

Promoting the Small Ruminant Sub-sector: A Way of Enhancing Livelihoods

SHOUVIK MITRA

Despite becoming more and more a preferred livelihood option, goat-rearing comes with its own challenges such as the high mortality rates and the lack of government interest in promoting it as a primary occupation. Can these be addressed comprehensively?

BACKGROUND

The recently initiated National Rural Livelihood Mission (NRLM) has brought along a paradigm change in the understanding of the government's way of looking at and implementing the poverty eradication programme in the country. The focus has shifted towards a demand-driven, bottoms-up approach with little or no provision for subsidy for private goods. The Mission has also made it mandatory to develop strong institutions of poor rural women, with a probable window for the development of sub-sector-specific producer groups and producer collectives. In such a progressive scenario, it will be interesting to understand where the livestock-based livelihoods promotion, especially the goat-rearing activity, stands and how this activity can be promoted for livelihoods augmentation of rural member-partners of NRLM.

That goat-rearing is a pro-poor activity has been largely accepted; this means a large section of the disadvantaged people—the economically poor, socially backward and non-mainstream community, disabled and elderly as well as communities living on the fringes of forest—are dependent on goat-rearing. Goat-rearing for these households is usually a secondary or tertiary source of income; very rarely is it a primary source. Apart from this, a large section of the rural community that NRLM plans to work with also keeps goats mostly as a buffer asset, which can be sold in times of distress or emergency. However, interestingly, whatever be the intensity of the activity at the household level—as a secondary, tertiary or a buffer stock—the herd size of the animals does not increase significantly across different household sections. It varies from 2–15, with the exception of communities that have been traditional goat/sheep rearers or living on the fringes of the forest and have access to abundant free source of green fodder.

The crucial question then is whether it will be possible to enhance the livelihood of the community we work with substantially by intervening in the goat-rearing sub-sector? Or the other way round, would it be valuable for a development professional to focus on the goat-rearing activity as a point of livelihood intervention? And what should be the intensity of the activity?

THE BROAD PICTURE

The states that NRLM focuses on are Assam, West Bengal and Odisha in the east, through Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh and Uttar Pradesh, to Rajasthan and Maharashtra in the west. These states account for nearly 80 per cent of the below the poverty line (BPL), 70 per cent of the scheduled tribe (ST) and 66 per cent of the scheduled caste (SC) population of India. This area holds 70 per cent of the total goat population and roughly around 48 per cent of the total forest cover of the country. Thus, a combination of a large mass of the poor and marginalized community (considering the social category of the people as a proxy to poverty) and huge tracts of forest cover (including degraded forest) and fodder land are the main reasons for a thriving goat population. Yet, within this area, there is rarely a household that has reared goats successfully without external support (mostly from NGOs). A few households comprise traditional rearers, who have considerable experience in goat-rearing. However, these are more an exception than the norm.

Now what is happening to the sub-sector at a broader level? Goat population-wise, India

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is second in the world, with the state of Rajasthan itself housing 15 per cent of the total goats in India. The goat meat consumption trend is also quite encouraging at a compounding annual growth rate of 1.28 per cent. This implies that the market demand for goat meat is steady and increasing; in future, the demand for this form of crude protein will also be there, helping rearers to carry on the activity for a longer time.

CONSTRAINING FACTORS

What are the constraints in taking this sub-sectoral activity to a different plane altogether?

There are many; let us take one each separately.

If one asks anyone keeping goats whether s/he is interested in increasing the herd size, the answer will be a definitive no. The first reason cited is mortality, and rightly so, because the high mortality of goats is a major risk in the activity. The foremost cause is the lack of access to vet care services. The animal husbandry department's centres are few in number, and are inadequately staffed, with no proper infrastructure in place. Moreover, in most of the states, thanks to the vet education system, the bias is skewed toward large ruminants, namely, cows and buffaloes; small ruminants like goat and sheep do not come under the radar of most government vets. Technical apathy and lack of access are coupled with inadequate understanding of proper herd and kid management practices, no timely vaccinations against some of the recurring diseases in the region, low quality of goat shelters, etc. These ultimately result in many animals and kids dying.

There is no official estimate of the goat mortality in India; however, the data is very high. A study by Amit Kumar Dahore of IVRI Izzatnagar on the mortality pattern of goats in the Chambal division of Madhya Pradesh shows that goat mortality is a factor of the age of the goat. For a goat kid, the chances of survival are only 61 per cent whereas it increases to 70 per cent at 9 months of age. The study also shows that the season is a major factor in the mortality of goats, with the chances of mortality being the highest during winter, closely followed by the rainy season and the lowest in the summers. Households complaining of entire herds being wiped out in one major disease outbreak is common, a story that is oft heard. This is especially hard on members who have lost the goat(s) they had purchased with a loan from the SHG or bank.

The high mortality of goats and the high administrative costs of providing an insurance cover are disincentives for insurance companies to extend their services to small ruminants. Rural households rarely go for risk mitigation of animals through insurance cover unless the animals are financed by formal credit institutions wherein taking an insurance cover is mandatory. Moreover, the lack of offer of goat insurance by established insurance companies blocks any scope of insurance even if there is a willingness on the part of the household.

The second constraint is the high cost of labour in rearing these animals. This is significantly high mainly because of the small herd size. In addition, because the concentrate feed cost for the animals in a stall feeding method is too high for a poor household and because forest lands (including degraded forests) provide ample source of free fodder (almost through the year), the household purposely decides on free grazing for these animals. This is a major

reason for the high cost of labour because the entire day is spent grazing the animals, in the full graze rearing mode. Households hand over this grazing responsibility to the old and infirm or to the children, whose economic time value is nil or negligible.

The third constraint is the psychological view of the activity as well as the market mechanism. The activity is looked down as a poor man's activity even by the poor on themselves, and everybody wants to graduate beyond goat-rearing and aspire for cow/buffalo-rearing. This is particularly true for the nontribal population. On the other hand, the market is informal and unsystematic, and is skewed towards the buyer. Many of the animal sales are distress sales; it is not very uncommon, therefore, to observe animals being bought at throwaway prices. Interestingly, the prices of goats in regulated *mandis* across the country fall in the months just before the onset of monsoon. This is mainly because of the low demand for goat meat during that period (because of the Hindu month of *saawan*) and high influx of saleable goats in the market (because the rearers are not sure whether the animals will survive the monsoon period—a risky period, as mentioned earlier, for disease outbreaks in goats).

Last, but not the least, is the negative attitude of many of the state bureaucrats, regarding the activity. Their primary concern is the environmental impact of large-scale goat-rearing. They fail to acknowledge two facts, however. First, different studies have thrown up opposing conclusions of goat-rearing having a negative environmental impact and of it having no or negligible impact on environment. There is nothing conclusive arrived at in these studies; and bureaucrats usually depend on their gut feeling, either to disapprove or to promote the activity. Second, goat-rearing may have some 'externality'; and for the sake of argument, let us consider

that goat-rearing has an externality, mainly negative, on the environment. There are various methods to counter that externality such as fodder-land development and semi stall-rearing interventions, to counter the negative externality. However, in most of the states, the tendency is to 'throw the baby out with the bath water' without seriously evaluating options as well as concerns.

WHAT WE NEED TO DO

The usage pattern of the loan (both internal and external) taken by SHG members indicate that they do invest money on buying goats, and the number of such buys varies from a couple to six or seven. It is also true that this investment has actually not helped the family much because many (and in some cases, all) of the goats have died, resulting in high indebtedness at the household level.

Yet, despite this, like it or not, a poor household does continue to invest in this activity. Thus, regardless of the bureaucrat's or anyone else's personal preferences, intervention in the activity is a necessity so that the activity does not put the lives and livelihoods of the family at risk, at the very least.

What then do we need to do? There are numerous experts and consultants across the country, who can give us direction and technical knowhow. Some will advocate intervening in the entire value chain; this is because the sub-sector is so unorganized it is extremely necessary to work along the entire value chain to have successful and sustainable intervention. Some technical experts will focus on breed improvement, through buck-rearing and also artificial insemination. Their rationale is that unless the quality of the breed is improved, the productivity of the activity cannot be increased substantially. A few of these experts may also go to the

extent of embryo transplantation, as has been carried out in some parts of the country. Some will advocate developing the market for goat, working on the organized *mandis* and developing systems whereas a few of them may stress on promoting export-oriented goat meat products (interestingly, the goat meat preference of East Asia is very different from that in the Middle East, where the former prefer lean meat and the latter fatty meat). Some of the consultants and organizations have also worked on goat kid fattening for the niche EiD market, where the product has been fetching high prices.

Other interventions could be strengthening the animal health-care support service either by strengthening the existing animal husbandry department network or by creating a network of trained para vets, selected from the local area and nesting them in some community organization or developing them as service entrepreneurs. A very important intervention can also be to streamline the goat insurance system, either by working with the existing public or private insurance provider or by initiating micro-insurance products such as *Mutuals*. There are numerous examples of such interventions in our country.

Although there are a number of required interventions, it is better to take on only as many things as one can handle. The dilemma will always be to intervene on a few key variables or to orchestrate an entire value chain. As professionals, it may be challenging to develop an intricate and grand intervention package. Would this work? Not often. When working on the goat-rearing project in Rajasthan, I decided to work on the feeding and management practices of goats and goat kids. I did in-depth research, visited the goat research station, spoke to scientists as well as designers, and developed goat feeders

and waterers. That became a composite unit of the goat sub-project we submitted to the government. However, after a couple of years, we found that the community had picked up the idea of providing supplementary nutrition to goats and the kids but had really not accepted the 'innovative' feeder

and waterers that we had developed. The feeders were, instead, being commonly used to stack utensils! Our learning from this was to adopt what Prof Malcolm Harper advocated: the KISS (Keep It Short and Simple) approach.

In the goat-rearing activity, the core issue needs to be identified and worked on accordingly. There can never be a standard monolithic prescription because the ground reality varies from one region to the other. However, some issues may cut across regions. Any intervention must be:

- Replicable easily across regions with minor modifications
- Scalable, reaching out to large number of households across regions
- Transferrable easily to the community after the techniques are simplified and codified
- Cost effective, both in terms of optimal investment and substantial return against investment

With the above framework in mind, the focus needs to be broadly on three interventions. First is the issue of reducing mortality of animals. Unless mortality is reduced drastically, the community will not have the confidence to take up this activity wholeheartedly. Working with the existing departmental workforce may sound lucrative from the convergence point of view; however, sensitizing and reviving

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a network that is already overstretched, understaffed and in total lack of resources may be a herculean task. This is not to negate the support of the department. What is necessary is to develop a mutually beneficial, symbiotic relationship with the animal husbandry department.

The easier option may be to train local youths as para-vets, who can take care of the animal health-care support. These para-vets may either be groomed to become independent entrepreneurs or may be nested within a tertiary level community organization. Convergence with public and private players will be required in the latter case, to maintain a seamless and timely flow of the required medicines and vaccines.

The second intervention point is knowledge and technology transfer to the community. A majority of the goat rearers (except the traditional rearers) have little idea of how to manage a herd well. In this intervention, therefore, there are three important dimensions.

- a. Knowledge of different diseases, their symptoms, prevention methods and basic curative details need to be given to rearers, both women SHG members as well as other household members—people who graze the animals and take care of them at home.
- b. Basic concepts of herd management such as giving supplementary feed to the animals; administering calcium and mineral mixture to pregnant goats; goat kid management by enclosing them during grazing and post grazing, and limiting intake of milk by the kids (otherwise it may lead to diarrhoea); adequate ration to pregnant and lactating goats; regular cleaning of the goat shelter and protecting

the goats from extreme weather (hot, cold and the monsoon); and, finally most important, regular and timely deworming and vaccination of all animals.

- c. Transfer of simple and cheap technology to the community such as the usage of Trocar Cannula to save animals from dying of bloating; and introducing the Burdizzo Castrator so that castration of male goats can be safe and hygienic.

The third intervention will be to remove the market information asymmetry. Traders dealing with goats always make a bargain because they are more aware of the market and as the sellers are always at the receiving end. The simple method of calculating the minimum rate of an animal by weighing the live body can be very useful; this has been tried out quite extensively in the country.

The fourth intervention needs to be risk mitigation by insuring the goats. There are organizations that have tried out animal-based mutual schemes. However, running such an operation requires highly qualified and motivated staff. Moreover, it has never been tried out at a scale expected in NRLM. Partnering with insurance companies, either public or private, and designing products that are pro-poor are safe bets. Many insurance companies will welcome a tie-up because of the scale of operations and also if systems are put in place—systems such as regular vaccination and deworming, and to check cases of fraud. The initial interest for insurance wanes when the herd size become

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sizeable. This is mainly because of the high rates of premium and because reinsurance becomes extremely difficult. Best would be to insure the basic herd size so that in case an epidemic breaks out (the chances of such epidemics are extremely low if the regular vaccination system is in place), the household is left with a basic herd size to start once again.

Last, but not the least, the activity can only be possible when the community itself takes up the charge. Thus some level of collectivization as Producer Groups and higher order producer collectives may need to be worked out depending on the need of the intervention and the activity. Only such an organization can support and monitor rearers in the long run, and take forward the initiative in a sustainable manner after the promoter has moved away.

These five interventions will show phenomenal results, in the sense that it will give the rearers enough confidence to take the initiative forward in a much more focused manner. Once success is achieved, the community can build on the existing work, paving the way for other intervention packages. This will be much easier for the rearers to accept.

OPERATIONALIZING INTERVENTIONS

In the context of NRLM, the moot question remains, who can actually do all these at a scale? State Rural Livelihood Missions (SRLMs) or NGOs? There are very few

NGOs in the country that have experience and technical understanding of the activity. And the activity outreach of the few that do is extremely limited. In NRLM, one needs to think about the scale of operations.

In Odisha alone, with the goat-rearing, sub-sectoral intervention strategy, the SRLM can reach out to 8 lakh households and impact their livelihoods. Does its staff at the grass roots have the requisite capacity and understanding? At present, no; however, the skills and capacity of the grass-roots staff can be developed. Moreover, SRLM can easily harness the existing animal husbandry network and bring some experts and consultants on board. However, this will not solve the problem because the rigour of the activity will never be reached and maintained, in the current scenario.

NGOs can make the crucial difference. They can play two different roles. First, they can develop context-specific prototypes, which can be taken up and replicated easily. And they can provide thematic support to SRLMs on goat-rearing. In such cases, NGOs need to go beyond their comfort zone of actual implementation, to develop the capacity and enhance the skill sets of the SRLM staff. Many NGOs are required, to play such a support role for SRLMs.

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Once core models are developed in a couple of states, it will be easier for other states to emulate. The challenge that some donor agencies interested in working on small ruminants will face is how to develop some more organizations with expertise and knowledge in the goat-rearing sub-sector and the capacity to extend support to SRLMs.

All SRLMs are not on an equal footing. Some are ahead of others in terms of mobilization, institution building and, in some states, the initiation of livelihood activities. These states can be called 'senior' states (only in terms of their status vis-à-vis NRLM implementation progress). These senior states need to take up the initiative and start developing prototypes for replication and up-scaling. Simultaneously, the capacity of a few NGOs interested in working in this sub-sector may be strengthened so that, over a period of time, these organizations, together with the community resource persons (CRPs) from the senior states are available, to provide support to the rest of the country. Within a time span of 3–5 years, the activity, with some level of crystallization, can be rolled across the focused states.

NRLM is already in its third year. The time is now ripe to strengthen the goat-rearing activity so that it can help alleviate poverty in some of the households.