

Community-based goat breeding program for enhancing productivity and livelihood of smallholder farmers of different agroecological zones in Nepal

December 2019 - March 2021

Principal Investigator

 Mr. Raju Kadel, Goat Research Station, Nepal Agricultural Research Council (NARC)

Co-PI and Collaborators

- Dr. Neena Amatya Gorkhali, National Animal Breeding and Genetics Research Centre, NARC
- Dr. Smrittee Kala Panta, Samriddhi Agriculture Research and Development Pvt. Ltd.
- Dr. Nirajan Bhattarai, Agriculture and Forestry University
- Dr. Swoyam Prakash Shrestha, Director, Livestock and Fisheries Research, NARC
- Mr. Luma Nidhi Pandey, National Animal Nutrition Research Centre, NARC

Objectives

- Develop and test a community-based pedigree / individual / progeny performance recording system for goat breeding in selected communities.
- Promote improved animal nutrition and disease management practices among participating farmers to augment the breeding effect resulting in enhanced goat production and productivity.
- Generate and communicate evidence on the relevance of Gender Equality and Social Inclusion issues in community-based goat breeding program.

Preliminary assessment of goat production systems in Tanahun, Nepal

Kadel R., Gorkhali NA, Bhattarai N, Panta SK, Shrestha S.P., Pandey L.N., Sapkota S, Ghimire SH, Malla S

Introduction

- Goats: contribute 20% of meat consumed
- Contribute 5% to AgGDP (DLS, 2019)
- Production and productivity is low (Bhattarai et al., 2019)
- There is no national database (ABD, 2019)

Methods

- Qualitative data was collected using FGD with men and women goat keepers separately in these villages: Ghiring, Balthok, Baradi of Tanahun district.
- 2. Recordings from focus group discussions were transcribed and data were thematically analyzed using pre-determined themes
- Close coordination with local government using appropriate safety measures and protocols for stakeholder meeting amidst COVID-19

Results

- Majority of the goat farms were found to be small scale commercial
- Except farms with large number of goats, most goats are raised under stall-fed system
- Goat farmers had access to extension services from private agrovets and local government
- Dalit people and households who have less land have fewer goats compared to others
- Women are responsible for majority of activities related to goat farming
- Price of breeding buck higher than price of goat for meat purpose
- Income from goat sales considered as household income except in the case of selling a "Pewa" goat. Such a goat is usually gifted by the maternal family to a woman and is owned exclusively by the woman.

Table I: Characteristics of goat production systems in three selected goat keeper groups

	Ghiring	Bathok	Baradi
Group formation (tentative)	5 years	10 years	>20 years
Common livelihood strategies	Crop, livestock, remittance, business	Crop, livestock, tourism	Crop, livestock, remittance, salary jobs
Common livestock species	Goats, buffalo, pigs	Goats, chicken, pigs, buffalo	Goats, cattle, chicken
Common goat breeds	Mostly Khari, cross of Jamnapari and Khari; recently introduced Boer by GRS	Previously Khari; now Jamnapari and their cross with Khari; recently introduced Boer by GRS	Previously Khari; now Jamnapari, Barbari and their cross with Khari; recently introduced Boer by GRS
Major motivation for goat farming	Cash income from sale of goats (for meat mostly)	Cash income from sale of goats (as breeding buck and meat)	Higher income from sale of breeding buck
Access to grazing land and fodder/grass	Adequate except in dry season, crop fields and public land	Adequate, crop fields and public land	Adequate, public land and community forest
Common breeding practices	Selection of breeding buck within the existing population; use of breeding bucks provided by GRS Bandipur	Exchange of breeding buck between neighboring villages	Selection of foundation does within the existing; Use of breeding bucks from GRS Bandipur
Preferred traits of goat	Growth rate, external appearance, prolificacy	Ease of marketing as breeding buck, growth rate, prolificacy, external appearance	Ease of marketing, growth rate, prolificacy, appearance, easy to feed, carcass quality, shorter age at 1st conception



Figure 1: Basic information of members of goat keeper groups at the research sites



Stakeholder meeting at Baradi

Recommendations

- Stakeholder meetings can be a useful approach to gain trust of local leaders and community members over a short time period
- Organize meetings in a venue in the village; then women's participation in meetings and trainings will be higher.

Research gaps and future opportunities

- More robust evidence is needed and will be collected through other methods
- There is high interest in goat breeding among local community members
- There are opportunities for close collaboration with government initiatives

TRAINING NEEDS ASSESSMENT

- Training needs differ from village to village.
- High demand for training on goat nutrition and health
- Some goat farmers have participated in training on improved goat management
- Organizations that provide training: GRS Bandipur, Heifer International Nepal, DLSO, local government, and others
- It is difficult for most women to participate in trainings held outside the village; prefer 1-2 days training in their own village

NEP_Kadel_NARC (Alliance)





