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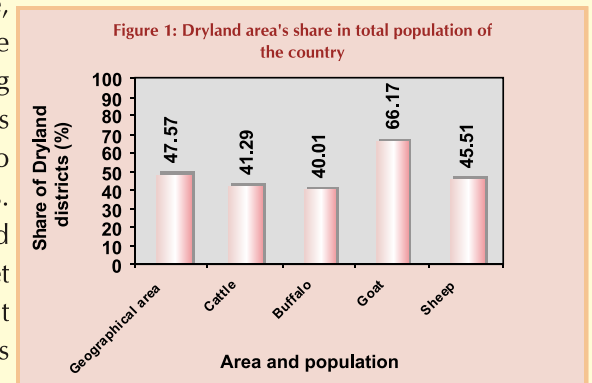
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Markets for Livestock and Livestock Products in Rainfed regions: Development Challenges and opportunities

Introduction

Livestock in India is a major component of agriculture especially in rain-fed areas, where its contribution is much more than food. Animals also add to landscape and beauty of nature. Faced with low productivity and high uncertainty in crop production, rural people in rain-fed regions are increasingly dependent on livestock rearing for their livelihood. Rain-fed agro-ecologies in the country contribute 57% of the net sown area and 66% of the livestock. The livestock is more important in the dryland areas (DPAP/DDP districts) where crops have low productivity and high uncertainty (Figure 1).

Livestock and their products provide nutritious food and direct cash income; animals are live bank for many farmers and are critical to agricultural intensification via provision of draught power and manure. The livestock is more equitably distributed compared to land and is also a major source of income and employment for rural women (Birthal et al, 2006). In fact, livestock has been greatly contributing towards sustainability of livelihoods of millions of smallholders and rural resource-poor. Annual growth rate in livestock output over the past one decade has been above 4% with crop sector having average annual growth rate of only about 2%. Rising per capita income, growing urbanization and unfolding globalization are boosting the demand for livestock products giving further push to its growth. Hence, livestock rearing is considered as one of the most effective pathways to reduce poverty especially in agrarian distress areas. However, to realize the full potential of livestock and attain welfare of smallholders, the farmers must get remunerative price for livestock and their products. But the market for livestock and their products is underdeveloped and does not ensure remunerative price to majority of the producers.



Development challenges

- ❖ In spite of its critical importance in the rural economy, the marketing of livestock in the country has been a neglected area both by the state and researchers. The market information is grossly inadequate and arrangements for marketing unsatisfactory. The marketing of large animals is mostly done through seasonal cattle fairs, and livestock products through unregulated markets and that too under non-systematic lines with the exception of milk and milk products marketing. The inter-state movement of cattle and buffalo (mainly crossbred cows and Murrah buffaloes) is being organized by number of agents and middlemen. The organized milk collection and marketing by cooperatives has mainly been successful in western states of the country. However the private dairies are now playing an increased role in milk collection



and marketing. For small ruminants, even there are no fairs; the marketing is done mostly at the door step through the chain of middlemen or in small local weekly markets. Livestock holders especially smallholders do not have access to market information, like current market price of live animals and livestock products in different markets, consumer preferences and attributes of products which have high demand in the market. Because of the small marketed surplus, very often the marketing and transactions costs are very high for small scale producers, which restrict their participation in the market.

- ❖ Markets for livestock and their products are thin and underdeveloped. There are around 2000 markets for live animals in India. Lack of transparency in pricing of animals in these markets and poor access to market information are the biggest constraints. Most of the livestock markets are being operated and managed by private individuals or societies/groups. Majority of the deals (price fixation of animals) especially in case of small ruminants are not decided through open auction method. Besides, most markets lack basic market infrastructure and facilities. Veterinary doctor is hardly available at the market places during market days to look into the health aspects of the animals traded. There is no regulatory and monitoring agency to check malpractices and collusive activities of the traders/ middlemen in the market. In a recent study by CRIDA and WASSAN (NAIP, 2009) ram-lamb rearing activity was found to be an effective livelihood activity in Andhra Pradesh, but the returns were restricted due to lack of a system of selling animals on weight basis. In fact the illiteracy and low awareness among the small livestock holders is a major constraint. Educating and increasing their awareness would help in capacitating them to successfully participate in the market.

It has been shown that due to higher transaction cost and low awareness the farmers in Rajasthan effected 81 to 92 % of their total annual sale of their live goats in the village itself. The poor participation of farmers in the market resulted in high margins for the middlemen. The middlemen trader earned net margin of Rs. 130 to Rs.380 per goat transacted (8-12 % of the total value of the animal) during the normal season and Rs. 400 to Rs. 1000 per goat (12-20 % of original value of goat) during the festive season, only for creating place utility (Kumar, 2007).

A large number of Murrah buffaloes from Haryana are marketed by the middlemen agents or their representatives to Hyderabad, Mumbai, Gujarat and other destinations southwards. Similarly crossbred cows are also traded from Punjab and Haryana to these destinations. The middlemen earn a commission of about Rs. 10,000 to Rs. 15,000 on each animal traded, though a high risk is involved in transporting animals for such long distances and sometimes non-payment by the buyers.

- ❖ In case of milk, the producers located in milk-shed area of a successful dairy co-operative or near to the urban centers get fair price. However the smallholder producers in the interior villages do not get fair price of milk and that results in poor returns from livestock. Goat milk, which is considered to have medicinal qualities, has no market. It is sold at very low price as an adulterant in cow/ buffalo milk. In fact the best returns could be realized through value addition by converting goat milk into cheese. The cheese exclusively made from goat milk gets premium price in the international market especially Europe. Goat milk may also be promoted in areas facing problem of child and women malnutrition.
- ❖ With rising consumer's awareness and health consciousness, hygiene, food safety and quality have become important issues in the marketing of livestock products because of their perishable nature.
- ❖ There are many constraints associated with input market for livestock. The livestock holders many times do not have easy access to appropriate inputs like, mineral mixture, vaccines and prophylaxis, feed, etc. Non-availability of vaccines particularly for small ruminants is a major constraints. The livestock holders face lots of inconvenience from the police and officials of animal welfare department during transportation of live animals. Because proper standards for transportation of live animals are not laid down and widely circulated.

The production of meat in India takes place either in authorized slaughterhouses or un-authorized slaughtering in large number of meat shops. Barring a few, even the authorized slaughterhouses are not modernized. Most of them lack even elementary facilities for hygienic production and handling of meat and for collection and utilization of animal products. The country has over 3,600 slaughterhouses, nine modern abattoirs and 171 meat processing units. A rough estimate indicates up to 50 percent of animals slaughtered in any urban center are from unauthorized slaughter. Over the years, the facilities and hygienic conditions in most of the slaughterhouses have deteriorated. The ministry of food processing industries has drawn out a comprehensive plan to modernize old abattoirs and set up new ones. However hygienic production and marketing of meat in the country remains a big challenge.

Opportunities

- ❖ **Increasing domestic demand and expanding global market:** Food basket in India is undergoing significant shift away from staple food grains towards high value commodities, like, fruits, vegetables, milk, meat, eggs and fish. This has resulted in increased demand for livestock products. India at present produces 103 million tones of milk, 6.032 million tones of meat and 6.9 million tones fish annually. The robust growth in demand for livestock products is expected to continue in near future. The domestic demand for meat, fish and eggs is projected to increase to 17.1 million tones and that of milk to 142 millions in 2015. The global demand for livestock products is also increasing rapidly. IFPRI's IMPACT model projected that meat demand in developing countries will double between 1995 to 2020 to 190 million tones and would increase by 25% in developed world to 122 million tones. Highest increase in demand for meat is projected to be in east and Southeast Asia. India particularly has comparative advantage in meat and meat products. Our milk products are also likely to become more competitive in the world market with likely reduction in farm subsidy in developed countries as per WTO commitments. Increasing global demand for livestock products is an opportunity to increase their exports. Increasing domestic and global demand hence presents opportunities for the growth of livestock production. However the increased production of livestock products in India should mostly come from the animals fed on roughages, agri-by products and non-conventional feeds (not competing with human food) for its long term sustainability.
- ❖ **Good prospects of value addition in livestock products:** There is ample scope to increase the market value of livestock products through processing and value addition. At present only a small part of the livestock products is processed for value addition. Currently the processing level of milk is estimated at 35%, buffalo meat 21%, mutton/chevon 2% and poultry meat 6%, with only 1% of the total meat converted into value added products. The globalization of trade has opened up new markets for value added products. With the changing life styles, nuclearisation of families and increasing entry of women in work force, the demand for processed products is also increasing in the domestic market. However, creation of required physical infrastructure, investment in food processing and enabling regulatory and legal framework are the pre-requisites to realize the potential.

Pathways

- ❖ Development of livestock in India will ultimately be guided by the marketing of livestock and their products. The Indian livestock will have to under go a significant commercial transformation. The small scale producers need to be linked vertically with the processors and marketers/ retailers of the perishable products and consumers. The millions of livestock smallholders with limited marketed surplus need to be incorporated into commercial production and they should have opportunity to share the increased returns.
- ❖ Vertical integration by organizing livestock holders through cooperatives/ producers associations/ federated company of farmers or through contract farming would help them participate in the market and take benefit of the emerging opportunities. Vertical integration may ensure regular supply of live animals to the processing plants and exporters, lower transaction cost, higher productivity, hygiene and food safety, increased capacity utilization, better access to market and information and appropriate price of produce. It would also help in ensuring timely access to inputs and extension services. The contract farming has played an important role in the development of poultry sector in India. The model of contract farming may be usefully tried also in the livestock production and marketing. It is important for the success of such efforts that the smallholder-producers should be capacitated and facilitated to participate in organized marketing of livestock and its products through groups or contract arrangements.

- ❖ Use of information and communication technologies would be very effective in increasing the livestock holders' awareness and access to market information. There should be a system of collection and reporting of market information/ intelligence. The farmers should have information on prevailing prices of livestock and its products and attributes of products which are in higher demand by the consumers. Government with the active involvement of the stakeholders should take up programme to strengthen the information collection and dissemination.
- ❖ Hygienic production and value addition of livestock products is important not only to increase the profitability in livestock rearing but also to remain competitive in the international as well as domestic market. There is need to create conditions for the private sector to invest in the development of infrastructure needed for efficient marketing and value addition of livestock and their products, such as, refrigerated transport, cold chain, food processing and modern slaughterhouse. The private sector may be encouraged to set up 'value addition centers' providing integrated chain from farm to market with integrated package of services, building long term relationship between farmers and industry. Government's role would be in enforcing the contracts.
- ❖ In view of poor conditions of slaughtering facilities, there is need to encourage setting up of small size modern slaughterhouses near to the production centers. A single window system of granting permission and license to set-up meat production/ processing units should be created. Meat production and marketing should be regulated and unauthorized slaughtering should be stopped.
- ❖ Export potential of livestock products from India would be much higher for value added ready to eat and ready to cook products.
- ❖ Proper standards for transportation and shipping of livestock should be laid down and widely publicized through print and electronic media. The standards need to be implemented effectively.
- ❖ Local elected bodies and livestock-holders should be encouraged to improve the marketing of livestock. All the markets for live meat animals or even every village should have common weighing machine. That machine may be used to weigh the meat animals at the time of their sale. This would help farmers to know the value of their meat animals and consequently to bargain to get remunerative price.
- ❖ There is need to create mechanism to regularly inform policy planners about the changes taking place in the international as well as domestic trade realities having implications for marketing of livestock and their products.11

Research priorities

Since the marketing of livestock has hardly attracted the attention of researchers, there are many issues that need to be studied. However, the following issues require immediate attention:

- Study of supply chain of livestock and their products and identify organizational solutions to ensure smallholders integration into supply chain.
- Assessment of marketing and transaction costs, risks and returns associated with various marketing systems.
- Conditions for success of contract farming model in livestock production and marketing.
- Case studies on innovative methods of marketing of livestock and their products and vertical integration linking farmers/smallholder livestock producers with the processors/ marketers/ consumers.
- Options to increase livestock holders access to market information. Exploring use of information and communication technologies for collection and dissemination of market information related to livestock and its products.
- Impact of globalization and domestic trade policies on livestock producers.

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