# Micro-level study of the village level animal markets with particular reference to small ruminants

Report of the study conducted in Northern Karnataka Markets, June 2011

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RLN anchored by FES ,Anand

Developed by


Dr.B.R.Athani

# Table of Contents

## LIST OF FIGURES



## LIST OF TABLES

## ABSTRACT

The study was intended to undertake subsector analysis for small ruminant with more focus on their markets and the supply channels operating nearby production areas. Subsector map has been arrived to analyze the dynamics including the gaps in order to identify and address the bottlenecks. The results points out that the even though the market are oligopolic, they are complex and lack transparency in pricing, grading the animals and managing flow of information. The existing channels are invigorated by big players from metro cities like Chennai and Bangalore giving impetus to smallholder producers and pricing trends. The price spread is relatively thin and at least in the markets under study, producer is sharing the major share of the consumer rupee. There are many issues that markets can not address, but requires intervening agencies to assist producers in accessing quality inputs and judging basal minimum price for his animals.


## INTRODUCTION:

The role of small ruminants in livelihood security of the small, marginal and the landless laborer families across different farming situations in south Asia is increasingly being recognized within the development sector for several obvious reasons. Relatively more equitable distribution and labor intensive activity in rearing these animals has contributed to this perception. One can assess the contribution of these small ruminants to livelihoods by analyzing to quantify

- Their functions in production, consumption, as 'buffering' or insurance mechanisms, and as savings and accumulation strategies.
- Their attributes – such as holding costs; durability; security; and convertibility – and the reasons why certain attributes might be desirable or undesirable.
- The changing importance of functions and the changing effectiveness of assets in contexts of changing markets and technical and social opportunities

The importance of these animals is more evident with the fact that many of these people live in fragile, marginal environments that are unsuitable for crop production. Making a living on marginal lands with range of challenges including poor soils, erratic rainfall and extreme temperatures has been made possible by rearing these animals for livelihood. They act as insurance against

crop failure and hence draught survival strategy. They are raised mainly for meat, milk and skin, and providing a flexible financial reserve (social security) in bad crop years (Puskur et al 2004; Rangnekar 2006).

## CONTRIBUTION TO ECONOMY:

In Indian context, the contribution of agriculture sector to national GDP is 25% (during 1990s) and the share of livestock in agricultural GDP is 23%, of which small ruminants contribute about 10% to the total value of livestock sector, which is around Rs 24,000 million annually (Birthal et al 2003). Although small ruminants account for 14% of the meat, 4% of the milk output and 15% of hides and skin production in the country, it receives only about 2.5% of the public expenditure on livestock sector, which is much less than the contributions made by small ruminants to the total value of output of the livestock sector

## UNORGANIZED SECTOR:

Small ruminant production, in the context of sustainable livelihood of the poorest is facing the following problems in India:

- Poor awareness regarding the importance of small ruminants in the livelihood system is this not contrary to our belief
- Absence /lack of active rearer / farmer organizations
- Pressure on fodder resource base
- Inadequate veterinary health services
- Lack of adequate focus on genetic or breed improvement
- Reduced or lack of access to credit and insurance
- Lack of efficient marketing mechanisms
- Poor inter-departmental coordination

*Source: CALPI - Sustainable Livelihood through Small Ruminant Production*

In a nutshell, in spite of their large numbers and operating in rapidly growing markets, they are squeezed directly by changes in demand, furies of nature, labour costs, and epidemics. The shepherding as occupation is showing sharp decline in irrigated patches in Karnataka due to scarcity of grazing lands, awareness on education for children, lucrative alternate land based enterprises, etc. However, it is otherwise in rain fed areas. The small ruminants have shown steady increase over the last decade as due to the trends in the subsector. They are also influenced, may be subtly by changes in technology,

regulatory environment, competition from commercial scale integrators and imports.

## THE EMERGING OPPORTUNITIES:

The emerging driving force in promoting small ruminant is the increasing demand for high value commodity like meat and leather products with the rise in per capita income of the urban consumers. In India, food products are the single largest component of private consumption expenditure, and account for as much as 35% of the total spending. With the changing lifestyle, there has been a shift in the consumption habit from carbohydrate based staples towards protein rich foods. Fruits, vegetables and meat based products have shown consistent growth thereby increasing their share in the basket. Meat products segment stands at Rs 35,892 crores with growth rate of 2.3% between 1996 to 2006 when compared to negative growth rate of cereals (-0.7% during the same period) (Marketing White Book 2010- Business World)

Small ruminants are major contributors of animal proteins for human consumption in India. According to FAO statistics 2008 (2007 data), mutton and chevon production in India is was 0.67 million tons during the year 2000 and is expected to reach 9.89 million tons by 2020 (14.4% growth rate)( Delgado et al., 1999). Per capita consumption of meat is only 5.4 kg/year, as compared to 33kg/year in the developed countries. (Delgado, 1999) Current availability of animal proteins (10.8gms/day/capita) is just half of the daily requirement of (20 gms/day /capita and it is targeted to achieve this by the year 2020. Meat production (including fish and poultry) will have to grow by 5.8% per year to fulfill this requirement (Jha and Chand 1999).

On export front also there has been consistent growth over the last 3 years. India's exports of live animals like sheep and goat over the years continued to dominate with a registered growth of 9.98 per cent during this period.

The Small Ruminants sector will therefore, play a significant role in the coming decade in impacting on the livelihoods of small and marginal farmers rearing them.

## THE POPULATION TRENDS FOR SMALL RUMINANTS:

As per 17th livestock census (2003) India had 61.47 million sheep (as against 57.50 in 1997) accounting for 6.91% increase. There were 124.36 million goats (as against 122.73 in 1997) accounting for 1.33% increase. Where as in case of Karnataka, there have been significant reverse trends. Sheep population (1997) that was 8.00 million has come down to 7.26 million during 2003 accounting

for 9.33% reduction in growth rate. Similarly, goat population also has declined by 8.02% standing at 4.48millions during 2003.

These kind of changing dynamics in the overall farming contexts and the business environment have left these smallholder livestock keepers in lurch. This is reflected in the fact that composition and population of livestock is undergoing fast transition over the years and many of them have negatively impacted the poor (S.Ramdas and Nitya G, 2004).

## SCOPE OF THE STUDY:

The major intended outcome of the study was to arrive at clear understanding of the markets, primarily focusing on the village markets that are of immediate concern for the small ruminant producers. This is with the larger objective to understand the role of different players in value chain, assess the cost economics and nature of value additions in order to embark upon appropriate policy advocacy for betterment of the livelihoods of smallholder livestock keepers.

The specific objectives are to

- To undertake value chain analysis of the sheep and goat meat to ascertain the various immediate intermediaries around the vicinity of production areas (mainly villages), functions performed by them, value added by them, costs added by them, scope for replacing the functions by some other member of the chain.

- To assess and recommend possible interventions in the supply chain on issues including infrastructure, marketing, production and policy to enhance the realizations of the smallholder farmers.

### COMPONENTS OF THE STUDY:

1. Trend analysis for different categories of small ruminants that are sold
2. Understanding the value chain for sheep and goat meat including their actors vis a vis competitiveness of small livestock keepers
3. Mechanism of pricing that is followed in the markets
4. Legal and regulatory environment affecting the trade at village markets, including policies and different programs of the state in promoting these livestock

Key intervention areas to strengthen the market systems

## LOCATION OF THE STUDY:

The study was conducted in and around 6 major livestock markets belonging to three northern districts of Karnataka- Belgaum, Bijapur and Bagalkot. Two villages included for FGD and micro level survey from each of these markets. Of these 2 villages, one was selected from within the radius of 10 Kilometers from market place and the other from the distance of 15- 20 Kilometers from market place visited. All together 8 villages are under rainfed agricultural areas and 4 from irrigated ones.

| District | Markets/Shandys | Villages Covered |
|---|---|---|
| Belgaum | Gokak | Benachinamaradi and Tavag |
| | Yaragatti | Chunchanur and Salapur |
| Bijapur | Basavan Bagewadi | Takkalaki and Budni |
| Bagalkot | Aminagadh | Guledgud and Kamatagi |
| | Mudhol | Anagawadi and Vajjramatti |
| | Kerur | Ugalavata and Yankanchi-Maninagara |

## METHODOLOGIES FOR THE STUDY:

The study used a combination of tools for obtaining the information. Participatory methodology was employed to ensure the study is a mutual learning experience to the team as well as the livestock keepers and other stakeholders/actors in the markets. The study relied heavily on key informant interviews and focus group discussions with key players in the value chain (e.g. producers, village level aggregators and trade channel.

Government agencies, regulated market yard committees, producer associations were interacted with an objective of understanding the sector, including constraints, cost structures, efficiency and value at each link of the value chain.

Thus the study employed actor centred approach rather than frequently preferred people centred approach. The actor centred approach is more

comprehensive term that more clearly connotes the inclusion of individuals and institutions and organizations as the units of analysis, enabling both micro- and macro-level analyses.

Case studies are also developed to capture various factors contributing for the present circumstances and also to capture best practices followed by these individuals and institutions to strengthen the marketing systems in favour of smallholder livestock keepers.

**SAMPLING FRAMEWORK:**

| # | Element of Analysis | Level of Analysis | Sampling Plan | Tool to be used |
|---|---|---|---|---|
| 1. | Production | Villages | 160farmers, mainly small ruminant keepers | Structured Questionnaire and Focus Group Discussion, Rapid rural appraisal |
| 2. | Markets | Villages and town level shanties | 12 micro-markets (village level, 2 villages per intermediary markets identified already) and 6 intermediary markets, 1 terminal markets ( in all, a total of 60 traders and aggregators from above | Structured Questionnaire and open ended Qs |
| 3. | Government Institutions- | District | 2 per district | Semi-structured Questionnaire |
| 4. | CBOs/NGOs | District | 2 per district | Semi-structured Questionnaire |

## RESULTS OF THE STUDY: ANALYSIS OF SUBSECTOR:

A detailed subsector map using the standard conventions has been drawn to understand the flow of animals from production to consumption. The animals that pass through these channels are mainly the lambs (less than 3 months age), spent ewes, breedable fit ewes for rearing (called ALUGURI) and adult rams for breeding purposes. Similarly in case of goats, it's the spent does, kids within the age group of 4-6 months, breedable fit does and bucks.

**TABLE 1. AVERAGE POPULATION OF SHEEP AND GOATS IN STUDY AREAS**

| Markets | Catchment Villages | Avg.No.of Families | Families owning S/G | Avg. Goat Population Per Village | Avg. Sheep Population Per Village |
|---|---|---|---|---|---|
| Gokak | 22 | 533 | 213 | 667 | 973 |
| Ramadurg | 28 | 298 | 164 | 449 | 792 |
| B.Bagewadi | 35 | 323 | 194 | 749 | 902 |
| Yaragatti | 26 | 276 | 165 | 883 | 1729 |
| Mudhol | 15 | 360 | 162 | 718 | 604 |
| Amingadh | 26 | 278 | 181 | 510 | 1024 |

## THE STRUCTURE:

The channel consists primarily 8 distinct actors. The producers are mainly shepherds, small farmers and landless agricultural laborers. It is estimated that there are approximately 152 villages (as per the counts by market players) around these 6 markets where small ruminant production is carried out in semi intensive way. Our observation during FGDs (in 12 villages at random) is that 55% of the families are engaged in this activity (in these villages where markets are well organized) in rain fed areas and about 40% in irrigated ones.

FIGURE 1SUBSECTOR MAP SMALL RUMINANTS IN NORTH KARNATAKA

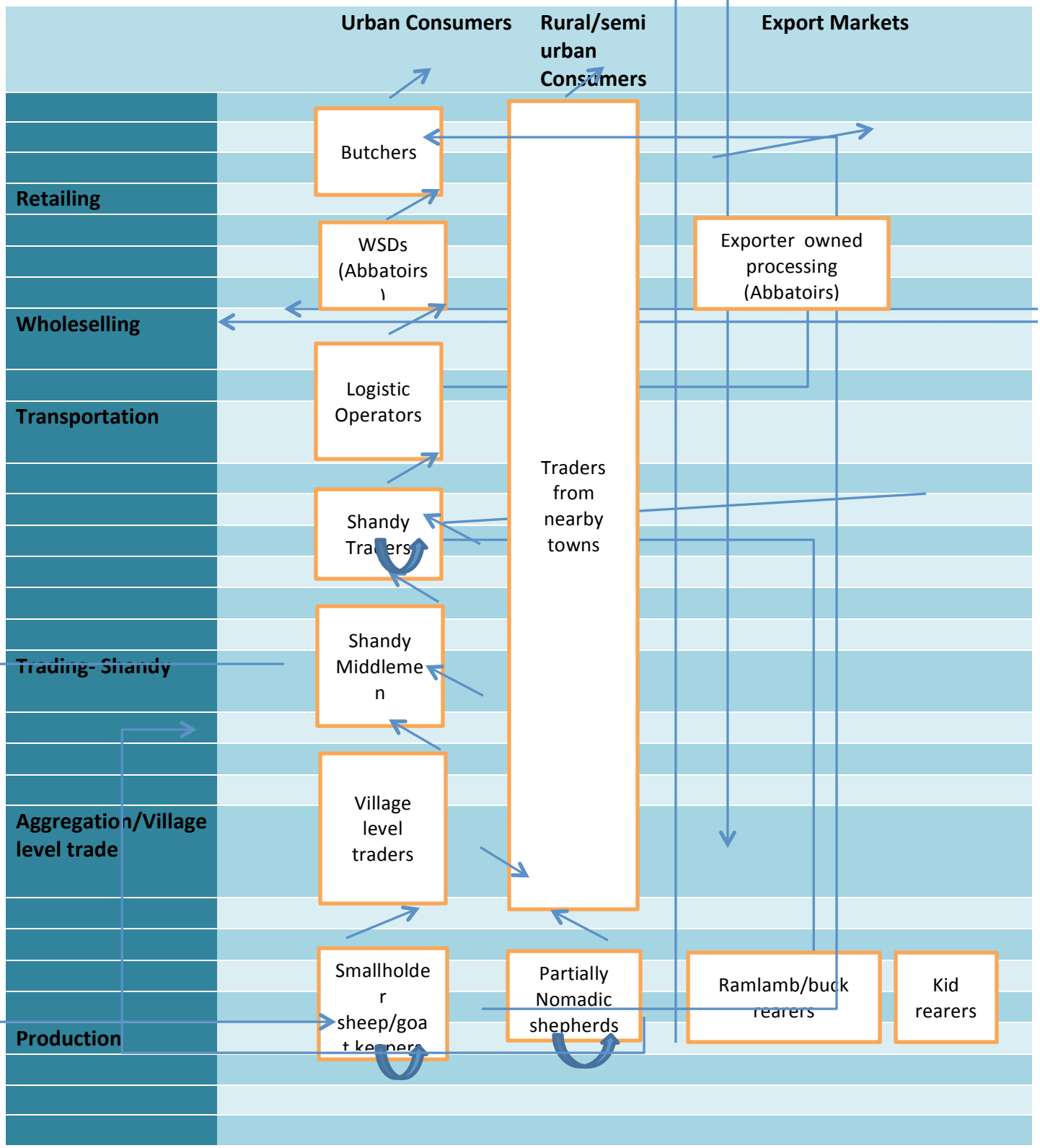


**Table 2 Average price for sheep /Goats across markets**

| | Gokak | Ramadurg | Yargatti | B.Bagewadi | Amingadh | Mudhol |
|---|---|---|---|---|---|---|
| Young animals (12-15 Kgs) | 1900 | 1850 | 2000 | 2100 | 2000 | 1900 |
| Breeder females (4 Teeth) | 5000 | 4750 | 5000 | 5100 | 4800 | 5200 |
| Breeder Males | 8500 | 8000 | 8300 | 9000 | 8000 | 9000 |
| Spent animals (28-30kgs) | 3200 | 3000 | 3100 | 3200 | 3000 | 3300 |

In all, there are 25400 families engaged in rearing small ruminants in catchment villages around the chosen livestock markets. 36% of these owned sheep and goats, where as 64% owned only goats (as per FGD data). The average herd size for sheep varies according to rearing conditions, better herd size (40 per family) in rain fed areas and lesser in irrigated belts (25 per family). The number of goats per family is 3-5 in dry regions and 2-4 in wet regions. These actors work on net returns varying between 40 to 55% of the sales value.

Sales between farmers do occur but mainly in breeder animal segments (about 15% of the sales). Producers felt that this happens mostly families trusting each other as one prefers to keep good performing animals themselves except in financial needs. Here the transaction is mediated through a village peer acting as facilitator to negotiate price. 10% of the stocks are retained by producers themselves as replacement stocks and own consumptions like festivities and jatras occasionally.

There are several factors that compel these producers to sell their stocks. Some of them on the basis of priority are market prices, family cash needs, age and

sex of the animal (4 months old males fetch better demands), endemics in the area, disease problems with the animal, overcrowding beyond resources, etc.

Village level traders are the most important actors who frequent a group of 4-10 villages around market place to buy animals and aggregate them at his place for onward transport to markets. These are partially literate and sometimes illiterates but have expertise by practice. Investment does happen at this point. They generally know sheep and goat herd keepers and their peer leaders in villages and through these they sense the availability of animals for sale. These are the people who generally keep moving to different market places in the region looking for price opportunities for the aggregated animals. There are approximately 35-50 such traders in any of the above livestock markets.

FIGURE 2 REASONS FOR MORTALITIES IN STUDY AREA

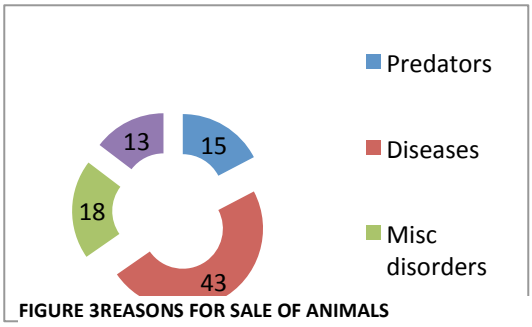
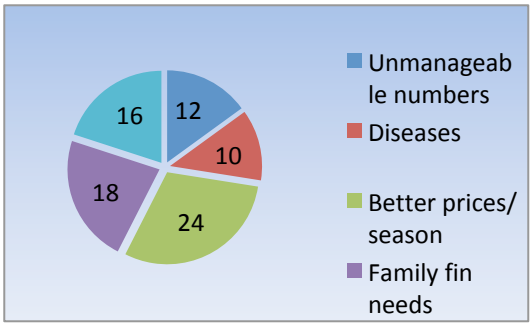



FIGURE 3REASONS FOR SALE OF ANIMALS

The terms of trade are cash payments on the spot. In some cases, traders had paid advance money to producers in case of family emergencies as credit against supply of livestock. The average net earnings per animal for these actors is Rs 70-100 depending on the seasons, the highest during summer and festivities. The data collected by the team shows that these actors are able to trade only 25% of the animals brought to markets. These animals they aggregate are mostly from villages relatively deep interior to market places. Producers prefer to sell their spent animals through this channel as it is difficult for them to assess their market value. In general, 75% of the producers preferred taking their saleable stocks directly to markets.




Usually shepherds they keep moving with their flock almost 6-8 months in a year and most of the times they are hundreds of miles away from their home markets. In such cases, they keep selling their stocks to in the nearest markets. Traders and butchers from nearby town areas also keep frequenting such herdsmen, offering prices. However, the producers prefer to try their luck in the markets where more number of buyer compete. Apart from this, there is no specific reason for farmers' choosing a particular market except its convenience and the fact that it is known area.

The third in the channel is the shandy agents or middlemen who are large in number (about 40-60) and his role is only to facilitate sellers and buyers to arrive at price settlement for commission of Rs 50 per head. They are mainly concentrated in the rearing animal segment and keep moving to different markets in the region.

Next in the channel are the shandy traders, some of them buying animals on behalf of the main dealers from metros and cities, some buys on their own for onward selling to these dealers or any other buyer depending on the price advantages. Selling can also happen between these shandy traders. If the stocks remain unsold due to market trends, then the traders move them to next nearby market by maintaining them in their places. Thus they are trading on their judgments based on number of outside buyers and the inflow of animals in the market. They assume trade calculated trade risks. They expect

at least Rs 100-200 per animal sold in order to cover up their costs and earn reasonable profit of Rs 500-800 in each shandy. They are 10-15 in numbers in the markets.

The logistic operators act as important link between the absentee buyers from metros and cities. They operate transport vans exclusive for long distance transporting 500 small animals at a time. These players are reliable actors for 15-20 wholesale dealers outside. The operator from Chennai charges Rs 120 per animal to main dealer towards transport and facilitation charges. Similarly the one from Bangalore charges Rs 80 per animal. There are about 8-12 such large operators in these shandys.

Apart from these, there several other small scale transporters with carrying capacity of 50-100 animals, usually to nearby consumption places like district head quarters. They are 6-10 in numbers. Retailers from nearby towns also

flock in to buy their requirements directly from farmers and traders. Usually they do not entertain middlemen.

Money is transported from metros to these livestock markets through this channel. Either the transport operator himself distributes money to sellers or pays as lump sum advance to shandy traders appointed by main dealers. Direct communication happens between main dealers in metros and shandy traders over mobile indenting for number and type of animals, money sent through transporter, approximate nigah price range are agreed upon couple of days before. These are never disclosed to anyone for obvious reasons. Accordingly the traders through their links downwards start buying the stock. Surprisingly what works in this channel is the trust. Each trader has specific markings on the animals in the form of hair cuts on different parts, number of such stripes, paint marks, etc which the transporter recognizes while delivering animals to the intended buyer.

The main dealers or the WSDs in metro takes these supplies to abattoirs for halal processing and distributes the dressed carcasses to retail butchers. Apart from this, they will invariably have their own outlet for whole sale supplies to institutional buyers on regular basis. A few of the retailers may also indent to transport operators, keep slaughtering the animals as and when needed, there by gaining advantages of price fluctuations and offal sales. However, there is an additional maintenance costs on such short cuts. WSDs operate on margin of 12-15% of the retail meat prices.

At retail level, it is the butchers operates on a margin of Rs 225-300 per carcass including sale revenue from offal as studied in Hubli market.

## RESULTS OF THE STUDY: PRICING AND DYNAMICS OF THE MARKETS:

### MARKET SIZE:

Size of the markets under study is estimated by looking at the total number of inflows and net sales. Here we had to depend more on the information provided by the experienced traders rather than the one maintained at APMC office. For instance, numbers were estimated at Gokak and Basavan Bagewadi markets by visual methods and were cross tallied with the records maintained at APMC offices. The market inflow and sales were grossly under estimated by more than 50% of the estimated numbers. When asked, it was found that they take only

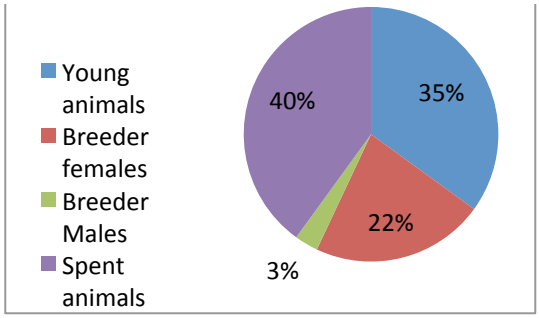
on the basis of sales fees (@Rs one per animal) received from organized transporters before leaving the market premises and the number is recorded not on actual head count! Other sales go unaccounted as hardly anybody volunteers to pay the market fees. Even the sales prices mentioned are arbitrary.

The total inflow of goats in these markets under study is 10000 and sheep 14900 per week put together all 4 major sub products like young ones (35%), breeder females (22%), breeder males (3%) and spent animals (40%). Considering sales at 60% of the inflows and at conservative average market prices for all these sub categories, the total sales turnover works out at Rs 4.33 Crores per week or Rs 225.4 Crores per annum.

## MARKET TRENDS DICTATING PRODUCTION PATTERNS- UNIQUE IN THE REGION:

As the demand for meat products is rising, there is proportionate rise in value of live animals. This coupled with diminishing returns from crops is prompting more number of new entrants take up the occupation. Earlier the shepherding was mainly done by Kuruba communities. Now the segment has gained entry of other communes like Valmiki, Chaluvadi and Madar. 6 of the 10 FGDs has brought out these facts. An average 4 new entrepreneurs are rearing in each of these villages.

**FIGURE 4 TYPE OF INFLOW IN MARKETS UNDER STUDY**




There is increased preference for young animals that give better meat products and tender meat for consumers. Market insiders like the Vice President of meat traders association recall that a decade ago, the average saleable age of these animals was 8 months. Now at least 20% of the inflow is from younger age group between 3-5 months in case of kids and 2-3 months in case of lambs. In his opinion, it is mainly due to consumer preferences for tender meat as the new meat eating segment from middle class families of traditionally vegetarian background prefers soft meat. Apart from this, every household is using LPG stoves and they are conscious of fuel expenses in cooking meat.

This shift has actually prompted shepherds to adapt ram lamb fattening where they wean away lambs at the age of one month and start feeding it on high value feeds like oilcakes mixed with buffalo milk for another 30-45 days before offering for sale. This is the reason why nearly 35% of the stocks in the markets are of younger age group. The practice enables the ewes to resume estrus cycle and thereby reducing inter-lambing periods considerably. Almost two lambings can be obtained within a period of 14 months, which otherwise were to be once a year. Thus the yield in terms of number of lambs and price per lamb have gone up considerably.

The impact of new trends is even visible in the rural areas of north Karnataka areas. Several of the women who are engaged in dairying have taken up ram lamb rearing as subsidiary profitable livelihood. They purchase ram lambs at 4$^{th}$ month age from shepherds at Rs 2000 per lamb and rearing them with the available resources like coarse grains and little oil cakes, milk and greens forages for 8 months period till they attain one year age. Although this is carried out throughout the year, they try to maximize their profits by synchronizing their micro venture to coincide with major muslim festivals like Ramzan and Bakhrid when they get prices ranging between 7500 to 8500. It is common to find them rearing one to two lambs following women proceeding for agricultural works.

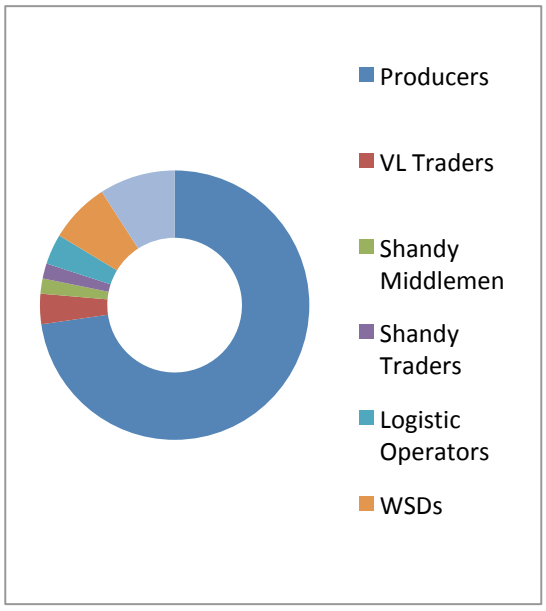
However, The data collected from southern region markets at Bangalore shows the trend otherwise. The slaughter houses run by BBMP (Bruhat Bangaluru Mahanagar Palike) do not slaughter of younger animals below the age of maturity and this is as per the rules. The markets within Bangalore city hardly had any young animals. However, the data gathered from North Karnataka markets indicate that substantial number of younger ones is moving to Metro cities including Bangalore. Traders corroborated that it is only from Northern region markets these young stocks flow in and are directly slaughtered by retailers in the city at their premises. Dr.K.P Ramesh, Assistant Director (AH) supervising the slaughter house, opines that it is the steep rise in demand for meat that is prompting sale of younger ones. He also adds, this might have influenced production trends and shepherding objectives. He was not sure of the consumer preferring soft meat in general.

The increase in demands in cities and also the export potentials over the last 3 years has prompted many meat dealers to stretch-out to far off places, as long as 1200 Kms crossing across state boundaries. New market places have emerged. This in a way has enabled better access to markets for producers from interior rainfed areas. This is also influencing policies at macro level. An effort to introduce weighing platforms as consequence of efforts from NGOs in the markets in Karnataka is an example.

As pointed out earlier, the projected growth rate of nearly 15% is to be ensured every year to meet the increasing demands for meat till the year 2020. This calls for organized interventions by the state to give impetus to the sector. But there is other side of the coin that needs to be addressed through policy initiatives. The market is undergoing rapid structural changes that in itself pose threat to smallholder livestock production in terms of consumer demand for food safety, quality and consistency. There are issues like ensuring quality and costs (John Mellor 2005) that needs to be addressed at micro level planning stage. Yet, the focus has to be maintained on inclusive and equitable growth. Thus the development imperative is to enable market access and necessary back ward linkages in terms of production logistics and processing.

VALUE UP IN THE CHANNEL:

**FIGURE 5 SHARE OF VALUE ACROSS CHANNEL**




Study of the meat markets in Hubli (North Karnataka) and Bangalore were done to understand the opportunities existing in the terminal part of the value chain.

As per the authorities at the slaughter house and the whole sellers, approximately 4000 animals (sheep and goats) are slaughtered every day in Bangalore alone. Of these, only about 1000 are slaughtered in the BBMP monitored facilities and the remaining in the premises of the retail butcher shops. Most of the inflow (about 85%) in Bangalore is contributed by sheep. The supplies are brought from nearby areas in Karnataka like Chitradurga, Tumkur, and even from Tamil Nadu and Andhra. Movement of animals between the markets by the traders is the hallmark of the opportunistic behavior as discussed elsewhere.

BBMP has a system of licensing these shops where meat inspectors visits randomly to certify the quality. Transporters cum whole sellers who buy animals from the study area and elsewhere perform two types of activities. One is the supply of live animals to retailers and the other to push the dressed carcasses in the channel as discussed already. Two WSDs agreed to divulge trade information. It was found that they retain about Rs. 150-200 net per animal, including contribution from offal (Rs 350-400 from skin (Rs 50 more if

it is from males), digestive tract, head, etc). They say it again depended on seasons and the live animal market trends. If the carcass is between 6-8 Kgs, he gains another Rs 50 more on the premise that it is softer one. There is hardly any difference between the price of mutton and chevon, its only the preference of the consumers that matters at the retail. These findings did not vary with Hubli market data considerably. In all the price spread was Rs 750 per lamb between producer and the retail price (or approximately 38%). That is, if the producer price was Rs 2000 for a lamb weighing 15 Kgs, then its total value at the retail end would be Rs 2750. At the level of butcher, he recovers this value by sale of mutton worth Rs2400 (8Kgs@Rs300) and the sale of offal Rs 350.

At the level of retailers, the sale price of the meat was between Rs 300-320 per kilo. Here the price varies with the type of consumers. Households whom we interacted preferred soft meat and were charged Rs 320 per kilo. Surprisingly the retailer mixed it with the spent animal meat pieced and heaped on the same platform without notice of the customers! The meat consumers are segmented and can be grouped based on income levels, end use and the religion. At the retail shop in Russol market where we went, sells between 50-150 Kilos meat (5-18 animals) depending on the season and we were told that an average retailer sells 50-60 Kilos a day, earning a net income of Rs 800 per day excluding all charges. This work out to Rs 120-150 per animal slaughtered. This is as against Rs 225-300 per animal in Hubli markets where average sales per day is considerably low- between 35-40 Kgs and the animals are generally brought to retails directly by butchers from nearby small rural shandies.

The hotel segment is catered both by WSDs and retailers. Spent animals' coarse meat is pushed at the lower price ends.

### OPPORTUNISTIC BEHAVIOR OF PARTICIPANTS:

Negotiating and coaxing for better prices in an art that the traders and agents have mastered it as professionals. Producers sometimes tend to be gullible losing right prices they are entitled to. Generally the producers make enough home works by enquiring recent price trends with the local agents or shepherds, assigning expected price tag to their stock by various other predictive methods. A few of them also make sure to take a person reasonably proficient with livestock trade along with them to markets.

As in any other commodity markets, the livestock markets also have tendency for collusions between actors, mainly the shandy traders during adverse environmental phenomena. This generally happens whenever there is distress sale by producers triggered by various factors. When we visited Yaragatti on 21st January 2011, there was endemic sheep pox prevailing for the past one week. The traders got news and anticipated arrival of more morbid stock in the markets. The result was sudden decline in the prices by an average Rs 600 per animal and we were told that major share of this belonged to shandy traders and logistic operators from Goa.

## TOWARDS TRANSPARENCY IN PRICING MECHANISM

Pricing livestock has been the more complex and contentious issue. Each one in the sector has their own method to judge it, but the process looks cloudy. Generally the producers determine the price by its outlook or the Nigah. Nigah includes the body size and confirmation, age, sex, vigor, etc. This is correlated to the existing prices in the markets for similar group of animals. Market information keeps flowing through word of mouth; frequent visits by village level traders trying to coax producers sell their stocks, shepherds visiting market places, etc. If producers are unaware of market prices, then they show it to local experts keeping track of livestock trade.

Pricing is a complex issue and is based on age, sex, weight, body conformities and the region. The prices across the markets under study have been compared. It is noticed that those markets flooded by buyers from metros have upward valuation to the extent of Rs 150-200 per animal when compared to the other markets. Prices, as discussed earlier, vary according to season and end price for meat at retails.

The study team has tried to compare the scientific method of determining prices through body weight. This method presumes that weight is the prime variable, where as nigah method takes in to account several other variables like age, sex, etc which matters to consumer preferences. This was done by weighing 5 sold stock randomly. Considering 55% dressing percentage, sale value of offal and costs incurred by forward channel, the expected price per kilo of live weight for young ones was in the range of RS. 140-150. The prices fixed as per nigah fell short by Rs 8-10 per kilo making a difference of Rs 140-180 per animal. This difference went as high as Rs 600 per animal in case of spent animals and the explanation could be other variables. This is the area where retailers try to increase their margins by mixing various category meats.

The issue here is the transparency in pricing. There can be methods to determine prices with multiple variables as it is done in other food grains by grading methodology. Weighing still remains a prime mover for pricing.

## WHO CONTROLS THE PRICES?

It is apparent that markets operate on many to many basis and hence there is scope for captive pricing is limited. By and large it is the demand and supply mechanism that determines prices of meat in the end user markets and unlike food grains it does not vary on daily basis. However, even though it appears that animal prices are linked to end products, it is not always. It is evident from the fact that the increase in mutton prices by Rs 40 per Kilo during last 6 months is not being reflected on the sales prices of animals during the same period. Opportunitism depending on many other factors discussed above, the channel may hinder passing on the true prices to some extent.

The operations by channel may not result in surplus margins every time. The secondary level traders keep moving their stocks between markets in search of price opportunities. Many a time they also end up eroding in to their capital. This brings out the fact that unlike food grains, there are no regulatory mechanisms to ensure straight jacket transfer of prices to producers depending on end user prices. This has been achieved in poultry meat, but yet to get translated to small ruminants on organized scale.

## THE STATE INITIATIVES- SHEEP BOARD IN KARNATAKA

Sheep Board is set up in Karnataka to foster the interest of sheep and goat producers. Mode of operation is through organized sheep and goat producers cooperatives for provision of inputs and market support. The GOK has issued policy guidelines during Dec 2009 to implement sale of small ruminants on live weight basis. Accordingly the state department for agricultural marketing has supplied weighing scales to major market yards. The Sheep Board also has initiated action to supply 70 weighing scales to it's' cooperatives. The GOK also has formed a high powered committee to determine prices based on live weight basis. But so far no guidelines are available and the whole process is still in incubation as the pricing is complex issue.

The Board is contemplating to intervene in marketing along 3 lines.

1. Aggregation through cooperatives and sale to butchers locally based on body weight
2. Through weigh scales at APMC, sharing of cess with board, operating on MSP (minimum support price), etc
3. Direct aggregation/purchase of animals by the Board and sale in bulk.

Apart from this, the Board has several schemes to promote genetic upgradation of stock, encourage stall fed commercial farms, health coverage programmes in select areas, etc

MARKET FOR DESI / BACKYARD POULTRY- PROMISING FUTURE:

Another important growing sector within lean meat segment is the local poultry that is reared as backyard venture by marginal farmers and agricultural laborers in rural areas. The demand for this "Naati Chicken" is far exceeding the production. It is interesting to note that the price per kilo of this meat is Rs 300 to 350 in the areas surveyed. Mostly consumed in households on special occasions, there are restaurants specialized in dishes prepared from this meat.


The channels are bit hazy and not organized. According to insiders in the trade (4 interviewed), roughly around 30% of the producers sell local poultry directly in rural haats. Rest is utilized within the production areas. There are occasions like festivities and religious compulsions when consumers approach producers directly. Several times, producers do consume for their own family needs especially when there are guests in the house.

The prices depend on the season and sex of the bird. Males during festival seasons are sold as high as Rs 500 per bird against the normal average price band of Rs 250-350.

Traders operating in urban areas generally aggregate birds (herds of 20-50 birds) from haats for onward sale. The sales are done on shandy days. The average gross margin per bird is Rs 20-30.

## RESULTS OF THE STUDY: POSSIBLE INTERVENTION AREAS:

It is apparent that the channels are operating on many to many bases by and large with the exceptions of opportunistic behavior of participants. The result is that the study do not notices abnormalities in price spread between producers and consumers in the regional markets. These anomalies are more evident with distant metros for obvious reasons. Given the size and nature of subsector, interventions along identified leverage points /nodes across the channel can yield better payoffs. Preliminary estimates are done to quantify the additional value created in the chain through such interventions. Good leveraging opportunities do exist at production point to enhance returns to actors along the value chain. Some of the realistic actions are mentioned below.

1. Ensuring transparency in determining price by weighing and grading live animals at the level of producers' collectives instead of leaving it at market level where the methods might complicate the present systems. Weighing animals in the village level facilities and providing information on price per unit of live weight can provide better leads to producers to maintain cutoff price at the markets. These systems can be introduced in select clusters around low profile markets so that producers have options to take them to nearby developed markets and get better paid. But here the issue is distresses and opportunity costs that are incurred in selling them in alternate markets. This might work well only if the interventions are comprehensive (to integrate financial services and provision of production enhancement services) and the state announces MSP for small ruminants based on their age and general conformity index.

   All these comprehensive services together can generate Rs 4.49 Lakhs per annum per village as additional revenue to producers. This means an average of additional Rs 748 per annum per family engaged in the production activity. This means an additional value of Rs 4.49 Crores created in a cluster of 100 villages under operation. If operational expenses are accounted, estimated at Rs 160 Lakhs, still there is Rs 2.88 Crores as net additional value generated and retained at producer level. Hence this is the leverage with the cost benefit ratio of 2.80. At the

outset, these types of interventions can create profound impact on small ruminant sector over a reasonable time frame and has scalability.

2. Clustering and synchronization of the smaller markets in a region on week days in succession. This is to enable operational feasibility for metro operators so that there is improvement in the basal price for animals on par with the developed markets. Price improvement also happens due to movement of animals by the producer/village level aggregators between these markets for better prices. This also can reduce the marketing costs considerably due to reduction in holding time and the reduced distance between these markets. This measure also has potential to accrue substantial value within the lower end of the chain. It is estimated at Rs 14.04 lakhs between 3 markets per annum.
3. Price regulatory mechanisms based on the end user price, and managing information flow operated by state owned agencies. This is already being examined in Karnataka. A high level committee is constituted to look in to the matter and come out with realistic model.
4. Enhanced returns can also be ensured through supply of quality inputs at producers' level to upgrade quality of meat at consumer level. Although this is part of the comprehensive intervention suggested above, helps in reducing production losses considerably and thereby increasing returns. Concept of product niches can be attempted through such initiatives. These can be channelized through producers' collectives.
5. Value addition to the coarse wool to manufacture export oriented bags and carpets can be effective tool to encourage producers and artisans.

This is another important area where in the study tried to comprehend the markets for coarse wool. The traders for wool were mainly engaged around the small animal markets in Yaragatti and Gokak of Belgaum district where Deccani herds are maintained. Traders, only two in numbers at Yaragatti and the same persons in Gokak says the trade has lost the charm. The prices are standstill at Rs 6 per kilo due to constant decline in demand. Local value addition is limited to few traditional weavers in this block. A couple of them still exist mainly due to active weavers' institutions. We happened to visit

such collective weaving in Benakatti, a village near Yaragatti where carpet weavers work on job work basis for the shepherd cooperative.

An organized and much promising intervention is happening in the area by a collective called “Shramik Kala” near Bailhongal of Belgaum district. The wool based aesthetic products produced by this collective are linked to export markets through “Mitan”, a company dedicated to marketing such handicrafts. These are a ray of hope for revival of dual purpose sheep breeds like Deccani and for promoting livelihoods around small ruminants.

Right now, the main markets for this carpet wool are far flung in Rajasthan and the commodity aggregated here is shifted to these markets through a main dealer based in Nasik.

## OTHER ISSUES INCLUDING THE ONES THAT WAS HIGHLIGHTED DURING THE STUDY

There are several other issues haunting the subsector at production level that surfaced during FGDs.

- Decreasing shepherding and hence the sheep population mainly in irrigated belts. This is due to diminishing grazing fields, better income from staying on lands

- Shift in breed types is rapid over the past 10 years with Kenguri, a fast growing meat type sheep type with hairs replacing Deccani stocks with carpet wools. Diminishing prices for wool and better returns from meat markets is prompting this transition.

- There is new trend in production practices of lambs and kids. It is common to buy these animals at early age, fatten them till they are marketed at maturity age. This providing livelihood enhancement opportunities for rural poor women.

- Need for maintaining fertility cycle of animals in order to maximize returns for producers is complemented by changing consumer preferences for lean meat. Producers are now weaning lambs at early age of 1-1.5 months so that ewe returns to heat within a month of weaning.

- There are factors that compel farmers dispose off their animals under duress. Distresses due to diseases that are endemic, is one of them that calls for serious review of vigilance mechanisms against recurrences.

- Lack of avenues and support for value added products from wool is another factor that is responsible for decline in returns to producers and the carpet weavers are abandoning the profession.

- The subsector is facing high risks due to poor quality inputs like preventive vaccinations and post morbidity care. Result is appearing disastrous with shepherds themselves injecting spurious antibiotics and growth promoters spending heavily. This cost apart, would be causing environmental damages with possibilities of increase in drug resistant bacteria in the ambience.

- High production costs- partly due to hike in prices of concentrate feeds is of concern to shepherd community. The lamb fattening costs requires feeding mainly oil cakes with milk for 1 month after weaning.

- Lack of institutional /state support in regulating markets as discussed above is an issue that is haunting producers as they are expressing deficiencies in governance of the markets. There should be mechanism that monitors prices on par with end user prices, information flow through state owned institutions as in food grain prices, and regulating prices to producers in market yards. A new initiative by the GOK in this regard has begun by introduction of weigh scale for small ruminants are yet to see the practicability.

## IN A NUT SHELL:

Increase in urbanization and per capita incomes have lead to shift in preferences of consumers towards protein rich foods, mainly the meat and dairy products. As a result, the livestock markets are getting well organized to attain oligopoly. In spite of the issues detailed above and partly trade controlled prices, increased competition, information flow, transport network have evened out advantages both logistically and price spread across markets. The producers have demanded better physical facilities at the market places like shade, water etc. All the new channels have emerged with controls from metro cities resulting in access for better markets for the producers in remote areas like Basavan Bagewadi and Amingad. The new supply chains are offering better services in terms of regularity in buying, liquidity in the markets and the ability to outdo local competitions and profiteering attitudes from local buyers. They

also act as risk absorption mechanism for small time shandy traders in case of downward trends in local demands due to festival, etc.

Another force influencing the whole subsector is the profitability from product niches. The demand for tender meat has enabled increased profits across the players and especially acting as precursor for shift in production behaviors at the farmers' level. The new trend is giving space for new entrants and organized interventions aiming at productivity enhancements by different agencies. These efforts may ultimately end up promoting small ruminants in semi intensive way utilizing natural resources more efficiently. Apart from all these, a new ray of hope to bring in the transparency in determining prices is evolving with the policy level initiatives in Karnataka.

## CONCLUSION:

- Although the markets are complex, opportunistic and operate on variable margins, traditionally, principal players in small ruminant marketing channels were producers themselves. They carved out a portion of the trade through shrewdness, determination and leverage enabled by growing markets. Because the sector is now rapidly developing, it is increasingly evident that the markets are getting reorganized to better meet the consumer demands. The channels are becoming discernible and points of origin are better defined.
- Markets are better organized realizing increased value to producers where trans- state traders operate. It is important to improve turnovers in other markets to attract these operators. These target markets can be clustered over the timeline to ease aggregation by these operators.
- Price realization at producers' level is partly dependent on end user prices for meat. The flow of information across the channel and the size of the channels are the reasons for this. However, much needs to be done on this at producers' front.
- Even though the consumption is fast surpassing availability of adult animals, it is also the demands for tenderness in meat that is dictating inflow of young animals in these markets. It can be cross verified by the fact that this sells at higher prices in the retail. But here the issue is, it is benefitting producers also. Such kind of niches has opened up avenues for livelihood interventions.
- Reducing risks, production costs are the major bottlenecks for producer. It is the risk of endemics and epidemics that is constantly haunting the producers. The state intervention in animal health looks heavily lopsided in favor of large animals. This has been clearly the issue raised in FGDs.

- Distress sales due to problems in production often results in lower prices. The distresses generally occur during rainy days when sheep cannot graze on open lands. The exposure to worm loads is also higher during these days. This lack of alternate nutritional supplements and worm loads results in stress complicating with pneumonia like syndrome resulting in higher mortalities. Shepherds who are partly nomadic are more vulnerable to this vagary. They tend to thin down the stocks by removing the weaker and suffering ones.
- Policy initiatives are already on the cards to adapt weighing scales in the APMC market yards. This has potential to ensure transparency and may, to some extent, inculcate confidence among producers. However, the practicability and price advantages are debatable.
- Organizing producers for collective marketing and organized flow of improved production inputs can ensure better returns to producers by increased productivity in terms of reduced risks, enhanced weight gain of lambs/kids and improving quality of meat.