



Enhancing small ruminant production to benefit farming families in Sindh and Punjab, Pakistan

Overview

Around 62% of population in Pakistan lives in rural areas with more than 8 million rural households dependent on the livestock sector for their livelihoods. Small ruminants are important component of the livestock industry in Pakistan, which has the third largest goat population and tenth largest sheep population in the world. The Economic Survey of Pakistan 2020-21 estimated 80.3 million goats and 31.6 million sheep population to be present in different areas of Pakistan.

A previous ACIAR small research activity (SRA) entitled “*Smallholder goat value chains in Pakistan; challenges and research opportunities*” described the goat (and sheep) production systems throughout the value chain in Punjab and Sindh provinces of Pakistan. From the SRA, it was clear that poor supply (quantity, quality and consistency) of animals from farms is the major restriction in many value chains. Key factors behind this poor supply were ill thrift, mortality of young animals, inappropriate nutrition, and poor health of adult stock.

Therefore, this project aims to improve the livelihoods and wellbeing of men, women and youth in small ruminant farming families through improved, more market-oriented animal production, and more effective engagement with the small ruminant value chains.

Project Objectives:

1. Test and develop improved production practices to increase growth and off take of small ruminants.
2. Create opportunities for women and their families to derive more benefits from small ruminant production and marketing.
3. Develop and test strategies for supporting small ruminant farming families to assess market opportunities and attain market specifications.



@RuminantsSmall

LS/2018/105 Pakistani Small Ruminants
 October 10



حکومت سندھ
 Government of Sindh



ACIAR project number

LS/2018/105

Start date and duration

April 2019 to June 2022

Location

Pakistan

Project leader and Commissioned Organization

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Completed Work

The project has already completed a diverse range of research and extension activities including:

Regional feed survey: 170 farmers were interviewed in 6 districts of Punjab and Sindh, to describe current rates of production and feeding practices for small ruminants. Reproductive wastage and inefficiency is widespread: half of villages raise < 1 lamb or kid per breeding female per year; 11% of offspring are lost before 1 year old; 9% of breeding females and 20% of kids die annually. Survey results have also been used to develop further feed trials.

Understanding zoonotic disease: Men and women were surveyed about their awareness of zoonotic diseases. Women were more aware about small ruminant diseases than men but the knowledge of zoonotic disease risks was universally poor in both. Farmer-friendly fact sheets about reducing disease risk have been developed and shared with households.

Supplementary feeding: Preferentially offering 'creep' feed to young animals to improve their growth and health has been widely tested. Farms in Tando Allahyar, Sindh which provided this additional feed had only 1/3 the mortality of households using traditional management.

Eid Value Chain Surveys: We interviewed farmers to understand the impacts of COVID-19 pandemic on preparation, selling, buying and other activities regarding small ruminants during the 2020 Eid al-Adha.

Longitudinal monitoring trial:

To evaluate health status and productivity in small ruminants a six-month surveillance trial was conducted



in Village Bhurpur District Chakwal which was a 6-month trial completed in November 2020. The blood and fecal samples were collected and analyzed for different health parameters .

Current Work

We currently have following research and engagement activities underway:

Knowledge sharing: We have created simple and practical information sheets in different formats that address common issues about small ruminant health, management and diseases in Urdu, Sindhi and English.

"Training of trainers" sessions have been conducted with many organizations like UpTrade, Sindh Livestock Department, UVAS ICE&E (Institute of Continuing



Education and Extension, Women Agriculture Development Organization (WADO) and Livestock Services and Training Centre, Bahadurnagar, Okara, Punjab for knowledge sharing, stakeholder engagement and sustainable outcomes of project activities. Feedback on areas of improvement are being evaluated for incorporation into future extension activities and materials.

Supplementary feeding with locally available feed:

Further 'creep' supplementary feeding trials using locally-available feeds selected by farmers are now being run to adapt this strategy to local conditions in different districts of Punjab (Bhakkar, Chakwal and Rajanpur) and Sindh (Tharparkar, Tando Allahyar, Badin), and measure its effects on growth, survival, labour requirements and other outcomes.

Involvement of researchers:

The project currently has 6 students from different departments of UVAS and SAU researching different aspects of goat and sheep production, including health, nutrition, meat production & growth performance.

Current and Future Outcomes

Over the next 7 months, anticipated outcomes include:

- Best practice strategies and support resources for improved growth and management of young and adult goats and sheep.
- Recommendations for value chain interactions that increase the benefits for stakeholders
- Evidence-based farmer training and extension materials that can be used by government and non-government organisations for farmer capacity building and livestock sector development.

The project is also in ongoing dialogue, actively sharing research findings and collaborating with livestock sector stakeholders, including the Livestock & Dairy development department Punjab, Livestock dairy development board (LDDB), National rural support programme (NRSP), Sindh livestock department (SLD) and several NGOs.

