

Backyard Goat Farming: A Poverty Alleviation Tool

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Introducing systems, promoting research, and imparting information on the latest developments to goat rearers, who are usually poor, illiterate, marginalized and unorganized, and are largely the aged, the widows and destitute families, is imperative so that people on the fringes of society experience self-sufficiency, and dignity of labour and life

BACKGROUND

With over 140 million goats, India has the second largest goat population in the world. Largely owned by poor and marginal farmers, as a supplementary livelihood, goats have multiple uses in the lives of the people—as food, as means to access cash in emergencies, as a source of income and as part of religious rituals. Keeping goats also indicates the social status of farmers.

With the fragmentation of land (due to increasing population and division of land) and erratic rainfall, most of the marginal land-holding families find solace in goat-farming as a coping mechanism, for the supplementary income it provides. Goat-rearing gains importance especially in times of drought or excessive rainfall, which adversely affect crops. This livelihood activity is the poor man's choice, despite the apathy and negligence shown to this sector by mainstream institutions.

Whereas development workers are, to some extent, realizing the importance of goats in the socio-economic context, very limited attention has been paid to promoting it as a means to enhance productivity and strengthen livelihoods of the people. Moreover, very little data on the experiences of when it has been used as a resource is available.

The major focus of development in the field of livestock has remained milk-centric and mainly on large ruminants. Apathy and bias have prevailed about goat-based livelihoods development. Goats are largely kept and managed by women and poor families, whose political voice is negligible and who are unorganized. The demands for services for goat-farming, therefore, have not attracted the attention of policy makers, planners or development workers.

GOAT-REARING AS A LIVELIHOOD

Table 1 shows the socio-economic condition of farmers rearing animals.

Small livestock has been a woman's asset and has largely taken care of by her, especially in small herd sizes of three to seven. There exists an implicit bias in government programmes, in terms of investment, research, education and extension, in which the focus is more on large ruminants and milk-centric livestock development. Poultry is the only other livestock, on which attention has been shifted from backyard small-holder poultry to large organized poultry farms.

Goat-rearing is the primary or secondary livelihood activity for over 50 lakh poor families across the country. Considering this, the goat has been referred to in different ways to highlight the asset that it is proving to be for the poor. It is known as the:

- Poor man's cow (provides nutritious milk at low cost)
- ATM for the poor (cash available immediately)
- Walking crop (can walk miles to get water and feed, in adverse climatic conditions)

- Moving fridge (the milk can be obtained from goat more than twice in a day)
- Bank on hooves
- Insurance for the poor
- Women's asset

Goat-rearing is the preferred activity of poor families for the following reasons:

1. The goat being a small animal, goat-rearing is a manageable activity, requiring a comparatively small area.
2. Capital investment is very low; therefore, a poor family can start the activity easily.
3. The gestation period of a goat is comparatively less (about six months) and the kids grow fast.
4. During drought or when there is an epidemic, the risk in the goat-rearing activity is comparatively lower than for larger animals. Because goats can survive on shrubs during droughts, the price usually is reasonable. Should one or two goats die, there would be a comparatively lower economic impact on the family than if a cow or a buffalo were to die.
5. Male and female kids of goats are sold at the same rate whereas cows and buffaloes are not.

Table 1: Farm-reared Animals across Castes

| Caste | Economic Condition | | |
|---------|--------------------------------------|-----------------|---|
| | Upper | Medium | Lower |
| SC | <i>Cross breed (CB) cow, buffalo</i> | <i>CB cow</i> | <i>Indigenous cow, goat, pig, poultry</i> |
| ST | CB cow, buffalo | Buffalo, goat | Indigenous cow, goat, poultry, pig |
| OBC | CB cow, buffalo | Buffalo, goat | Indigenous cow, goat, poultry |
| General | CB cow, buffalo | CB cow, buffalo | Indigenous cow, goat |

Source: Livelihood Study, PRADAN, Abu Road

6. The goat, the parts of a goat's body/the products prepared from goats' produce, etc., are saleable in the market and many cottage industries are based on goats and the goat-rearing activity.
7. The milk of a goat is used for treatment of many diseases. It is easily digestible due to the lower fat content and has proved useful for the treatment of stomach problems of infants. It requires only systematic market development.
8. Milk can be obtained many times a day from a goat. In addition, there is no impact on the quantity of milk if there is a delay in milking.
9. The goats are ready for pregnancy in nine months. There is, therefore, scope for breed improvement.

WHAT AILS GOAT FARMING

As per the study undertaken by The Goat Trust in 317 sample villages, across six states, some of the key problems and challenges faced in goat-based livelihoods are:

1. Insufficient grazing of goats due to decreasing land area; this has an adverse impact on production.
2. Absence of preventive practices and first-aid at the village level, leading to high mortality and morbidity of goats.
3. Goats, being small, are easy victims of attack by wild animals.
4. Due to the low cost of goats, goat-rearing, as an activity, does not attract the interest of the banking and insurance companies, and financial linkages remain weak.
5. Standard production processes such as feed, low-cost housing design and

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feed preservation have been weak. Context-specific, pro-poor production technology needs to be developed.

6. There is no standard pricing system for goats. The lack of collective marketing becomes a barrier to developing goat-rearing.

7. Goat-milk, in spite of its high value and nutrition, has not received attention and largely remains unacceptable by urban people.

Equally important is the fact that goat-rearers are usually poor, illiterate, marginalized and unorganized. Goat-farming has been an occupation of the aged, the widows and the destitute families, and hence pro-poor systems and sensitivity need to be integrated into the programme to address the issues.

PRESENT EFFORTS

Various agencies have undertaken efforts to streamline and strengthen goat-based livelihoods. Many of these efforts have come from either the goat-farmers themselves or from grass-roots agencies working closely with such poor communities.

Whereas goat farmers in Rajasthan, especially from Alwar and Ajmer, have shown entrepreneurship in goat-farming by leveraging *Bakr-Id* demands and producing high vigour stall-fed bucks, NGOs such as PRADAN, BAIF Development Research Foundation, World Vision, ANTHRA (an NGO based in Pune), IBTADA (an NGO based in Alwar), Bosco Gram Vikas Kendra (BGVK), Watershed Support Services and Activities (WASSAN), Gramin Development Services (GDS) and many other NGOs, have taken initiatives to promote goat-based livelihoods in various parts of the country. The Rural Agricultural Institute, Narayangaon, (RAIN) in Maharashtra has worked on dairy

goat promotion by importing and crossing *Sannen* goats with local goats. The Nimbkar Agriculture Research Institute (NARI) is another NGO based in Phaltan, Maharashtra, which has standardized the artificial insemination process and has worked on boar-goat crosses for goat-meat promotion. The International Livestock Research Institute (ILRI) and HEIFER International are other organizations supporting goat-based livelihoods through partnerships with grass-roots agencies. The Indo-Swiss Goat Development Project in Rajasthan conducted a research-oriented programme, in which the productivity of the *Sirohi* and its crosses with exotic breeds were recorded, over a period, to understand the field-level performance of cross-breeding in goats. Capitalization of Livestock Programme Experiences in India (CALPI) has worked in an advisory role to many organizations, to strengthen goat-based livelihoods.

The Goat Trust, Lucknow, has worked on a pro-poor, goat-based livelihood support model in association with 34 NGOs in six states of the country and replicated it in Jharkhand, under government-sponsored programmes.

The Indian Council for Agriculture Research (ICAR) has established the Central Institute for Research on Goats (CIRG) at Makdoom, where research on goats had been undertaken. The Central Sheep and Wool Research Institute (CSWRI) and the Central Arid Zone Research Institute (CAZRI) are the other institutions working on goat and goat products research and extension. The National Dairy Research Institute (NDRI) had the *Sannen* and the *Beetal* as well the *Alpine* and the *Beetal* crosses at its farm, to understand the potential of milk productivity of goats under research trial. The National Agriculture Innovation Project (NAIP), sponsored by the ICAR, studied goat-rearing in dry land regions such as Bundelkhand and

Andhra Pradesh, introduced goat-rearing to the region and trained youth volunteers for its promotion.

The government's poverty alleviation programmes such as the Swarn Jayanti Swarojgar Yojana (SGSY), the District Poverty Initiatives Programme (DPIP) and the Tribal Development Programme have provided goats as subsidized livelihood assets. Several state governments have taken the initiative to work on goat-based livelihoods, namely, the IFAD supported Mitigation of Poverty in Western Rajasthan (MPOWER) and the Bundelkhand package programme, in which NGOs and government departments are working to strengthen goat-based livelihoods, with varying success.

PROBLEMS AND KEY APPROACH

Various agencies have worked to enhance the income and the quality of life of goat farmers. The essence of the approach has revolved around the following problems and interventions.

MAJOR LEARNING AND OUTCOMES

Most of the development programmes on goat-based livelihoods in the last decade have been a failure. They have aimed at providing a subsidized asset with a pre-defined unit size. Although a part of the problem remains the selection and implementation of the poverty alleviation programme, it was also realized that the design of the programme had an inherent weakness which did not address the key problem of goat farmers. Field experiments by various grass-roots agencies in the last decade have provided key learnings to be incorporated in the design, in order to solve the problems of the goat farmers.

Facilitating the community-led support system development should precede any goat asset development programme. This includes:

| Problem (Effect) | Cause | Solutions |
|--|---|---|
| High mortality/ morbidity in goats | Financial and non-financial constraints to adopt improved practices. Less accessibility to first-aid services and lack of knowledge | <ul style="list-style-type: none"> • Introduce a community based service provider to educate goat rearers • Introduce community insurance |
| Genetic degradation/low quality of goats | Lack of focus on improved buck breeding in goats | <ul style="list-style-type: none"> • Create awareness and set up a breeding service • Provide selective kids nursery |
| Feed scarcity and seasonal stress | Low awareness about alternative feed and non-existence of fodder cultivation and preservation | <ul style="list-style-type: none"> • Develop pastures for grazing • Conduct a participatory rural appraisal (PRA)-based analysis of feed seasonality, kidding seasonality and disease analysis • Develop a short- and long-term plan |
| Low share of producers in consumer-level meat price growth | Absence of a transparent system for price estimation of goats. Skewed information accessibility | <ul style="list-style-type: none"> • Introduce a live body-weight-based price estimation • Conduct seller-buyer interface workshops |

- Focusing on the replacement of low-quality goats with productive goats because labour and natural resources for goat farming, remain limited at the household level
- Facilitating the PRA-based problem-analysis (feed, disease/kidding seasonality) to develop an in-depth understanding of the problems and the inter-play of existing resources and conditions before developing suggestions
- Starting from what fits the livelihood basket and not imposing a unit size
- Educating women on animal productivity management before acquiring goats as assets
- Developing private land along with commons for fodder
- Understanding market preferences of breed, colour, size, seasonality and pricing in partnership with the community
- Involving stakeholders such as traders, feed-suppliers and market regulators in the programme

KEY IDEAS AND INNOVATIONS

Most of the somewhat successful goat-based livelihoods projects had the following key components:

- Involving selected village women/men as improved goat management knowledge disseminators and preventive goat health workers. Almost all the NGO-led models focused on developing a village-based service provider to provide improved management knowledge such as feeding, breeding, preventive health, signs of contagious disease such as PPR and Goat Pox.

- Introducing community insurance as an alternative system of risk protection
- Creating a learning platform such as Bakari Paalak Paathshaala to adapt technologies in context and to promote collective learning
- Building awareness on live body-weight pricing of goats and collective marketing
- Replacing low-quality goats
- Creating an acceptance of live body-weight price estimation among traditional traders
- Introducing logistics management for goat marketing
- Introducing high cost technology such as estrous synchronization and artificial insemination (AI).

CHALLENGES AHEAD

- Ensuring low-cost feed availability
- Grazing land management
- Building institutional interest in goat marketing