
1 Project Summary

Background and justification

The small research activity (SRA) LPS/2016/096 - *Smallholder goat value chains in Pakistan; challenges and research opportunities* has described goat (and sheep) production systems, and identified constraints and opportunities throughout the goat value chain in Punjab and Sindh, Pakistan.

Of the major findings 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 and mortality of young animals, and inappropriate nutrition and poor health of adult stock. Extension and other services for small ruminant farmers are very limited, and where they occur, they are based on limited evidence and may be poorly coordinated. The structure of the value chains means that smallholder farmers have opportunities to capitalise on the high market demand for small ruminants, but limitations to the number and quality of animals they produce prevent this. Supply and quality could be increased by engaging with the whole family because women and youth, not just men, play a critical role in goat/sheep farming.

Aim and objectives

This project aims to improve the livelihoods and wellbeing of small ruminant farming families, focussing on the inclusion of women, by developing strategies for improved, sustainable production and value chain engagement.

To achieve this aim, this project has the following objectives:

1. Develop and test 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

Through studying these objectives, solutions to these identified limitations and opportunities will be developed and our understanding of additional constraints and opportunities will enhance.

Significant activities and outputs

Research activities will predominantly focus on on-farm management, as this is where the largest technical gap was observed during the SRA. Research activities on value chain engagement will also be conducted. Activities include:

- Identifying and acting on the key health and welfare issues and improving the survival and growth of young and adult small ruminants;
- Identify current breed potential: how best practice management affects growth, production and health of goats and sheep
- Trialling strategies for better participation for men and women in small ruminant value chains;
- Trialling ways to share opportunities and technical knowledge with families raising small ruminants in in landed and landless situations

Outputs will include describing the current production potential of local small ruminant breeds, recommendations for improved value chain engagement to increase farm income, and an in depth evaluation of opportunities for small ruminant farming families.

End of project outcomes

The end of project outcome is that the livelihoods and wellbeing of some small ruminant farming families, including the women of the household, are improved through improved, sustainable production and value chain management. Firstly, this work will lead to an improvement in the quantity and quality of small ruminants produced in Punjab and Sindh. Achieved through improved growth and management of adult animals and a reduction of mortalities in young stock, improvements will be generated in a way that equitably benefits all members of small ruminant farming families. Secondly, this project will derive further benefits from the value chain immediately through a better connection and understanding of value chain opportunities, and then in the future by identifying industry areas that can be further developed.

This project aims to work with 180 families directly (30 families, 6 districts) across Punjab and Sindh combined, and more in time by scaling out through our networks. A diverse range of research techniques will be used in this project, including longitudinal on-farm animal tracking and trials, controlled trials, qualitative interviews and case studies, focus groups and workshops, and quantitative surveys.

We also aim to build the capacity of project partners and other stakeholders. The other key end of project outcome is for these groups to develop a value for the small ruminant farmer and gender inclusive research approaches this project will use.

Key partnerships

This project partners the University of Melbourne with the University of Veterinary and Animal Sciences (Lahore) and the Sindh Livestock Department. Both will conduct farm-based research and contribute to field-based research. The National Rural Support Program will collaborate through farmer networks and gender-sensitive extension and value chain work. The applied research techniques we will employ aim to ensure farming families derive benefits from the work during the project, and that capacity to conduct situation sensitive, meaningful whole-farm research in Pakistan is developed in some of its key institutions.

Secondary partners include Punjab Livestock Department, Sindh Agriculture University, University of Agriculture Faisalabad, Potohar Organisation for Development Agency and Entrepreneurship and Community Development Institute. This network will be critical pathways to impact. These partnerships will form important scale-out networks to deliver project outputs to next-users.

Project impact pathways and benefits

End of project economic and social impacts for small ruminant farming families will be achieved by increasing the number and quality of animals they are producing, while addressing the practical gender needs of all family members. Scientific impacts include evaluation of the breed potential of cross-bred and pure breed animals, and the nutritional value and role of non-conventional feeds in Pakistani small ruminant production systems. Capacity impacts for the research team will be through scientific and leadership training, and training in small ruminant husbandry and health. Long term benefits on a broader scale will be achieved by initiating relationships with secondary partners and integrating critical, impact driven, project outputs within their communication plans.