

Success story

Transforming Goat Farming in the NICRA Adopted Village through KVK Interventions

1. Situation Analysis / Problem Statement:

Goat and sheep farming in the NICRA adopted village of **Borgaon (N)** has been a traditional occupation for small and landless farmers for generations. It serves as the primary livelihood source for many families. For generations, goat rearing has been practiced using traditional methods under extensive grazing systems. However, despite its importance, the enterprise was plagued by low productivity, high mortality, frequent disease outbreaks such as Enterotoxaemia (ET), Peste des Petits Ruminants (PPR), Contagious Ecthyma, foot rot, and abortions, and poor genetic quality of animals.

Farmers lacked access to scientific management practices, quality breeding stock, balanced nutrition, and preventive health care measures. As a result, kid mortality was high, disease incidence was frequent, and economic returns remained low. Recognizing these challenges, KVK Latur designed and implemented a comprehensive intervention strategy to transform goat farming in the village.

The Challenges

The baseline survey conducted by KVK revealed the following major issues:

- High kid mortality
- Adult mortality
- Disease incidence due to PPR, Enterotoxaemia, Foot Rot, Contagious Ecthyma, etc.
- Poor weight gain in kids
- Low twinning percentage
- Absence of pure breeding buck leading to inbreeding
- Low net returns
- Limited awareness of vaccination, deworming, and mineral supplementation

These issues were directly affecting the livelihood security of goat-rearing families.

2. Plan, Implement and Support:

KVK Latur adopted a multi-dimensional approach focusing on health care, nutrition, breed improvement, and capacity building.

Introduction of Purebred Osmanabadi Buck

One of the most significant interventions was the supply of a purebred Osmanabadi buck to the village for scientific breeding.

The Osmanabadi breed, native to Maharashtra, is well known for:

- Higher growth rate
- Better reproductive efficiency
- Higher twinning percentage
- Disease resistance
- Adaptability to semi-arid conditions
- Better market value

The introduction of the buck prevented inbreeding and improved the genetic potential of the local goat population.

➤ Animal Health Camps:

- Vaccination against PPR and Enterotoxaemia
- Deworming using broad-spectrum anthelmintics
- Advised for treatment of diseased animals
- Awareness on sanitation and biosecurity

➤ Nutritional Interventions

- Demonstration of mineral mixture and mineral lick bricks
- Advisory on balanced feeding practices
- Awareness about importance of colostrum feeding

➤ Training and Advisory Support

- On-campus and village-level training programmes
- Field visits and regular monitoring
- Mobile advisory services
- Group discussions and experience sharing

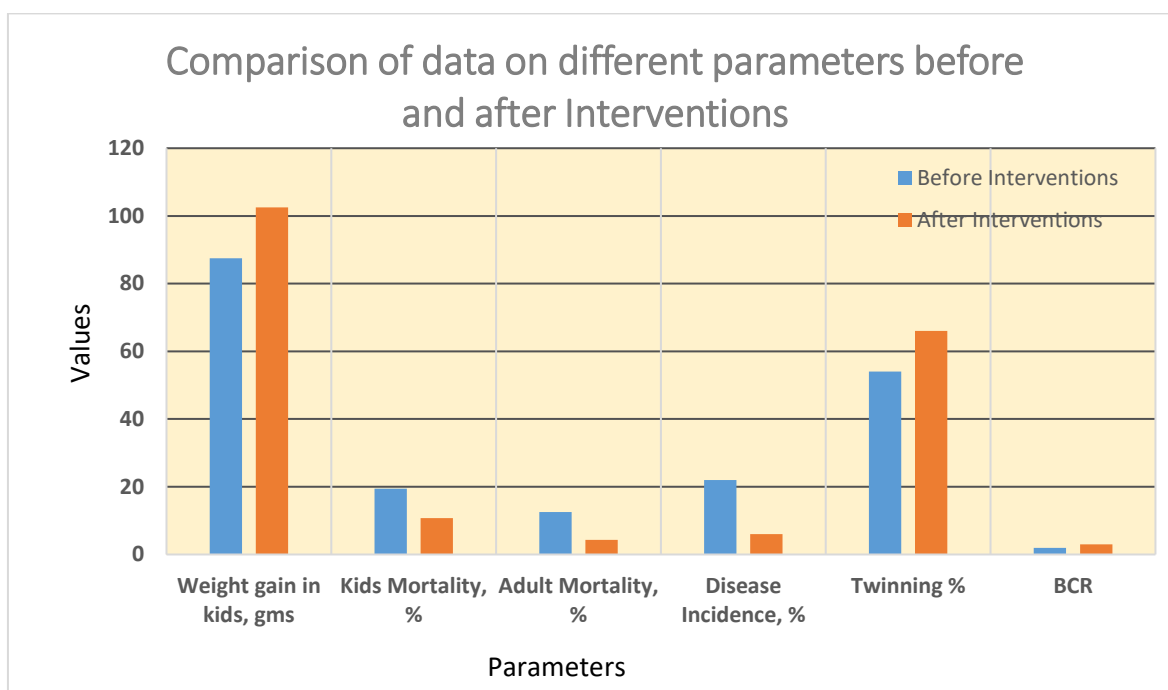
Farmers were empowered with practical knowledge of scientific goat rearing.

3. Output:

- The awareness and adoption of scientific rearing practices have significantly improved the weight gain of kids, increasing from 87.45 grams to 102.5 grams per day. The mortality rate in kids has reduced from 19.41% to 10.72%, enhancing overall herd sustainability. Similarly, the mortality rate in adults has decreased from 12.5% to 4.3%, ensuring better longevity and productivity. The incidence of diseases has also declined from 22% to 6%, leading to improved herd health and reduced treatment costs. Additionally, the twinning rate has increased from 54% to 66%, contributing to a higher population growth rate. (Table no. 1)

Table 1. Comparison of data on different parameters before and after Interventions

N	Parameters	Before Intervention	After Intervention
1	Weight gain in kids (gms)	87.45	102.5
2	Mortality in kids (%)	19.41	10.72
3	Mortality in adults (%)	12.5	4.3
4	Disease incidence (%)	22	6
5	Twinning (%)	54	66
6	Net return per goat (Rs.)	4743	7470
7	Benefit-Cost Ratio (BCR)	1.94	2.95



4. Outcome:

Farmers experienced higher incomes, with net returns per animal increasing from Rs. 4,743 to Rs. 7,470 due to better productivity and reduced losses. The adoption of scientific practices led to improved production and productivity while effectively addressing the challenges posed by inefficient grazing area. The capacity of farmers to sustain scientific goat farming practices was strengthened, fostering long-term benefits for the community. Enhanced meat and milk production contributed to improved nutritional status and food security for farming families. As a result, the socio-economic status of the farmers improved significantly.

5. Impact:

The adoption of scientific rearing practices has significantly improved the livelihood of farmers by enhancing productivity, reducing mortality rates, and increasing their income. Knowledge transfer through training, advisory services, and demonstrations has empowered farmers with scientific management techniques, leading to sustainable farming practices. Economic empowerment has been evident as net returns per animal have increased, contributing to better financial stability and improved living standards for farming families. Social recognition of progressive farmers has grown, as successful adopters of improved practices have become role models within their communities. Additionally, the visible success of these interventions has encouraged technology

adoption in nearby villages, leading to wider dissemination of improved rearing practices and overall development in the region.

Secondary Data to Substantiate Outcome and Impact-

1. Improvement in Goat Farming Productivity

- According to the **National Institute of Animal Nutrition and Physiology (NIANP)**, scientific interventions such as balanced feeding and mineral supplementation improve weight gain in kids by 15-20%.
- A study conducted by **ICAR-Central Institute for Research on Goats (CIRG)** reported that deworming and vaccination can reduce mortality in kids by 40-50% and in adults by 50-60%.

2. Economic Benefits of Scientific Goat Rearing

- The **Indian Council of Agricultural Research (ICAR)** has documented that improved breed management and scientific interventions can increase net returns per goat by 40-60%.
- **The 20th Livestock Census (2019)** indicated that small ruminant farming contributes over 15% to the total livestock economy in Maharashtra, reinforcing its role in rural livelihoods.

3. Disease Management and Mortality Reduction

- A report from **KVK Pune (2022)** on scientific goat farming interventions showed that proper vaccination against PPR and deworming programs reduced disease incidence from 20% to below 7%.
- The **Maharashtra Animal Husbandry Department's 2022-23 Annual Report** states that targeted vaccination programs reduced the mortality rate of goats by 30-50% in intervention areas.

4. Impact on Socio-Economic Development

- A study by **NABARD (2021)** found that scientific goat farming increased household incomes by 50-70% among small and marginal farmers.
- The **National Sample Survey (NSS) 77th Round (2019)** reported that livestock farming, particularly goat rearing, significantly enhances rural food security and provides alternative livelihood options.

These data sources support the impact assessment of your KVK interventions in Borgaon (N) and provide a strong foundation for showcasing the success of scientific goat farming in improving

productivity, economic returns, and livelihood sustainability. Let me know if you need any specific references or formatting improvements!

Conclusion:

The integrated interventions of KVK Latur—combining animal health care, nutritional support, training, and genetic improvement through introduction of a purebred Osmanabadi buck—have transformed goat farming in Borgaon (N).

The initiative not only improved productivity and profitability but also strengthened livelihood security and socio-economic status of farming families.

The model demonstrates that scientific management and breed improvement can sustainably enhance small ruminant farming in rural areas and can be replicated in other villages for wider impact.

Photographs of different activities





Different interventions undertaken



Visit of ZRM commity to the goat and sheep farmer in adopted village