**Sheep rearing**

*With over 60 million sheep, India stands third in the sheep population in the world next only to China and Australia. Reared as free range or under a shed sheep rearing constitute an important livelihood in rural India. Sheep rearing is a very important component in dry land farming system. With very low investments it can be converted into a profitable venture for small and marginal farmers and landless labourers.*

Rearing of sheep and goats play an important role in the economy of India in general and sustainable livelihood of the poor people of rain-fed agro-ecosystem in particular. Sheep are raised mainly for meat, milk and skin. They provide a flexible financial reserve during bad crop years for rural population. With the availability of synthetic wool and the quality of wool from several varieties of sheep in India being coarse, the sheep are now being reared mostly for their meat. However, the fleece can be used in wool insulation and extracting lanolin, the water-proof, fatty substance found naturally in sheep's wool and used as a base for innumerable cosmetics and other products. Other products from sheep include sheep skin (used in making clothing, footwear, etc.), tallow (used in making soaps and candles), sheep bone and cartilage (used to furnish carved items), lamb intestines (formed into surgical sutures, strings for musical instruments), etc.

Sheep is found in most parts of India. marwari breed in north western region and decaani breed in peninsular India are present in large numbers. Other important breeds found in peninsular India include - Bellary, Nellore, Mandya, hassan, Mecheri, Kilakarsal, Vembur, Coimbatore, Nilgiri, ramnad white, madras red, Tiruchy black and Kenguri. The adult females (ewes) reach maturity at six to eight months of age and the adult males (rams) at four to six months. The gestation period is about 5 months and generally one lamb is born per delivery. The Central Sheep Breeding Farm, Hisar is producing acclimatized, exotic/cross bred superior quality rams. Sheep/goat rearing contributes about Rs.240 million per annum to the rural economy. Together they produce 0.7 million tone of meat which is about 15 per cent of the total meat production in the country. About 5 million families in India are engaged in various activities relating to sheep/goat rearing. This activity provides gainful employment of 184 to 437 man days per year depending on the size of the flock. The meat industry in India is growing at about 5 per cent. Sheep has not kept pace with this growth, which is largely contributed by poultry. Though the number of sheep has been increasing, the goats are increasing much more. However goats are considered harmful for the environment and are not encouraged by the government. Goats graze till the tip of the plant and regeneration becomes difficult. Also they graze almost all the species causing widespread destruction. Wool production in the country is stagnant at around 45 million kg per annum. Of this only 4 million is fine wool. The

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**Economics of Sheep rearing - a case study from Anantapur district of AP.**

An SC farmer purchased 10 sheep (9 female and 1 male) with Rs.7000 in 1998. For the next 7 years he spent Rs.2000 per year on fodder during season of stress and Rs.1500 per year on vaccines and medicines. The total amount spent for the 7 year period of Rs.24500 was met from the sale of 30 sheep during this period. At the time of his death in 2005, the farmer had 418 sheep whose worth was estimated at Rs.4.48 lakh. Thus the investment of Rs.7000 has grown by over 60 times in 7 years. Money was also earned by selling sheep manure.
demand for fine wool is around 40 million kg per annum. The efforts to improve the production of fine quality wool have mostly failed.

Economics of Sheep meat trade –
The small meat shops are the retail front-end for the meat trade. Many traders belong to the minority community. The economics at the butcher level are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price of sheep purchased</td>
<td>Rs.2000</td>
</tr>
<tr>
<td>Cost of transport</td>
<td>Rs.100</td>
</tr>
<tr>
<td>Total Cost</td>
<td>Rs.2100</td>
</tr>
<tr>
<td>Price of mutton sold (10 kg @ 220 per kg)</td>
<td>Rs.2200</td>
</tr>
<tr>
<td>Realization from liver, brain etc</td>
<td>Rs.380</td>
</tr>
<tr>
<td>Total Realization</td>
<td>Rs.2580</td>
</tr>
</tbody>
</table>

On a normal day about 4 sheep are sold by the small meat shops. After deducting all expenses the person makes a profit of about Rs.1000 per day. Sheep rearing is not free of risks like any other trade. Sheep mortality is quite high. It is susceptible to various bacterial and viral diseases. Being a prey species instinctually sheep is adapted to hide signs of illness. This becomes challenging for those rearing sheep for the first time to detect the sickness. Sheep also falls victim to poisons and physical injuries. The risk of sheep loss is high in monsoon at about 10 to 15 per cent. Sheep need to be vaccinated and dewormed periodically. Therefore access to veterinary services is critical.

Sheep becomes highly stressed when separated from the flock. Therefore the time between separation from the flock and getting butchered should be minimal to avoid loss due to stress. To cope with this a flock is sold not individual sheep. This means the shepherd has to take the entire flock to the market and return with unsold sheep and face costs of transport. Interactions with traditional shepherds indicated that the minimum size of the flock retained during high stress period is 20 (18 ewes and 2 rams). But the schemes implemented by the government and NGOs for providing sheep seem to ignore this fact. Sheep rearing is labour intensive. At least one person is required to take care throughout the year. Therefore the non poor have evolved a system of offloading the burden to the poor. For instance, poor borrow 10 sheep from the rich and rear them for 3 years and the flock grows to 50. The owner is given 25 sheep and the rest belongs to the shepherd. If there is an epidemic the remaining sheep are equally shared between the owner and shepherd. In all other cases the loss is borne by the shepherd.

In shandies where the sheep change hands quickly the shepherd might get about Rs.1200 per sheep. By the end of the day the final trader could purchase the sheep for Rs.1600 to Rs.1800. This extraordinary gain of 30 per cent in a day by the trader needs to be shifted to the shepherd. The meat sector has been neglected in terms of research, processing and exports for quite some time. There is regulation at multiple levels. In the 11th Plan it is proposed to set up a National Meat Board to oversee the growth and promotion of this sector.
Mutton and lamb are still non-branded commodities. There is scope for branding them with attributes like tenderness or age of sheep, free range sheep etc. Modernization of abattoirs is lagging behind. In the present scheme the responsibility is with the local bodies like municipalities. But they lack funds. The sector is dominated by unorganized units with around 25000 unregistered slaughter houses. There are only 4000 registered slaughter houses. Quality and hygiene remain areas of concern in the domestic market. Sheep rearing continues to provide very stable income for small and marginal farmers in dry land areas. With adequate research and investment, productivity and market can be further improved in this sector thus improving the incomes levels of the farmer/shepherd.

Poor families benefit from sheep rearing in some of the following ways -

- Over 100 per cent appreciation of capital in a year
- High liquidity market throughout the year. This acts as insurance against risk and helps meet cash needs
- Less water requirement
- Less working capital requirement as sheep can be grazed in open areas
- Sheep tend to congregate close to other members of the flock. In the absence of wild animals the sheep require less supervision. Even a dog can easily maintain the flock
- Provides for a good integration of sheep with the agricultural production system. Income from sheep manure feeds into the purchase of seed. The sheep break the soil during the summers

Information till Mar-2008