A study of Goat Farming in Nuh, Haryana: How goats churned income for small farmers

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This report attempts to capture the changing scenarios of goat farming in India while focusing on LDF and HSRLM intervention in Nuh, Haryana. Although initially goat farming was widely accepted in Nuh, the number decreased when people chose to travel to cities like Gurugram to earn a higher income than they would with goat farming. Most of these families continue to be goat owners but don't see it as a viable income generating activity. This report captures how our combined efforts have increased knowledge about goat farming and encouraged families to take it up as a livelihood activity. The report also captures Samina’s story that has inspired others around her to become part of SHGs and take up goat farming as a serious activity. Our interventions contain feed management along with pest and disease management awareness programmes to enhance their knowledge and make this practice sustainable. This is however, not possible without proper structures of institution. LDF and HSRLM work towards building an institution that helps women farmers who are also goat owners to come and work together.
Background

India occupies first position in terms of goat population and goat milk production\(^1\). A report by Department of Animal Husbandry and Dairying\(^2\), chevon (goat meat) is most preferred and widely consumed meat in the country. Since ancient times goat milk has traditionally been known for its medicinal properties and has recently gained importance in human health due to its proximity to human milk for easy digestibility and it’s all round health promoting traits. Still research is needed to explore and validate medicinal properties of goat milk for projecting it as therapeutic milk for human health. Demand for goat milk and milk products for internal consumption and export is expected to rise in coming years. Goat husbandry provides glimpses of future hope for employment generation, nutritional security and prosperity to the millions of small and marginal farmers in the country.

 Livestock rearing is one of the major agricultural activities of India. Goat rearing is the second most activity of livestock after the cattle. There are about 102 breeds of goat in the world, out of which 26 breeds have been characterized in India (NBAGR, 2015). As per 19th livestock census (2012), goat population in India is 135.17 million, which constitute 26.40% of the total 512.05 million livestock population of the country. The country stands first in goat milk production and second largest in goat meat production.

\(^1\) https://krishijagran.com/agriculture-world/goat-milk-market-understanding-present-and-future-prospects/

\(^2\) https://dahd.nic.in/sites/default/files/NAP%20on%20Goat.pdf
production with an annual growth rate of 2.6% and 2.4%, respectively.

Goats are prime important species in the small ruminants and second largest species in livestock category and contribute in the production of milk after cattle and buffaloes. As per 19th Livestock census, 26.40% of the livestock population are Goats. Out of 135.04 millions of Indigenous Goats (Including Non-descript), 26.97% are pure breed, 11.77% are graded breeds and remaining 61.26% are non-descript breeds. The distribution of goats under these categories is given in the following diagram.

The role of goat farming is multifaceted, creating ripples at various levels. For a farmer indulging in goat rearing, not only it the activity impacting the family at the micro level but also reaching the macro level.

**Role in Rural Economy:** Among all species of farm animals, goats have the widest ecological range and have been poor people’s most reliable livelihood resource since their domestication during Neolithic Revolution about 10 millennia ago. Goat plays a significant role in providing supplementary income and livelihood to millions of resource poor farmers and landless laborers of rural India. Small ruminant rearing ensures self-employment and acts as a cushion in distress situations like drought and famine.

**Role in Entrepreneurship:** In last few years, goat production in the country gained momentum in the form of a commercially viable enterprise as evidenced by increasing interest of young entrepreneurs to develop knowledge and

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3 https://dahd.nic.in/sites/default/files/NAP%20on%20Goat.pdf
Role in Global Scenario: The demand for meat, milk and fibre is increasing progressively and expected to further rise in future in view of sizable increase in per capita income and health consciousness of people\(^5\). Worldwide consumers are preferring products that are “clean, green and ethical”. As such goat producers are shifting to husbandry practices that do not compromise the welfare of animals. Medicinal properties of goat milk increased the interest of society to use it as therapeutic health food.

**Role in Nutrition and Health:** Goats possess distinct social, economic and biological advantages. They can be maintained on a limited area and can sustain on wide variety of vegetation in varied agro-climatic conditions. Goat meat (chevon) is one of most preferred meat type by the consumers in several countries including India. The goat milk is easily digestible due to smaller size of fat globules and serves as a ready source of family nutrition. In India, both demand and production of goat meat have shown steady increase during the last decade and despite the rising production trend, country would need to double the number of goats to meet the projected requirement of goat

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\(^4\) [https://dahd.nic.in/sites/default/files/NAP%20on%20Goat.pdf](https://dahd.nic.in/sites/default/files/NAP%20on%20Goat.pdf)  
\(^5\) [https://dahd.nic.in/sites/default/files/NAP%20on%20Goat.pdf](https://dahd.nic.in/sites/default/files/NAP%20on%20Goat.pdf)
meat for growing human population in the coming decades.

Traditionally goat has served as source of livelihood and financial security to large section of society, mainly comprising of resource-poor people. In the present scenario of changing agro-climatic conditions, this small ruminant farm animal has tremendous potential to be projected as the ‘Future Animal’ for rural and urban prosperity. The backyard goat rearing is steadily turning as the fast growing livestock industry in the country. Goat husbandry in India is essentially an endeavour of millions of small holders who rear animals on “Crop Residues” and “Common Property Resources”. The small holders produce milk, meat, fibre, skin etc for the community with virtually no capital, resource and formal training. More often goats are reared for production of meat, but they also serve as ready source for milk to meet the family requirement.

Our country has 26 registered breeds of Goat. Out of these, the high genetic merit (more meat/milk yield per animal) indigenous registered breeds exist are only 12 breeds. The 12 breeds of high genetic merit Goat have a population of 4.55 crore out of total population of 13.5 crore6.

Goat Farming in Nuh, Haryana

Regardless of the aforementioned benefits of goat farming, there was a noticeable trend of decreasing activities in goat rearing. Smallholder farmers in Nuh were apprehensive to entering into goat rearing. Not only that, goats were not considered as a means of livelihood even though majority of the households owned at least a goat. In

6 https://dahd.nic.in/sites/default/files/NAP%20on%20Goat.pdf
Fact, Samina, a goat owner, was one such example. President of the Village Organisation (VO) now, she vouches for goat farming as a livelihood generating activity.

Goat rearing was considered as one of the most profitable business for rural community and had a huge acceptance among the Nuh community. Though traditionally, most of these HHs had been engaged in goat rearing, presently only 5.86% were reported to be engaged in the goat rearing. This is because Nuh being close to industrial towns such as Bhiwadi and Gurugram have huge rates of daily migration for labour work. Even the HHs currently engaged in the activity don’t consider it as an income generating livelihood. They lack knowledge and awareness about feed management, vaccination & disease management and other improved animal practices. Along with this, poor market linkages, huge mortality rates etc. have forced most of the households to sell their bucks to middlemen without any relation to the weight or breed of these animals. Even the mortality rates are high which often result in poor income from the activity.

From the 20th livestock census data it can be observed that there a slight increase in goat population over the years. The census records state that there was a growth of 10% in the population of goat from the year 2012 to 2019. While if the 2007 and 2012 data is compared, there was a decline in the population. One of the reasons of the spurt in growth could be attributed to the increase in demand for meat due to increase in population and changing pattern of food consumption in favour of protein rich food.

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7 https://vikaspedia.in/agriculture/agri-directory/reports-and-policy-briefs/20th-livestock-census
The Nuh (erstwhile Mewat) region of Haryana is predominantly inhabited by Meo-Muslims and considered as one of the most backward districts of Haryana and identified as an aspirational district by Niti Aayog. Although traditionally most of these families had engaged in goat rearing, currently only 5.86% are engaged in the activity. This is because members started migrating to Gurugram for more income. We realised that nearly 260 households are not being able to reap the benefits of having goats and decided to introduce advanced methods of goat farming with these women farmers.

In the survey conducted by LDF, it was found that less than 30% own land and of these 30%, 85% of the population own less than 1 killa land. Nearly 45% are engaged in livestock rearing and 35% are engaged in non-farm activity including labour work, private & public jobs and other non-farm activities such as dari making etc.

LDF initiated Goat Rearing as a livelihood intervention with 331 HHs in 4 Cluster Level Federations (CLFs) in Nuh district of Haryana. Samina was also selected to be a part of this initiative.

In collaboration with Haryana State Rural Livelihood Mission (HSRLM), 331 HHs were identified for the goat rearing intervention.

**How we fared:**

Training and awareness sessions play an important role in communitisation or rather bringing together a community for a cause. To explain the benefits of goat farming, fortnightly meetings were conducted with all the Farmer Field Schools for training, data collection and efficient management of the program. Training was done on feed management, health and disease management. As the targeted population was not following improved animal management practices, income from goat rearing practice was low coupled with high rate of mortality.
In just six months, these awareness generation activities resulted in a massive decrease of mortality rate to 21.43% from 0.22%. Not only awareness generation, but goat immunisation process that were introduced also needs to be credited for the fall in mortality rate. Almost 100% of the intervention households have adopted the improved feed management practice. Deworming, dipping and vaccination was done with 554, 203 and 366 respectively out of 924 goats. Another result of improved feed and health management is the increase in herd size from an average 2.5 to 3.52 herd per family.

Beside the trainings and capacity building sessions at Farmer Field School level, trainings are also provided by associates at Livelihood Group level so that in case the beneficiaries fail to attend the FFS training it is compensated by training at LG level. At least one training cum meeting session is conducted every month at every LG at least one training cum meeting session is conducted every month at every LG at every month. More than 60 such meetings have been conducted with 20 LGs in 4 clusters of Nuh district.

**Good governance leading to effective public delivery systems**

For effective functioning of groups, effectivization of systems and processes are crucial. Without proper systems and processes in place, groups and institutions would not become sustainable. Governance and especially good governance can play an important role in functioning of these LGs, CLFs, VOs and SHGs. Only when these groups are functional and active, can there be a community demand for proper support and aid from government bodies for the welfare of the people.
Good governance cannot happen without government. In order to create a strong governance structure, we believed in liaising with government departments and relevant stakeholders. Meetings were conducted with Animal Husbandry department to gain their support for the intervention. As a result of these meetings, Rs. 18,500 government funds have been mobilised through availability of medicines from government departments. Immunisation was undertaken in coordination with Animal Husbandry Department and almost 40% of 924 herd were vaccinated and Rs. 50 as expenditure was incurred by the government on each herd.

Dairying, it contributes significantly to the Indian economy by sustaining livelihood and supplementing the income of small farmers and rural poor people, contributing Rs. 22,138. The incidence of diseases and parasitic infestations is one of the major constraints in the development of goat enterprise leading to substantial economic losses to the goat keepers. The occurrence of diseases is an important factor which influences the productivity and economy of animal farming. Goats suffer from many diseases and some of these are common with other livestock species, while some of these are specific to goats only, with a few of zoonotic nature also. Diseases in goats result in morbidity and mortality losses which lead to low productivity of animals. These diseases accounted for about 82.7% of the total losses in goats in India. The alimentary system (AS) diseases constitute a major chunk of the causes attributed to goat morbidity and mortality losses. The present retrospective study spanning a period of twenty five years(1988–2012) was aimed to assess the impact of various AS affections causing mortality in goats.
with respect to sex and different age groups and their association with seasonal changes in an organized farm of goats.

In partnership with HSRLM, we focussed our energies on reducing mortality rates among goats by introducing innovative methods for pest and disease management combined with feeding techniques to ensure a healthy herd. Mortality rate has decreased from 21.43% from baseline to 0.22.

This had a strong impact on the milk production of the goats in 331 families. As the result of improved feed management, health and disease management and improved animal management practices, milk production among goats in intervention households recorded an increase as compared to a selected control cluster. For the month of September 2020, milk production in intervention HHs stood at an average of 5.7 litres per goat/ per month compared to 1.97 litres per goat/ per month in control cluster.

Not only this, two buck fairs were organised in Nuh during Eid in July 2020 which, for the first time, initiated live-weight sale of bucks resulting in an increase in profits of the families. A total of 56 bucks and 32 goats worth Rs. 10,00,750 were sold. The profit increased by a groundbreaking 50% through sale of bucks on live weight.

Additionally, identification of beneficiaries for convergence with MGNREGA category B work for construction of goat shed was carried out and a beneficiaries list has been prepared and shared with District Mission Management Unit (DMMU) Nuh. Along with that, model goat sheds have been constructed in all intervention clusters.

Taking into account that Haryana Government introduced the first ever Pashu Kisan Credit Card, we deemed it imperative to disseminate information about the same. Therefore, measures were undertaken, with the help of Animal Husbandry Department and DMMU, to conduct awareness sessions for the families. Over 100 families participated in these sessions. PKCC helps beneficiaries to access credit of Rs. 1,60,000 to be used for livestock (both small and large ruminants).
development. The rate of interest is 4% and the amount needs to be repaid in 2 years. We envisage families in our intervention areas to become beneficiaries of the same scheme.

In fact, Samina, who has been reaping benefits of these interventions in Nuh, has encouraged other women to follow these practices as well. Feeding her goats from hanging branches has resulted in her goats eating better and improving their weight. Research says that goats eat more when fed from an elevated height. Not only Samina’s, other households involved in this activity found a market and demand for their goats leading to increased income. Samina proudly flaunts how she was able to marry off her son easily with the extra income and also helped a friend set up a shop with her extra income. She continues to inspire people to become part of SHGs and partake in goat farming.

By communitisation at local levels, creating groups of motivated women to come together with the aim of increasing their livelihood opportunities and earn more income has shown to be a success. The challenges of goat rearing, in this case, did not stop these women for undertaking this activity. Coming together and learning about goat rearing helped these women in diversification of their livelihood and aided in earning extra income. Not only that, they assumed roles of leadership within these groups and worked hard towards working with various stakeholders. A simple intervention of goat rearing resulted in numerous outcomes.