

**MARKETING OF LIVESTOCK IN NAGPUR
DISTRICT**

THESIS

Submitted to

**Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola
in partial fulfillment of the requirements
for the Degree of**

**MASTER OF SCIENCE
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AGRICULTURE**

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By

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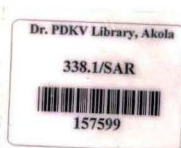




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DECLARATION OF STUDENT

I hereby declare that, the experimental work and its interpretation of the Thesis entitled, "**MARKETING OF LIVESTOCK IN NAGPUR DISTRICT**" or part thereof has neither been submitted for any other degree or diploma of any University, nor the data have been derived from any thesis / publication of any University or scientific organization. The source of materials used and all assistance received during the course of investigation have been duly acknowledged.

Place :Nagpur

Date :31/05/2013



(Sarad Piyush Bhaiyyasaheb)

Enrolment No. EE/1044

CERTIFICATE

This is to certify that thesis entitled "**MARKETING OF LIVESTOCK IN NAGPUR DISTRICT**" submitted in partial fulfillment of the requirement for the degree of "**Master of Science in Agriculture(Agricultural Economics)**" of Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola. is a record of bonafide research work carried out by Sarad Piyush Bhaiyasaheb under my supervision and guidance.

The subject of the thesis has been approved by the Student's Advisory Committee.

Place : Nagpur

Date : 31/05/2013



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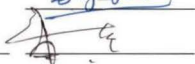
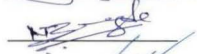
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Place : Nagpur

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(Sarad Piyush Bhaiyyasaheb)

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(C)

ABBREVIATION

@	At the rate of
<i>et al.</i>	et alia(and associate)
etc.	Et cetera
Fig.	Figure
i.e.	That is
No.	Number
/	Per
%	Per cent
Rs.	Rupees
C.A.	Commission agent
Sr. No.	Serial Number
Res.	Respectively
Viz.	Namely

(D)

THESIS ABSTRACT

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ABSTRACT

The present study entitled "Marketing of livestock in Nagpur district." was undertaken to know the marketing cost and market margin, producer share in consumers rupee and problems in marketing of livestock. The study has been undertaken in Nagpur district. Data pertains for the calendar year 2012.

Marketing aspect was studied by calculating marketing cost and marketing margin, producer share in consumer rupee. The problem in marketing of livestock were identified. The following conclusions were drawn from the study.

The average size of family was 7 members out which 3 are male, 3 are female and 1 children. At overall level 8.34 per cent of farmers are illiterate and rest of them have educated. Highest illiterate people were observed in Kalamna market having 12.5 per cent

The area covered by Katol, Mohpa and Kalamna gure bazaar was 2.50 ha, 2.00 ha and 3.00 ha respectively It is found that in Katol Mohpa and Kalamna market having common method of selling which was through broker/ Direct selling. In Katol market highest number of broker was observed as compared to Mohpa and Kalamna. In highest number of price fixation was observed in Mohpa market on the basis of body weight in adult male. The end use of cow and buffalo are for milking and end use of bullock was for draft purpose whereas the end use of goat was for meat purpose. Market functionaries indulged in some corrupt practices to gain personal advantage out of animal transactions. Total number of member in market committee was 23. Market fee is the main source of income of market committee. Generally all the major facilities are available in the market.

Highest cow , bullock, and buffalo was sold through channel II whereas, the goat was sold through butcher i.e. channel II. In case of cow the producer's share in consumer's rupee was highest in channel-I i.e. (94.72 per cent) followed by channel-IV and channel-II and in

channel III respectively. The net price received by producer is highest in channel-I i.e. Rs. 41677.99. In case of bullock the producer's share in consumer's rupee was highest in channel-I i.e. (96.40 per cent) followed by channel-II, channel-IV and in channel III respectively. The net price received by producer is highest in channel-I i.e. Rs. 56877.50. In case of buffalo the producer's share in consumer's rupee was highest in channel-I i.e. (96.62 per cent) followed by channel-II and in channel III respectively. The net price received by producer is highest in channel-I i.e. Rs. 86961.71. In case of goat the producer's share in consumer's rupee was highest in channel-I i.e. (86.93 per cent) followed by channel-II and channel-III. The net price received by producer is highest in channel-I i.e. Rs. 9128.00.

Chapter I

INTRODUCTION

Livestock are domesticated animal raised in an agricultural setting to produce commodities such as food and fibre. Livestock play an important role in the economy of the country and it is the heart of rural socioeconomic system. It is net source of foreign exchange earning contributing significantly in this vital area. Most importantly, more than 8 million rural, small and landless farmer raise livestock, making it an ideal sector for attacking rural poverty in the country.

In India population of cattle, buffalo and goat is 199.1, 105.3 and 140.5 million respectively. Maharashtra state is having 36.226 million of total livestock population. In which cattle, buffaloes, sheep and goat contribute 16.303, 6.145, 3.094, 10.684 million respectively. (Department of Animal Husbandry and Dairying Government of Maharashtra Report 2009). In Nagpur district total livestock population is 974705 lakh among which cow, buffaloes and goat contributes 537798, 101665, and 335242 respectively. (Source- Regional Joint Director of Animal Husbandry, Nagpur Division, Nagpur 2007.)

India possesses the largest livestock population in world after Brazil. It accounts for 14 per cent of world cattle population, (219 million) with 30 descript cattle breeds and 57 per cent buffaloes with 6 descript breeds since last couple of years. (All India summary report of 17th livestock census, July 2006). The contribution of livestock sector to the food basket in the form of milk, egg and meat has the immense in fulfilling the animal protein requirement of ever growing human population.

Central treaty organisation, since 1971 define livestock market as terminal auction's, country buyer, dealer and direct in tracing the movement of livestock from farm to feedlot to slaughter and from farm to slaughter. It was further express that most terminal market include

the auction method of negotiation price and many auction also include private treaty method.

Livestock production plays a vital role in rural economy of India. In the country around 70 million farming families are engaged in milk production. Livestock keeping along with crop husbandry maximizes the agriculture production (Singh *et al*,1986). Profit from the dairy animal depends upon the input of nutrient supplied and output received in the form of milk and providing residues, etc. Poor input in terms of under feeding will result in poor economic loss due to high cost of feeding. Under feeding in dairy animal is a major obstacle in the development of an efficient animal production system in the developing countries (Fahmuddin, 1975).

Livestock keeping in a centuries-old tradition for millions of Indian rural household and domesticated animal have been an integral part of the farming system from time immemorial. Raising of cattle i.e. cow, buffalo, bullock, and goat, etc. Consumption of milk and its by-products have been accorded prime position in Indian society since long. Livestock had all along been a part of the predominant farming system in India: mixed crop- livestock farming. Among livestock, cattle and buffalo are preponderant and the most interactive species, subsisting on crop residue and contributing milk, meat, draft power and farm yard manure.

The livestock including cattle, bullock, buffaloes, goat disposes through local market. Presently there exist a long chain of middleman in marketing channel which causes harassment to both seller and purchaser as the price received by seller and amount paid by purchaser is affected due to middlemen. The large number middlemen working in such market charge with exorbitant manner which leads to wide spread of price in marketing of livestock hence finally farmer by both way that is in the role purchaser and seller are exploited by malpractices of middlemen. Therefore protecting these farmers from

malpractices of middleman proper organisation for marketing of livestock is needed on priority.

In Nagpur district the livestock play very important role in farming economy. From all these the bullock, cattle and buffaloes are important segment of livestock. Marketing is an important aspect of any livestock system. It provides the mechanism whereby producer exchange their livestock and livestock product cash. The cash is used for acquiring good services which they do not produce themselves, in order to satisfy a variety of needs ranging from food item, clothing, medication and schooling to the purchase of breeding stock and other production inputs and supplies. Overall scenario reports that, it play an important role in the rural economy in supplementing the income of rural household, particularly the landless and small marginal farmer. It also provides subsidiary occupation in semi urban areas and more for people living in hilly, tribal and drought prone areas where crop output may not sustain the family.

A cattle marketing is very distinct from marketing of any other product or service. Each and every cattle is distinct from each other in respect of size, height, colour, shape, appearance age, milk yield, order and stage of lactation, stage of pregnancy and working capacity etc. Hence the prices are also not one and the same for all cattle. There is no any standard price of cattle and no guaranteed price from the government. The prices of cattle determined under the bargaining between buyer and seller with or without brokers. In rural economy of Nagpur district, animal husbandry is closely associated with agriculture. Crop and livestock enterprise form two functional components of mixed farming. Number of animal transacted every year through livestock market. The marketing of large number of animal is mainly done through weekly market. Therefore there are various important issues in the area of livestock market that require investigation on market margin, price spread, marketing efficiency, marketing channel, etc.

In livestock specially goats are closely associated with the poorest of the poor that too in rain-fed an ecologically fragile areas. Goat rearing is though an economically viable activity (Kalla et al., 1992; Deoghare and Sood, 1994) but a largely it has been subsistence level (Deoghare and Ram 1992). Goats are being considered as a most liquid assets of poor herdsmen, which they can encash at the time of their most pressing needs. No doubt, goat breeding prolificacy, quick growth and relative resistance to disease indicate that its productivity can be increased manifold by employing scientific method of production with commercial orientation yet marketing aspect like marketing cost and margin of various channel involve in live animal and milk sales, etc. crucial for realizing greater income. Indeed, marketing aspect of live animal and milk could get scant attention of the researchers.

A large number of cattle, buffalo, small ruminants (goat) change hands through livestock fair held in all states of India. In the recent past there has been an increasing recognition of the need in every state for an efficient marketing system for sustaining and accelerating the cattle production and for protecting the interest of the producer. However there is scanty knowledge of structure, conduct and performance of cattle marketing and thus policy decision are based on incomplete assessment of the existing situation. The state of India organizes a large number of cattle markets which serve both as assembling and distributing centre. The cattle fair are held half yearly, quarterly and few of them monthly also. Before 1970 most of the cattle fair in the state were being organized by panchayat samiti/Zilla-parishad. But after that, the state government has taken the control over the organization of cattle fair.

Livestock makes multi-faceted contribution to socio-economic development of rural masses. Due to the inelastic absorptive capacity for labour in other economy sector, livestock sector has the scope for generating more employment opportunities, especially for the marginal and small farmer and landless labourers who own around 70 percent of

the country's livestock. Livestock wealth is more equitably distributed than that of land (Kumar and Singh, 2008). Being an important source of income and employment for this section of society, the livestock helps in alleviating poverty and smoothing of income distribution (Birtal et al., 2002). Livestock is important both as saving and investment for the poor household and provides security or insurance through multiple ways in different production system (Kitalyi et al., 2005). In the mixed crop-livestock system, its importance goes beyond direct food production function. It supplies drought power and organic manure to the crop sector and hides, skin, bones, blood and fibre to the industries.

Livestock makes substantial contribution to conservation of environment by utilizing huge amount of crop residues and by-products as feed/feeder and by supplying drought power and dung that save renewable environment polluting energy sources (chemical fertilizer, diesel, petrol, etc.). In view of the rich interaction between crop and livestock. It is being increasingly realized that integrating livestock in a system approach would arrest the sustainability concern which are the keys to the countries food security (Sere and Steinfeld, 1996; Hann et al., 1997; Patel, 1993; Singh et al., 2005).

Cattle marketing has become an important component of cattle development and have been a focus on attention for planners, policy makers, researchers and trading community. Tamilnadu with its 12.47 million bovine population and 4.5 million tones of annual milk production is fast emerging as one of the leading states in Indian dairy sector (Dairy India, 1997). Besides, the magnitude of structural changes in cattle population due to the implementation of cross breeding programme, artificial insemination programme and mechanization of agriculture in Tamilnadu are much higher and more rapid than most of the other states.

India being an agrarian country about 68 percent population is dependent on agriculture through the technology is developing very

fast to industrialize the country. The share of agriculture in gross domestic product (GDP) of India is about 18 percent. Agriculture is the most predominant sector of the Indian economy, while a primitive economy. Agricultural marketing is mostly a simple affair requiring a minimum organization and capital equipment. Market and marketing assume a greater importance as subsistence economy progress toward an exchange economy. Marketing is a process of supplying the input needed for effective marketing does not merely links seller and buyer but also reacts to the current situation of supply and demand. It has dynamic role in stimulating output, consumption and the essential of economic development. The agricultural marketing guides farmer for the new production opportunities and encourages innovation and improvement in response to demand and prices.

A cattle marketing is one of the most important subject. It is not possible for a farmer to breed animal which are required on farms and also he is in a great need to dispose of the surplus animal due to number of reason. This requires good organized and independent cattle market. However cattle and cattle product marketing in India is a matter of negligence mostly it is combined with the general agricultural marketing activities. In the absence of well organized cattle market and because of the smallness of the size of heard and lack of resources with cultivator, a middleman usually steps in an exploit the poverty of cattle owner and take away the profit of this industries.

The all livestock disposed of through local market. Presently there exist a long chain of middleman in marketing channel which is very harmful to both seller and purchaser as the price received by seller and the amount paid by purchaser due to middleman. The large number of middleman working in such market charge with exorbitant manner which leads to wide spread of price in marketing of livestock. Hence finally farmer by both way i.e. in the role of purchaser and seller are exploited by malpractices of middleman. Therefore for protecting these farmers from malpractices of middlemen's proper organisation for marketing of livestock is needed on priority. In india livestock market

are under the control of agriculture produce market committees. These market committees are supposed to supply all the facilities for marketing of livestock but generally the basic primary facilities are not provided properly by the market committees and farmer has to pray to the middleman, if the facilities like animal shade, water supply, fodder availability etc. are supplied adequately then the purchaser and seller of animal feels to much comfort in marketing of animal.

Importance of study

Livestock marketing has attained a tremendous importance in rural areas. For proper marketing of livestock require good organise and independent cattle market but unfortunately in India at many places livestock marketing is combined with the general agricultural marketing activities. The marketing of livestock has found a prime importance. The milch cattle and buffaloes are mostly local breeds, maintained in Vidarbha which help in maintain the farmers economic condition. Proper organisation for marketing of livestock and livestock product is of great importance for the successful development of cattle industry, as it provide necessary incentives to the cultivator to take better method of cattle husbandary. The overall scenario reveal that it play important role in the rural economy in supplementing the income of rural household, particularly the landless, small and marginal farmer. It also provide subsidiary occupation in semi urban areas and more for people living in hilly, tribal and drought prone areas where crop output may not sustain the family.

Objective of the study

- 1) To study the market structure of selected livestock market in Nagpur district.
- 2) To study the marketing pattern and marketing of livestock.
- 3) To identify the problems in livestock marketing.

Hypothesis

- 1) Livestock marketing is profitable and majorly use to commercial purpose.
- 2) A considerable proportion of consumers' rupee is appropriated by market intermediaries.

Scope and limitations

In Nagpur district the livestock play important role in farmer economy. However there are number of problem in livestock marketing .To improve the livestock marketing in Nagpur district it was required to undertake study, on this to make suitable recommendation and hence the present investigation entitled "Marketing of livestock in Nagpur district. The primary purpose of this study was to consolidate the information which will be helpful in bringing improvement of livestock marketing in Nagpur district. It is hoped that the information provided by this investigation will be equally to businessman engage in all stages of marketing of bullock and to producer who seek marketing services on most economical term. This data would be useful for development of animal husbandry and market committee, in general and improving the economic prospects of cattle producer and trader in particular by reducing the excess marketing cost and avoiding malpractices through middleman and agents.

Improper valuation of their livestock was also important problem explained by some seller, middleman, drinking water, fodder and cattle shed were major problem reported at Nagpur district of cattle market

Chapter II

REVIEW OF LITERATURE

The review of literature is one of the important aspect in the research process which helps researcher to get acquainted with the subject matter under study and channelise future effort in desirable direction. It provide necessary guideline and help the researcher to delineate his research problem.

The main purpose of this study is to study the market structure of the selected livestock market in Nagpur district , to study the marketing pattern and marketing of livestock, several research worker have worked on the problem in different region. This chapter takes brief account of research work in market structure and marketing of livestock.

This chapter has been organized into following subsection,

2.1) Market structure.

2.2) Marketing of livestock.

2.1) Market structure

Dhume (1985) studied the regulated cattle market of Maharashtra state the auther observed that, most of the market committee has lack of fund. Very few market committees had maintained separate account for receipt in cattle market. It observed that there was a sizable income for the cattle market but the expenditure incurred on the development or the cattle market yard was proportionally less as compared to main market or cotton market yard. However, the Government of Maharashtra has issued instruction to the department of co-operation, agriculture, civil administration and judiciary to expenditure the cases of market committees for land allotment of market yard.

Arora and Pandey (1987) studied the structure and conduct of cattle market in Haryana and concluded that cattle market in Haryana were operating in pure competition and buyer and seller were in great competition to each other. There were several malpractices involved in cattle trade. Both buyer and seller had adopted various trade tricks to settle the price towards, the own benefit, but there was no collusion amongst buyer as well as seller themselves. Concentration of buyers as well as seller in the market had negative impact on bullock prices. Besides sellers concentration significantly offered the bullock price.

Samantar (1989) examine the structure, causes and determinants of livestock price fluctuations in Baydhabo and Karan (Mogadishu) markets in Somalia. Camels, cattle, goats and sheep are the main livestock animals reared in Somalia. A lack of profit motivation and of vital market information combine with the existence of a large number of independent sellers offering only a limited supply combine to deny livestock owners a significant influence on the local as well as the regional market. There is an apparent inability to stabilize the livestock market and hence reduce the elements of risk and uncertainty. However, due to a near parity of the bargaining strength of the contracting parties, livestock prices in Baydhabo appear to be more stable than in Karan (Mogadishu). It is suggested that seasonality is the major factor explaining livestock price changes over the year.

Pandit and Dhaka (2004) studied structure of livestock market in the Central Alluvial plains of West Bengal. The study reveals that, by and large the animal market were owned and controlled by private agencies. There were no organized institutional arrangement for controlling the marketing affairs .The owner recruits some manager, super wiser, slip writers, sweepers etc. On daily wage basis. Price was fixed by mutual negotiation between seller and buyer and through brokers. Majority of market arrival consisted on cow, bullock, and goat. Majority of the cows and bullock were in the age group of 6-8 years whereas, for goat it was 6 month to 1 year. The bred found in market

arrival consisted of local non-descript, jersey, crossbred for cows; Local Haryana, and animal from Bihar for bullock and Black Bengal and Jamnapuri for goat. Majority of seller and buyer sold and purchase one to three animal. There was no barrier in entering into the livestock trade in the study area. There were irregularities in market fee structure. A number of malpractices were also noticed.

Burarak and Jogi (2007) studied the existing organization and structure of animal fairs and animal exchange markets developed under Agricultural Development Project (ADP) in Rajasthan with the objective to study the functioning of animal exchange markets in terms of duration, location, number and type of animals brought in the market, market charges and amenities provided by the organizer's. For achieving the objectives of the study, apart from mailed questionnaire to the organizers' of all the 65 AEMs taken up for development under ADP, an indepth study often selected AEMs was undertaken. The observations based on the visit of mela sites were also recorded. These were supplemented with focused.

Singh *et al.* (2007) studied the structure of livestock markets in Bundelkhand region of Uttar Pradesh, their organization set-up, degree of product differentiation, degree of exit of markets, market fee structure and the existing malpractices are analyzed. The data were collected seasonally during 2005-06. The study reveals that the market-oriented economic policies of the country have brought into focus new issues, which were not very important or relevant in the past. The study shows that the livestock markets of Uttar Pradesh were largely controlled by the private sector. There was no organized machinery to control the trade for efficient and orderly marketing.

2.2) Marketing of livestock

Diwakar (1990) on the basis of study conducted in western Rajasthan in Gangamodi market stated that, marketing channel affect the marketing to a great extent. One or the important channel which

were identified in the market was livestock owner-user channel. In this channel the livestock are purchase of the trader of the village or market level and sold to the ultimate user only through them therefore the producer share in consumer rupee in this channel is usually found lower.

Mandal and Pandey (1993) revealed the fact that, the buffalo seller had to incur the amount into the feed and labor cost before the sale of animal for buyer, however the major cost item pertain to market charges. In general the small market were relatively more efficient in the buffalo trade as compare to other market .Similarly producer-consumer (final buyer) channel was the most efficient channel in the buffalo trade among category of market. The net share of producer (rarer/breeder) in the consumers price of the buffalo pertained about 88 percent of the total marketing cost being 12 percent of consumer price.The producer/seller had to incur about 5 per cent and remaining by the consumer. The regulation of cattle market alien to food market in the state is essential to reduce the marketing cost and margin on the one hand and livestock development together with the marketing research on the other.

Karimulla and Shrinivasan (1994) stated that the farmer ranking of the cattle attributes for indexing in the tune with theoretical scoring. The age-price relationship as reflected by correlation co-efficient under different age categories for bullock and recording to the no. of lactation for milk cattle was prevailing. Further the regression result revealed that the price of milk cattle was significantly influenced by milk yield and that of bullock by the feature index. In order to prevent the exploitation of farmer by the commission agent, the regulating various marketing practices should be encouraged.

Mulla (1997) studied the Marketing costs and Price spared in Haveri cattle market of Karnataka. Haveri cattle market is a semi localized market .During the bazaar day, buyers and sellers belonging to nearby places and neighboring districts, assembling to market the

cattle the cattle (cattle include bull, bullock, buffaloes and cows). A peculiar method is adopted by the broker in marketing the cattle. Here, the broker consults both the buyer and seller separately about their respective price at which they intend to buy and sell. The broker uses a towel to cover the hands of the buyer/ seller and himself to know at a fixed price. Ultimately, the broker does not reveal the actual price at which the cattle is sold, either to the buyer or seller. The difference between the seller and buyer's price ironically goes to the broker. In addition, he gets the commission from both parties. During the study, the fact of exploitation by the broker came to light. It was found that 76 per cent of the traders agree with this logic. The traders purchase the cattle from villagers and bring the same to market on Thursday. Nearly 81.2 per cent of cattle are sold through traders and 18.8 per cent of cattle are sold by farmers/ agriculturists due to old age of oxes, to exchange or due to economical problems. Researcher also pointed out that 68 per cent of the traders had business as their market occupation. The study also reveals that educated people were still scarce in the cattle marketing business. Seventy-three per cent of the buyers and sellers were not landholders and belong to nearby areas. Eighty-eight per cent of the total traders opined that nearly 48 per cent of the cattle are sold for the purpose of slaughter (off-age cattle & he buffaloes). The cattle are supplied to the cities like Shigaon, Savanur, Hubli-Dharwar, Gadag, Ranabennur and some other small towns of the neighboring districts.

Kale (1998) observed that most of the goat population is reared by dry land farmer and landless labour. The reason being the ready cash after sale as when required. The market for goat is flourishing with increasing number of goat entering the meat market. However due to malpractices of the middleman the goat farmer receives only 60 per cent share of the prices. He also reported that the profit of goat farm are totally dependent, upon how well the goat are fed. 75-80 per cent of newly developed goat farmer fail due to shortage of fodder.

Kale *et al.* (1998) studied the marketing of crossbred cows in Krishna Valley of Maharashtra state, the author observed that, the total marketing cost paid by the trader was 7.22 per cent in the total receipt of crossbred cow. While in the final price of the farmer buyer, the share in the total marketing cost for the farmer-seller and buyer was 2.9 and 3.7 per cent respectively. Dalali and transportation charges were the major items of costs for the trader as well as the farmers in the marketing of crossbred cows. Price agreement in the purchase /sale of crossbred cows takes place by negotiation through undercover method and mostly through brokers. The brokers are the middleman who negotiated price with undercover method of sale on behalf of the seller or buyer or both. The price of crossbred cow in the market was not determined by current and lagged arrivals significantly. But there was positive influence of arrival on the price of crossbred cow, 95 per cent of the variation in prices of crossbred cows was explained by milk yield, order of lactation and stage of lactation together. An increase in milk yield by one litre, the price of crossbred cow would increase by Rs.323. Age and order of lactation were the major factors determining the price of crossbred cows.

Khan and Rao (1998) studied slaughter cattle marketing in Karnataka. The author reported that the farmer→seller of slaughter cattle should always try to sale their cattle either by often auction method or by private negotiation to secure higher price for their cattle. The result have also proved that there was no effect of age in the price of the local breed on the contrary there was an appreciate effect of age on price of young upgraded improved breed price than the aged animal, because of tenderness of beef/meat. The crossbreed cattle secured the higher price in the market. The cost of selling of slaughter cattle could be reduced by timely availing the community transport of animal either of road march or by vehicle

Kushwaha *et al.* (1998) studied the economic analysis of livestock and meat marketing in Nigeria. The study showed that 70

percent of the producers breed their livestock under different management systems, while purchase and gift were identified as other source of livestock to the producers representing 15 per cent and 15 per cent respectively. The results indicated that 70 per cent of commission agents sourcing their livestock from producers, 20 per cent from local livestock assemblers and 10 per cent through breeding. Also 55 per cent of the meat wholesalers pointed out they purchased their animals slaughtered at abattoirs from commission agents. While 35 per cent and 15 per cent of meat wholesaler's source their animals from the local assemblers, and producers respectively. The fresh health inspectors as a major problem affecting their marketing activities, this represents 41.03 per cent of the frequency of the problem, inadequate handling equipment and high taxes were found to have respectively. Fresh meat retailers indicated handling equipment, transportation and inadequate handling space in the market as their problems representing 29.09 per cent, 21.82 per cent and 21.82 per cent of the frequency of the problem respectively. Roasted meat (suya) retailers pointed out inadequate handling equipment as the most pressing problem constituting 35.00 per cent of the frequency of the problem, then transportation and rejection of meat by consumers representing 25.64 per cent and 23.08 per cent respectively.

Sadah Ali Khan (1998) studied the economic analysis of draft cattle marketing in Karnataka. The main channel of marketing are observed viz. Seller→Wholesaler→Buyer and Seller→Broker→Buyer. The total costs incurred on an average by the seller were Rs. 205.84 for local breeds and Rs. 359.37 for improved breeds of bullocks. The breakup of the total costs incurred indicated that the cost of preparation of animals (MCs to MCs5) accounted for Rs. 108 .16 (52.55 per cent) and Rs. 167.1 for the local and the improved of breed of bullocks respectively. The cost of preparation constituted the major item of expenditure since it include the costs incurred at the farm level for extra fodder. feeds and concentration fed to the animals before they were moved to the market for sale .These cost alone accounted for

24.17 per cent 22.24 per cent of the total costs of sellers of local and improved breeds of bullocks respectively. The average number of mandays spent on the preparation of bullocks was 1.85 mandays for the local breed and 2.62 mandays for the improved of bullocks, amounting to 19.1 per cent and 15.39 per cent of the total sellers costs respectively. The cost of brokerage paid by the sellers constituted the second major cost, accounting for Rs. 52.66 and Rs. 115.09 of the costs incurred respectively on the local breed and the improved breeds of bullocks. The third major item of cost was the miscellaneous expenditure on the items such as incident expenditure TA/DA charity etc. Rs. 19.69 and which was Rs.29.24 for local and improved breeds respectively. The expenditure on transportation was the fourth major item which amounted to Rs.19.69 and Rs. 40.46 for local and improved breed respectively.

Sharma *et al.* (1998) The study reviews the status and focuses on the various channel of livestock marketing and marketing problem and malpractices experienced in market. The two marketing channel identified are viz. channel I-Producer/ breeder→buyer, channel II - Producer/ breeder→broker→buyer. The producer share was maximum in the first marketing channel. The producer share in consumer rupee estimated about 81.60 per cent. The government agencies are also making good efforts. The producer share was observed to be maximum in this channel. The major malpractices prevalent in livestock marketing are non-milking or milk cattle or for day to increase the size of udder giving gaggery for temporarily increase milk yield. False information about no. of lactation, shortening of basis. The major problem revealed of the farmer were lack of transportation facility, non – availability of finance, non availability of shades and space in the market yard, lack of provision of seeding stalls, non- availability of water and medical care, no provision of vaccination at entry points etc. These problem are prevalent in all the livestock market with varying magnitude.

Sharma *et al.* (1998) studied the marketing cost and price spread of milch animal in Saharanpur district of western Uttar Pradesh. Majority of cattle transaction are through local trader and the main marketing channel in Western Uttar Pradesh is producer/seller→local trader→Broker→Buyer. The price paid by the ultimate buyer for a milch buffalo, a crossbreed cow and local cow varied between small and large market's, being lower in small market. The producer's net share in the ultimate buyer's rupee for milch buffalo was estimated to be 86.63 per cent in large and 87.22 per cent in small market, indicating that small market have higher marketing efficiency for milch buffaloes from producer's point of view. In case of cross breeds cow, the producers share in the ultimate buyers rupee was 84 and 86 percent in large and medium market respectively, while it was 80 and 84 percent for large and small market for local cow.

Shendage *et al.* (1998) studying the cost of maintenance and marketing cost of Khillar bullock in Sangola market in Solapur district of Maharashtra. The main channel identified are Farmer→ Wholesaler →Farmer and Farmer→Middleman→Farmer. The auther observed that, at over all level , per animal maintenance cost of khillar bullock amounted to Rs.24,216.The maintenance cost increased with the increase in the age group of the animal. The overall cost at the marketing at the seller's level worked out to Rs. 319. The market price realized showed positive relationship with the age group of animal up to three years and there after showed negative relationship .Therefore the farmer are advised to sell their bullock at the age of three years so that they can reap maximum benefit out of this economic activity.

Shinde, *et al.* (1998) studied the marketing of Pandharpuri Buffaloes in Solapur District of Maharashtra state. The study revealed that, the arrival's and disposals of the pandharpuri buffaloes were higher in the winterseason. Milk yield, age, order of lactation and stage of lactation together explained about 93 per cent of the variation in the prices of pandharpuri buffalo. The total marketing cost paid by trader

was 7 per cent in the total receipt of padharpuri buffalo, while in the final price of the farm buyer, the share in the total marketing cost for the farmer -seller and buyer was 3 and 3.7 per cent respectively. Non - fixed brokerage charges, undercover method of sale and inadequate market facilities are the major problems faced by the farmer- sellers and buyers in the marketing of pandharpuri buffaloes in the state.

Singh and Anita singh (2001) studied the economic analysis of livestock marketing in Uttar Pradesh. The author observed only two marketing channels viz. channel I Livestock breeder → Buyer/local trader and channel-II is Local trader → Trader (outside state) → Livestock breeder. In channel-I, total marketing cost incurred by livestock breeder was Rs.1221 for Murrah buffalo, Rs. 1221 for Haryana cow, Rs. 1615, crossbred cow and Rs. 3470 for horse. Among the various items on marketing cost, maximum share of expenses came on brokerage (30.34 per cent - 59.08 per cent) followed by transportation cost (16.44 per cent - 18.16 per cent) fodder / dry matter / grain (11.88 per cent - 19.20 per cent) personal expenses (10.53 per cent - 12.89 per cent) and labour charge (8.04 per cent - 11.76 per cent). The livestock breeder share in buyers/ local traders' rupee was lowest in Haryana cow (82.72 per cent) followed by Murrah buffalo (90.16 per cent) crossbred cow (91.26 per cent) and horse (93.39 per cent). In channel-II total marketing cost incurred by the trader was Rs. 1514 (murrah buffalo) Rs 1602 (Haryana cow), Rs 1745 (crossbred cow) Rs 3747 (horse). Among the total expenditure on marketing cost, highest per cent share was on brokerage (29.51-68.45) followed by transportation cost (17.17-21.85), fodder / dry matter/grain (7.34-19.03), personal expenses (7.21-13.73) and labour expenses (9.58-10.77). In case of traders belonging to other states, total marketing cost expenditure was accounted for Rs. 4705 (murrah buffalo), Rs.3901 (Haryana cow) and Rs. 4077 (crossbred cow). Total marketing cost, share of marketing margin was found to be highest, i.e., 61.74 per cent for Murrah buffalo 49.73 per cent for Haryana cow and 52.12 per cent for crossbred cow. The trader's share in livestock

breeder's rupee was accounted for 76.78 per cent for murreh buffalo, 67.35 per cent for Haryana cow and 76.34 per cent for crossbred cow.

Bhatia *et al.* (2003) studied the disposal pattern, marketing cost and margin and efficiency of various channel involved in the trade of sheep and wool in Haryana. The author observed the marketing channels are Farmer→Farmer, Farmer→Bucher, Farmer→Village middleman→Wholesaler, Farmer→Village middleman→Local trader→Wholesaler and Farmer→Village middleman→Butcher. For live sheep channel IV was the most popular channel followed by channel III. Moreover, small farmer had the highest sale through channel IV followed by channel I, medium farmer sold maximum through channel I followed by by channel IV and large farmer by channel III followed by channel I. Channel IV has the highest disposal of wool. But small farmer had sold maximum instant sale through channel I while medium and large farmer sold through channel II. For live sheep, the price received by the farmer per animal through channel IV had the highest price. Moreover, channel II was proved to be more efficient and the best channel in the study area for wool trade

Raja Rajan and Dhaka (2003) studied the marketing cost of milch animal and problem in cattle marketing was conducted in cattle market of Coimbatore district in Tamilnadu. The three channel observed in study area viz .Farmer/ Seller → village trader →broker →farmer/buyer, Farmer/seller→broker→farmer/buyer, Farmer/seller→Farmer buyer. Among these three channel, marketing cost was the highest in channel I due to more number of intermediaries involved in moving the animal from seller to buyer. The breed wise analysis revealed that, in general the cost of marketing for cross breed cattle was higher than that of local breeds in all the identified channel. Among the various component of marketing cost , transportation cost and the cost of preparation were the major item of cost in all channel for the seller .For the buyer , transportation cost and the brokerage charges formed the bulk of total marketing cost . Majority of the seller rank unrenumerative

prices for animal as the most limiting constraints in cattle marketing. Among the various problem faced , buyer considered the problem of malpractice adopted by seller and trader as the most disturbing one .The study suggested for the regulation of cattle market in Coimbatore and improvement of infrastructure facilities.

Naidu *et. al.* (2004) effective stated that marketing strategy are important for sustaining the livestock production activities with fair approach for the mutual benefit of producer and consumer in estimated 2000 market in India transact livestock controlled of local bodies more as a source income rather than providing quality service. Middle man or commission agent play active role in there transaction infrastructure facility are grossly lacking and no independent agency failage better return to producer. There is need for study on marketing aspect of livestock and poultry, to develop and implement plan for better marketing for livestock and avoid losses and cruelty to animal. Separate market for different livestock species and poultry and for establishment improved and effective marketing system in the country. Organized marketing is more important in the present small holder production.

Reddy *et al.* (2004) reveal that animal husbandry in India is closely interwoven with agricultural since ages and plays important role in the rural economy contributing significantly to the nation as well as the state economics. Livestock sector is a prominenant sector among agriculture and allied activities in India. The marketing channel observed are Producer-Wholesaler-Buyer and producer-Broker-Buyer. We can conclude that total margin of intermediaries were high where there is more number of intermediaries in marketing channel. Low total margin were observed in channel I compared to channel II, which is having more intermediaries in all the cases. It was also found that channel II has less marketing efficiency than channel I- Producer seller realized highest share of consumers price in the market channel where the marketing efficiency was high. The study also identified that

transportation charges followed by commission agent charges and market fee respectively had their major share in the marketing cost.

Chopade (2007) studied marketing of bullock in Akola district and reported that in the selected markets maximum number of purchasers did not prefer the crossbred bullocks, Whole only few of the purchasers preferred crossbred bullock for purchasing. Selling and purchasing price of crossbred bullock were always less than local bullocks. Maximum number of non – descript types of bullocks were sold and purchased in the selected markets. Most of the sellers and purchasers were the medium (2.01 to 4 ha) land holders, more number of sellers had annual income from Rs. 50,001 to 1,00,000. They sold their bullocks due to the financial and fodder problems. In the cattle markets maximum bullocks were of non- descript types. Most purchasers rejected to prefer the crossbred bullock, and crossbred bullock fetches lower price than local bullocks. Sellers came to the markets on the day of market; few come on the previous day of market, mostly by walking and with their bullock cart.

Khalache and Ubale (2007) found that the existing marketing system does not favour the producer, especially the poor goat farmer in living in remoter villages. There is no proper marketing facility available for goat owner to sell goat at their local market. As a result of low market awareness and pressing need for cash, goat farmers are not able to bargain with middlemen to get remunerative prices for their animal. It is suggested that access to institutional finance, high market awareness and transparent system in the animal market would be great help to poor goat farming

Bhosale (2008) studied the marketing of bullocks in Buldhana district and reported that in all the selected market of Buldhana district maximum number of purchasers purchased bullock through broker. while, less number of purchasers used friend or relative and direct method for purchasing bullocks. Maximum sellers and purchasers preferred the bullocks transactions in the market within district. Most of

the sellers and purchasers were medium land holder (2.01 to 4 ha), purchasers in selected markets purchased were the bullock mainly due to their need of bullock for farm works than replacement and resale. In the selected markets sellers mostly needs brokers to search the customers followed by to negotiate price of bullock and purchasers needs broker mostly to fix the price of bullocks. For the bullock selling the sellers came to market place on the day of market. Maximum sellers and purchasers preferred the markets located within the district than local markets. Regarding the marketing of crossbred animals most of the sellers and purchasers preferred the Jersey cross breeds followed by Holstein friestan crossbreds.

Kumar *et al.* (2009) studied the paper attempts to comprehend the goat marketing system in Rajasthan and analyze related development issues. It was observed, that the farmers was not raising the male kids up to the economics age of slaughter .The share of kids of 3 months age the highest (39 percent) in the total sale of live goats by the farmers in a year. Farmers participation in the livestock market was very low. The sale of goats from farmers to different buyers in the village itself accounted for more than 75 per cent of the total sale of live goats and only about 25 per centof the surplus goats were sold in livestock market .The market functionaries provided useful marketing opportunity for the good keepers and created space utility, but goat marketing was characterized by high middle men's margin pricing inefficiency, poor participation of farmers in the market infrastructure, no focus on food safety issues and no mechanism for regulation ,monitoring and absence of transparency in the livestock market. In the absence of any support from the government and their own inability to organize and innovate, the goat farmers were continuing with the present system of goat marketing, but even one per cent of them were not satisfied with the existing system of marketing. The farmer's share in consumer's rupee varied from 65 to 76 per cent when the marketing channel ended within the state and it was less (58 to 60 per cent) when goats were exported to other states

Biswal and Kumar (2011) studied the economics of livestock marketing in Orissa. The author observed four marketing channels in cattle and buffalo marketing, viz, farmer→farmer, farmer→ middleman →wholesaler→farmer, farmer→middleman→ farmer, farmer→ wholesaler →farmer. Channel I was found to be the most popular marketing channel for both male and female animal transaction. The major marketing cost component has been found as labour, market fee, expenditure for feed and fodder and transportation cost. Labour cost was found to be the major marketing cost for both channel II and lowest in channel I for both male and female animal. The market margin as a percentage in ultimate buyer's rupee has been found increasing in order from channel I, channel III, and channel IV to Channel II. As a result, the producer's share in ultimate buyer rupee was decreasing. Therefore channel I was found to be the most efficient marketing channel for both male and female animals and channel II was the least efficient one.

Meena *et al.* (2011) studied supply chain and marketing of livestock in Andhra Pradesh. The shandys receive animals worth over Rs.1,100 crores annually while animals which are traded is valued at Rs.500 crores. It is observed that higher numbers of shandys have contributed towards higher number of animals traded in a district and vice-versa. On an average, about 20 lakh animals/ annum are brought for sale whereas, the actual sale of animals is merely 8 lakh. This suggests that while sellers were keen to market their unproductive animals, the buyers were looking for the productive animals. It is also found that animal trading is indirectly contributing to milk productivity in the state. Nonetheless, shandys are earning considerable revenue in the shandys. A central location and better transportation for both the buyers and the sellers to commute attributes to the success of a shandy. On the whole, poor and innocent farmers are cheated due to unfair practice. As organized system in animal marketing also contributes towards higher herd productivity, it is imperative to organize efficient animal market to enable the farmers to sell their unproductive animals and purchase productive animals.

Sagar and Patange (2011) studied the special marketing strategy of cattle broker in Latur district. The author observed that, brokers play very important role in cattle marketing. Use of code language for numbers is a cattle marketing strategy use by the brokers. The main aim of code language is to maintain secrecy of buyers expected price of cattle and seller expected price of cattle and also the amount of commission. Brokers use code language in cattle dealing. This code language is commonly used for the number identification in respect of price of cattle and amount of commission. It is concluded that, cattle brokerage on cattle dealing is fixed by various methods and code language for numbers is used as a special cattle market.

Singh *et al.* (2011) studied the marketing of animals and small ruminates, month wise arrivals and disposal of the animals in Moradabad. The the auther observed that the overall arrival of livestock was maximum (3658) in month of June and minimum (1808) in the month of November. The transaction of livestock depicts the same pattern. The overall transaction was found during the year was 24.97 per cent. The maximum number of cows, buffaloes and bullocks arrivals were in the month June (583,2017 and 1058) and minimum number of arrival were in the month of November (i.e. 283, 1075 and 450,) respectively. The maximum number of arrivals during the year was of buffaloes (17669) followed by bullocks (8144) and cows (4716). The number of cows brought and sold in the month November and 85 to 135 in the month of June. Similarly, in the case of buffaloes, the number of arrivals in the market for transactions ranged between 1075 in the month of November to 2017 in the month of June. The number of buffaloes transacted during the cattle fair ranged between 262 in November to 421 in the month of June. It further revealed that in the case of bullocks the number of arrivals ranged between 450 in the month of November to 1058 in the month of June. The aggregate per cent of transaction of total arrivals during the year was 26.23, 22.10 and 30.49 per cent of cows, buffaloes and bullock, respectively.

Thaware (2011) studied goat marketing, its channel and constraint's in Maharashtra state. The author observed that, goat-keepers sell their goat mainly through two channel i.e. organized markets under the control of APMC or grampanchayat and unorganized market at door step and on the way to market, dominated by butcher , trader, goat keeper etc. without any control over them by any agency. But an exclusively organized goat market does not exist while selling and buying goat under different market system, both seller and buyer fix prices on the basis of their weight , age, colour etc. The weight of goat is determined using the traditional technique of lifting it by hand .Weighing machine are not used in marketing channel which result in goat-keeper getting cheated.

Darekar *et al.* (2012) studied many difficulties in bullock marketing which are faced by farmers and hence the study was planned. Four cattle markets from Amravati district were selected and these are Chandur Bazar, Badnera, Sendurjana and Paratwada. The data were collected by simple interview method after making three visits to each market. Majority of medium land holders were involved in the sell and purchase of bullocks and their bullocks because of financial and fodder problems. 70.45 per cent purchasers expressed about need of bullock for field operation. Majority of sellers and purchaser preferred non-descript and white coated bullocks. Adult bullocks were preferred by sellers (59.09 per cent) and purchaser (47.72 per cent) in bullock marketing, 84.09 per cent sellers brought their bullocks to themarket on the day of market. Majority of sellers and purchasers adopted seller-broker-purchaser channel, following by direct channel and through friends and relatives channels. In all the markets, broker was the need for negotiate the price and for searching customers and bullocks. In all markets of Amravati district sellers and purchasers expressed middleman was the major problem in marketing of bullocks. Majority of sellers and purchasers did not like to prefer crossbred bullocks problem in Amravati district.

METHODOLOGY

As scientific study of any problem require the investigation to adopt appropriate method and procedure in order to arrive at meaningful conclusion. Keeping view the objectives of the present study the research methodology was adopted with respect to selection of market, selection of buyer, seller, broker etc. is described below.

The present investigation, Marketing of Livestock in Nagpur district was undertaken by collecting the information from bullock seller and purchaser in Nagpur district. Data were collected by personal interview and by filling questionnaire.

3.1 Selection of market

The study was undertaken in Nagpur district of Vidarbha region. There are agricultural produce committees which controlled by total cattle market of Nagpur district. Instead of selecting all the cattle markets for study, three markets were selected which represented whole district according to geographical distribution of the district. Hence selection of such market had given sufficient scope for selection of required number of purchaser seller and broker.

Selected 3 market are listed as below-

1. Katol
2. Mohpa
3. Kalamna

3.2 Market structure

This point was considered for study the structure of the market and facility available in market. To examine the structure of the market their organizational set up, degree of product differentiation, degree of seller and buyer concentration, condition of entry to and exit of the market, market fee structure and malpractices prevailed in the market were analysed. All the market selected for the present investigation were owned and controlled by government agencies. Control all the market wasted with the manager. Slip writers issued the slip related to the animal transaction. Market fees structure observed in majority of the cases that occasional seller/buyer had to pay higher fees than their regular counter part. Seller, buyer, broker and other market functionaries, as observed by the researcher and told by respondents, indulged in sum corrupt practices to gain personal advantages out of annual transactions. It was observed very often that the seller provided false information regarding milk yield, age, lactation number, body weight of goat, past performance of bullock.

3.3 Marketing pattern and marketing of livestock

In this point to study in which way marketing is done and how many intermediaries involved in it. Existing marketing channel available in market was studied.

3.4 Selection of purchaser, broker and seller

Livestock i.e. Cow, bullocks, buffaloes and goat were considered for present study from each market 10 each livestock owner was selected and total 120 livestock owner was selected for the study. All the major agencies involved in the marketing of livestock i.e. middleman, wholesaler and retailer 15 each from one market total 45 was selected for the present study. The data pertain for the calendar year 2012

3.5 Method of data collection

The information was collected by survey method. The separate set of interview schedule and questionnaire specially for collection of information from seller, broker, and agricultural produce market committee were design. It was felt necessary to have separate set of interview schedule and questionnaire because the nature of information to be collected from these sources happened to be different from each other. The data was collected on market day of these three market. Information from broker was collected for a normal weak transaction of livestock while preparing of questionnaire the point of general information were consider.

Information about livestock

5. a) Breed of cow, bullock, buffalo and goat : This point was considered to know which type of breed generally comes for marketing in Nagpur district to various selected market.
- b) Age of animal: In this category mainly 3 types were made i.e. young, adult and old and study was undertaken for the overall age group which were marketed.
- c) Period of survey: The cattle market started from June to December. In every market and peak period of market is February to April. Therefore the survey was carried out in the month of October to December 2012.
- d) Price of livestock: Price is the main factor of marketing and present study was taken to know the basis of livestock pricing and point considered for pricing.
- e) Method of selling: To know which channel are mainly used for selling of livestock. In this category three channel were studied

1. Direct
2. Through broker

3.6 Preparation of animal marketing

In the preparation of animal for marketing various practices were use by the seller i.e. washing, grooming, blanketing, horn treatment, hoof treatment etc. These practices were studied by interviewing the seller.

3.7 Information about the seller

Following point were considered to get information about seller

1. Land holding: It include the total land, fallow land, irrigated land and unirrigated land.
2. Income: Include the annual income of the seller.
3. Distance from market
4. Reason for sale of livestock
5. Age of livestock
6. Breed of livestock
7. Colour of livestock
8. Method of selling
9. Preparation practices
 9. a. Washing

b. Grooming

c. Blanketing

d. Horn treatment

e. Hoof treatment

f. Polishing

10. Need of broker

11. Constraints in livestock marketing

12. Suggestion of farmer for better marketing

3.8 Information about broker.

The points were considered to get the information about the broker

a) Name of broker

b) Village

c) Tehsil

d) Age

e) Education

f) Distance from market

3.9 Method of sale adopted in marketing of livestock In Katol, Mohpa and Kalamna market

In Katol Mohpa and Kalamna market the most commonly method use in selling of livestock through broker. This method of livestock selling, the buyer and seller are brought together by the broker in the marketing process. In this method broker tell his price and keep some money in the seller hand and ask seller to his price, if seller say more price then middleman requested to seller for decreasing the price and try to fix the deal, if deal is fix then seller keep hand on animal. Another method of selling is direct selling. In direct selling method the buyer and seller directly contact with each other and perform the operation like buying or selling without intermediaries

3.10 Cost of marketing, marketing margin and price spread

The difference between the producer's price and the price paid by the consumer for a unit. Marketing margin in this study thus includes the total cost of marketing and the profit or loss to the intermediaries i.e. the wholesalers and retailers. In the present study this referred to the marketing charges incurred by the wholesalers, retailers involved in the sale and purchase of the livestock.

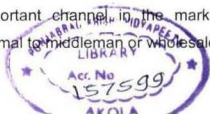
a) Marketing

Data were collected from farmers, wholesalers and Middleman about the price spread, transportation costs, commission charges.

Marketing channels

Marketing channels are the route through which Livestock move from Farmer to Farmer.

1. **Farmer** This is the most important channel in the marketing channel. Farmer directly sale the animal to middleman or wholesaler.



2. Middleman Middleman is the people who helps to farmer for sale his livestock and get brokerage from wholesaler and farmer.

3. Village middleman: Village middleman is the people who help to farmer for sale his goat and get brokerage from farmer.

4. Wholesaler: The wholesaler offer the prices according to the quality and quantity of the produce they purchase on cash payment and sum of the amount pay by check or at small intervals.

5. Butcher: Bucher slaughter the meat on various occasion as well as for purposes of routine consumption. Also they supply meat to individual consumer and hotel.

In this study the marketing channel for goat is restricted to bucher/ wholesaler only because non availability of data in local market.

b) Marketing cost

Marketing cost will includes total cost incurred on marketing of livestock by farmer and by various intermediaries involved in sale and purchase of livestock under study till it reaches to the consumer.

c) Market margins

It refers to net share availed by the different intermediaries in marketing after deducting marketing costs from gross marketing margin at each stage of marketing for handling the livestock.

d) Price spread

The price spread indicates the difference between net price received by seller of livestock in market and price paid by ultimate consumer for equivalent quantity of livestock in retail market. The study

of price spread involves ascertainment of the actual price at various stages of the marketing and the costs incurred in process of selling of livestock from the farmer to farmer and the margin of various intermediaries.

3.11 Producer's share in consumer's rupee

It is the net price received by producer expressed as a percentage of the price paid by the ultimate consumer.

The Producer's share in consumer's rupee depends on the extent of services rendered by different market agencies in the market at selling of livestock. The distance of farmer market.(place utility). The period of holding the commodity (time utility). Producer's share in consumer's rupee and extent of services rendered by different market agencies are inversely related. Hence the better method of sale from the Farmer point of view he receives the highest net price for his livestock and not necessarily the highest per centage share in consumer's rupee.

3.12 Method of analysis

The data were analysed to work out the atom wise cost of marketing in absolute as well as in per centage, the price spread in marketing of livestock was also work out. For the remaining aspect , simple tabular analysis such as arithmetic average per centage etc. were worked out to accomplish the objective of present study.

3.13 Material Required

The computational devices i.e. electronic calculators were computer were made available in the section of Agricultural Economics and Statistics, college of Agriculture Nagpur and Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola.

3.14 Place, time and duration of research work

The information of present study was obtained from farmer, market functionary and Agricultural Produce Market Committee of Nagpur district and interpreted at Agricultural Economics & Statistics Section, College of Agriculture, Nagpur

Chapter IV

SOCIO - ECONOMIC STATUS OF NAGPUR DISTRICT

Maharashtra state has seven revenue divisions viz., Mumbai, Pune, Nasik, Aurangabad, Amravati, Nagpur and Nanded. Vidarbha region includes Amravati and Nagpur revenue divisions comprising eleven districts viz., Buldhana, Akola, Washim, Amravati, Yavatmal, Wardha, Nagpur, Bhandara, Gondia, Chandrapur and Gadchiroli. Nagpur division includes Nagpur Bhandara, Gondia, Chandrapur Gadchiroli and Wardha which are the eastern districts of Vidarbha. The western districts are Buldhana, Akola, Washim, Amravati and Yavatmal. The western districts are known for cotton crop and the eastern region is for good quality of rice. Vidarbha as a whole contributes cotton, rice, jowar, millets, oilseeds, soybean, citrus and forest timber etc.

The present study is confined to Nagpur district of Vidarbha region. General background and agro climatic characteristics' are given for understanding the inherent feature to draw appropriate conclusion keeping in this view , the important background information and agro economic characteristics' of Nagpur is given in this chapter. The agro climatic conditions differ from place to place and even in close vicinity also, it may or may not be identical. It is therefore proposed to outline some of the main agro economic and geographic feature of Nagpur district.

The agro climatic conditions differ from place to place. The two places in close infinity may or may not have identical climatic conditions. These variations call for study also provides background for study area. Some of the important aspects of Nagpur district which would provide useful background for study area and understanding of the salient features of the farmers in the study area.

1. Location

Nagpur while with a glorious ancient part was district of ex-Madhya Pradesh till reorganization of States in 1956. Then along with the other seven district of Vidarbha region it formed a part of State of Maharashtra in 1960. Now Nagpur enjoys the status of second capital of Maharashtra. Nagpur is situated in sub-tropical zone, having latitude of 20.35°.to 21. 44⁰ North and longitude 78.15° to 79.40⁰ East having an altitude of 274 m to 652 m.

2. Area, Population and literacy

Nagpur district, which has been selected for the present study falls in Vidarbha region of Maharashtra State. 14 tahsils namely Nagpur Urban, Nagpur Rural, Hingna, Kamptee, Katol, Narkhed, Saoner, Kalmeshwar, Ramtek, Parseoni, Mauda, Umred, Bhiwapur, and Kuhi with thirteen Panchayat samities are present in Nagpur district.. It covers area of 9892 sq. km. accounting for 3.21 percent of total area of Maharashtra state. The total area of the district is 17,718 km², out of which 17,448.5 km². is rural and 269.5 km² is urban. As per the 2011 census, the population of the district is 29,80,884 (5, 77,337 urban and 24,03,547 rural population). The density of population in the district is 157, as against 165 of Maharashtra as a whole. 12, 87,921 persons of the district are literate. Out of which 10, 21,314 are rural and 2, 66,607 are urban, which makes it 58.26 percent of the total population. Out of this literate population 75.33 percent are males and 40.45 percent are females.

3. Boundaries

The district is bounded by Chhindawada and Seoni districts of Chattisgarh state in the North, Bhandara and Gondia district in the East, Chandrapur district in the South and Wardha district in the West along with small strips on the North-West by Amravati district of Maharashtra.

NAGPUR DISTRICT

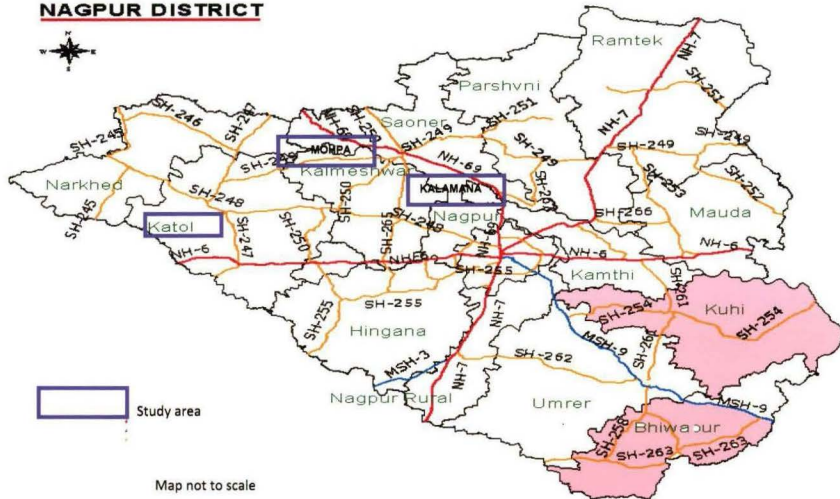


Fig. 1: Map of Nagpur district showing market selected for study.

4. Climate and rainfall:

The climate of the district is characterized by a hot summer, well distributed rainfall and dryness except, in rainy season. The winter season sets from December to January and is followed by the hot season from March to May. The southwest monsoon, season is from June to September, while the period of October and November constitutes the part of monsoon. Generally the rainfall is not uniform in the district. The district receives rainfall from southwest monsoon, originating from the Arabian Sea. The average annual rainfall throughout the district amounts to 1147.88 mm due to hilly and forest tracts. The month of June September receives about 90 per cent of the annual total rainfall. The cold weather starts from November and lasts till February. December is usually the coldest month with mean daily minimum temperature of 14°C temperature starts to rise from March onwards. May is the hottest month. From May onwards the humidity is high and humidity goes down to 20 per cent or less in summer.

5. Topography and soil

The district has an elevation between 274.50 and 305 meter (900 and 1000 feet) above sea level. A greater part of the district is undulating plateau with variation in height between 252.70 meter north and above 274.50 meter near kanhan river. The main soils of the district are 'Kali' (medium deep black cotton soil), 'Morand' (comparatively Very light deep brown in colour), 'Bardi' (red gravel with boulders) and 'Kochar' (alluvial land fertile by deposits of silts). Medium deep black cotton soil is found around Kalmeshwar and Saoner of Wardha valley and in Nagpur Kamptee plains. The soil of the district is suitable for cotton and Jowar and is found in almost all the tahsils. The soil suitable for kharif crops and regular rice is found in the eastern part of the district. Bardi is found on the summits and the slopes of the hill mainly in Katol and north of Remark.

6. Forest, flora and fauna

The district of Nagpur is poor in forest resources. The total area under including hills is reported to be 240.92 km². This is 1.3 per cent of total geographical area of the district scanty rainfall & other geographical constraints account for this. The western part of the district is divided of natural vegetation cover except for low herbs & grass which grows on low sand dunes. However, the South-Eastern part of the district & part of the northern tehsil of Ladnun and Didwana have much greater greenery as compared to North-West part of the district. Khejri trees are commonly found in the district. Its leaves are used as fodder. It also gives gum. Apart from commercial value, this tree is considered holy. The tree also plays an important role in checking soil erosion. The other common species found in the district are Baool, Neem, Shisham, Peepal, Rohira, Kalsi, Dhan good Akara etc. A Rohira & Shisham tree provide timber & is used for making furniture. Dhan good is generally used for making cots. Dried Akara skin is called *Sunn* and is used in making ropes for huts, and weaven chairs, locally called as *Muddhas*. *Kheep* is another shrub which is used for making ropes for thorny fences. A common shrub-phog provides building material from its roots and twigs. Common grass found in the district include bargers, bhambar etc.

7. Live stock resources

According to the 2007 census, the livestock population of the district was 982987 as compared to 1997 census which figure out 1098323 total livestock population. 46.71 per cent were estimated to be Cattle, 10.34 per cent buffaloes, 35.03 per cent sheep and goat and others livestock were 8.52 per cent.

Table:4.1 The population of livestock in Nagpur District

Sr. No.	Category	Population census in thousands		
		1997	2007	2012
.1	Cows & Bullocks	639162 (58.22)	537000 (53.70)	548154 (55.85)
2.	Buffaloes (Both Sex)	98452 (8.96)	101000 (10.10)	84405 (8.59)
3.	Sheep & goat	345186 (31.44)	344000 (34.40)	281878 (28.74)
.4	Other livestock	14892 (1.38)	18000 (1.80)	67031 (6.82)
.5	Total livestock	1097692 (100.00)	1000000 (100.00)	981468 (100.00)
.6	Poultry	404000	415000	309711

(Source: Socio-economic review and district statistical abstract of Nagpur district.)

Language spoken

Marathi, Marwari, Hindi, English, Urdu and Rajasthani language are spoken in the district.

Table 4.2 Source of irrigation and net area irrigated (2012-13)**(Area in hectare)**

Sr. No.	Area	Area irrigated other than wells	Area irrigated through well	Total net irrigated area	Irrigated area sown more than ones	Total irrigated area
.1	Nagpur	517	715	1232	240	1472
.2	Vidharbha	3954 (39.08)	3446 (15.08)	7400 (27.45)	1144 (19.84)	8542 (22.06)
.3	Maharashtra	10117 (100.00)	22845 (100.00)	32962 (100.00)	5766 (100.00)	38726 (100.00)

(Source: Socio-economic review and district statistical abstract of Nagpur district.)

(Figure in the parenthesis indicate percentage to the Maharashtra)

In Nagpur district the area irrigated through well is larger than area irrigated through any other source as wells are major source of irrigation in this region because no of rivers are very less and because of that area sown more than once is very less as compared to total net irrigated area in Nagpur district.

8. Land use pattern

Land use pattern shows that the geographical area of Nagpur district is 9,89,200 ha. and the net cultivable area is 50.05 per cent of the total geographical area. The pattern of land utilization in the district reflects the cultivation potential of the district and the scope for further improvement.

Table 4.3: Land use pattern of Nagpur district (Year 2011-12)

Sr. No.	Particulars	Total Area (in '000' ha)	Percentage to total geographical area
1.	Total geographical area	989	100
2.	Area under forest	129	13.04
3.	Non-agricultural land	70	7.07
4.	Barren and uncultivated	25	2.52
5.	Cultivated waste	20	2.02
6.	Permanent pasture and grazing	28	2.83
7.	Land under miscellaneous crops	9	0.91
8.	Current fallows	41	4.14
9.	Other fallows	20	2.02
10.	Net sown area	495	50.05
11.	Area sown more than once	152	15.36
12.	Gross cropped area	647	65.41

Source : Socio-economic review and district statistical abstract of Nagpur district.

9. Crop season and crop rotation

The district has two agricultural season viz. Kharif and Rabi and normally summer crop are cultivated on very minor area. The main crops grown in kharif season are paddy, cotton, jowar, soybean, chillies, tur, and groundnut while wheat, gram and Rabi jowar are the main rabi crop. The perennial crop like oranges, mango and lemon are

also grown. Now farmer of the region are shifted towards growing forest trees.

10. Agriculture

Agriculture is the most important economic activity in Nagpur district. Kharif and Rabi are two seasons followed in the district. The Kharif season commences with the advent of the rains in the month of June and is followed by Rabi season in winter months.

11. Cropping pattern of Nagpur District

The total area as well as relative area under different crops in Nagpur district for 2011-2012 is presented in Table 4.4.

Table 4.4 :Cropping pattern of Nagpur District (2011-12)

Sr. No.	Name of crop	Area (in ha)	Percent to gross cropped area
1.	Rice	78620	12.16
2.	Kh.Jowar	7196	1.11
3.	Rb.Jowar	2096	0.32
4.	Maize	335	0.05
5.	Wheat	72596	11.22
	Total cereals	160843	24.87
6.	Tur	56220	8.69
7.	Mung	1921	0.30
8.	Udid	1928	0.30
9.	Gram	69909	10.81
10.	Other pulses	6841	1.06
	Total pulses	136819	21.16
11.	Groundnut	2964	0.46
12.	Til (Sesamum)	137	0.02
13.	Soybean	237156	36.67
14.	Sunflower	1547	0.23
15.	Other oilseeds	600	0.092
	Total oilseeds	242404	37.48
16.	Cotton	106141	16.41
17.	Sugarcane	514	0.07
	Gross cropped area	6,46,721	100

Source: Joint Director of Divisional Agriculture Office, Nagpur.

Table 4.4 revealed that the gross cropped area of Nagpur district was 646721 hactre out of which he percentage of total cereals, total pulses and total oilseeds to the gross cropped area were 24.87, 21.16, 37 and 37.48 per cent respectively. Soybean is major crop of the district which occupy 36.67 per cent area to gross crop area.

12. Marketing and transportation

Agriculture market committees are functioning in the district and taluka level for marketing of agricultural produce. The marketing committees are connected with road and having banking electricity and other infrastructural Facilities .Nagpur is well connected with bus, railway and air. Bullock cart, tractors and truck are the important means to transport agricultural produce while orange and fruit are transported across the country by air too. Also animal play important role in Nagpur district in rural economy. Mostly animal is transported through the bullock cart, tractors and truck. Also goat play an important role in the Nagpur district to develop the economic condition of the farmer means for commercial purpose.

13. Input supply

Agriculture inputs like seed, manure, fertilizer, insecticides, pesticides, etc. require by farmers are made available to them through no. of agriculture. Service centers established at district level and block levels.

Maharashtra state seed corporation; and other private seed companies supply quality seeds to the farmers. The farm inputs are made available to farmers by cooperative societies also. Functioning at block level panchayat samiti also provide inputs to the farmer's co-operation society supply; input against the loan sanctioned by the DCCB to individual cultivator.

RESULTS AND DISCUSSION

The present investigation had been undertaken with a view to study Marketing of Livestock in Nagpur district". This chapter deals with general information of the selected cultivators i.e. average number of livestock, family size and education pattern of farmer, Number of livestock passes by farmer market structure and marketing of livestock. The data pertains for calendar year- 2012 and the findings of this study are presented in this chapter.

5.1 Socio-economic characteristics of selected livestock farmers in Nagpur district

Socio-economic characteristics of the farmers are studied with the help of average number of livestock, family size and education pattern of farmer, No. of livestock possess by the farmer are discussed in the following paragraph.

5.1.1 Distribution of farmers according to average number of livestock

Distribution of farmer according to average number of livestock are presented in table 5.1

Table 5.1 Distribution of farmers according to average number of livestock

Sr. No.	Market Name	Farmer selected (No's)	Average no. of cattle
1	Katol	40 (33.33)	18 (33.96)
2	Mohpa	40 (33.33)	20 (37.74)
3	Kalamna	40 (33.33)	15 (28.30)
4	Total	120 (100.00)	53 (100.00)

(Figure in parenthesis indicate the percentage to total)

It is observed from Table 5.1 that , the farmers selected from Mohapa cattle market posses highest number of livestock (20) followed by Katol cattle market (18) and Kalamna cattle market (15) respectively.

5.1.2 Average size of family for selected livestock farmer

Family size and its components are basically the functions of economic and social characteristics, custom and religious belief of society. The family size of farmers play an important role in managing the family members work as farm labours and for maintenance of livestock as and when required. The details of average family size of selected farmers are presented in Table.5.2.

5.2 Table: Average family size of selected farmers

Sr. no.	Particulars	Name of the market			
		Katol	Mohpa	Kalamna	Overall
1	Male	3 (50.00)	3 (42.86)	3 (42.86)	3 (42.86)
2	Female	2 (33.33)	3 (42.86)	3 (42.86)	3 (42.86)
3	Children	1 (16.67)	1 (14.28)	1 (14.28)	1 (14.28)
	Total	6 (100.00)	7 (100.00)	7 (100.00)	7 (100.00)

(Figure in parenthesis indicate the percent to total)

The table 5.2 revealed that, the average family size of selected farmers was 3 male, 3 female and 1 children at over all basis. Total family member under Katol, Mohpa and Kalamna cattle market were found to 6, 7 and 7 respectively. The highest family members are observed in the Mohpa and Kalamna market.

5.1.3 Education status of selected livestock farmer in Nagpur district

Education is an important factor in understanding important and availability technology and its adoption. It is also one of the important aspects which affect the standard of living of farmer. The information regarding the education status of selected livestock farmer is presented in Table 5.3.

Table: 5.3 Educational pattern of selected farmers

Sr. No.	Particulars	Name of the market			
		Katol	Mohpa	Kalamna	Over all
1	Illiterate	2 (5.00)	3 (7.5)	5 (12.5)	10 (8.34)
2	Primary school	7 (17.5)	9 (22.5)	2 (5.00)	18 (15.00)
3	Middle school	4 (10.00)	12 (30.00)	20 (50)	36 (30.00)
4	High school	17 (42.5)	8 (20.00)	9 (22.5)	34 (28.35)
5	Higher secondary	6 (15.00)	5 (12.5)	3 (7.5)	14 (11.66)
6	Graduate & above	4 (10.00)	3 (7.5)	1 (2.5)	8 (6.66)
7	Total	40 (100.00)	40 (100.00)	40 (100.00)	120 (100.00)

(Figure in parenthesis indicate the percent to total)

The education profile of selected farmers presented in Table 5.3 shows that, on the overall basis 8.34 per cent of farmer illiterate and rest of them have educated, among them 15.00 per cent farmers was primary school level education and 30.00 per cent, 28.35 per cent and 11.66 per cent farmers had completed their middle school, high school,

higher secondary and whereas graduate and above level of educated were 6.66 per cent. Highest illiterate (12.50 per cent) people were observed in Kalamna market. On an overall basis 6.66 per cent farmers completed their education up to Graduate & above level.

5.1.4 Number of livestock passes by farmer

Total number of livestock passes by selected farmers is presented in Table 5.4

Table 5.4: Number of livestock passes by the farmer

Sr. No	Name of market	Total no. of farmer selected	No. of livestock					Total
			Cow	Bullock	Buffalo	Goat	Other	
1	Katol	40 (33.33)	28 (30.77)	32 (35.16)	19 (20.88)	9 (9.89)	3 (3.28)	91 (100.00)
2	Mohpa	40 (33.33)	30 (30.30)	35 (35.35)	14 (14.14)	11 (11.11)	9 (9.09)	99 (100.00)
3	Kalmana	40 (33.33)	16 (20.78)	20 (27.97)	20 (27.97)	14 (18.18)	7 (9.09)	77 (100.00)
	Total	120	74	86	53	34	19	267

(Figure in parenthesis indicate the percent of total)

It is observed from Table 5.4 that the total no. of farmer was distributed in three market i.e. 120 from each market 40 farmer was selected. As far as Katol cattle market is concern the total 91 livestock was sold by 40 selected cultivator. Out of which total 32 bullock (35.16pet cent) was sold followed by cow (30.77 per cent), buffalo (20.88 per cent), goat (9.89) and other (3.28) respectively. The other animal include sheep, He buffalo etc.

In case of Mohpa cattle market total 99 livestock was sold out of which total 35 bullock (35.35 percent) followed by cow (30.30 per cent), buffalo(14.14) per cent , goat (11.11) and other (0.09 per cent)

respectively. In case of Kalamna market 77 livestock was sold by 40 selected cultivator out of which bullock and buffalo total each 20 (20.97 per cent) followed by cow (20.78 per cent), goat (18.18 per cent) and other (9.09 per cent) respectively. Highest number of livestock was sold in Mohpa cattle market followed by Katol and Kalamna cattle market

5.2. Structure of livestock Market

Market structure: Market structure refers to something that has organization and dimension, shape, size and design and which is evolved for the purpose of performing function. Market structure is the formal organization of the functional activity of a marketing institution.

Table 5.5 : Structure of livestock market

Sr.no	Name of market	Katolgure bazaar	Mohpagure bazaar	Kalamnagure bazaar
1.	Year of establishment	29 th July 1940	4 February 1905	16 November 1974
2.	Day of market	Tuesday	Wednesday	Thursday
3.	Type of market	Weekly	Weekly	Weekly
4.	Area covered	2.50 Ha	2.00 Ha	3.00 Ha
5.	Method of sale	Through Broker/Direct	Through Broker/Direct	Through Broker/Direct

It is observed from Table 5.5 that, Katol Agricultural Produce market Committee was established by, the Madhyaprant (Centre Area) and Varhad state government dated 29th July 1940. At the time only livestock commodities sale and purchase was controlled by this market committee. After that vide commissioner, Nagpur division. The nomenclature of this market committee was changed to "Agricultural



Photograph of Kalamna market



Photograph of Katol market



Photograph of Mohpa market

produce marked committee and control of marked committee was extending to cover sale and purchase of all agricultural committees. Mohpa cattle market is very old market of livestock among Maharashtra established on 4 February 1905 and Kalamana cattle market established on 16 November 1974. These three markets were selected were weekly type of market. Agricultural produce market committee Katol, Mohpa and Kalamna covers about 2.50 ha, 2.00 ha and 3.00 ha land respectively.

5.2.1 Market premises

Katol Agricultural Produce Market Committee owns (APMC) 6.10 ha. of land out of which the 2.50 ha land under livestock market. The market is situated in centre of Katol city. The Mohpa agricultural market committee owned 4.00 ha land out of which 2.00 ha land under livestock market. Kalamna Agricultural produce market committee owns about 8.10 ha land situated away 10 Km from zero mail on Kamthi road out of which 3.00 ha land under livestock market. In this market sale and purchase of livestock take place. The Katol livestock market is situated a few yards away from the railway station Katol. The sub centre of A.P.M.C. Katol is at Kondhali town. The market committee is managing and controlling the market. It prepares the records regarding the arrival, daily turn over etc. one clerk is employed for giving gate passes and for taking auction and for giving the auction certificate original to the wholesaler and duplicate to.

5.2.2 Method of sale adopted in marketing of livestock

In Katol, Mohpa and Kalamna market the most commonly used method is selling of livestock through broker. This method of livestock selling, the buyer and seller are brought together by the broker in the marketing process. In this method broker tells his price and keeps some money in the seller's hand and asks seller to accept his price, if seller says more price then middleman requested to seller for decreasing the price and try to fix the deal, if deal is fixed then seller keeps hand on animal. Another method of selling is direct selling. In direct selling

method the buyer and seller directly contact with each other and perform the operation like buying or selling without intermediaries.

5.2.3 Market functionaries

In marketing of livestock broker, wholesaler are main functionaries. The numbers of broker, wholesaler in Katol, Mohpa and Kalamna livestock market are shown in this Table. 5.6.

Table 5.6: Number of intermediaries in Agricultural Produce Marketing Committee

Sr. No.	Market Name	No. of functionaries	
		Broker	Wholesaler
1	Katol	67	50
2	Mohpa	70	25
3	Kalamna	91	65

It is observed from Table 5.6 that the highest number of broker was observed in Kalamna market i.e. 91 followed by Mohpa (70) and Katol (67). The highest wholesaler was observed in Kalamna followed by Katol and Mohpa market.

5.2.4 Basis of Price Fixation

In animal market prices was fixed on body weight, breed, age, meat and milk of the livestock. The basis of price fixation are presented in Table 5.7

Table 5.7 Basis of Price Fixation

Sr no.	Particular	Katol			Mohpa			Kalamna			Total
		Adult female	Adult male	Kids	Adult female	Adult male	Kids	Adult female	Adult male	Kids	
1	Body weight	6	6	2	5	9	1	8	4	2	43
2	Breed	5	7	1	4	4	2	3	5	2	33
3	Age	4	3	1	6	3	1	2	6	2	28
4	Milk yield	5	0	0	5	0	0	7	0	0	17
5	Meat	0	7	0	0	11	0	0	6	0	24

It is observed from Table 5.7 that, in Katol market price fixation of 7 adult male based on breed was highest and Kids on the basis of age and breed i.e.1 was lowest. In Mohpa market price fixation of 9 adult male based on body weight was highest and Kids on the basis of age and breed i.e.1 and 2 was lowest. In Kalamna market price fixation of 8 adult female based on body weight was highest and kids on the basis of age and breed i.e.2 was lowest.

5.2.5 End use of the livestock

The livestock i.e. Cow, Bullock, Buffalo were mainly marketed through four different marketing channels. The End use of livestock is presented in Table 5.8

It is observed from table 5.8 that the Cow, Bullock, Buffalo were marketed through four different marketing channels. The end use of

Cow and buffalo are for milking and end use of bullock was for draft purpose.

Table 5.8 End use of the livestock

Sr. no	Name	End use of livestock		
		Cow	Bullock	Buffalo
1	Farmer→Farmer	Milking	Draft purpose	Milking
2	Farmer→Middleman→Farmer	Milking	Draft purpose	Milking
3	Farmer→Middleman→Wholesaler →Farmer	Milking	Draft purpose	Milking
4	Farmer→Wholesaler→Farmer	Milking	Draft purpose	Milking

It is observed from Table 5.9 that, the goat was marketed through four different marketing channels. Except channel I i.e. Farmer- Farmer the end use of goat was for meat purpose. In channel I farmer use goat for breeding purpose.

Table 5.9 End use of the livestock (Goat)

Sr.no	Name	End use of livestock
		Goat
1.	Farmer→Farmer	Breeding
2.	Farmer→Butcher	Meat
3.	Farmer→VillageMiddleman→Farmer	Meat
4.	Farmer→Wholsaler→Butcher	Meat

5.2.6 Degree of product differentiation

To bring out product differentiation transacted animal were distributed category wise-

5.2.7 Category wise distribution of animals

Bullock and cow predominated the total market transaction followed by goat and buffalo. Majority of bullock arrived at all these three market was from different places. Other animals like male sheep, he buffalo also transacted but they have very few in numbers.

5.2.8 Degree of seller's concentration

In order to examine the degree of seller's concentration they were divided into two categories, viz; bovine seller or buyer and goat seller or buyer. The rational behind this was that the distribution of goat was different than that of bovine because goats were transacted in bulk. Bovine included cow, bullock, buffalo, and calf.

Bovine sellers

The large bulk of the sellers sold 1 to 3 animals followed by sale of 4 to 6 animals. However, there are some differences in the pattern across the market. In Katol, Mohpa, and Kalamna market sellers were concentrated in 3 to 4 animal category. A close look at percent of sale across size categories along with percent of seller reveals the inequalities in market transaction and control over market comes into sharp focus.

Goat sellers

The majority of the sellers in almost all the market sold many animals. In case of goat maximum sale was observed in many category of goat in Katol and Mohpa with exception of Kalamna market. Degree of inequality in sale was also evident here with the fact that some percent of sellers sold animals and controlled some percent of total sale.

Bovine buyers

The bovine buyer purchase 1 to 3 bovine in all the market. The buyer, purchase 1 to 3 animals were mostly farmers whose motive for purchase was mainly for domestic use. A comparison of percentage distribution of buyers across size categories with that of purchase once again highlight the inequality in buyer concentration.

Goat buyer

Degree of concentration of goat buyer seems to be more even. Generally butcher and traders were buyer who bought the goat in more than 4 numbers.

5.2.9 Condition of entry to and exit of the market

To examine the condition of entry to and exit of the market, occupation wise distribution of seller and buyer were carried out. In case of buyer also all caste were predominant. Among Hindus seller and buyer could be found from almost every caste. Among Hindus generally person from higher caste like Brahmin, Christian did not take livestock marketing as their occupation because of social status. Higher caste seller or buyer were the farmer seller/buyer who sold the animal because it was surplus or uneconomic and purchase the animals for milk, meat purpose or to get their work done in the field. Hence, it could be concluded that there was no barrier as far as caste was concerned in making entry to the livestock market.

Similarly many of the seller were crop farmer who were the original rarer of the animal. Next predominant class of the seller was livestock trader whose primary occupation was livestock marketing itself. Next important class of seller found from labor class. The occupation wise distribution of the buyer was more or less similar to that of seller. Butcher and slaughter stock dealer were also found among the buyer. Teashop owner, vegetable seller also enter into the business of livestock marketing as a subsidiary occupation. Thus, it could be concluded that person from any caste, creed, and occupation

could join in the animal marketing in the study area. The entry and exist in the market are free.

5.2.10 Market fee structure

In Katol, Mohpa and Kalamna market were charge the same fee from buyer and seller. The seller pay Rs. 5 for cow, bullock, buffalo and Rs. 3 for goat. Similarly, the buyer pay 1% of the selling price of animals. Sometimes it was observed that the farmer seller or buyer were not aware of the prescribed market fees. Slip writer took the advantage who eventually charged higher market fee than what was prescribed. Sometimes even no receipt was issued in the above cattle market the slip writer were corrupt who took extra charge. Hence, there is a need for streamlining the market fees at the uniform rate depending upon the type or sale price of animal

5.2.11 Malpractices prevailed in the market

Sellers, buyers, brokers, wholesaler and other market functionaries, as observed by the researcher and told by respondents, indulged in some corrupt practices to gain personal advantage out of animal transaction. It was observed very often that the sellers provided false information regarding milk yield, age, lactation number, body weight of cow, buffalo, goat and past performances of bullock etc. sometimes the cow was not milk two to three time before coming to the market. As a result the udder becomes swollen and buyer were impressed. Sometimes the buyer were not allowed to milk the cow properly. Milk yield was temporarily increased by feeding the animal rich ration some day before coming to the market. Trader adopted this practice very often. Some trader were so clever that even they could sell a non-pregnant animal as a pregnant animal. It was also seen in the market that the dull and slow bullock were beaten with a spike stick to show it as a smart animal. Generally, the buyer were not allowed to take the bullock to the field for testing its draft capacity. There was no standard balance in the market for weighing the animals. Hence, sometimes goat trader-seller were able to cheat the buyer.

Broker created a lot of nuisance both to seller as well as buyer. It was very difficult on their part to get rid of them. In fact, broker did not allow the seller and buyer to interact freely or examine the animal closely. Sometimes it also happened that both the buyer and seller did not know the actual price at which the animal was transacted. They charged a heavy sum from both seller and buyer. Moreover, the brokerage was not fixed.

5.2.12 Organizational set up of Agricultural Produce Market Committee.

The election of member of A.P.M.C. under the power of district collector. An executive committee member is elected from the different categories of market committee. The organizational set up of market committee Katol ,Mohpa and Kalamna shown in table 5.10

Table 5.10 Organizational set up of Katol, Mohpa and Kalamana market committee

Sr. No	Categories of member	Katol	Mohpa	Kalamana
1.	Service co-operative society	7	7	7
2.	Gram panchayat	7	7	7
3.	Traders group	2	2	2
4.	Hamal weigh man group	1	1	1
5.	Local self government body	2	2	2
6.	Nagar parishad	1 (cooption)	1 (cooption)	1 (co-option)
7.	Representative of panchayat samiti	1	1	1
8.	Assistant resister co-operative society.	1	1	1
9.	District agricultural officer.	1	1	1
10	Total	23	23	23

It is observed from The table 5.10 that the total number of member in market committee was 23 out of these highest numbers of member i.e. 7 were elected from different service co-operative societies and gram panchayat. All the member of market committee elected one chairman and one vice chairman.

Chairman presides over the marked committee meetings and in his absence vice charman presides over the meeting. According to improvement law act 2003 the state government is empowered to fix honorarium of chairman and vice-chairman of the APMC. The vice chairman of market committee is the chairman of disputed committee. If any dispute occure in the market then these committee solve the problem.

5.2.13 Official staff of Katol, Mohpa and Kalamna Market

According to Maharashtra Agriculture, produce sale purchase (control) act 2003 number for creation and appointment of new post in market committee, there is a need to take the permission from directorate. The official staff of Katol ,Mohpa and Kalamna agriculture produce market committee is of following type show in Table 5.11

In Katol market committee permanent staff member were 31 and for animal market total office staff were 6. The highest number of office staff is clerk i.e. 7. In Mohpa market the permanent staff member were 9 and for animal market total office staff were 3. The highest number is clerk i.e. 5 and in Kalamna market committee permenent staff member were 69 and for animal market office staff is 3. The highest number of office staff is clerk i.e. 48

All money of market committee is known as market fund. All payment of official date salary is paid from market fund.

Table 5.11 Office staff of selected market committee

Sr. no	Particular	Katol		Mohpa		Kalamna	
		Total	For animal	Total	For animal	Total	For animal
I)	Permanent staff						
1	Secretary	1	1	1	1	1	0
2	Accountant	1	1	1	1	1	1
3	Clerk	7	1	5	1	48	1
4	Inspector	2	1	0	0	1	1
5	Watchman	3	1	0	0	10	0
6	Peon	3	1	2	0	8	
II)	On daily wages duty						
1	Clerk	7	0	0	0	0	0
2	Watchman	4	0	0	0	0	0
3	Driver	0	0	0	0	0	0
4	Peon	3	0	0	0	0	0
5	Total	31	6	9	3	69	3

5.2.14 .Licence

The licence fee of Rs. 100 per year (financial year on 1stApril to 31stMarch) is charges to Middleman, Wholesaler in Katol, Mohpa and Kalamna market. The licence fee for renewal of license is Rs 80, each for renewal of licenses application must be made before 31 March application is late, and then the bazaar committee has authority to charge Rs 10 per day as a late fee.

5.2.15 Supervision fee

The rate of supervision fee for Katol, Mohpa and Kalamna market is Rs.0.5 paise per hundred rupees. This fee is paid to the Maharashtra Government before 15th in each month.

5.2.16 Loan or grant

The APMC does not get any loan or grant from government

5.2.17 Income from livestock to Katol, Mohpa and Kalamna market committee from year 2011-12.

Market fee is the main source of income of market committee. The rate of market fee in Katol, Mohpa and Kalamna i.e. cess is 1 per cent on selling price. The entry fee (gate pass) per bullock cart, matador, tractor, local truck and loading truck is Rs.10, Rs.20, Rs.20, Rs. 20 respectively.

Table 5.12 Sourcewise income of livestock market committee for the year (2011-12)

(Rs)

Sr.no.	Market Name	Cess	Gate Pass	Land rent	Canteen land rent	License fee	Total
1	Katol	56000	51487	50000	500	6700	668687
2	Mohpa	135960	9040	20000	1000	7000	173000
3	Kalamna	534894	8035	0	0	91000	633929

It is observed from Table 5.12 that, total income from livestock market of Katol, Mohpa and Kalamna market committee is Rs. 668687, Rs. 173000 and Rs. 633929 respectively. The main source of income from livestock to market committee is cesses which is paid by purchaser to market committee.

Table 5.13 Detail of income and expenditure of Agricultural Produce Marketing committee from 1 April 2011 to 31 March 2012

(RS)

Sr.no	Particular	Katol	Mohpa	Kalamna
A)	License fee	5360	7000	91000
1	Market fee	15638848	1616450	159100655
2	Misc.Income	4486806	816550	92983777
3	Subtotal	20131014	2440000	252175432
B)	Meeting and member fee	164338	22478	9403
1	Exp. On establishment	3302417	2090000	50983463
2	Other	3276779	19500	116355619
3	SubTotal	6743534	2131978	167348485
4	Grand total	26874548	4571978	419523917

It is observed from Table 5.13 that total income of Katol, Mohpa and Kalamna APMC is Rs.26874548, Rs. 4571978 and Rs. 419523917 respectively. The main source of income from livestock to market committee is cesses which is paid by purchaser to market committee. Administrative report of market committee is submitted to government of India.

Facilities provided by market committee

Following facility are provided by market committee-

1. Permanent auction shed, supported by temporary auction shed, main road, compound wall with barbed wire fencing facility available in market.
2. Drinking water facility like well, tank available in market.
3. Bank, Post office also available for transaction in the market.
4. Tire road facility is available in market.
5. Electricity facility, office building are also available in market
6. Shetkari niwas is also available in market.
7. Fodder facility on payment is available in market.
8. Security guard is also available in market.

5.3.1 Marketing channels of Livestock marketing in Nagpur district

The marketing channel is the route taken by the title to the animal as they move from farmer to ultimate farmer. The marketing channels identified in the study area for marketing of cow, buffalo, bullock and goat are as follows

Farmer→Farmer

Farmer→Middleman→Farmer

Farmer→Middleman→Wholesaler→Farmer

Farmer→Wholesaler→Farmer

Farmer→Butcher

Farmer→Village Middleman→Wholesaler

Farmer→Wholesaler→Butcher

5.3.2 Channel wise distribution of farmers

The livestock in Nagpur district sale through namely Farmer, Middleman, Wholesaler etc.

The method of sale adopted by the farmers in marketing of Cow, bullock, buffalo and goat were presented in Table 5.14, 5.15, 5.16 and 5.17 respectively.

Table 5.14 Method of sale adopted by farmer in case of cow.

Sr. No.	Method/Channel	Number of Cow
1	Farmer→Farmer	8 (26.67)
2	Farmer→Middleman→Farmer	9 (30.00)
3	Farmer→Middleman→Wholesaler→Farmer	5 (16.66)
4	Farmer→Wholesaler→Farmer	8 (26.67)
	Total	30 (100.00)



It is observed from Table 5.16 that out of total 30 farmer, highest buffalo was sold through channel II i.e. 56.67 per cent followed by channel I. 23.00 per cent buffalo sold through channel I. Lowest farmer i.e. 6 buffalo sold through channel III i.e. 20.00 per cent.

Table.5.17 Method of sale adopted by farmer in case of Goat.

Sr. No.	Method/Channel	Number of Farmer
1	Farmer→Farmer	8 (26.66)
2	Farmer→Butcher	17 (56.67)
3	Farmer→Village Middleman→Wholesaler	3 (10.00)
4	Farmer→Wholesaler→Butcher	2 (6.67)
	Total	30 (100.00)

It is observed from table 5.17 that out of total 30 farmer, highest goat was sold through channel II i.e. 56.67 per cent followed by channel I. 10.00 per cent goat sold through channel III. Lowest farmer i.e. 2 goat sold through channel IV i.e. 6.67 per cent.

5.3.3 Marketing cost and Market margin of livestock.

The cost of marketing of cow is estimated and presented in Table 5.18

It is seen from Table 5.18 that, out of four marketing channel, in Channel I the farmer incurred marketing cost of Rs. 2322.01. The selling price of farmer was Rs. 44000. The farmer incurred highest expenses on transportation cost i.e. Rs. 1225.30 followed by labour expenses Rs. 375.03 and brokerage Rs. 333.36 respectively. In

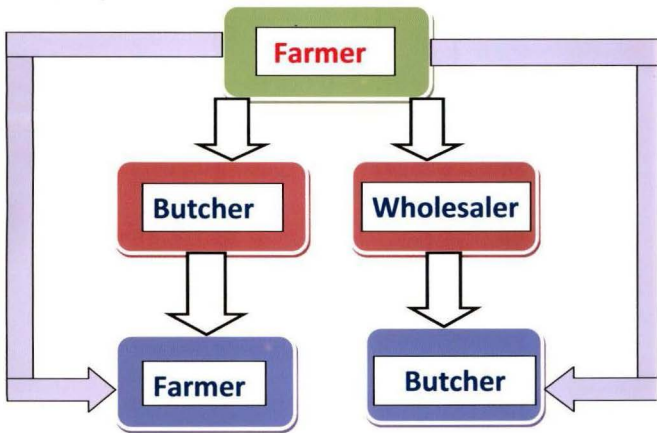


Fig: 3. Flow chart of marketing of goat

channel II the marketing cost incurred by farmer was Rs. 2958 among the different items of expenditure. The highest charges was paid for transportation i.e. Rs. 1090 followed by cost of feeding at market. The middleman incurred marketing cost of Rs. 210 while margin of middleman was Rs. 2590.50.

In channel III the marketing cost incurred by farmer was Rs. 2257.50 and the marketing cost incurred by middleman was Rs. 200. The farmer incurred highest expenses on transportation cost i.e. Rs. 1150.00 followed by labour expenses Rs. 350.00 and brokerage Rs. 337.50 respectively. The margin of middleman was Rs. 2990, wholesaler incurred marketing cost of Rs. 537.50 and received the margin of Rs. 3362.50. Lastly farmer incurred marketing cost of Rs. 2236.70. The total marketing cost of channel III was Rs 5231.70 and total margin received by different intermediaries was Rs.6352.50

In channel IV, the marketing cost incurred by farmer was Rs. 1142.70. The farmer incurred highest expenses on transportation cost i.e. Rs. 446.60 followed by brokerage Rs. 226.70 respectively. The wholesaler incurred marketing cost of Rs. 519.80 and received the margin of Rs. 3230.20. Lastly farmer incurred marketing cost of Rs. 1066.

From above discussion it is concluded that, highest marketing cost and margin was observed in channel III i.e. Rs. 5231.70 and Rs 6352.50 respectively.

Table : 5.18 Marketing cost and marketing margin of cow

(Rs/Animal)

Sr. No.	Particulars	Channel I	Channel II	Channel III	Channel IV
A	Marketing cost incurred by Farmer				
1	Extra feeding expenses before sale	103.33	110.00	140.00	74.00
2	Labour expenses	375.03	405.00	350.00	202.00
3	Cost of decoration	100.00	77.00	105.00	72.30
4	Transportation cost	1225.30	1090.00	1150.00	446.70
5	Brokerage	333.36	430.00	337.50	226.70
6	Cost of feeding at market	70.03	715.00	70.00	37.30

Sr. No.	Particulars	Channel I	Channel II	Channel III	Channel
7	Market fee	5.00	5.00	5.00	5.00
8	Miscellaneous expd.	109.96	126.00	100.00	78.70
9	Marketing cost	2322.01	2958.00	2257.50	1142.70
10	Selling price of farmer	44000.00	40500.00	38000.00	41500.00
11	Net price received by farmer	41677.91	37542.00	35742.50	40357.30
B Marketing cost incurred by Middleman					
1	Extra feeding expenses before sale	0.00	0.00	0.00	0.00
2	Labour expenses	0.00	0.00	0.00	0.00
3	Cost of decoration	0.00	0.00	0.00	0.00
4	Transportation cost	0.00	0.00	0.00	0.00
5	Brokerage	0.00	210.00	200.00	0.00
6	Cost of feeding at market	0.00	0.00	0.00	0.00
7	Market fee	0.00	0.00	0.00	0.00
8	Miscellaneous expd.	0.00	0.00	0.00	0.00
9	Marketing cost	0.00	210.00	200.00	0.00
10	Market margin	0.00	2590.50	2990.00	0.00
11	Selling price of Middleman	0.00	43300.50	41190.00	0.00
C Marketing cost incurred by Wholesaler					
1	Extra feeding expenses before sale	0.00	0.00	0.00	0.00
2	Labour expenses	0.00	0.00	250.00	120.00
3	Cost of decoration	0.00	0.00	0.00	0.00
4	Transportation cost	0.00	0.00	0.00	90.00
5	Brokerage	0.00	0.00	200.00	273.30
6	Cost of feeding at market	0.00	0.00	32.50	10.70
7	Market fee	0.00	0.00	0.00	0.00
8	Miscellaneous expd.	0.00	0.00	55.00	25.80
9	Marketing cost	0.00	0.00	537.50	519.80
10	Market margin	0.00	0.00	3362.50	3230.20
11	Selling price of wholesaler	0.00	0.00	45090.00	45250.00
D Marketing cost incurred by Farmer					
1	Extra feeding expenses before sale	0.00	0.00	0.00	0.00
2	Labour expenses	0.00	260.71	550.00	220.00
3	Cost of decoration	0.00	0.00	0.00	
4	Transportation cost	0.00	1121.42	1050.00	546.70
5	Brokerage	0.00	360.71	541.70	233.30
6	Cost of feeding at market	0.00	0.00	0.00	0.00
7	Market fee	0.00	0.00	0.00	0.00
8	Miscellaneous expd.	0.00	85.71	95.00	66.00
9	Marketing cost	0.00	1828.60	2236.70	1066.00
10	Total marketing cost	2322.01	4996.60	5231.70	2728.50
11	Total market margin	0.00	2590.50	6352.50	3230.20
12	Purchase price of farmer	44000.00	45129.10	47326.70	46316.00

5.3.4 Producer's share in consumers rupee

The producer share in consumer rupee in case of cow is estimated and presented in table 5.19

Table : 5.19 Price spread in marketing of cow

(Rs./ Animal)

Sr. No.	Particulars	Total Price			
		Channel I	Channel II	Channel III	Channel IV
1	Net Price received by farmer	41677.99 (94.72)	37542.00 (83.19)	35742.50 (75.53)	40357.30 (87.13)
2	Total Marketing cost incurred by producer, middleman wholesaler and farmer	2322.01 (5.28)	4996.60 (11.07)	5231.70 (11.05)	2728.50 (5.89)
3	Total market margin of wholesaler & farmer	0.00 (0.00)	2590.50 (5.74)	6352.50 (13.42)	3230.20 (6.98)
4	Selling price of retailer/Purchase price of farmer	44000.00 (100.00)	45129.10 (100.00)	47326.70 (100.00)	46316.00 (100.00)

(Figure in parenthesis indicate the per cent to the purchase price of farmer)

It is observed from Table 5.19 that out of four marketing channels, shown in Table 5.19, channel I is the direct channel i.e. farmer→farmer. The net price received by farmer in channel-I, channel-II, channel-III and channel IV were Rs.41677.99, Rs.37542, Rs. 35742.50 and Rs.40357.30 respectively. The producer's share in consumer's rupee was highest in channel-I i.e. (94.72 per cent) followed by channel-IV (87.13 per cent) and channel-II (83.19 per cent) and in channel III (75.53 per cent) respectively.

The total market cost was highest in channel-III as compared to other channels because the number of intermediaries are large. The total market margin was higher in channel-III. Though the producer's share in consumer's rupee was highest in channel-I as compared to other channels and also the net price received by producer is highest in

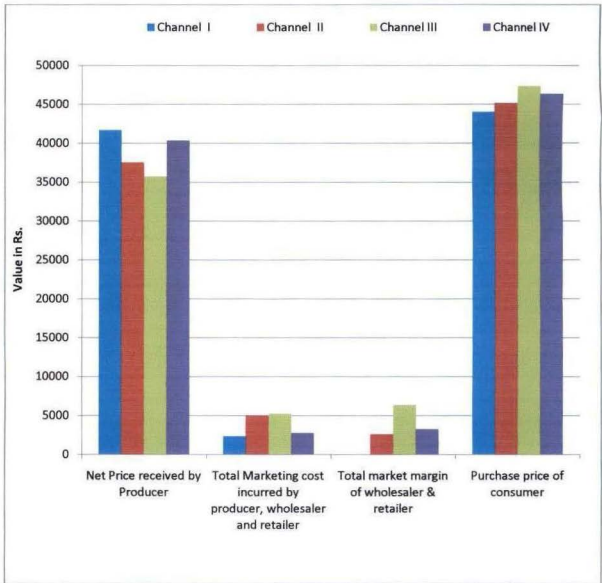


Fig. 4: Price spread in marketing of cow

channel-I i.e. Rs. 41677.99 hence the selling of cow through channel I is remunerative to the farmer.

The cost of marketing of Bullock is estimated and presented in Table 5.20

Table : 5.20 Marketing cost and market margin of bullock

(Rs./ Animal)

Sr. No.	Particulars	Channel I	Channel II	Channel III	Channel IV
A	Marketing cost incurred by Farmer				
1	Extra feeding expenses before sale	110.00	105.00	125.00	112.50
2	Labour expenses	450.00	412.50	337.50	400.00
3	Cost of decoration	130.00	120.00	140.00	90.00
4	Transportation cost	900.00	1217.50	1225.00	1000.00
5	Brokerage	300.00	352.50	385.00	387.50
6	Cost of feeding at market	90.00	59.50	50.00	72.50
7	Market fee	5.00	5.00	5.00	5.00
8	Miscellaneous expd.	137.50	132.00	130.00	127.50
9	Marketing cost	2122.50	2404.00	2397.50	2195.00
10	Selling price of farmer	59000.00	54500.00	52800.00	55100.00
11.	Net price received by farmer	56877.50	52096.00	50402.50	52905.00
B	Marketing cost incurred by Middleman				
1	Extra feeding expenses before sale	0.00	0.00	0.00	0.00
2	Labour expenses	0.00	0.00	0.00	0.00
3	Cost of decoration	0.00	0.00	0.00	0.00
4	Transportation cost	0.00	0.00	0.00	0.00
5	Brokerage	0.00	230.00	210.00	0.00
6	Cost of feeding at market	0.00	0.00	0.00	0.00
7	Market fee	0.00	0.00	0.00	0.00
8	Miscellaneous expd.	0.00	0.00	0.00	0.00
9	Marketing cost	0.00	230.00	210.00	0.00

Sr. No.	Particulars	Channel I	Channel II	Channel III	Channel IV
10	Market margin	0.00	2370.00	3090.00	0.00
11	Selling price of Middleman	0.00	57100.00	56100.00	0.00
C	Marketing cost incurred by Wholesaler				
1	Extra feeding expenses before sale	0.00	0.00	0.00	0.00
2	Labour expenses	0.00	0.00	330.00	237.50
3	Cost of decoration	0.00	0.00	0.00	0.00
4	Transportation cost	0.00	0.00	0.00	0.00
5	Brokerage	0.00	0.00	150.00	200.00
6	Cost of feeding at market	0.00	0.00	0.00	0.00
7	Market fee	0.00	0.00	0.00	0.00
8	Miscellaneous expd.	0.00	0.00	0.00	0.00
9	Marketing cost	0.00	0.00	480.00	437.50
10	Market margin	0.00	0.00	3220.00	2562.50
11	Selling price of wholesaler	0.00	0.00	59800.00	58100.00
D	Marketing cost incurred by Farmer				
1	Extra feeding expenses before sale	0.00	372.50	0.00	0.00
2	Labour expenses	0.00	0.00	510.00	400.00
3	Cost of decoration	0.00	0.00	0.00	0.00
4	Transportation cost	0.00	995.00	1000.00	1125.00
5	Brokerage	0.00	318.75	356.66	315.00
6	Cost of feeding at market	0.00	0.00	0.00	0.00
7	Market fee	0.00	0.00	0.00	0.00
8	Miscellaneous expd.	0.00	112.50	115.33	145.00
9	Marketing cost	0.00	1798.75	1981.99	1985.00
10	Total marketing cost	2122.50	4432.75	5069.49	4617.50
11	Total market margin	0.00	2370.00	6310.00	2562.50
12	Purchase price of farmer	59000.00	58898.75	61781.99	60085.00

It is seen from Table 5.20 out that out of four marketing channel, in Channel I the farmer incurred marketing cost of Rs. 2122.50. The

selling price of farmer was Rs. 59000. The farmer incurred highest expenses on transportation cost i.e. Rs. 900 followed by labour expenses Rs. 450 and brokerage Rs. 300 respectively. In channel II the marketing cost incurred by farmer was Rs. 2404.00 among the different items of expenditure. The highest charges was paid for transportation i.e. Rs. 1217.50 followed by labour expenses. The middleman incurred marketing cost of Rs. 230.00 while margin of middleman was Rs. 2370.00

In channel III the marketing cost incurred by farmer was Rs. 2397.50 and the marketing cost incurred by middleman was Rs. 210. The farmer incurred highest expenses on transportation cost i.e. Rs. 1225.00 followed by labour expenses Rs. 415.00 and brokerage 385.00 respectively. The margin of middleman was Rs. 3090. Wholesaler incurred marketing cost of Rs. 480.00 and received the margin of Rs. 3220.00. Lastly farmer incurred marketing cost of Rs. 1981.99. The total marketing cost of channel III was Rs 5069.49 and total margin received by different intermediaries was Rs.6310.0

In channel IV, the marketing cost incurred by farmer was Rs. 2195 .The farmer incurred highest expenses on transportation cost i.e. Rs. 1000.00 followed by labour expenses Rs. 400.00 and brokerage Rs. 387.50 respectively. The wholesaler incurred marketing cost of Rs. 437.5 and received the margin of Rs. 2562.5 Lastly farmer incurred marketing cost of Rs. 1985.00

From above discussion it is concluded that, highest marketing cost and margin was observed in channel III i.e. Rs. 5069.49 and Rs 6310.00 respectively.

5.3.5 Producer's share in consumer rupee

Producer share in consumer rupee in case of bullock is estimated and present in table 5.21

Table : 5.21 Price spread in marketing of bullock

(Rs./ Animal)

Sr. No.	Particulars	Total Price			
		Channel I	Channel II	Channel III	Channel IV
1	Net Price received by farmer	56877.50 (96.40)	52096.00 (88.45)	50402.50 (81.58)	52905.00 (88.05)
2	Total Marketing cost incurred by farmer, middleman, wholesaler and farmer	2122.50 (3.60)	4432.75 (7.53)	5069.49 (8.21)	4617.50 (7.69)
3	Total market margin of wholesaler & farmer	0.00 (0.00)	2370.00 (4.02)	6310.00 (10.21)	2562.50 (4.26)
4	Selling price of retailer/Purchase price of farmer	59000.00	58898.75	61781.99	60085.00
		(100.00)	(100.00)	(100.00)	(100.00)

(Figure in parenthesis indicate the per cent to the purchase price of farmer)

It is observed from table 5.21 that out of four marketing channels, shown in Table 5.21 channel I is the direct channel i.e. farmer→farmer. The net price received by producer in channel-I, channel-II, channel-III and channel IV were Rs.56877.50 Rs.52096.00, Rs. 50402.50 and Rs. 52905.00 respectively. The producer's share in consumer's rupee was highest in channel-I i.e. (96.40 per cent) followed by channel-II (88.45 per cent), channel-IV (88.05 per cent) and in channel III (81.58 per cent) respectively.

The total market cost and market margin was highest in channel-III as compared to other channels. Though the producer's share in consumer's rupee was highest in channel-I as compared to other channels also the net price received by producer is highest in channel-I i.e. Rs. 56877.50 hence selling of bullock is through channel I is remunerative to the farmer.

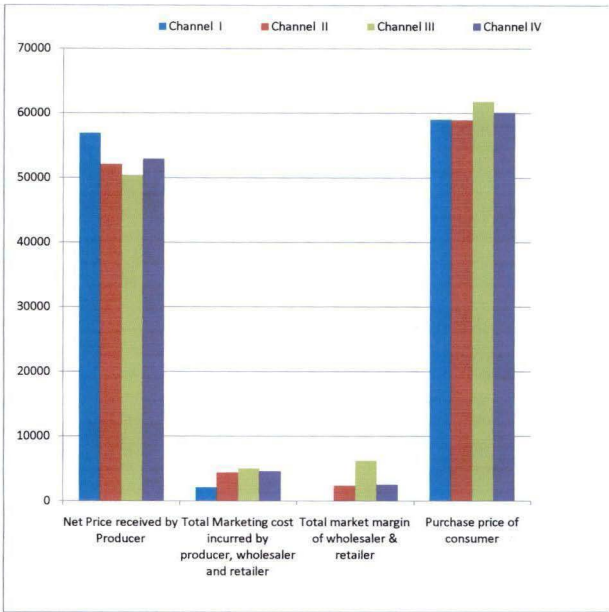


Fig. 5: Price spread in marketing of bullock

Table : 5.22 Marketing cost and market margin of buffalo.

(Rs./ Animal)

Sr. No.	Particulars	Channel I	Channel II	Channel III
A	Marketing cost incurred by Farmer			
1	Extra feeding expenses before sale	209.99	206.85	233.33
2	Labour expenses	374.99	452.61	590.00
3	Cost of decoration	146.66	168.51	121.66
4	Transportation cost	1566.66	1496.68	1950.00
5	Brokerage	433.33	457.14	600.00
6	Cost of feeding at market	101.66	91.00	146.66
7	Market fee	5.00	5.00	5.00
8	Miscellaneous expd.	199.99	188.57	151.66
9	Marketing cost	3038.28	3066.36	3798.31
10	Selling price of farmer	90000.00	79933.33	81800.00
11.	Net price received by farmer	86961.72	76866.97	78001.69
B	Marketing cost incurred by Middleman			
1	Extra feeding expenses before sale	0.00	0.00	0.00
2	Labour expenses	0.00	0.00	0.00
3	Cost of decoration	0.00	0.00	0.00
4	Transportation cost	0.00	0.00	0.00
5	Brokerage	0.00	400.00	336.66
6	Cost of feeding at market	0.00	0.00	0.00
7	Market fee	0.00	0.00	0.00
8	Miscellaneous expd.	0.00	0.00	0.00
9	Marketing cost	0.00	400.00	336.66
10	Market margin	0.00	2606.67	2933.34
11	Selling price of Middleman	0.00	82940.00	85070.00

Sr. No.	Particulars	Channel I	Channel II	Channel III
C	Marketing cost incurred by Wholesaler			
1	Extra feeding expenses before sale	0.00	0.00	0.00
2	Labour expenses	0.00	0.00	300.00
3	Cost of decoration	0.00	0.00	0.00
4	Transportation cost	0.00	0.00	0.00
5	Brokerage	0.00	0.00	2000.00
6	Cost of feeding at market	0.00	0.00	350.00
7	Market fee	0.00	0.00	0.00
8	Miscellaneous expd.	0.00	0.00	85.00
9	Marketing cost	0.00	0.00	500.00
10	Market margin	0.00	0.00	3200.00
11	Selling price of wholesaler	0.00	0.00	88770.00
D	Marketing cost incurred by Farmer			
1	Extra feeding expenses before sale	0.00	0.00	0.00
2	Labour expenses	0.00	823.56	633.33
3	Cost of decoration	0.00	0.00	0.00
4	Transportation cost	0.00	1523.21	1200.00
5	Brokerage	0.00	425.58	625.00
6	Cost of feeding at market	0.00	0.00	0.00
7	Market fee	0.00	0.00	0.00
8	Miscellaneous expd.	0.00	171.30	118.33
9	Marketing cost	0.00	2943.65	2576.66
10	Total marketing cost	3038.28	6410.31	7211.63
11	Total market margin	0.00	2606.67	6133.34
12	Purchase price of farmer	90000.00	85883.65	91346.66

The cost of marketing of buffalo is estimated and presented in Table 5.22

It is seen from Table 5.22 that out of three marketing channel, in Channel I the farmer incurred marketing cost of Rs. 3038.28. The selling price of farmer was Rs. 90000. The farmer incurred highest expenses on transportation cost i.e. Rs. 1566.66 followed by brokerage Rs. 433.33 respectively. In channel II the marketing cost incurred by farmer was Rs. 3066.36 among the different items of expenditure. The highest charges was paid for transportation i.e. Rs. 1496.68 followed by brokerage .The middleman incurred marketing cost of Rs.400 while margin of middleman was Rs. 2606.67

In channel III the marketing cost incurred by farmer was Rs. 3798.31 and the marketing cost incurred by middleman was Rs. 366.66. The farmer incurred highest expenses on transportation cost i.e. Rs.1950.00 followed by brokerage Rs. 600.00 and labour expenses 590.00 respectively. The margin of middleman was Rs. 2933.34, Wholesaler incurred marketing cost of Rs.500.00 and received the margin of Rs. 3200.00. Lastly farmer incurred marketing cost of Rs.2576.66. The total marketing cost of channel III was Rs 7211.63 and total margin received by different intermediaries was Rs.6133.34

.From above discussion it is concluded that, highest marketing cost and margin was observed in channel III i.e. Rs. 7211.63 and Rs 6133.34 respectively.

5.3.6 Producer's share in consumer's rupee

Producer share in consumer rupee in case of buffalo is estimated and presented in Table 5.23

It is observed from table 5.23 that out of four marketing channels, channel I is the direct channel i.e. farmer→farmer. The net price received by farmer in channel-I, channel-II and channel-III were Rs.86961.71, Rs.76866.97, Rs. 78001.69 respectively. The producer's share in consumer's rupee was highest in channel-I i.e. (96.62 per cent) followed by channel-II (89.51 per cent) and in channel III (85.40 per cent) respectively.

Table : 5.23 Price spread in marketing of Buffalo.

(Rs./ Animal).

Sr. No.	Particulars	Total Price		
		Channel I	Channel II	Channel III
1	Net Price received by farmer	86961.71 (96.62)	76866.97 (89.51)	78001.69 (85.40)
2	Total Marketing cost incurred by farmer, middleman wholesaler and farmer	3038.28 (3.38)	6410.31 (7.46)	7211.63 (7.89)
3	Total market margin of wholesaler & farmer	0.00 (0.00)	2606.67 (3.03)	6133.34 (6.71)
4	Selling price of retailer/Purchase price of farmer	90000 (100.00)	85883.65 (100.00)	91346.66 (100.00)

(Figure in parenthesis indicate the per cent to the purchase price of farmer)

The total market cost and margin was highest in channel-III as compared to other channels. Though the producer's share in consumer's rupee was highest in channel-I as compared to other channels also the net price received by producer is highest in channel-I i.e. Rs. 86961.71 hence selling of buffalo through channel I is remunerative to the farmer.

The cost of marketing of goat is estimated and presented in Table 5.24

It is seen from Table 5.24 that out of four marketing channel, in Channel I the farmer incurred marketing cost of Rs. 1372.00 The selling price of farmer was 10500 .The farmer incurred highest expenses on transportation cost i.e. Rs. 925 followed by commission Rs.325.00 respectively. In channel II the marketing cost incurred by farmer was Rs.1362.84 among the different items of expenditure. The highest charges was paid for transportation i.e. Rs. 852.83 followed by commission. The butcher incurred marketing cost of Rs. 1117.86 The butcher incurred highest expenses on Commission Rs.714.86 followed by transportation Rs.403.00 respectively. While margin received by butcher Rs.781.87.

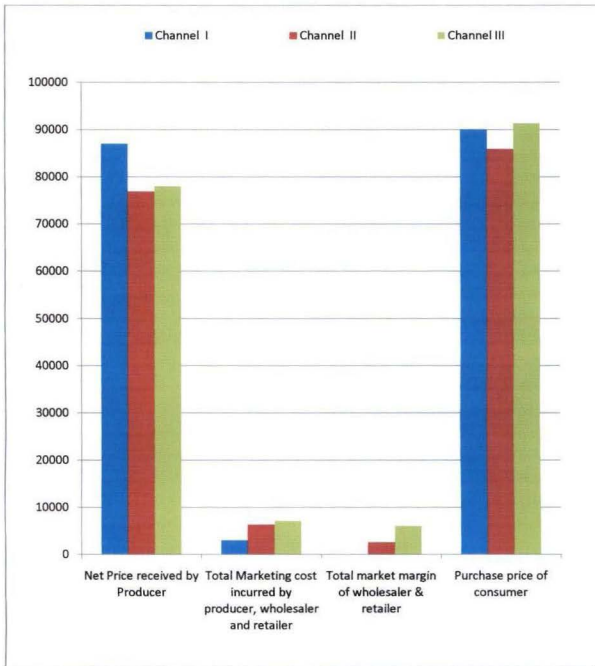


Fig.6 : Price spread in marketing of buffalo

by transportation Rs.403.00 respectively. While margin received by butcher Rs.781.87.

In channel III the marketing cost incurred by farmer was Rs. 779.00 and the marketing cost incurred by middleman was Rs. 715.00. The farmer incurred highest expenses on transportation cost i.e. Rs.375.00 followed by commission Rs. 300.00 and miscellaneous expenses 92.00 respectively. The margin of middleman was Rs. 795.50, Wholesaler incurred marketing cost of Rs.1220.00 and received the margin of Rs. 769.84. The total marketing cost of channel III was Rs 2714.00 and total margin received by different intermediaries was Rs.1565.34.

In channel IV, the marketing cost incurred by farmer was Rs.867.00. The farmer incurred highest expenses on transportation cost i.e. Rs. 600.00 followed by commission Rs.175.00. The wholesaler incurred marketing cost of Rs. 1090.00 and received the margin of Rs. 850.65. Lastly butcher incurred marketing cost of Rs. 900.00 while market margin received Rs.1119.50

.From above discussion it is concluded that, highest marketing cost and margin was observed in channel IV i.e. Rs. 2857.00 and Rs 1870.15 respectively.

Table : 5.24 Marketing cost and market margin of goat.

(Rs./ Animal)

Sr. No.	Particulars	Channel I	Channel II	Channel III	Channel
A	Marketing cost incurred by Farmer				
1	Loading and Unloading	9.00	9.00	9.00	9.00
2	Transportation	925.00	852.83	375.00	600.00
3	Commission	325.00	391.66	300.00	175.00
4	Market Fee	3.00	3.00	3.00	3.00
5	Miscellaneous	110.00	106.35	92.00	80.00
6	Marketing Cost	1372.00	1362.84	779.00	867.00
7	Selling price of Farmer	10500.00	8350.57	8850.00	9000.00
8	Net price received by farmer	9128.00	6987.73	8071.00	8133.00

Sr. No.	Particulars	Channel I	Channel II	Channel III	Channel IV
B	Marketing cost incurred by Village middleman				
1	Loading and Unloading	0.00	0.00	0.00	0.00
2	Transportation	0.00	0.00	450.00	0.00
3	Commission	0.00	0.00	200.00	0.00
4	Market Fee	0.00	0.00	0.00	0.00
5	Miscellaneous	0.00	0.00	65.00	0.00
6	marketing cost	0.00	0.00	715.00	0.00
7	Market Margin	0.00	0.00	795.50	0.00
8	Selling price of Farmer	0.00	0.00	10360.50	0.00
C	Marketing cost incurred by wholesaler				
1	Loading and Unloading	0.00	0.00	0.00	0.00
2	Transportation	0.00	0.00	950.00	840.00
3	Commission	0.00	0.00	200.00	250.00
4	Market Fee	0.00	0.00	0.00	0.00
5	Miscellaneous	0.00	0.00	70.00	0.00
6	marketing cost	0.00	0.00	1220.00	1090.00
7	Market Margin	0.00	0.00	769.84	850.65
8	Selling price of wholesaler	0.00	0.00	12350.34	10940.65
D	Marketing cost incurred by Butcher				
1	Loading and Unloading	0.00	0.00	0.00	0.00
2	Transportation	0.00	403.00	0.00	400.00
3	Commission	0.00	714.86	0.00	500.00
4	Market Fee	0.00	0.00	0.00	0.00
5	Miscellaneous	0.00	0.00	0.00	0.00
6	Marketing cost	0.00	1117.86	0.00	900.00
7	Market Margin	0.00	781.87	0.00	1019.50
8	Selling price of butcher	0.00	10250.30	0.00	12860.15
E	Marketing cost Incured by Farmer				
1	Loading and Unloading	0.00	0.00	0.00	0.00
2	Transportation	0.00	0.00	0.00	0.00
3	Commission	0.00	0.00	0.00	0.00
4	Market Fee	0.00	0.00	0.00	0.00
5	marketing cost	0.00	0.00	0.00	0.00
6	Miscellaneous	0.00	0.00	0.00	0.00
7	Market Margin	0.00	0.00	0.00	0.00
8	Total marketing cost	1372.00	2480.70	2714.00	2857.00
9	Total market margin	0.00	781.87	1565.34	1870.15
10	Purchase price of buyer	10500.00	0.00	0.00	0.00

5.3.7 Producer's share in consumer's rupee

Producer share in consumer rupee in case of goat is estimated and presented in Table 5.25

Table : 5.25 Price spread in marketing of goat

(Rs. / Goat)

Sr. No.	Particulars	Total Price			
		Channel I	Channel II	Channel III	channel IV
1	Net Price received by farmer	9128.00 (86.93)	6987.73 (68.17)	8071.00 (65.35)	8133.00 (63.24)
2	Total Marketing cost incurred by farmer, wholesaler and butcher	1372.00 (13.07)	2480.70 (24.20)	2714.00 (21.98)	2857.00 (22.22)
3	Total market margin of wholesaler & butcher	0.00 0.00	781.87 (7.63)	1565.34 (12.67)	1870.15 (14.54)
4	purchase price of farmer/wholesaler/ butcher	10500.23	10250.00	12350.34	12860.15
		(100.00)	(100.00)	(100.00)	(100.00)

(Figure in parenthesis indicate the per cent to the purchase price of farmer)

It is observed from table 5.25 that out of four marketing channels, channel I is the direct channel i.e. farmer→farmer. The net price received by farmer in channel-I, channel-II, channel-III and channel IV were Rs.9128.00 Rs.6987.73, Rs.8071.00 and Rs. 8133.00 respectively. The producer's share in consumer's rupee was highest in channel-I i.e. (86.93 per cent) followed by channel-II (68.17) and channel-III (65.35 per cent) .

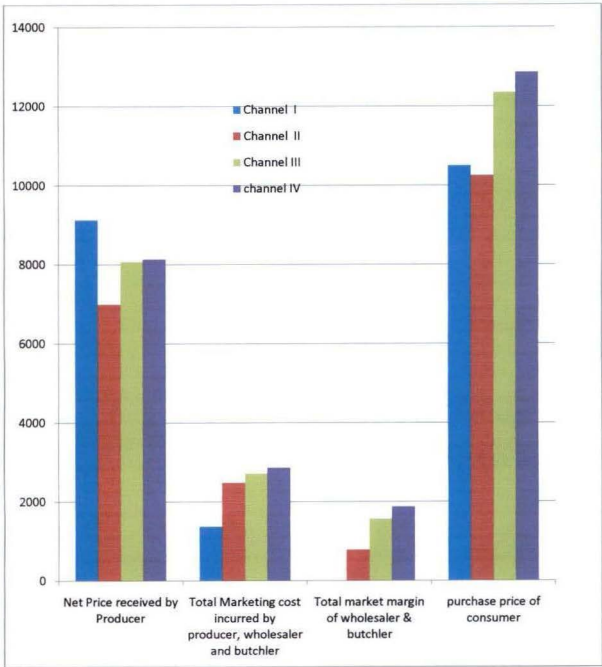


Fig.7: Price spread in marketing of goat

The total market cost and margin was highest in channel-IV as compared to other channels. Though the producer's share in consumer's rupee was highest in channel-I as compared to other channels also the net price received by farmer is highest in channel-I i.e. Rs. 9128.00 hence selling of goat through channel I is remunerative to the farmer.

5.4 Constraints in the marketing of livestock.

All the selected livestock farmer are interviewed for the problem they are facing while marketing of livestock. The information so obtained is explained under marketing of livestock in study area. The information regarding the important problem faced by farmer is presented in table 5.25

5.4.1 Constraints in marketing of livestock

On the basis of information obtained from livestock farmer following constraints are identified

1. About 60 per cent cow seller expressed their difficulty in fetching not expected price which is highest followed by bullock seller because of this, farmer is not satisfied.
2. Exploitation by commission agent charging very high was a problem for about 53.33 per cent cow purchaser by seller, Commission agent are charge more from seller and buyer and profit money goes towards the commission agent.
3. Transportation cost is more was a problem for 83.33 per cent cow purchaser due to farmer sale his animal in more amount.
4. Animal sold by telling lie about pregnancy was the problem for about 60 per cent cow purchaser, saler or middleman telling lie to purchaser about the pregnancy of the animal which is harmful to purchaser and many times animal not pregnant

5. Commission agent replace a calf to another cow or buffalo too was a problem for about 90 per cent cow purchaser followed by buffalo purchaser because saler view that only get more profit and that's why saler do this practice and purchaser get loss.
6. Marketing facility is inadequate was the problem for 66.66 per cent bullock purchaser. Many times water, fodder not available to market and farmer face many problem due to inadequate facility.
7. Colour, unauspicious mark reduce chance to sale was the problem for 60 per cent buffalo seller followed bullock seller and get less price due to poor colour and black unauspicious mark and reduce to chance of sale.

Table: 5.26 Problems faced by farmer in the marketing of livestock

Sr. No.	Problem	Cow(N=30)		Bullock(30)		Buff low(30)		Goat(30)	
		Seller	Purchaser	Seller	Purchaser	Seller	Purchaser	Seller	Purchaser
1.	Expected price not fetch	18 (60.00)	-	16 (53.33)	-	-	-	-	-
2	Exploitation by commission agent charging very high	3 (43.33)	16 (53.33)	09 (30.00)	12 (40.00)	07 (23.33)	11 (36.66)	7 (23.33)	12 (40.00)
3	Transportation cost is more	24 (80.00)	25 (83.33)	17 (56.66)	19 (63.33)	12 (40.00)	20 (66.66)	21 (70.00)	24 (80.00)
4	Animal sold by telling lie about pregnancy	-	18 (60.00)	-	-	-	11 (36.66)	-	9 (30.00)
5	Commission agent replace a calf to another cow or buffalo too.	-	27 (90.00)	-	-	-	23 (76.66)	-	-
6	Marketing facility is inadequate	12 (40.00)	15 (50.00)	19 (63.33)	20 (66.66)	16 (53.33)	18 (60.00)	14 (46.00)	15 (50.00)
7	Colour, unauspicious mark reduce chance to sale	13 (43.33)	-	17 (56.66)	-	18 (60.00)	-	11 (36.66)	-

SUMMARY AND CONCLUSIONS

Livestock production plays a vital role in rural economy of India. In the country around 70 million farming families are engaged in milk production. Livestock keeping along with crop husbandry maximizes the agriculture production. A cattle marketing is very distinct from marketing of any other product or service. Each and every cattle is distinct from each other in respect of size, height, colour, shape, appearance age, milk yield, order and stage of lactation, stage of pregnancy and working capacity etc.

In India population of cattle, buffalo and goat is 199.1, 105.3 and 140.5 million respectively. Maharashtra state is having 36.226 million of total livestock population. In which cattle, buffaloes, sheep and goat contribute 16.303, 6.145, 3.094, 10.684 million respectively. (Department of Animal Husbandry and Dairying Government of Maharashtra Report 2009). In Nagpur district total livestock population is 974705lakh among which cow, buffaloes and goat contributes 537798, 101665, and 335242 respectively. (Source- Regional Joint Director of Animal Husbandry, Nagpur Division, Nagpur 2007.)

It is need of farmer to know market structure, marketing pattern and marketing of livestock and problem in livestock market. By keeping in view the above aspect, the present study entitled " Marketing of livestock in Nagpur district " has been undertaken with following objective:

- 1) To study the market structure of selected livestock market in Nagpur district.
- 2) To study the marketing pattern and marketing of livestock.
- 3) To identify the problems in livestock marketing.

The study has been undertaken in Nagpur district. Primary data was collected from the three livestock market of Nagpur district viz. Katol Mohpa and Kalamna. Livestock i.e. cow, bullock, buffalo and goat were considered for data collection from each market 10 each livestock owner was selected for each market and total 120 livestock owner was selected for the study. All the major agencies involved in the marketing of livestock i.e. middleman, wholesaler and retailer 15 each from one market total 45 was selected for the present study. The data pertain for the calendar year 2012.

The results of the study are summarized as follows:

The farmers selected from Mohapa cattle market possess average highest number of livestock (20) followed by Katol cattle market (18) and Kalamna cattle market (15) respectively. The average family size of selected farmers was 3 male, 3 female and 1 children at overall basis. On the overall basis 8.34 per cent of farmer illiterate and rest of them have educated, among them 15.00 per cent farmers was primary school level education and 30.00 per cent, 28.35 per cent and 11.66 per cent farmers had completed their middle school, high school, higher secondary and whereas graduate and above level of educated were 6.66 per cent. Highest illiterate (12.50 per cent) people were observed in Kalamna market. Highest number of livestock was sold in Mohpa cattle market followed by Katol and Kalamna cattle market.

Katol Agricultural Produce Market Committee owns (APMC) 6.10 ha. of land out of which the 2.50 ha land under livestock market. The Mohpa agricultural market committee owned 4.00 ha land out of which 2.00 ha land under livestock market. Kalamna Agricultural produces market committee owns about 8.10 ha land out of which 3 ha land under livestock market. The market committee is managing and controlling the market. In Katol, Mohpa and Kalamna market the most commonly method use in selling of livestock through broker. Another method of selling is direct selling. In direct selling method the buyer and seller directly contact with each other and perform the

operation like buying or selling without intermediaries. The highest number of broker was observed in Kalamna market i.e. 91 followed by Mohpa (70) and Katol (67) respectively. The highest wholesaler was observed in Kalamna followed by Katol and Mohpa market. Bullock and cow predominated the total market transaction followed by goat and buffalo. Bovine included cow, bullock, buffalo, and calf. The large bulk of the sellers sold 1 to 3 animals followed by sale of 4 to 6 animals. However, there are some differences in the pattern across the market. In Katol, Mohpa, and Kalamna market sellers were concentrated in 3 to 4 animal category. The majority of the sellers in almost all the market sold many animals. In case of goat maximum sale was observed in many category of goat in Katol and Mohpa with exception of Kalamna market. The bovine buyer purchase 1 to 3 bovine in all the market. The buyer, purchase 1 to 3 animals were mostly farmers whose motive for purchase was mainly for domestic use. The entry and exist in market are free. In Katol, Mohpa and Kalamna market the seller pay Rs. 5 per cow, bullock, buffalo and Rs. 3 per goat as a market fee if the animal are transacted. Similarly, the buyer pays 1 per cent of the selling price of animals. Sellers, buyers, brokers, wholesaler and other market functionaries, as observed by the researcher and told by respondents, indulged in some corrupt practices to gain personal advantage out of animal transaction. Broker created a lot of nuisance both to seller as well as buyer.

The total number of member in market committee was 23 out of these highest numbers of member i.e. 7 were elected from different service co-operative societies and gram panchayat. All the member of market committee elected one chairman and one vice chairman. All money of market committee is known as market fund. All payment of official date salary is paid from market fund. The licence fee of Rs. 100 per year (financial year on 1stApril to 31stMarch) is charges to Middleman, Wholesaler in Katol, Mohpa and Kalamna market. The rate of supervision fee for Katol, Mohpa and Kalamna market is Rs.0.5 paise per hundred rupees. This fee is paid to the Maharashtra

Government before 15th in each month. Market fee is the main source of income of market committee. Following facility are provided by market committee-

1. Permanent auction shed, supported by temporary auction shed, main road, compound wall with barbed wire fencing facility available in market.
2. Drinking water facility like well, tank available in market.
3. Bank, Post office also available for transaction in the market.
4. Tire road facility is available in market.
5. Electricity facility, office building are also available in market.
6. Shetkari niwas is also available in market.
7. Fodder facility on payment is available in market.
8. Security guard is also available in market.

In marketing of livestock following important channels of distribution have been observed in study area

Farmer→Farmer

Farmer→Middleman→Farmer

Farmer→Middleman→Wholesaler→Farmer

Farmer→Wholesaler→Farmer

Farmer→Butcher

Farmer→Village Middleman→Wholesaler

Farmer→Wholesaler→Butcher.

In Katol market price fixation of 7 adult male based on breed, in Mohpa market price fixation of 9 adult male based on body weight and In Kalamna market price fixation of 8 adult female based on body weight. The end use of Cow and buffalo are for milking and end use of bullock was for draft purpose. The end use of goat was for meat purpose. In channel I farmer use goat for breeding purpose. Out of total 30 farmer, highest cow was sold through channel II i.e. 30.00 per cent. Out of total 30 farmer, highest bullock was sold through channel II i.e. 47.67 per cent. Out of total 30 farmer, highest buffalo was sold through channel II i.e. 56.67 per cent. Out of total 30 farmers, highest goat was sold through channel II i.e. 56.67 per cent.

In case of marketing of cow in Channel I the farmer incurred marketing cost of Rs. 2322.01; the selling price of farmer was Rs. 44000. In channel II the highest charges was paid for transportation i.e. Rs. 1090 followed by cost of feeding at market. The middleman incurred marketing cost of Rs. 210 while margin of middleman was Rs. 2590.50. In channel III the marketing cost incurred by farmer was Rs. 2257.50 and the marketing cost incurred by middleman was Rs. 200. The margin of middleman was Rs. 2990, wholesaler incurred marketing cost of Rs. 537.50 and received the margin of Rs. 3362.50. The total marketing cost of channel III was Rs 5231.70 and total margin received by different intermediaries was Rs.6352.50. In channel IV, the marketing cost incurred by farmer was Rs. 1142.70. The wholesaler incurred marketing cost of Rs. 519.80 and received the margin of Rs. 3230.20. Lastly farmer incurred marketing cost of Rs. 1066. highest marketing cost and margin was observed in channel III i.e. Rs. 5231.70 and Rs 6352.50. The net price received by farmer in channel-I, channel-II, channel-III and channel IV were Rs.41677.99, Rs.37542, Rs. 35742.50 and Rs.40357.30 respectively.

In case of cow the producer's share in consumer's rupee was highest in channel-I i.e. (94.72 per cent) followed by channel-IV (87.13 per cent) and channel-II (83.19 per cent) and in channel III (75.53 per

cent) respectively. The producer's share in consumer's rupee was highest in channel-I as compared to other channels and also the net price received by producer is highest in channel-I i.e. Rs. 41677.99 hence the selling of cow through channel I is remunerative to the farmer.

In case of marketing of bullock in Channel I the farmer incurred marketing cost of Rs. 2122.50. The selling price of farmer was Rs. 59000. In channel II the highest charges was paid for transportation i.e. Rs. 1217.50 followed by labour expenses. The middleman incurred marketing cost of Rs. 230.00 while margin of middleman was Rs. 2370.00. In channel III the marketing cost incurred by farmer was Rs. 2397.50 and the marketing cost incurred by middleman was Rs. 210. The margin of middleman was Rs. 3090. Wholesaler incurred marketing cost of Rs. 480.00 and received the margin of Rs. 3220.00. The total marketing cost of channel III was Rs 5069.49 and total margin received by different intermediaries was Rs.6310.0. In channel IV, the marketing cost incurred by farmer was Rs. 2195. . The wholesaler incurred marketing cost of Rs. 437.5 and received the margin of Rs. 2562.5 Lastly farmer incurred marketing cost of Rs. 1985.Highest marketing cost and margin was observed in channel III i.e. Rs. 5069.49 and Rs 6310.00. The net price received by producer in channel-I, channel-II, channel-III and channel IV were Rs.56877.50 Rs.52096, Rs. 50402.50 and Rs. 52905 respectively.

In case of bullock the producer's share in consumer's rupee was highest in channel-I i.e. (96.40 per cent) followed by channel-II (88.45 per cent), channel-IV (88.05 per cent) and in channel III (81.58 per cent) respectively. The producer's share in consumer's rupee was highest in channel-I as compared to other channels, but the net price received by producer is highest in channel-I i.e. Rs. 56877.50 hence selling of bullock is through channel I is remunerative to the farmer.

In case of marketing of buffalo in Channel I the farmer incurred marketing cost of Rs. 3038.28. The selling price of farmer was Rs.

90000. In channel II the highest charges was paid for transportation i.e. Rs. 1496.68 followed by brokerage .The middleman incurred marketing cost of Rs.400 while margin of middleman was Rs. 2606.67. In channel III the marketing cost incurred by farmer was Rs. 3798.31 and the marketing cost incurred by middleman was Rs. 366.66. The margin of middleman was Rs. 2933.34, Wholesaler incurred marketing cost of Rs.500.00 and received the margin of Rs. 3200.00. The total marketing cost of channel III was Rs 7211.63 and total margin received by different intermediaries was Rs.6133.34.The net price received by producer in channel-I, channel-II and channel-III were Rs.86961.71, Rs.76866.97, Rs. 78001.69 respectively.

In case of buffalo the producer's share in consumer's rupee was highest in channel-I i.e. (96.62 per cent) followed by channel-II (89.51 per cent) and in channel III (85.40 per cent) respectively. The producer's share in consumer's rupee was highest in channel-I as compared to other channels also the net price received by producer is highest in channel-I i.e. Rs. 86961.71 hence selling of buffalo through channel I is remunerative to the farmer.

In case of marketing of goat in Channel I the farmer incurred marketing cost of Rs. 1372.00 The selling price of farmer was 10500. In channel II the highest charges was paid for transportation i.e. Rs. 852.83 followed by commission. The butcher incurred marketing cost of Rs. 1117.86 The butcher incurred highest expenses on Commission Rs.714.86 followed by transportation Rs.403.00 respectively. While margin received by butcher Rs.781.87. In channel III the marketing cost incurred by farmer was Rs. 779.00 and the marketing cost incurred by middleman was Rs. 715.00. The margin of middleman was Rs. 795.50, Wholesaler incurred marketing cost of Rs.1220.00 and received the margin of Rs. 769.84. The total marketing cost of channel III was Rs 2714.00 and total margin received by different intermediaries was Rs.1565.34. In channel IV, the marketing cost incurred by farmer was Rs.867.00. The wholesaler incurred marketing

cost of Rs. 1090.00 and received the margin of Rs. 850.65. Lastly butcher incurred marketing cost of Rs. 900.00 while market margin received Rs.1119.50. Highest marketing cost and margin was observed in channel IV i.e. Rs. 2857.00 and Rs 1870.15 respectively. The net price received by farmer in channel-I, channel-II, channel-III and channel IV were Rs.9128.00 Rs.6987.73, Rs.8071.00 and Rs. 8133.00 respectively.

In case of goat the producer's share in consumer's rupee was highest in channel-I i.e. (86.93 per cent) followed by channel-II (68.17 per cent) , channel-III (65.35). The producer's share in consumer's rupee was highest in channel-I as compared to other channels also the net price received by producer is highest in channel-I i.e. Rs. 9128.00 hence selling of goat through channel I is remunerative to the farmer.

Conclusions:

On the basis of results obtained from the study, following conclusions are drawn.

1. The average size of family was 7 members out of which 3 are male, 3 are female and 1 children. At overall level 8.34 per cent of farmers are illiterate and rest of them have educated. Highest illiterate people were observed in Kalamna market having 12.5 per cent
2. The area covered by Katol, Mohpa and Kalamna gure bazaar was 2.50 ha, 2.00 ha and 3.00 ha respectively
3. It is found that in Katol Mohpa and Kalamna market having common method of selling which was through broker/ Direct selling.
4. In Kalamna market highest number of broker was observed as compared to Mohpa and Katol.

5. In highest number of price fixation was observed in Mohpa market on the basis of body weight in adult male.
6. The end use of cow and buffalo are for milking and end use of bullock was for draft purpose whereas the end use of goat was for meat purpose
7. Market functionaries indulged in some corrupt practices to gain personal advantage out of animal transactions.
8. Total number of member in market committee was 23.
9. Market fee is the main source of income of market committee.
10. Generally all the major facilities are available in the market.
11. Highest cow , bullock, and buffalo was sold through channel II whereas, the goat was sold through butcher i.e. channel II.
12. In case of cow the producer's share in consumer's rupee was highest in channel-I i.e. (94.72 per cent) followed by channel-IV, channel-II and channel III respectively. The net price received by producer is highest in channel-I i.e. Rs. 41677.99
13. In case of bullock the producer's share in consumer's rupee was highest in channel-I i.e. (96.40 per cent) followed by channel-II, channel-IV and channel III respectively. The net price received by producer is highest in channel-I i.e. Rs. 56877.50.
14. In case of buffalo the producer's share in consumer's rupee was highest in channel-I i.e. (96.62 per cent) followed by channel-II and channel III respectively. The net price received by producer is highest in channel-I i.e. Rs. 86961.71.
15. In case of goat the producer's share in consumer's rupee was highest in channel-I i.e. (86.93 per cent) followed by channel-II and channel-III .The net price received by producer is highest in channel-I i.e. Rs. 9128.00.

Chapter VI

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Place : Nagpur

Date : 31/05/13


(Sarad Piyush Bhaiyyasaheb)



APPENDIX

Appendix

Questionnaire

Title of research :- Marketing of Livestock in Nagpur district

A) General study of Market:-

- 1) Name of Market:
- 2) Whether it is Primary / secondary?
- 3) Day of Market :-
- 4) No. of licensed broker:
- 5) No. of other broker:
- 6) Market structure:
 - i) Establishment of market.....
 - ii) Area covered:.....
 - iii) Market premises:.....
 - iv) Market Functionaries:
 - a) No. of wholesaler:.....
 - b) No. of broker:.....
 - c) Any other:.....

- | 7) Official staff: | Total no.: | per month salary |
|-------------------------|------------|-------------------------|
| I) a) Secretary | | |
| b) Accountant | | for animal market |
| c) Clerk | | for animal market |
| d) Inspector | | for animal market..... |
| e) Watchman | | for animal market..... |
| f) Peon | | for animal market..... |
| g) Any other | | for animal market..... |
| II) On daily wages duty | | |
| a) Clerk | | for animal market..... |
| b) Watchman | | for animal market..... |

- c) Driver for animal market.....
- d) Peon For animal market.....

8) License fee

9) Supervision fee (Rs).....

(For animal market)

10) Loan and grant fee

11) Income from livestock to market committee for the year 2012.....

12) Source wise income from livestock to market committee for the year 2011-12

a) Cesses:

b) Gate pass:

c) Land rent:

d) Hotel land rent:

e) License fee:

13) APMC charge for buyer and seller

Sr. no.	Particular	Commodity	Measure	Rate (Rs)
A)	Charge for seller in livestock market			
1)	Commission			
2)	Unloading			
B)	Market charge for buyer			
1)	Market fee			
2)	Supervision			
3)	Take up			

14) Facility available in the market

a) Shade:

b) Water tank

c) Fodder

d) Canteen:

e) Electricity:

f) Post office:

g) Bank:

h) Other:

15) Method of sale for –

Cow.....

Buffalo.....

Bullock.....

Goat.....

Other.....

B) Market Charge:-

Sr. No.	particular	Cow	Buffalo	Bullock	Goat	other
1	Entrance fee					
2						
3						

Market charge:

Sr. No	Particular	Cow	Buffalo	Bullock	Goat	other
1	Market fee					
	A)Seller					
	a)Occasional					
	B)Buyer					
	a)occasional					
	b)Regular					
2	Other market fee					
	a)Stamp fee					
	b)Form fee					
	c)Annual fee					
	d)Any other					

C) Market fee according to price:

Sr. no	particular	Cow	Buffalo	Bullock	Goat	Other
	Price (Rs)					
1	Below 1000					
2	1000- 5000					
3	5000- 15000					
4	15000- 25000					
5	25000- 35000					
6.	35000- 45000					
7.	Above 45000					

How are the modes of payment: Cash / Cheque?

**Title of research :- Marketing of Livestock in Nagpur district
For Broker or Dalal:**

- 1) Name of Broker..... 2) sex.....
 3) Village: 4) education.....
 5) Tahsil.....
 6) Age of broker.....
 7) Distance from market.....

What are source of income:

- 1) Farming
 2) Market broker
 3) Shop
 4) Other

In which market and for which animal you act as a broker :-

SR NO.	Breed	Name of market	Type of market
1.			
2.			
3.			
4.			

What is the broker charge for livestock – Min Rs. Max Rs.

- Cow
 Buffalo
 Bullock
 Goat
 Other

How much rupees you earn:

Market day – Min Rs. Max Rs

- How much do you earn or broker during year – Min Rs. Max Rs.
- Is there any need of permission of market committee for this business
Yes/No
- If yes then how much you have to pay for license fee? Rs./ Year
- When you get brokerage: Before transaction / after transaction.
- Difficulties face by you or broker.

.....

A) Information of farmer (Seller) :-

Name _____ Sex _____

Age _____ Education _____

Village _____ Tahsil _____

District - Nagpur

Occupation- 1) Major:-

2) Subsidiary:-

B) Information of Agricultural Land (ha):-

1) Total size of holding:-

2) Fallow land:-

3) Cultivated land:-

4) Irrigated land:-

5) Unirrigated land:

6) Gross cropped area:-

Information of member of family :-

Sr. no	Name	Sex m/f	Age (yrs)	Relation with head	Education	Occupation Main/sub	Income
1.							
2.							
3.							
4.							
5.							
6.							
	Total						

C) Preparation of animal for marketing :

Sr. no.	particular	cow	Bullock	Buffalo	Goat	other
1	Washing					
2	Grooming					
3	Blanketing					
4	Horn treatment					
5	Hoof Treatment					
6						
7	Polishing					
8	Price of sold					

- Colour of livestock -
- Have you given guarantee to accepting expected price of – yes/No
- Is there any need of broker for getting expected price of – yes/No
- If yes then in that matters broker does help need of broker - yes/No
 - 1) To search customer
 - 2) To negotiate price
 - 3) If will be sold on credit then providing guarantee of recovery of payment
 - 4) Other

Total marketing cost paid (Rs)

Net price obtain to seller during sale of

What are the difficulties faced by seller in marketing of livestock?

.....

.....

.....

- Which improvement will you suggest for better marketing of livestock?

-
- Marketing channel for marketing of cow, buffalo, bullock
 - Channel I: - farmer-farmer.
 - Channel II: - farmer-middleman-farmer
 - Channel III: - farmer-middleman-wholesaler-farmer
 - Channel IV: - farmer- wholesaler-farmer

Average cost of marketing of livestock in different channel

Name of market functionary and items of cost	Channel			
	I	II	III	IV
I) farmer/seller				
1) Extra feeding expenses before sale				
2) Labour expenses				
3) cost of grooming, washing and decoration				
4)Transportation cost				
5)Broker age				
6)Cost of feeding at market				
7)Market fee				
8) Miscellaneous expd. (Roap,)				
9) Selling price				
10) Total				
II) Middleman				
1. Extra feeding expenses before sale				
2. Labour expenses				
3. Cost of grooming, washing and decoration				
4. Transportation cost				
5. Broker age				
6. Cost of feeding at market				
7. Market fee				
8. Miscellaneous expd.(Roap)				
9. Selling price				
10. Total				
III) Wholesaler				
1.Extra feeding expenses before sale				
2.Labour expenses				
3.Cost of grooming, washing and decoration				
4.Transportation cost				
5.Broker age				
6.Cost of feeding at market				
7.Market fee				
8.Miscellaneous expd.(Roap)				
9.Selling price				
10.total				

Marketing cost of Goat :**1) Farmer-Farmer****2) Farmer -Butcher****3) Farmer-Village middleman-Wholesaler****4) Farmer- Wholesaler- Butcher**

Sr. no.	particular	Channel I	Channel II	Channel III	Channel IV
1.	Farmer				
	i)Loading and unloading				
	ii)Transportation				
	iii)commission				
	iv) Miscellaneous				
	v) Total				
2.	Village middleman				
	i)Loading and unloading				
	ii)Transportation				
	iii)commission				
	iv) Miscellaneous				
	v)Selling price				
	vi) Total				
3.	Wholesaler				
	i) Loading and unloading				
	ii)Transportation				
	iii)commission				
	iv) Miscellaneous				
	v) Market Fee				
	vi) Selling price				
	vii) Total				
4.	Butcher				
	i)Loading and unloading				
	ii)Transportation				
	iii)commission				
	iv)Miscellaneous				
	v) Selling price				
	vi) Total				

Problem in livestock marketing to farmer

- 1).....
- 2).....
- 3).....
- 4).....

Problem in livestock marketing to middleman

- 1).....
- 2).....
- 3).....
- 4).....

Problem in livestock marketing to wholesaler

- 1).....
- 2).....
- 3).....
- 4).....

Problem in livestock marketing to butcher

- 1).....
- 2).....
- 3).....
- 4).....

Problem in livestock marketing to village middleman

- 1).....
- 2).....
- 3).....
- 4).....

