in comparison to local cattle Rs. 1300 in all the districts (Table 11). Among all categories of cattle, local draught animals are priced high (Rs. 4860) when compared to crossbred (Rs. 4410). The minimum cost of dry cattle, local and crossbreds was Rs. 1000 and Rs. 1925 respectively among the six districts. The minimum price of local and CB cattle meant for slaughter was Rs. 725 and Rs. 1090 respectively.

Analysis of minimum price of various categories of non-descript buffaloes (Table 12) indicated significant ( $P < 0.01$ ) differences between districts. However, the price of milch-non descript buffaloes did not vary significantly among Nalgonda, Hyderabad, Ranga Reddy and Medak. Significant ( $P < 0.01$ ) variation in minimum price of non descript dry buffaloes was seen in Mahaboobnagar, Warangal and Nalgonda districts when compared with Ranga Reddy, Medak and Hyderabad districts. With regards to non descriptive buffaloes meant for slaughter there was significant ( $P < 0.01$ ) difference in Mahaboobnagar, Nalgonda, Ranga Reddy, Medak and Hyderabad districts when compared with Warangal districts. In the case of non descript buffaloes meant for draught Nalgonda district was

Table 12 : ANOVA of minimum price for various categories of non descript buffaloes

Mean sum of squares	Category of buffaloes			
	Milch	Draught	Dry	Slaughter
Between districts	909758.19**	1925639.11**	286991**	113256.16**
Within districts	2784408.11	178459.60	60255.10	25091.50
Significant (P < 0.05)				
Significant (P 0.01)				
Mean values (Rupees)				
Ahaboobnagar	2290.60 <sup>a</sup>	2201 <sup>a</sup>	1405.50 <sup>b</sup>	910.10 <sup>b</sup>
Aligonda	3101.00 <sup>c</sup>	2415.51 <sup>b</sup>	1430.00 <sup>b</sup>	915.53 <sup>b</sup>
Anga Reddy	2975.57 <sup>c</sup>	2295.63 <sup>a</sup>	1151.00 <sup>a</sup>	985.59 <sup>b</sup>
Bedak	2954.4 <sup>c</sup>	2250.52 <sup>a</sup>	1150.00 <sup>a</sup>	995.60 <sup>b</sup>
Barangal	2757.11 <sup>b</sup>	2345.41 <sup>ab</sup>	1451.00 <sup>b</sup>	860.10 <sup>a</sup>
Hyderabad	3170.00 <sup>c</sup>	2210.3 <sup>a</sup>	1114.90 <sup>a</sup>	995.49 <sup>b</sup>

Note : Mean values with atleast one common superscript in a column do not differ significantly

significantly ( $P < 0.01$ ) different when compared with Mahaboobnagar, Ranga Reddy, Medak and Hyderabad districts.

Statistical analysis for minimum price of all categories of graded Murrah buffaloes among the six districts was presented in Table 13. The price of milch buffaloes vary significantly ( $P < 0.01$ ) in Nalgonda, Hyderabad, Ranga Reddy and Medak districts when compared with Mahaboobnagar and Warangal districts. The price of draught animals vary significantly ( $P < 0.01$ ) in Ranga Reddy and Warangal districts when compared with Mahaboobnagar and Medak districts. With regards to dry animals Hyderabad district was significantly ( $P < 0.01$ ) differs when compared with other districts. The average minimum price of slaughter buffaloes differ significantly ( $P < 0.05$ ) in Medak and Warangal districts when compared with Hyderabad and Ranga Reddy districts.

Analysis of variance in minimum price of different categories of local cattle among the six districts was presented in Table 14. Statistically significant ( $P < 0.01$ ) difference was recorded in minimum price of milch local cattle in Medak district when compared with other five districts. Also Mahaboobnagar, Nalgonda, Warangal and Hyderabad districts are significantly ( $P < 0.01$ ) different when compared with Ranga Reddy, districts in respect of minimum price for local milch cattle. With regards to local drought cattle there was significant ( $P < 0.01$ ) difference in minimum price in Medak district when compared with Mahaboobnagar, Nalgonda, Ranga



Table 13 : ANOVA of minimum price for various categories of GM buffaloes

Mean sum of squares	Category of buffaloes			
	Milch	Draught	Dry	Slaughter
Between districts	26195431.00**	1963431.00**	699630.50**	71125.20**
Within districts	1327518.00	185431.60*	51621.00	19416.50
Significant (P < 0.05)				
Significant (P = 0.01)				
Mean values (Rs.)				
Amahabnagar	9650.10 <sup>a</sup>	3001.25 <sup>a</sup>	2805.45 <sup>cd</sup>	1142.50 <sup>ab</sup>
Aligonda	10001.00 <sup>b</sup>	3120.00 <sup>b</sup>	2961.00 <sup>cd</sup>	1179.00 <sup>ab</sup>
Angareddy	10215.00 <sup>b</sup>	2722.00 <sup>c</sup>	2478.00 <sup>c</sup>	1180.00 <sup>b</sup>
Beldak	9980.51 <sup>ab</sup>	2394.00 <sup>d</sup>	2282.00 <sup>b</sup>	1011.00 <sup>a</sup>
Barangal	9750.63 <sup>a</sup>	2986.00 <sup>bc</sup>	2872.00 <sup>cd</sup>	1026.11 <sup>a</sup>
Hyderabad	11001.11 <sup>b</sup>	2321.11 <sup>ab</sup>	2156.67 <sup>a</sup>	1185.00 <sup>b</sup>

Note : Mean values with atleast one common superscript in a column do not differ significantly.

ble 14 : ANOVA of minimum price for various categories of local cattle

Mean sum of squares	Category of cattle			
	Milk	Drought	Dry	Slaughter
Between districts	491695.00**	292780.20**	2795.25**	39257**
Within districts	18860.00	48141.50	2995.00	5966.10
Significant (P < 0.05)				
Significant (P =0.01)				
Mean values (Rs.)				
Chahabnagar	940.56 <sup>a</sup>	3410.5 <sup>a</sup>	770.15 <sup>a</sup>	1105.00 <sup>c</sup>
Aligonda	965.69 <sup>a</sup>	3496.99 <sup>a</sup>	775.19 <sup>a</sup>	1210.00 <sup>c</sup>
Angareddy	1259.55 <sup>b</sup>	3456.99 <sup>a</sup>	810.56 <sup>b</sup>	1210.00 <sup>c</sup>
Ledak	1310.10 <sup>c</sup>	4855.50 <sup>c</sup>	885.69 <sup>b</sup>	971.67 <sup>a</sup>
Arangal	979.51 <sup>a</sup>	4001.00 <sup>b</sup>	769.00 <sup>a</sup>	1094.00 <sup>b</sup>
Hyderabad	983.00 <sup>a</sup>	3425.15 <sup>a</sup>	749.56 <sup>a</sup>	1215.55 <sup>c</sup>

ote : Mean values with atleast one common superscript in a column do not differ significantly

Reddy, Warangal and Hyderabad districts. There was significant ( $P < 0.01$ ) difference in minimum price of local dry cattle in Mahaboobnagar, Nalgonda, Warangal and Hyderabad districts when compared with Ranga Reddy and Medak districts. The minimum price for local slaughter cattle was significantly ( $P < 0.01$ ) different in Medak district when compared with Warangal, Mahaboobnagar, Nalgonda, Ranga Reddy and Hyderabad districts.

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The minimum price of various categories of crossbred cattle among the six districts was presented in Table 15. The minimum price for crossbred milch cattle was significantly different ( $P < 0.01$ ) in Nalgonda district when compared with Mahaboobnagar, Ranga Reddy, Medak, Warangal and Hyderabad districts. The minimum price in crossbred drought cattle was not significantly different among the six districts where study was conducted. The minimum price in crossbred dry cattle was significantly ( $P < 0.01$ ) different in Hyderabad district when compared with Mahaboobnagar, Nalgonda, Ranga Reddy, Medak and Warangal districts. With regards to minimum price for crossbred cattle meant for slaughter was significantly ( $P < 0.01$ ) different in Nalgonda and Hyderabad districts when compared with Mahaboobnagar, Ranga Reddy, Medak and Warangal districts.

The maximum price of non descript milch buffaloes was significantly ( $P < 0.01$ ) different in Mahaboobnagar and Warangal districts when compared with Ranga Reddy, Medak, Nalgonda and Hyderabad districts. Further there was significant different ( $P < 0.01$ ) in maximum price of non descript

Table 15 : ANOVA of minimum price for various categories of cross bred cattle

Minimum sum of squares	Category of cross bred cattle			
	Milch	Drought	Dry	Slaughter
Between districts	28576.15**	1655690.28**	712571.00**	388759.11**
Within districts	19851.19*	101790.15	10895.00	10125.15
Significant (P < 0.05)				
Significant (P =0.01)				
Mean values				
Hyderabad	2456.01 <sup>a</sup>	4385.15 <sup>ab</sup>	1898.4 <sup>a</sup>	1103.11 <sup>a</sup>
Gonda	2865.00 <sup>b</sup>	4421.92 <sup>ab</sup>	2404.00 <sup>b</sup>	1567.00 <sup>c</sup>
Uda Reddy	2275.00 <sup>a</sup>	3943.31 <sup>a</sup>	2456.00 <sup>a</sup>	1456.00 <sup>ab</sup>
Dak	2230.4 <sup>a</sup>	3905.55 <sup>a</sup>	2455.00 <sup>b</sup>	1455.60 <sup>ab</sup>
Warangal	2264.00 <sup>a</sup>	3910.11 <sup>a</sup>	1953.0 <sup>a</sup>	1269.00 <sup>a</sup>
Derabad	2338.00 <sup>a</sup>	3860.51 <sup>a</sup>	2693.00 <sup>c</sup>	1618.00 <sup>c</sup>

Note : Mean values with atleast one common superscript in a column do not differ significantly

Table 16 : Maximum Price (Rs) for different animals

Special/Category	Mahaboob nagar	Nalgonda	Ranga Reddy	Medak	Waran- gal	Hydera- bad
<b>Buffaloes</b>						
Milch ND	3925	5250	5325	5475	3375	6100
GM	11500	16790	17750	15200	11790	18500
Draught ND	2250	2925	2250	2675	2225	2150
GM	2725	3950	2925	4325	2925	3775
Dry ND	2500	2900	2675	2475	2490	2125
GM	3525	4025	3675	3990	3450	3075
Slaughter ND	1260	1310	1595	1515	1210	1625
GM	1580	1800	1980	1675	1310	1890
<b>Cattle</b>						
Milch Local	1500	1575	1600	1630	1410	1315
CB	3680	4475	5010	4425	3920	5010
Draught Local	5900	5950	7710	5390	5825	6210
CB	5420	5560	5390	5350	5600	5350
Dry Local	1325	1325	1350	1425	1300	1200
CB	1510	2900	2700	2730	2820	2660
Slaughter Local	1210	1200	1325	1120	1190	1330
CB	1315	1750	1925	1525	1200	1930

milch buffaloes in Ranga Reddy and Medak districts when compared with Nalgonda and Hyderabad districts (Table 17). The maximum sale price of non descript draught buffaloes was significantly ( $P < 0.01$ ) different in Mahaboobnagar, Ranga Reddy, Warangal and Hyderabad districts when compared with Nalgonda district. The maximum price of non descript buffaloes was significantly ( $P < 0.01$ ) different in Hyderabad district. When compared with Mahaboobnagar, Warangal, Ranga Reddy and Nalgonda districts. With regards to non descript buffaloes meant for slaughter the maximum price was significantly ( $P < 0.01$ ) different in Mahaboobnagar, Nalgonda and Warangal districts when compared with Ranga Reddy and Hyderabad districts.

Analysis of variance between the six districts in respect of maximum price of milch draught, dry and slaughter categories of graded Murrah buffaloes was presented in Table 18. The maximum price for milch GM buffaloes in Medak district differ significantly ( $P < 0.05$ ) when compared with rest of the districts. The maximum price of draught GM buffaloes in Medak district differ significantly ( $P < 0.01$ ) when compared with rest of the districts. Maximum price of GM buffaloes mean for slaughter in Warangal district differ significantly ( $P < 0.01$ ) when compared with rest of the districts. Further there was significant ( $P < 0.01$ ) difference in maximum price of Murrah draught buffaloes in Nalgonda, Ranga Reddy and Hyderabad districts when compared with Warangal and Mahaboobnagar

Table 17 : ANOVA of maximum price for various categories of non-descript buffaloes

Within sum of squares	Categories of buffaloes			
	Milch	Draught	Dry	Slaughter
Between districts	9813450.56**	274474.00**	619180.00**	285960.30**
Within districts	1340371.00	50805.90	9965.10	7981.25
Significant (P < 0.05)				
Significant (P < 0.01)				
Mean values (Rs.)				
Madhobnagar	3995.81 <sup>a</sup>	2305.14 <sup>a</sup>	2499.50 <sup>b</sup>	1269.00 <sup>a</sup>
Yondra	5986.71 <sup>c</sup>	2959.56 <sup>c</sup>	2970.00 <sup>d</sup>	1289.00 <sup>a</sup>
Gareddy	5321.71 <sup>b</sup>	2315.51 <sup>a</sup>	2771.15 <sup>bc</sup>	1590.55 <sup>b</sup>
Lak	5567.11 <sup>b</sup>	2717.50 <sup>ab</sup>	2498.51 <sup>b</sup>	1517.00 <sup>ab</sup>
Angal	3415.98 <sup>a</sup>	2285.01 <sup>a</sup>	2501.00 <sup>b</sup>	1234.00 <sup>a</sup>
Warabaddi	6106.91 <sup>d</sup>	2176.51 <sup>a</sup>	2121.35 <sup>a</sup>	1601.90 <sup>c</sup>

\* : Mean values with atleast one common superscript in a column do not differ significantly

le 18 : ANOVA of maximum price for various categories of graded Murrah buffaloes

in sum of squares	Category of buffaloes			
	Milch	Draught	Dry	Slaughter
reen districts	76855719.00*	4010989.00**	684156.06**	391917.00**
in districts	381715.60	43160.50	2517.00*	8917.00
gnificnat (P < 0.05)				
ignificant (P 0.01)				
in values (Rs.)				
aboonnagar	11500.00 <sup>d</sup>	2695.00 <sup>d</sup>	3442.00 <sup>e</sup>	1599.80 <sup>c</sup>
gonda	17789.00 <sup>e</sup>	3979.00 <sup>b</sup>	3743.00 <sup>c</sup>	2021.98 <sup>c</sup>
gareddy	16943.00 <sup>d</sup>	3995.30 <sup>b</sup>	4109.60 <sup>a</sup>	1851.75 <sup>b</sup>
lak	15967.62 <sup>a</sup>	41407.11 <sup>a</sup>	4101.12 <sup>a</sup>	1708.50 <sup>a</sup>
angal	11923.22 <sup>d</sup>	2962.9 <sup>c</sup>	3445.12 <sup>a</sup>	1367.00 <sup>d</sup>
erabad	17924.11 <sup>c</sup>	3808.00 <sup>b</sup>	3075.00 <sup>b</sup>	1935.00 <sup>bc</sup>

: : Mean values with atleast one common superscript in a column do not differ significantly



districts. The maximum price of graded Murraha dry buffaloes was significantly ( $P < 0.01$ ) different in Ranga Reddy, Medak and Warangal districts when compared with Hyderabad, Mahaboobnagar and Nalgonda districts. The graded Murraha buffaloes meant for slaughter in Medak district was significantly ( $P < 0.01$ ) different in maximum price when compared with Ranga Reddy, Mahaboobnagar, Nalgonda, Hyderabad and Warangal districts.

Analysis of variance in respect of maximum price of various categories of local cattle among the six districts was presented in Table 19. The maximum price of local milch cattle in Hyderabad and Warangal districts differ significantly ( $P < 0.01$ ) when compared with rest of the districts. The maximum price of non descript draught cattle in Medak district was significantly different ( $P < 0.01$ ) when compared with rest of the districts. The maximum price of local dry cattle was significantly ( $P < 0.01$ ) different in Hyderabad district when compared with Nalgonda, Medak and Warangal districts. There was significant ( $P < 0.01$ ) difference in maximum price of local cattle meant for slaughter in Medak district when compared with Mahaboobnagar, Nalgonda, Ranga Reddy, Hyderabad and Warangal districts.

Analysis of variance for maximum price of various categories of crossbred cattle, milch, draught, dry and slaughter was presented in Table 20. The maximum price of CB milch cattle differ significantly ( $P < 0.01$ )

Table 19 : ANOVA of maximum price for various categories of local cattle

Sum of squares	Category of cattle			
	Milch	Draught	Dry	Slaughter
Between districts	130544.00**	2965546.50**	198160.00**	28565.80**
Within districts	15118.40	23141.80	8917.53	4866.20
Significant (P < 0.05)				
Significant (P = 0.01)				
Mean values				
Adoni	1601.10 <sup>ba</sup>	5950.00 <sup>be</sup>	1305.00 <sup>ab</sup>	1251.70 <sup>b</sup>
Bhongir	1616.50 <sup>b</sup>	6021.1 <sup>b</sup>	1365.11 <sup>b</sup>	1271.00 <sup>b</sup>
Gareddy	1635.51 <sup>b</sup>	7783.99 <sup>d</sup>	1351.53 <sup>ab</sup>	1381.99 <sup>c</sup>
Kal	1684.99 <sup>b</sup>	5410.11 <sup>a</sup>	1415.17 <sup>b</sup>	1190.19 <sup>a</sup>
Manjanga	1477.10 <sup>a</sup>	5854.00 <sup>c</sup>	1387.00 <sup>b</sup>	1245.99 <sup>bd</sup>
Narayanpet	1345.40 <sup>a</sup>	6224.90 <sup>c</sup>	1286.00 <sup>a</sup>	1383.00 <sup>c</sup>

ns : Mean values with atleast one common superscript in a column do not differ significantly

Table 20: Anova of maximum price for various categories of cross bred cattle

Sum of squares	Category of cattle			
	Milch	Draught	Dry	Slaughter
Between districts	2098951.25**	985863.00**	4011912.00**	586110.50**
Within districts	24511.75	15745.50	13125.25	5156.80
Significant (P < 0.05)				
Significant (P < 0.01)				
LSD values				
Boobnagar	3801.25 <sup>c</sup>	5609.05 <sup>c</sup>	1498.40 <sup>a</sup>	1345.00 <sup>c</sup>
Wonda	5085.00 <sup>b</sup>	5582.12 <sup>ba</sup>	2701.25 <sup>b</sup>	1985.00 <sup>d</sup>
Parreddy	4522.00 <sup>a</sup>	5315.33 <sup>a</sup>	2901.50 <sup>a</sup>	1780.00 <sup>c</sup>
Alak	4474.25 <sup>a</sup>	5295.63 <sup>a</sup>	2795.11 <sup>b</sup>	1542.00 <sup>b</sup>
Ungal	3998.85 <sup>a</sup>	5698.21 <sup>d</sup>	2801.34 <sup>b</sup>	1248.00 <sup>a</sup>
Warabadi	4475.10 <sup>a</sup>	5293.29 <sup>a</sup>	2717.50 <sup>b</sup>	1987.00 <sup>c</sup>

: Mean values with atleast one common superscript in a column do not differ significantly

in Mahaboobnagar and Nalgonda districts when compared with rest of the districts. The maximum price of cross bred draught cattle differ significantly ( $P < 0.01$ ) in Mahaboobnagar when compared with Nalgonda, Medak, Warangal and Hyderabad districts. The maximum price of cross bred dry cattle was significantly ( $P < 0.01$ ) different in Mahaboobnagar and Ranga Reddy districts when compared with Nalgonda, Medak, Warangal and Hyderabad districts. The maximum price of cross bred cattle meant for slaughter was significantly ( $P < 0.01$ ) different in Warangal district when compared with Medak, Mahaboobnagar, Ranga Reddy, Hyderabad and Nalgonda districts.

#### **4.5 PROBLEMS IN MARKETING OF DAIRY ANIMALS**

Various problems encountered in the marketing of dairy animals were identified. The problems in marketing of dairy animals varied between districts. The common problem faced by all markets in the study area was introduction of auction method which is a desirable one. The second important problem identified was existence of brokers in the market. In Nalgonda and Medak districts non-cooperation of traders in animal transactions was rated as second problem. In Mahaboobnagar, Warangal and Nalgonda districts the third major problem identified was existence of insanitary conditions in animal markets where as insufficient market space was regarded as third important problem by Hyderabad, Ranga Reddy and Medak district markets. Market in Mahaboobnagar, Warangal and Nalgonda districts

complained insufficient market space as fourth problem encountered in animal markets. The other problems faced by different markets included lack of transport facility for dispatch of animals, inadequate water supply and lack of security in the market yard etc.

## **DISCUSSION**

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## **CHAPTER V**

### **DISCUSSION**

The study was conducted to know the structure of dairy animal markets in Southern Telangana Agroclimatic Zone (V) of Andhra Pradesh. The results obtained in the study are discussed here under.

#### **5.1 MARKETS CLASSIFIED**

The dairy animal markets are grouped into four categories according to the controlling authorities. Those markets controlled by Agricultural market committees, Municipalities and panchayats were categorised as regulated markets since there is a controlling authority on the market. Private cattle markets controlled by private agencies/individuals were treated as unregulated markets. Gopala Rao and Iqbaluddin (1988) also classified the markets controlled by Agricultural Produce Market Committees as regulated markets.

From the data it can be noted that out of 44 except 3 markets all other markets are regulated and controlled by legislative or local bodies. All the Agricultural Market Committees were primarily established for the marketing of Agricultural produce and dairy animal marketing was also undertaken as a part of their activity. Except Mahaboobnagar, Medak and Warangal districts, The remaining three districts, Nalgonda, Ranga Reddy, Hyderabad districts had unregulated markets one each in the zone where

study was undertaken.. This may probably due to high animal marketing activity and demand for dairy animals in a given area. The private individuals took over the situations and started private markets in these districts.

## **5.2 INFRASTRUCTURE FACILITIES**

As a part of the study availability of common facilities in the markets were studied. Out of total markets 90.9 per cent of markets had potable water supply for animals. This minimum requirement was not available in 9.1 per cent of markets. Water and feed troughs are available in 84.1 per cent of markets. The ISI standards had included water troughs for animals as the general requirement in the layout of cattle markets (Gaikwad, 1985). Majority of the markets are well connected by roads. More than 54.5 per cent of the markets had facilities like post office, bank, etc., only 20.5 per cent of markets had electricity connection. This may be due to the fact that generally the business is closed before the end of day. So far the information available only 13.6 per cent of markets have animal sheds. Except tree shade majority of the markets were not provided with any pucca shelter to animals. Dhume (1985) observed that only 13 per cent of the market committees in Maharashtra state provided the required number of animal sheds. In the present study it was observed that only 13.8 per cent of markets are having sanitary arrangements for the trade personel and farmers. ISI had prescribed two urinals and two latrines for every 50 persons assembled in the cattle markets. The animals



arrived in the markets are from various places and some are from long distance and hence there is a likely hood of the animals getting injuries in the transport, tiredness, illness etc.. So veterinary aid is compulsory in all the markets. But unfortunately such facilities are available only in 59.10 per cent of the markets studied.

### 5.3 MARKET SIZE

All the markets were classified into three categories viz. small, medium and large depending on the number of arrivals of animals to the market per day. However, Mondal and Pandey (1993) classified buffalo markets in Haryana as small, medium and large based on income received from cattle fairs. In general the income received from cattle markets depends on number of animals arrived and transacted. Hence in the present study the market categorisation was done based on number of arrival of animals.

Under regulated markets medium sized markets are more (20) in number than large (9) and small sized (12) markets. More number of medium sized markets indicate more number of salable animals in that particular region. It also indicate that the transactors are favouring medium sized markets regulated by official agencies.

But, Patel (1996) observed that small markets were relatively more efficient in buffalo trading. Majority of the unregulated markets in the

present study are medium in size. This indicates that the private parties are not having the capacity and facilities to organise large size markets.

#### **5.4 METHOD OF SALE OF ANIMALS**

Animals are sold principally by either mutual agreement or through brokers in the six districts studied. Sale of animals has occupied a major share through brokers when compared to mutual agreements. This clearly indicates that brokers are playing key role in the animal transactions. This is not a good sign as majority of the profit will be eatenaway by brokers. Singh and Patel (1987) observed that traders act as intermediaries between producer and consumer and earn profit which ultimately reduces the producers profit. To get major benefit from sale of the animal the farmer prefer mutual agreement of sale rather than falling in the clutches of brokers.

#### **5.5 PERIODICITY OF MARKETING**

Cattle markets are being held weekly or biweekly in all the markets studied. Pandey *et al.* (1996) noted that the periodicity of cattle fairs and animal transactions is of both short and long duration i.e. 5-10 days. It was observed in the present study that the day of marketing was so choosen as to avoid clash with the adjacent markets in the region. This study further revealed that the small and medium size markets are mostly held at weekly intervals. Large sized animal markets are conducted at weekly

and biweekly intervals. Since more number of farmers are assembling, more number of animals in large markets, the periodicity in some of these markets is biweekly.

## **5.6 ASSEMBLING AGENCIES**

The assembling agencies in dairy animal markets consisted of farmers, brokers/traders, Village merchants and wholesalers. The farmers constituted the major assembling agents in all the districts contributing 42.5 % of the animals brought to the market. Brokers/traders, Village merchants occupied second position among the assembling agencies in different districts. Village merchants purchase animals from the surrounding villages and assemble them in the markets. Brokers and wholesalers purchase the animals in one market and trade them in the other market which is being held on the subsequent days. Brokers with a small amount of investment purchase 1-4 animals while wholesalers purchase considerably large number of animals. Among all the assembling agencies the percentage contribution is least by the wholesalers. This may be due to the limited number of wholesalers involved in the trade owing to the higher capital investments involved.

## **5.7 MARKETING OF VARIOUS CATTLE AND BUFFALO BREEDS**

### **5.7.1 Number of Arrivals and Sales of Animals**

The number of animals arrived and sold depends on the popularity of the market. The number of arrivals and sales of animals is dependent on factors like quality of the produce available from the area, price and demand for milk and milk products and income to the farmer (Verma *et al.*, 1989). Examining the data from the present study, it was found that around 61.5 % of the animals arrived are sold on the same day in the regulated markets. In unregulated markets the percentage of sale is slightly higher than the regulated markets, Probably good quality animal available for sale in unregulated markets. The number of animals sold was highest in Nalgonda district followed by Ranga Reddy district. This may be probably due to the popularity of the markets and more demand for animals in these districts.

### **5.7.2 Categories of Cattle and Buffaloes Marketed**

The major categories of animals brought for sale in cattle and buffaloes included milch and dry animals, draught animals and animals for slaughter. In all the districts buffaloes constituted the major species of dairy animals sold in the market. This may be due to higher demand for buffalo milk in these regions over cow milk. Among the various categories of animals the milch animals constituted the major group of animals sold

in all the districts. Most of the slaughter animals are of non descript type and may be due to their low productivity and other associated problems. Draught animals constituted another major group of animals sold under buffalo category. This indicates the buffaloes are being used for draught purpose due to lack of availability and higher cost of male cattle. Among different categories, dry animals are least in number in both cattle and buffaloes indicating that the traders are not showing inclination on them which was probably due to less profit on their trade.

$X^2$  test was performed to find out any significant difference in the sale of animals in regulated markets among the six districts. Though these districts are adjacent to each other but the number of animals sold differ significantly. These differences could be attributed to inter district movement of animals. It was further observed that there was a significant difference between number of local and cross bred animals sold in regulated markets. In Milch cattle, local breed dominated the market in comparison to the crossbreds. This may probably due to misnomer that crossbreds are difficult to manage and male CB's are unfit for agriculture work. Slaughter animals also showed the similar trend. Under milch buffalo category the non discript buffaloes are more in number than graded Murrah buffaloes indicating more prevalence of these animals in the area.

In unregulated markets a similar trend was noticed in Nalgonda, Ranga Reddy and Hyderabad districts as regulated markets. Under milch

buffaloes, graded Murrah buffaloes dominated the sale and among white cattle except in Mahaboobnagar district, local animals constituted the major percentage of regulated markets.

## **5.8 MARKETING COSTS AND PRICES OF ANIMALS**

### **5.8.1 Marketing Costs**

The market performance is dependent on the market costs and price realised by sellers. The major items contributing to the cost of marketing of dairy animals are marketing fee, labour charges and feeding charges. Marketing fee, brokerage, feed and labour expenditure are the major items of cost in marketing of dairy animals in all districts studied. Mondal and Pandey (1993) also observed that seller had to incur the maximum expenditure towards feed and labour costs before the sale of buffaloes. The average cost of feeding and labour was lowest in Medak and Warangal districts. In the study it was observed that fodder was available at a competitive price in Warangal and Medak districts and this may be the reason for a lower feed cost in these districts. Patel (1996) observed that the major portion of marketing cost for sellers was feeding expenses in trading of buffaloes in Haryana state. On overall cost of marketing was highest in Hyderabad followed by Ranga Reddy, Nalgonda, Mahaboobnagar, Medak and Warangal.

### **5.8.2 Average Minimum and Maximum Prices for Various Categories of Animals**

A significant variation was observed in average minimum prices for different categories of animals among the districts studied. Hyderabad and Ranga Reddy had the highest minimum price for non descript milch buffaloes. However the minimum price of nondescript milch buffaloes did not differ significantly between Nalgonda, Hyderabad, Ranga Reddy and Medak districts. Similarly minimum price (for non descript dry buffaloes) did not vary much between Mahaboobnagar and Nalgonda districts. From the results it was observed that the minimum price of the animals did not vary much between the adjacent and near by districts, because of the proximity, the farmers can move to a place where the animals are available at comparatively less price. This could probably the reason for a more or less uniform price of animals in the near by districts.

The minimum price for the graded Murrah milch buffaloes were highest in Ranga Reddy and Hyderabad districts. Statistical analysis indicated that the minimum price of Murrah milch buffaloes did not vary significantly between Hyderabad, Medak, Nalgonda and Ranga Reddy districts. From the results it was observed that more demand for milk in these districts caused the high variation of prices of milch buffaloes. Similarly except slaughter animals, the minimum price of graded Murrah buffaloes in all categories not differ much among these districts.

The variation between minimum and maximum price of milch animals is greater in comparison to other categories of animals. This may be due to dependence of the milch animal price on production characters like milk yield, age, number of lactations etc. The maximum price for graded Murrah buffaloes in milk is highest in Hyderabad and Ranga Reddy districts followed by Nalgonda district. In the study it was observed that good quality graded Murrah buffaloes with higher milk yield are available in these districts when compared to other districts. This could be the reason for a higher price of animals in these districts.

Significant variations were noted between the districts with regards to the maximum price of various categories of animals. Among the various categories, least maximum price was offered for slaughter animals and highest for milch animals. Irrespective of the category of animals graded Murrah buffaloes are rated high in comparison to non-descript breed. A similar trend was also observed in white cattle where the crossbreds were more priced than the local breeds in all the categories except draught where the local cattle priced higher. This clearly indicated that among the buffaloes, graded Murrah buffaloes are preferred and among the cattle, crossbreds are preferred for milk production purpose. Sidhu (1965) also observed that Murrah breed of buffalo fetched 13 per cent higher price than non-descript type. Talukdar (1994) noticed that the price of local cow was lowest in comparison to cross-bred cattle. However in Medak and Ranga Reddy districts Deoni breed of draught animals are preferred over crossbreds. This is due to peoples



preference for Deoni breed has draught animals in agricultural operations over the crossbreds. Kareemulla and Srinivasan (1992) observed that Hallikar breed of bullocks were paid higher prices than that of cross bred and non descript bullocks.

## **5.9 PROBLEMS IN MARKETING OF DAIRY ANIMALS**

An attempt was made to identify the problems in marketing of animals. It was observed that every individual market is having its own problems. Majority of the markets are mainly confronted with the problem of non availability of basic amenities, difficulty in introduction of auction method and prevalence of brokers.

Insufficient market space was the second problem expressed by traders and farmers in Nalgonda, Ranga Reddy and Hyderabad districts. Existence of insanitary conditions was complained as the second constraint in the markets of Mahaboobnagar, Warangal and Medak districts. Non cooperation of traders, lack of transportation facilities, inadequate water supply and lack of security are the other problems encountered in the marketing of dairy animals. Dhume (1985), observed that lack of water arrangements and lack of funds are some of the problems faced by the Agricultural Produce market Committees to manage the cattle markets in Maharashtra State. Patel (1996) noticed that lack of security, feeds, water and health care are some of the major problems faced by the market committees in the buffalo markets in Haryana state. However, in the present study these were not rated as major problems.

## **SUMMARYAND CONCLUSIONS**

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## **CHAPTER VI**

### **SUMMARY AND CONCLUSIONS**

An attempt has been made to study the organisation of structure and functioning of dairy animal markets in Southern Telangana Agro-climatic Zone of Andhra Pradesh. As part of the study various categories and breeds of animals and their prices, costs of marketing and problems arising in the process of marketing are also taken into consideration. So that this information may be served as a guide for individuals, organisations and dairy entrepreneurs to establish the dairy farm. From the study the following conclusions were drawn.

1. Majority of the dairy animal markets are regulated
2. Only 13.6 per cent of the markets have the animal sheds.
3. Medium sized markets regulated by official agencies are more in number (49 %) than small and large sized markets.
4. The animals are sold principally either by mutual agreement or through brokers. Among the two agencies brokers are playing a key role in animal business.
5. Cattle fairs are held weekly or biweekly and day of marketing is so chosen as to avoid clash among the adjacent markets.

6. The farmers are the major assembling agents of animals in all the districts.
7. When compared percentage of sale was slightly higher in unregulated markets than the regulated markets.
8. In all the districts buffaloes constituted the major species of the dairy animals sold in the markets.
9. Among the various categories of animals marketed milch animals constituted the major group and dry animals are least in number.
10. Marketing cost was highest in Hyderabad district (lowest Warangal district)
11. Price variations are more between the districts. Among the adjacent districts the price variations are not significant.
12. The variation between minimum and maximum price of milch animals is greater in comparison to other categories of animals.
13. The major problems in marketing of animals were identified as
  - a. Difficulty in introduction of auction method.
  - b. Involvement of brokers in the trade.
  - c. Absence of animal sheds, and rest houses for farmer.
  - c. Insufficient market space and existence of insanitary conditions in dairy animal markets.

It is suggested that the Government should earmark more budget for the improvement of dairy animal markets in the six districts of Southern Telangana Agro-climatic Zone where the study was conducted.

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## Appendix I

	District/Name of the market	Location	Day of market	Weekly (W) Biweekly (BW)
1.	Mahaboobnagar	Gadwal	Monday	W
		Maldakal	Saturday	W
		Kalwakurthy	Sunday	W
		Jadcherla	Saturday	W
		Telkapally	Thursday	W
		Kollapur	Friday	W
		Narayanpet	Wednesday	W
		Devarakadra	Wednesday	W
		Kosgi	Sunday	W
		Wanaparthi	Sunday	W
		Pebbair	Saturday/Sunday	BW
		Sardarnagar	Thursday	W
2.	Nalgonda	Kattamgur	Saturday	W
		Haliya	Tuesday	W
		Choutappal	Sunday	W
		Bibinagar	Tuesday	W
		Chityal	Wednesday	W
		Narkatpally	Monday	W
		Kodad	Sunday & Saturday	BW
		Nakrekal	Sunday	W
		Miryalaguda	Tuesday/Saturday	BW
		Nereducherla	Tuesday/Friday	BW
		Suryapeta	Sunday	W
3.	Ranga Reddy	Vikarabad	Sunday	W
		Tandoor	Tuesday	W
		Maheswaram	Monday	W
		Yacharam	Tuesday	W
		Ibrahimpattanam	Wednesday	W
		Shankarapally	Wednesday	W
		Medchal	Sunday	W

4.	District/Name of the market	Location	Day of market	Weekly (W) Biweekly (BW)
	Medak	Doulatabad	Sunday	W
		Toopran	Tuesday	W
		Jagadevpur	Saturday	W
		Koudipally	Thursday	W
		Kandukur	Tuesday	W
		Narsingi	Friday	W
		Gajwel	Wednesday	W
		Sangareddy	Monday	W
	5. Warangal	Korivi	Sunday	W
		Nawabpeta	Friday/Monday	W
		Narmetta	Tuesday	W
		Ghanpur	Saturday	W
	6. Hyderabad	Erragadda		W
		Babbuguda	Tuesday	
		Chintalkunta	Saturday/Sunday	BW

**APPENDIX II**  
**(INTERVIEW SCHEDULE)**

or  
**(Questionnaire)**

Date of Visit :

Date of Market :

Information on marketing of dairy animals  
**PART - I (Basic Data)**

**I. General**

**a. Name of the market**

Name of the place

Address .....

.....

.....

Pin. ....

District .....

**2. Regulations**

Regulated (       )

Unregulated (       )

Date of Regulation

Date ..... Month ..... Year .....

Act applicable

Local self government (       )

(Municipality/Panchayat)

Agricultural Produce

Market Acts (       )

Any other act (       )

(Specify) (Private)

**3. Enforcing authority**

Name of the authority

Address .....

.....

.....

Pin. ....

Ph. No. ....

**II. INFRASTRUCTURE**

Plant/Layout

(I) As per ISI (       ) Yes/No

(ii) Others (specify)

- (iii) Total area (in acres or hectare) ..... adequate (    )
- (iv) Covered area (tick mark (V) if adequately provided or not (    )
- (v) Construction (Tick mark (V) if adequately provided or not (    )
- a. Fencing and gate (    )
  - b. Roads (    )
  - c. Loading /unloading dock (    )
  - d. Weigh bridge (    )
  - e. Animal Sheds (    )
  - f. Water/Feed troughs (    )
  - g. Office (    )
  - h. Guest house (    )
  - I. Canteen (    )
  - j. Residential Quarters (    )
- (vi) Amenities (Tick market (\) if provided (    )
- a. Water supply potable for animals (    )
  - Cleaning-sheds/gates/animals (    )
  - b. Electricity (    )
  - c. Toilets/Bathrooms (    )
  - d. Veterinary facilities (    )
  - e. Parking for trucks/carts (    )
  - f. Banking facilities (    )
  - g. Post Office (    )
  - h. Telephone (    )
  - I. Garbage disposal methods availability (    )
  - j. Railway connection (    )

**PART II****3. Periodicity :**

Daily/Weekly/Biweekly ( ) Monthly ( ) Half yearly ( )

Yearly ( ) Others ( )

**2. Assembling agencies** (animal wise agency may be mentioned i.e. Farmers, villages merchants, brokers/traders, whole saleres)

Buffaloes .....  
 Cows .....  
 Dry .....  
 Calves .....  
 Heifers .....  
 Draught .....  
 Slaughter animals .....

- 3. Method of sale**
- (I) By mutual agreement
  - (ii) By open auction
  - (iii) Through Brokers
  - (iv) Any other method (specify)

**4. No. Of functionaries engaged in the trade (their charges)**

- a. Brokers
- b. Commission agents
- c. Any other (specify)

**PART III****5. Animals** : Approximate number of arrivals and sales per day.**Cattle**

Local	Milch		Draught		Dry		Slaughter	
C.B	A	S	A	S	A	S	A	S

**Buffaloes**

N.D.	Milch		Draught		Dry		Slaughter	
G.M.	A	S	A	S	A	S	A	S

Note : A - Arrivals: S - Sales



a. Registration fee for animal

Milch cow	Rs. ....
Milch buffalo	Rs. ....
Dry animals	Rs. ....
Calves	Rs. ....
Heifers	Rs. ....
Draught	Rs. ....
Slaughter animal	Rs. ....

PART IV

a. Indicate approximate expenditure on transporting the animals to the fair/market  
(Rs per animal per km.)

Buffaloes	.....
Cows	.....
Dry	.....
Calves	.....
Heifers	.....
Draught	.....
Slaughter animals	.....

c. Market fee payable (specimen wise) ..... Rs. Per animal

Buffaloes	.....
Cows	.....
Dry	.....
Calves	.....
Heifers	.....
Draught	.....
Slaughter animals	.....

d. Feeding and labour charges, if any (Rs/animal)

**Price received for different categories (Minimum price (Rs.) (Maximum price (Rs.)**

Milch buffaloes      N.D  
Graded

Dry                      N.D  
Graded

Calves                 N.D  
Graded

Heifers                N.D  
Graded

Slaughter            N.D  
Graded

Milch cows           Local  
C.B

Dry                     Local  
C.B

Calves                 Local  
C.B

Heifers                Local  
C.B

Draught              Local  
C.B

Slaughter            Local  
C.B

**Factors influencing Price of milch animals**

- For milch animals :
1. Breed
  2. Animal physical appearance
  3. Age
  4. Lactation
  5. Milk yield
  6. Other criteria-colour, horns etc.
  7. Past reference (history/pedigree)

**PART - V****Problems faced and suggestions for improvement**

- I. Difficulties faced in marketing of Dairy animals due to
  - A. Insufficient market space.
  - B. Non co-operation of traders etc.
  - C. Lack of transport facility for despatch of animals to distant places
  - D. Difficulty in introduction auction method if not existing.
  - E. Inadequate water supply and deleterious salty water in the market area.
  - F. Existence of insanitary conditions.
  - G. Lack of security in the market yard.
  - H. Problem of brokers.

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**Suggestions for improvement :**