

The Buffalo Marketing System in Solapur Cattle Market Centre of Solapur District: A Geographical Study

P. Upale Pratap Kumar and N. Lokhande Tanaji

Department of Geography, K.B.Patil Mahavidyalaya, Solapur - 413 304, Maharashtra, India.

E-mail : pratapkumarubale@yahoo.com

(Received on 10 December 2011 and accepted on 05 April 2012)

Abstract - Livestock play a very important and vital role in our Indian economy. In short, livestock is the back bone of Indian agriculture. Livestock industry plays important role in creation of thousands of employment opportunities through-out the country. An effective marketing merely link sellers and buyers and react to the current situation of supply and demand. It has dynamic role in consumption, the essentials of economic development. In view of the above following are the specific objectives of the present investigation. To examine the general trade practices, To study the marketing practices and intermediaries involved in marketing of buffaloes The typical Solapur buffalo belongs to the group macrocerus like Jafrabadi, Mehsana, Nagpuri, Surti and Pandharpuri breeds are famous as good milker and known as poor man's buffalo. As Solapur district is having a quite large population of buffaloes, almost every family in the district maintains at least a buffalo and these buffaloes play important role in improving the socio- economic condition of the farmers. Thus, it is felt necessary to probe into the marketing of buffaloes in Solapur district. Generally, traders purchased buffaloes mainly for resale those sales off within a week time in this market and other cattle market. Large number of unauthorized brokers was also reported in these markets. The study was based on the quantitative information obtained by contacting sample sellers, buyers, traders and middlemen from this market on market day in the year 2009 to 2010. Secondary data of buffalo were collected from respective Agricultural produce market committee. The data were tabulated and analyzed to work out average and percentages.

Keywords: Cattle, Seller, Buyers, Sold, Broker

I. INTRODUCTION

Livestock play a very important and vital role in our Indian economy. In short, livestock is the back bone of Indian agriculture. They have remained as the keystone of Indian farming since time immemorial. Their utility for community is so high, that they are considered as embodiment of divinity. They have been contributing to the prosperity of rural India is more than one ways.

Marketing process of supplying the inputs needs for modern production of crops and livestock assume a growing importance. The production and use of animal products in the human diet is receiving tremendous attention. Livestock industry plays important role in creation of thousands of

employment opportunities through-out the country. An effective marketing merely link sellers and buyers and react to the current situation of supply and demand. It has dynamic role in consumption, the essentials of economic development.

The domestic buffalo (*bulbous bubalis*) belongs to the genus *bulbalos*, subfamily *bovine*, family – *bovina* is descanted from the wild Indian buffalo and is widely dispersed throughout the Southern Asia. Buffalo plays an important role in India as milk producing animal. In certain areas of our country, it is used as a draught animal. Buffaloes are hardy and can survive at different type of climatic condition ranging from dry to humid climate. Buffalo plays an important role in India as milk producing animal. In certain areas of our country, it is used as a draught animal. Buffaloes are hardy and can survive at different type of climatic conditions ranging from dry to humid climate.

The typical Solapur buffalo belongs to the group macrocerus like Jafrabadi, Mehsana, Nagpuri, Surti and Pandharpuri breeds are famous as good milker and known as poor man's buffalo. In India, peak breeding seasons is October to December and the great majority of calves are born during the period of august. Buffaloes are useful for milk, meat and draft purpose. The level of fat content and total solids in buffalo milk is higher as compared with fat of cow milk. Buffaloes are known to convert poor quality roughages into milk and meat.

Milk plays a great role in Indian diet where most of the population depends on milk and milk products as a source of animal proteins and fats. Milk is considered to be almost the perfect food. Buffalo is one of the main sources of milk. Indian subcontinent is the home tract of the world's dairy buffaloes. To- day in India, the water buffalo is recognized as a milk machine. It accounts for more than half of India's total milk production, although it constitutes only one third of the total milch population.

Apart from the milk and milk products, cattle dung and urine are good sources of income, even after death, hides, bones, blood, horns and other offal's have many uses. Thus, the buffalo population is associated with multifarious activities on farms such as plugging, transporting manures and produces.

In the past, very few studies on marketing of cattle and draught animals were conducted and no study has been undertaken for studying marketing of buffaloes in Maharashtra. As Solapur district is having a quite large population of buffaloes, almost every family in the district maintains at least a buffalo and these buffaloes play important role in improving the socio- economic condition of the farmers. Thus, it is felt necessary to probe into the marketing of buffaloes in Solapur district. The study would contemplate to study the seasonal trends of arrival and sale of buffaloes in the regulated markets situated in Solapur district.

II. OBJECTIVES OF THE STUDY

In view of the above following are the specific objectives of the present investigation.

1. To examine the general trade practices;
2. To study the marketing practices and intermediaries involved in marketing of buffaloes.

III. DATABASE AND METHODOLOGY

Present study is based on the intensive fieldwork carried out in the study region. This is supplemented by the secondary sources of data abstracted from socio-economic review, district statistical abstract and APMC record. The questionnaire and interview techniques have been employed to collect the data and information regarding all aspects of Solapur cattle market centre. The data so collected were compiled and analyzed for interpretation of results. Both tabular and statistical methods of analysis were used to accomplish the objective of the study.

IV. STUDY AREA

The study focus on Solapur district, which lies in the middle Bhima plain of southern part of the Maharashtra, which lies from 17° 10' north to 18° 32' north latitudes and from 74° 42' east to 76° 42' east longitudes. The geographical foundation of soils prevailing in Solapur district is mainly from Deccan trap of volcano origin viz. "Basalt" and average rainfall of the district is less than 750 mm. and is always uncertain with bimodal situation. The rains commence in the month of June and dry spells of two six weeks are observed during July – August. The maximum temperature of the district is 40.1° c, while minimum is 16.1° c respectively. It has 11 tahsils comprising 14895.4 sq. kms areas North Solapur is one of the 11 tahsils of Solapur district, Solapur city comes under North Solapur tahsil (Fig.1).

Solapur cattle market centre was established in the year 1964 in North Solapur tahsil of Solapur District. It is situated at the central east of Solapur district. It is located on the National Highway No.4. So it becomes an important centre for cattle marketing in Maharashtra. The activities of Solapur Cattle market is controlled by Agricultural produce market

committee, Solapur. The total area of the tahsil is 736.30 sq.km. The fencing area of the market committee is 3.5 acres. It acts as the biggest buffalo's weekly cattle market in Solapur District. The market day of Solapur is on every Tuesday. The rainfall is not uniform in the tahsil, the rainfall of the district varies from 450 to 750 mm. average rainfall of the tahsil is 707 mm.

The population of the buffaloes is the highest in Malshiras tahsil. The percentage to be the total buffaloes for milch purpose are the highest in North Solapur (45.14%) followed by Sangola, Malshiras tahsils, respectively. Generally the buffaloes and cows are kept for milch purpose, while the bullocks and the buffaloes are kept as draft animals. Thus, Solapur cattle market is beneficial to farmers in rural area and buffalo rears in urban area and for market traders also. Marketing of cows, bullocks, buffaloes, sheep's, goats etc., are observed in this market but is specially famous for buffalo marketing, because all types of breed of buffaloes viz., mehasana, Jafrabadi, Surati are observed in this cattle market.

V. RESULTS AND DISCUSSION

The process of marketing of buffaloes has been examined in detail to study the intermediates involved viz., sellers, buyers, traders and brokers etc in marketing of buffaloes.

A. General Trade Practices

1. Preparation of Buffalo for Marketing

For the buffaloes shaving is done and the skin is massaged with butter milk and oil so as to look attractive (Photo Plate 1). Therefore, preparation of buffalo for sale in market is essential because the physical condition and appearance of the buffalo considerably affects the price.

2. Malpractices Followed by Sellers and Buyers

In order to hide the physical defects with the animals, number of malpractices is adopted. For giving a well fed condition of animals, different herbs are fed to increase their thirst, so that they drink large quantity of water. Some of the clever stockman sometimes rasp the teeth and file the rings around the horns, in order to hide the correct age. Some of the owners of buffaloes do not completely milk their buffaloes few days prior to sale, so as to impress the customer about their heavy milking ability. Massaging of the udder of milch buffaloes is a common trick adopted in this respect deliberately. Sometimes some in case of buffalo's bees or wasps are applied to vagina of animal so as to swell it and give an appearance of about to calve but this is not followed in study region.

3. Agencies and Methods of Assembling and Distribution

Most of the buyers and sellers are comprised of cultivators and the remaining of the other agencies like dalal etc.

Brokerage charges vary from animal to animal depending on selling prices of buffaloes

4. Market Functionaries

The brokers are the only important functionaries in those cattle market centres. They belong to various classes of people viz, cultivators, itinerant dealers, butchers etc. other functionaries are engaged in cleaning the premises and there are some watermen and women (Photo Plate 1) which supply water to thirsty animals for which they are paid 5 to 10 rupees by sellers or buyers.

5. Method of Business

In the study region mostly single buffalo is sold at a time. There are three units of sale viz. "per head", "per pair" and "per group". However, the buffaloes are not sold in a group at a time. The per pair system only adopted in bullocks while per group is for slaughter stock.

Business hours observed in Solapur cattle market are generally from 8 a.m to 5 p.m on respective weekly cattle market day (Tuesday). As far as method of sale in the Solapur cattle market is concerned, different brokers or some time even the same broker operate on behalf of both buyers and sellers. The price agreement is generally under cover method.

6. Market Intelligence

In the study region there are no organized agencies for disseminating market news regarding the position of prices, demand, supply, etc. of cattle in these cattle market centre.

B. The Existing Marketing Channels in Solapur

Five types of marketing channels have been observed in the marketing of buffaloes as depicted in the fig. 2.

1. Intermediaries Involved in Marketing

Intermediaries are the agencies which link the sellers and buyers in the market. Marketing efficiency depends to a certain extent on the performance of market intermediaries which in turn reflects the competitiveness of the marketing system. If the marketing efficiency is to be improved, it is necessary to minimize the number of intermediaries between actual buyers and sellers. Therefore, it is imperative to study the activities of each agency taking part in marketing of buffaloes. The descriptions for traders and brokers along with sellers and buyers are given as under.

2. Sellers and Buyers

Sellers and buyers are the major components of any marketing process. In buffalo marketing, the sellers and the buyers are the farmers as well as traders, of the total randomly selected 50 buyers and 50 sellers, the classification further revealed that of the total sellers there were 11 traders, 28 farmers and 9 buffalo rearers, while the buyers include 12

traders 18 farmers and 20 buffalo rearers. A detailed information on grouping of distance of the sellers and buyers, reasons for sale and purchase of buffaloes, quality categories and classification of buffaloes with respects to age, order of lactation etc.

3. Classification of Sellers and Buyers

Farmers, traders and buffalo rearers from distance centres operate in this cattle market for sale and purchase of buffaloes. Distance of sellers and buyers from the cattle market (Table I).

It is seen from the Table I that the largest number of sellers (30%) belonged to the nearby areas of market place i.e., within the distance of 1 to 25 kms majority of buyers (56%) who came to this market were mainly from the long distance i.e., more than 75 kms these are the professional buffalo rearers of them 16% were within the radius of 75 to 100 kms, while 40 % were from the areas above 100 kms from the market. There was great demand for buffaloes from both the farmers and traders because of their resistance for dry region and good milk production, true to breed character and hence fetching better prices.

C. Reasons for Sale and Purchase

The various reasons for sale and purchase of buffaloes by the traders, farmers and buffalo rearers have been studied separately and the sale are presented in Table I and II.

It is seen from the Table III that among traders category, 69.24% sold their buffaloes because these were solely meant for resale. A trader brought buffaloes from adjoining areas or from distant markets to sale them in this market. Proportion of sale of dry buffalo was 15.38%, whereas selling of both defective buffalo and old age buffalo accounted to 7.69% each. As regards the farmer's category, it is observed that 40.74% of the farmers sold their buffaloes because of financial problems. Another reason was that in dry season there was acute shortage of fodder and therefore, farmers (29.63 %) sold the buffaloes. Defects in animals like weak body, high temperament, poor quarters, unequal length of teats, non prominent milk vein, blind beats, low milk yield etc. forced the farmers to sell buffaloes. As the age as well as number of lactation increases, the milk yield of an animal decreases. So due to the reason of old age of buffaloes, the farmers usually sell their buffaloes in the market.

As regards the buffalo rearers, it is seen from the Table II that majority of dry buffaloes (90%) sold in the market. The reason behind the same is that the buffalo rearers earned maximum income from the buffalo after selling the milk and as soon as the buffalo dried, it was sold in the market. 10% of the buffalo rearers sold the defective buffaloes. The details regarding the reasons for purchase of buffaloes in sample buyers are shown in Table III.

The results presented in Table III revealed that 75% of the traders purchased the buffaloes for resale in same or other market, on the guarantee that performance of a buffalo was good while 2% traders purchased them, from farmers – buyers category, 61.54% purchased dry buffaloes from the buffalo rarer – seller for rearing and earned income from it after being pregnant. 23.08% farmers purchased buffaloes due to ample availability of fodder. Regarding the buffalo rearers category, it is observed that 76% of them needed buffaloes for milch purpose. They purchased the buffaloes in the final stage of pregnancy for earning income by the selling of milk. In addition to guarantee of buffalo for cheap in price, 16% buffalo rearers purchased the buffaloes. 8% buffalo rearers purchased buffaloes due to ample availability of fodder.

1. Quality Characters of Buffaloes Sold

Buyers and sellers rank the buffalo as good, average and low quality buffalo based on the criteria of health, age and milk yield. The information on these aspects is analyzed and presented in the Table IV and Fig.3.

It is revealed from the Table IV that at total level, 42% of the total buffalo sold was of average quality. While sale of good quality buffalo were 36%. In case of trader's category, maximum number of good quality buffalo sold to the extent of 45.15% followed by average (39.47%) and low quality buffalo (15.38%). Amongst farmer's category, maximum number of good quality buffalo sold to the extent of 33.33 % followed by average (37.04%) and low quality buffalo (29.63%). While in the category of buffalo rearers, maximum number of good quality buffalo sold to the extent of 30% that of average (60 %) and low quality buffalo (10%). At the total level, 22% buffaloes were of low quality. It was because these buffaloes were old and not expressing the heat, produce low milk yield and of defective nature.

2. Price Received and Paid by the Sellers and Buyers

There are certain factors affect the price of buffaloes viz; season, body confirmation of animal, age, order of lactation, milk yield and defects in buffaloes. Among these, age and lactation number are the significant factors that determine the price and valuation of buffalo in the cattle market. There are three methods of judging age of animal viz; outward appearance method, counting the number of rings on horn and by looking at incisors i.e. number of lower front teeth. The test method is mostly used by buyers for judging age of buffalo (Photo plate 1). In general, there are four pairs of incisors present in cattle. Till the age of 18 months, all the four pairs of temporary incisors come out. At the age of 2 to 3 years, the

first pair of permanent incisors (2 teeth) appears after pushing out of the first pair of temporary incisors, likewise at the age of 3 to 4 and 4 to 5 years, second (4 teeth) and third (6 teeth) pairs of permanent incisors come out by replacing second and third pair of temporary incisors, relatively. About five years of age of buffaloes the last pair (8 teeth) of permanent incisor appears, with removal of fourth pair of temporary teeth. In later period, the age is determined by looking at the wear and tear of permanent incisor. At the age of 11 years, incisors appear weak and smaller due to wearing out. At 12 years, space appears in between them and at the age of 14 to 16 years all enamel disappears and only cup shaped stumps of all incisors remain.

The information relating to the average price received by the sellers and the average price paid by the buyers for buffaloes according to age group is given in Table V.

Show the Table V indicates variation in price according to age group of buffaloes, sold and purchased by sellers and buyers. At the total level, it is observed that at the age of above 7 years, buffalo fetched lowest average price i.e. Rs.9009.01 for rearing age groups viz; 2 to 3, 3 to 4, 4 to 5 and 5 to 7 years, the average sale price of buffaloes were Rs.12245.03, Rs. 13129.40, Rs. 13179.68 and Rs. 13445.34, respectively. It is inferred that prices fetched by buffaloes increase with increasing age up to 7 years, there after prices decline. This is because most production life of buffalo is up to 5 to 7 years. 58% of marketed buffaloes were from the age of 3 to 5 years which indicate that there was high preference by the buyers to these buffaloes.

Show the Table VI indicates variation in price of buffaloes according to order of lactation of buffaloes, sold and purchased by seller and buyers. At the total level, it is observed that at the 5th and above lactation, buffaloes fetched lowest price i.e., Rs. 7807.25, while, in fourth lactation, buffaloes fetched the highest price i.e. Rs. 13565.67 because at that time milk yield is high. After 5th lactation, the price of buffaloes decreases.

VI. MANAGEMENT OF AMOUNT RECEIVED BY THE SELLERS THROUGH SALE OF THE BUFFALOES

It is seen from the Table VII and fig.4 that at the overall level, 71.13% of the total amount received through sale of buffaloes was reinvested in purchasing of another buffalo. Further, it is seen that the total amount received through sale of buffaloes in case of farmer, traders and buffalo rarer category were Rs. 12836.65, Rs. 12938.64 and Rs. 14809.19 respectively. Of the total amount received through sale of

buffaloes by trader category, 90.62% was reinvested in purchase of another buffalo and other animal. While in case of farmer and buffalo rearer category, it was 60.44% and 74.38 %, respectively. Farmer has many other liabilities like family expenses, repayment of debts, wedding, medical expenses etc. for which sample farmers have invested their money.

A. Traders

The traders play a vital role in purchasing and selling of animals in this market. It is observed that nearly 50% transactions of animals of various categories were dealt with by traders. In all, 25 traders were contacted. Their details with regard to socio-economic characteristics, investment of capital in trade, number of buffaloes purchased, sold and marketing expenses incurred, etc; are discussed in following sections.

1. Socio – Economic Characteristics of Traders

Traders bring their buffaloes from adjoining and distant areas and sale in this market. There are some traders who also purchase buffaloes in this market. The information relating to grouping of sample traders who operates in Solapur cattle market with regard to their original location is presented in Table VIII.

It is revealed from the Table VIII that 56% traders were from local region of this tract. The traders from distant centres viz; Jath and Miraj of Sangli district, Bijapur district, are operating in these markets. So also from far off centres come under Pune, Bijapur, Satara districts. However, the percentages of trading from these localities were 32% and 12%, respectively.

Before starting actual trading business, almost all traders had experience of being a broker. Nearly 30% traders had experience of 2 years, while 55% traders had experience of 3 to 5 years. Very few (15%) had experience of being broker for more than 6 years. There are few traders in the market whose main occupation is acting as connecting link between buffalo rearers and farmers are noticed to 12%. They usually help the buffalo rearers in marketing of the buffaloes.

Regarding possibilities of guaranteed profit or loss in the business of marketing of buffaloes, trader's opinion were obtained. It shows that maximum profit would be 11.75%, while maximum loss would be 3.50% of the sale prices of buffaloes. The losses are due to physical and market risk.

In case of all traders, trading was the main source of income and farming, the secondary occupation with average annual income of 25% to the total income.

Traders received co-operation from his family members and hired laborers in the trade. These members or laborers help traders in purchase and sale operation of buffaloes, rearing the stock, transporting the animals to various markets to take care and maintain the stock up to sale etc,

2. Capital Invested and Income Received

Capital is the major input required by the traders to start this business. Therefore, it is important to supply the relation between capital invested and incomes received by the traders. Data regarding to these particulars are analyzed and presented in Table IX.

It is noticed from the Table IX that 48% of the traders in this market had range of capital investment between Rs. 25,001 to Rs 50,000 with their average seasonal income of Rs 22,750. Whereas percentage of the traders having capital investment up to Rs. 25,000 and Rs 50,001 to 75,000 was same (20%) and their average seasonal income was Rs. 19,500 and Rs. 25,250, respectively. Thus, it can be concluded from the Table IX that there is positive relationship between capital investment made by the traders and their seasonal income.

3. Average Marketing Cost Incurred by the Traders on the Buffaloes Purchased and Sold During Week's Time.

A trader on an average per week purchase and sale 17 buffaloes. It is important to study the costs incurred by the traders on these buffaloes for purchase to sale. The data collected and analyzed with regard to same are presented in table 10 with minimum, maximum and average expenses.

In general, traders visits 3 to 4 cattle markets in a week. It could be revealed from the table that the transportation charges comprised 46.63% in total marketing cost and it was most expensive item in marketing cost of buffaloes. Expenses on market fees for purchased buffaloes, travel, meal etc. together was second important items of cost which shred 31.31% in total marketing cost.

4. Sold Pattern of Purchased Buffaloes by Traders

By attending 3 to 4 markets on an average trader purchases and sales 17 buffaloes per week. The pattern of sold of purchased buffaloes is analyzed and the results of which are presented in Table XI.

It is observed from the Table XI that on an average within a month time, traders sold all the buffaloes purchased. Further, it is seen that 60% sold were made within weeks time followed by 20% sold of purchased buffaloes were sold on same day in same market and lastly 15% within a fortnight. Proportion to total buffaloes sold by the traders in a month was negligible (5%).

B. Brokers/Middlemen

Brokers are an important functionary in the cattle market. He negotiates sales, settles prices tactfully and thereby increases the number of sale deeds. He is also an effective instrument of propaganda in popularizing newly stated cattle fairs and in guiding the new cattle dealers. He is professionally experienced in cattle marketing and on the basis of his experiences; he performs the function of price negotiation, on the behalf of the buyer and seller or both.

I. Importance of Middlemen

In the results of buyers and sellers analysis it is observed that 70 per cent sellers and buyers used broker as a middlemen. Proportion of buyers and sellers who involved the brokers, was higher amongst farmer than traders and buffalo rearers.

It was because; they were unaware with marketing system. Majority of traders purchased or sold the buffaloes themselves because they are experienced in the buffalo's trade. Buffalo rearers also used broker as a middlemen in the marketing of their buffaloes. It was also seen that some broker were tied up with traders in the business. Middlemen provide guarantee of a buffalo to purchaser on the behalf of seller by retaining some or all amount, returning of animal, exchanging of animal and repayment of amount etc. are the kinds of guarantee, if there will be any defect in animals. Even to the sellers to the extent of 56% extended guarantee through brokers to the purchasers. Generally, credit system is followed amongst the traders by involving broker as middlemen.

Of the total sellers, 60% fixed price of buffaloes through middlemen. Nearly 77 per sellers and buyers opined that there is need of middlemen in selling of animal because middlemen helps them in various ways viz, searching the buyer, finalize the price, provide guarantee of buffalo to purchasers and for buyer, help in negotiation of price, selection of right type of buffalo, to buy on credit, etc.

2. General information of Middlemen

The 25 middlemen were contacted from solapur markets, respected. It is seen that local middlemen hold high proportion in the market, they attend every market day. Besides this, they also operate in some adjoining markets. Trade of nearly 45% middlemen was limited only to buffaloes, remaining 55% deal with cows and bullocks as well.

Brokerage charges or *dalali* is based on the price of buffalo; however, the proportion is not fixed. The average of minimum and maximum *dalali* for each buffalo was found to be the range of Rs 200 to 400. The average approximate income realized by middlemen for each market day (Tuesday)

was Rs. 535. When there will be negotiation of price of buffalo between two middlemen, they follow chain system. It is certain that middlemen are the important intermediary functioning in the cattle markets.

VII. CONCLUSION

Marketing management practices followed in the market were viz preparation of buffalo for marketing, malpractices followed by sellers and buyers, agencies and method of assembling and distribution and lastly method of business. As regards to preparation of buffalo for marketing, cost of the stock rearers in the selected tract paid very little attention. Further it was observed that most of the sellers did not shave the buffaloes and did not follow the practices like grooming and cleaning of buffaloes. The systematic work grading the stock according to various standards such as breed, weight, color, milch yield etc., was not possible in absence of a uniform stock belonging to pure breed having the same characteristics. In order to hide the physical defect with the buffaloes, both seller and buyers followed certain malpractices such as feeding different herbs to increase their thirst, rasping the teeth, oil massage to the body, udder massaging, incomplete milking, finding the affected part, goading etc., are adopted by sellers and buyers too.

In the light of the empirical evidence brought out by the study, the following conclusions are drawn.

- i. Of the total traders nearly 56% were from local areas of the tract.
- ii. Generally, traders purchased buffaloes mainly for resale those sales off within a week time in this market and other cattle market.
- iii. Large number of unauthorized brokers was also reported in these markets.
- iv. Participation of the brokers as middlemen in purchase and sale activities of the buyers and the sellers were sixty per cent of the total transactions.

Policy implications

On the basis of the findings of the investigation the following suggestions are made.

- i. To get better price for buffaloes, sellers should be encouraged for preparation of buffaloes systematically.
- ii. Facilities of watering, sheds, police station, quality refreshment, veterinary aids, and sufficient space for parking the vehicles etc., need to be created on larger base by the market committee which will incentive for more sellers and buyers to attract this cattle market transaction of buffaloes.

The Buffalo Marketing System in Solapur Cattle Market Centre of Solapur District: A Geographical Study

TABLE I SOLAPUR CLASSIFICATION OF SELLERS AND BUYERS AS PER THE DISTANCE FROM THE MARKET

Sr. No.	Distance from the market (Km)	Sellers				Buyers			
		Farmers	Traders	Buffalo rearers	Total	Farmers	Traders	Buffalo rearers	Total
1	0-25	40.74	30.77	-	30.00	53.85	25	-	20.00
2	26-50	33.33	23.09	-	24.00	30.77	25.00	-	14.00
3	51-75	25.93	15.38	-	18.00	15.38	16.67	4.00	10.00
4	76-100	-	15.38	30.00	10.00	-	16.67	24.00	16.00
5	Above	-	15.38	70.00	18.00	-	16.67	72.00	40.00
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Based on Field Survey 2009-2010

TABLE II SOLAPUR REASONS FOR SALE OF BUFFALOES

Sl.No.	Reasons	Sale of Buffaloes in Percentage			
		Traders (%)	Farmers (%)	Buffalo Rearers (%)	Total (%)
1	Financial difficulties	-	40.74	-	22.00
2	Fodder problems	-	29.63	-	16.00
3	Sale dry buffaloes	15.38	-	90.00	22.00
4	Defective buffaloes	7.69	22.22	10.00	16.00
5	Old age buffaloes	7.69	7.41	-	6.00
6	Resale	69.24	-	-	18.00
Total		100.00	100.00	100.00	100.00

Source: Based on Field Survey 2009-2010

TABLE III SOLAPUR REASONS FOR PURCHASE OF BUFFALOES

Sl.No.	Reasons	Traders	Farmers	Buffaloes rearers	Total
1	Cheap in price	25.00	15.38	16.00	18.00
2	Purchase of dry buffaloes for earning profits in future	-	61.54	-	16.00
3	Purchase buffaloes in the final stage of pregnancy for earning income from milk (FYM)	-	-	76.00	38.00
4	Ample availability of fodder	-	23.08	8.00	10.00
5	Resale	75.00	-	-	18.00
Total		100.00	100.00	100.00	100.00

Source: Based on Field Survey 2009-2010

TABLE IV SOLAPUR CLASSIFICATION OF BUFFALOES SOLD BASED ON DIFFERENT QUALITY CHARACTERS

Sl.No.	Quality Characters of Buffalo	In percentages			
		Traders	Farmers	Buffalo rearers	Total
1	Good	45.15	33.33	30.00	36.00
2	Medium	39.47	37.04	60.00	42.00
3	Low	15.38	29.63	10.00	22.00
Total		100.00	100.00	100.00	100.00

Source: Based on Field Work

TABLE V SOLAPUR: AVERAGE PRICE REALIZED BY SELLERS AND BUYERS ACCORDING TO AGE GROUP OF BUFFALOES

Sl.No.	Age of buffalo (Years)	Buffaloes sold	Buffaloes purchased
		Average Price (Rs)	Average Price (Rs)
1	2to3	12245.03	11562.62
2	3to4	13129.40	1239.39
3	4to5	13179.68	12092.15
4	5to7	13445.34	12191.50
5	Above	9009.01	7655.87
Overall		12657.20	11893.09

Source: Compiled by Author

TABLE VI SOLAPUR: AVERAGE PRICE REALIZED BY THE SELLER AND BUYERS ACCORDING TO ORDER OF LACTION OF BUFFALOES

Sl.No.	Order of location	Buffaloes sold	Buffaloes purchased
		Average Price (Rs)	Average Price (Rs)
1	1	11406.57	11370.12
2	2	13113.98	11949.79
3	3	13417.64	12751.26
4	4	13565.67	13061.85
5	Above 5	8992.78	7807.25
Overall		12693.51	12132.08

Source: Compiled by Author

TABLE VII SOLAPUR: MANAGEMENT OF AMOUNT RECEIVED BY THE SELLERS THROUGH SALE OF THE BUFFALOES

Sl.No.	Items of Investment	In Percentages			Overall (%)
		Farmers	Traders	Buffalo rearers	
1	Purchase of another buffalo	60.44	90.62	74.38	71.13
2	Family requirement	14.63	3.54	6.35	10.00
3	Repayment of loans	9.47	2.46	5.45	6.81
4	Cultivation expenses	7.04	1.43	3.75	4.89
5	Marriage	4.23	0.69	2.82	3.03
6	Medical expenses	0.73	0.54	0.55	0.64
7	Miscellaneous	3.46	0.72	6.70	3.50
Total		100	100	100	100

Source: Compiled by Author

The Buffalo Marketing System in Solapur Cattle Market Centre of Solapur District: A Geographical Study

TABLE VIII SOLAPUR DISTRIBUTION OF THE TRADERS WITH REGARD TO

Sl.No.	Locality	No. of traders	Percentage to the total traders
1	Local traders	14	56
2	Traders from distant centres	8	32
	i.Nearby locality ii.Far off distance	3	12
Total		25	100

Source: Based on Field Work

TABLE IX SOLAPUR AMOUNT OF CAPITAL INVESTED AND AVERAGE SEASONAL INCOME

Sl.No.	Capital Investment	No. of traders (%)	Seasonal income (Rs)
1	Up to 25000	20.00	19500
2	25001 to 50,000	48.00	22750
3	50001 to 75000	20.00	25250
4	75001 to 100000	8.00	28500
5	Above 100000	4.00	30250
Total		100.00	126250

Source: Based on Field Work

TABLE 10 SOLAPUR PER WEEK AVERAGE MARKETING COSTS INCURRED BY THE TRADERS FOR PURCHASE AND SALE OF BUFFALOES.

Sl.No.	In Percentage			
	Particulars	Minimum	Maximum	Average
1.	Feeding Charges	9.12	8.98	9.04
2.	Maintenance Charges	13.70	12.45	13.02
3.	Transporting charges and wages	45.00	48.00	46.63
4.	Expenses on market fees, travel etc.	32.18	30.57	31.31
Total		100.00	100.00	100.00

Source: Based on Field Work

TABLE XI SOLAPUR AVERAGE PERIOD OF SALE OF TOTAL PURCHASED BUFFALOES (PER WEEK) BY TRADERS

Sl.No.	Period of sale	Buffaloes sold
1.	Within a same market day (in a week)	20.00
2.	2 to 7 days (in a week)	60.00
3.	8 to 15 days (in a fortnight)	15.00
4.	Above 15 days (in month)	5.00
Total		100.00

Source: Based on Field Survey.

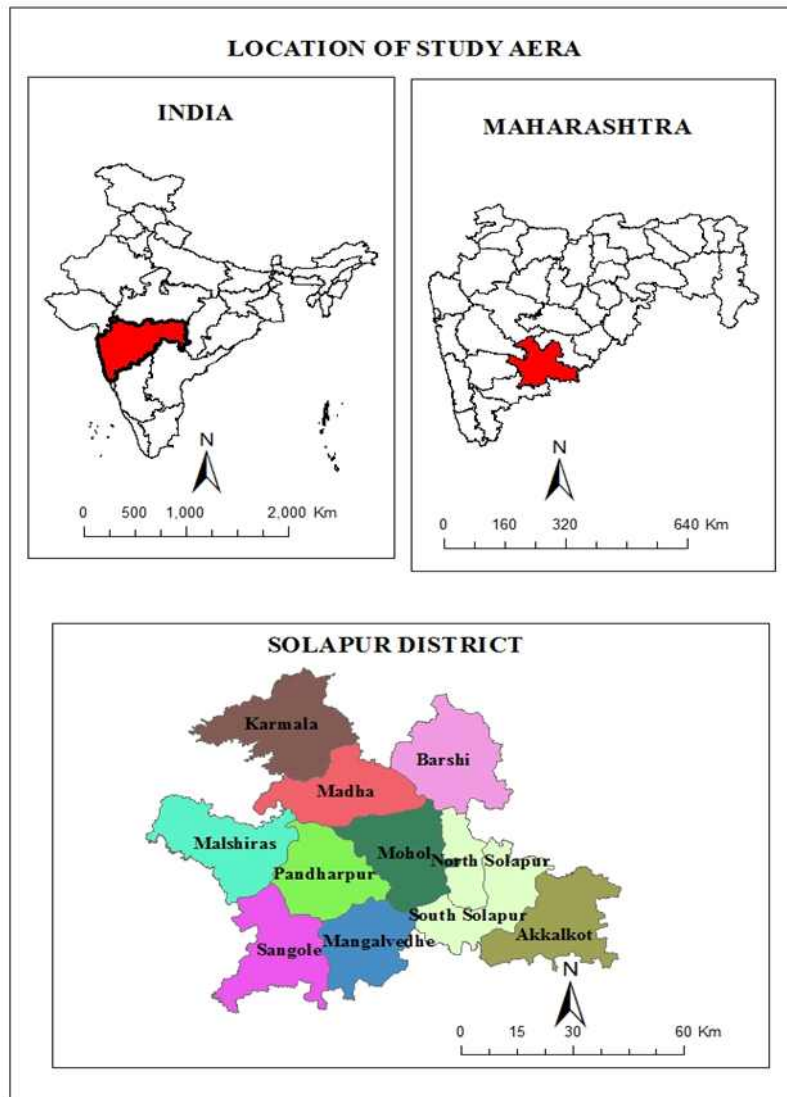


Fig.1 Study area

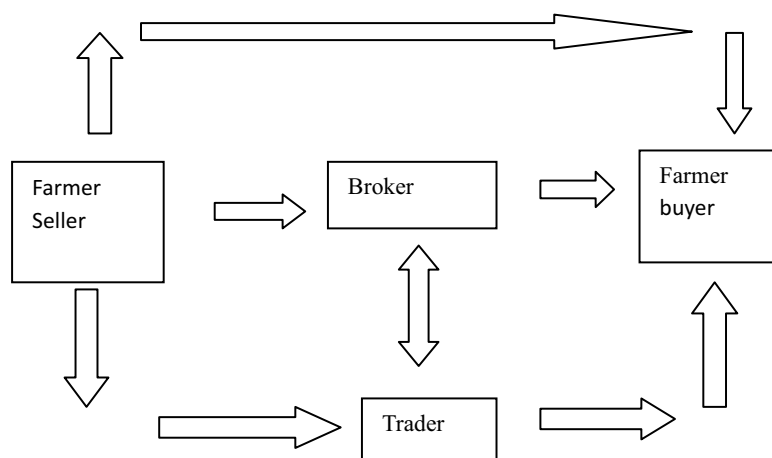


Fig.2 Solapur: existing marketing channels

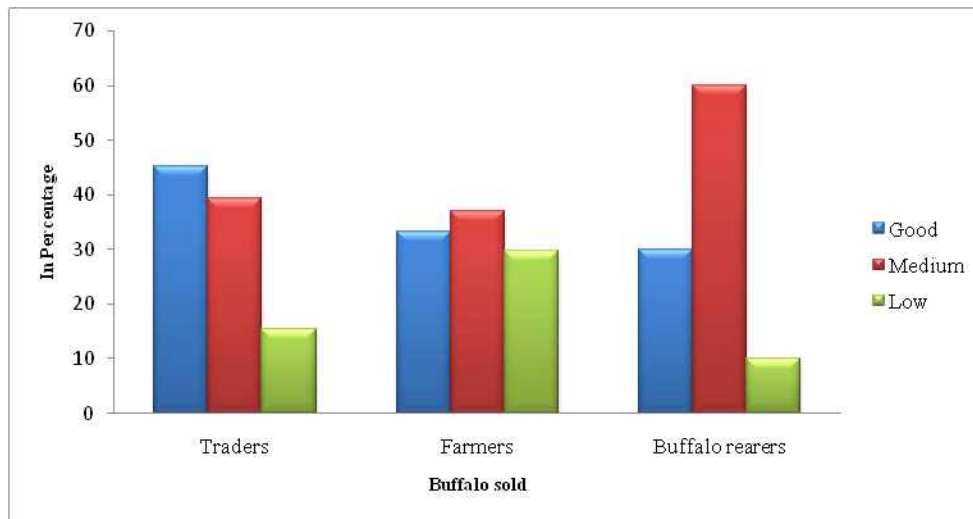


Fig.3 Solapur:Classification of buffaloes sold based on different quality characters

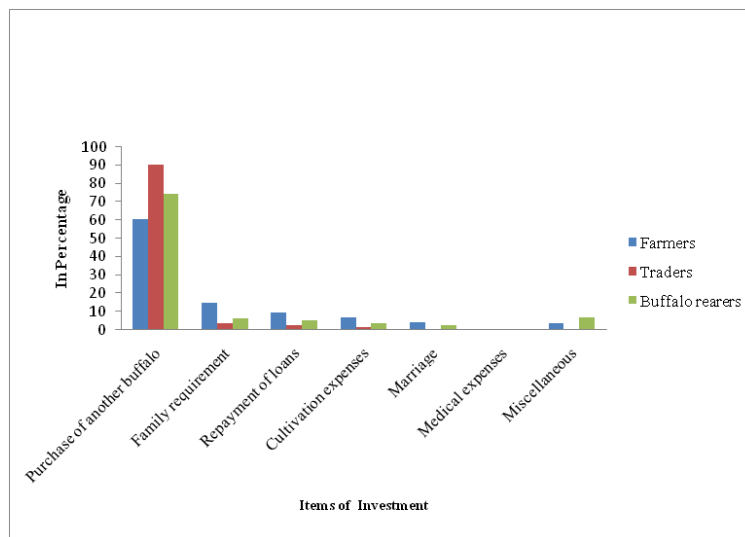


Fig.4 Solapur: management of amount in percentage received by sellers through sale of the buffaloes

REFERENCE

[1] S.S.Acharya and N.L.Agarwal, *Agricultural Marketing in India*, Oxford and IBHPublishing Co. Pvt.Ltd, New Delhi.

[2] Anonymous, *Cattle Market: A case study of Agricultural Marketing*, The Report of the Agricultural Produce Market Committee, Baroda, Vol.10, No.2, pp.16-22.

[3] R.Arora, U.K.Pandey, "Seasonal Variation in Bullock Prices in Haryana Market", *Indian Journal of Agricultural Marketing*, Vol.26, No.3, pp.19-21.

[4] O.D.Funmure, "The System of Cattle Marketing at the Maiduguri Stock Yard", *Annals of Bornu*, Vol.3, pp.153-163.

[5] D.A.Gedam, "The Marketing System and Network in the Wardha Valley", Unpublished Ph.D.Dissertation, Nagpur University, Nagpur.

[6] P.S.George and K.N.Nair, "*Livestock Economy of Kerala*", Centre for Development Studies, Trivandrum, Kerala.

[7] Government of India, "The Report on Cattle Marketing in India", Marketing series No AMA- 8411, 5000, Directorate of Marketing and Inspection Ministry of Food and Agriculture Ch.2, pp.29-31, Ch. 3, pp.32-50, and pp.132-135.

- [8] Government of India, Agricultural Prices in India, Directorate of Economics and Statistics, Department of Agriculture and Co-operation, Ministry of Agriculture, New Delhi. Various Issues.
- [9] I. Ismail, Livestock Transportation and Marketing in Nigeria, (Ph.D. Thesis).
- [10] R. Uhl Kohls, Marketing of Agricultural Products New York, Mc. Milan Publishing Company U.S.A.
- [11] T.N. Lokhande, A Geographical Perspective on Market Centres in Kolhapur District Maharashtra", Unpublished Ph.D., Dissertation, Shivaji University, Kolhapur.
- [12] S.N. Mishra, Livestock Planning in India, Vikas Publishing House Pvt. Ltd. New Delhi, Bombay, Bangalore, Calcutta, Kanpur.
- [13] P. Okaiyeto, "Economics and Marketing Implication of Livestock Production", Invited, Paper on Poverty Alleviation through Sustainable Poultry Production, College of Animal Science, Mando Road, Kaduna, and May 3.
- [14] U.K. Pandey and K. Arora, "Marketing Cost and Margins in cattle Trade in Haryana", *Indian Journal of Agricultural Marketing*, Vol. 27, No. 8, pp. 78-81.
- [15] M.S. Randhwa, *Cattle Agriculture and Animal Husbandry in India*, Indian Council of Agricultural Research, New Delhi.
- [16] D.S. Sindhu, S.S. Johl, "Structure of Cattle Markets in Punjab", *Indian Journal of Agricultural Marketing*, Vol. 8, No. 4, pp. 20-24.
- [17] H.M. Saxena, *Geography of Marketing (Concepts and Methodology)*, Sterling Publishers, New Delhi pp. 88-100.
- [18] H.M. Saxena, *Marketing Geography*, Rawat Publications, Jaipur and New Delhi, pp. 16, 179.
- [19] H.M. Saxena, *Marketing Geography*, Rawat Publications, Jaipur pp. 159-178.
- [20] G.W. Skinner, Marketing and Social Structure in Rural China, *Journal of Asian Studies*, Vol. 34, pp. 3-45, pp. 195-228.
- [21] P.P. Ubale and T.N. Lokhande, "A Geographical Analysis of Cattle Market Centres in Solapur District, Maharashtra", *The Geo Geographer*, Vol. 7, No. 1, pp. 77-83.