



# Characterization of smallholder goat production and marketing systems in Inhassoro District, Mozambique: Results of a baseline study

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Goat production and marketing are important livelihood options for rural communities in the dryland regions of India and Mozambique. However, these activities are often carried out on an ad hoc, risky and informal basis with little benefit to the communities.

The project, Small ruminant value chains as platforms for reducing poverty and increasing food security in dryland areas of India and Mozambique (imGoats), was designed with the overall goal of increasing incomes and food security in a sustainable manner by enhancing pro-poor small ruminant value chains in the two countries.

The aim of the two-year project (2011-12) is to transform goat production and marketing to a sound and profitable enterprise and model that taps into a growing market, largely controlled by and benefiting women and other disadvantaged and vulnerable groups while preserving the natural resource base.

The main target beneficiaries of the project are poor goat keepers, especially women and other marginalized groups like people living with HIV/AIDS and female-headed households. Other beneficiaries include goat value chain actors such as small-scale traders and providers of inputs and services.

## Objectives of the imGoats project

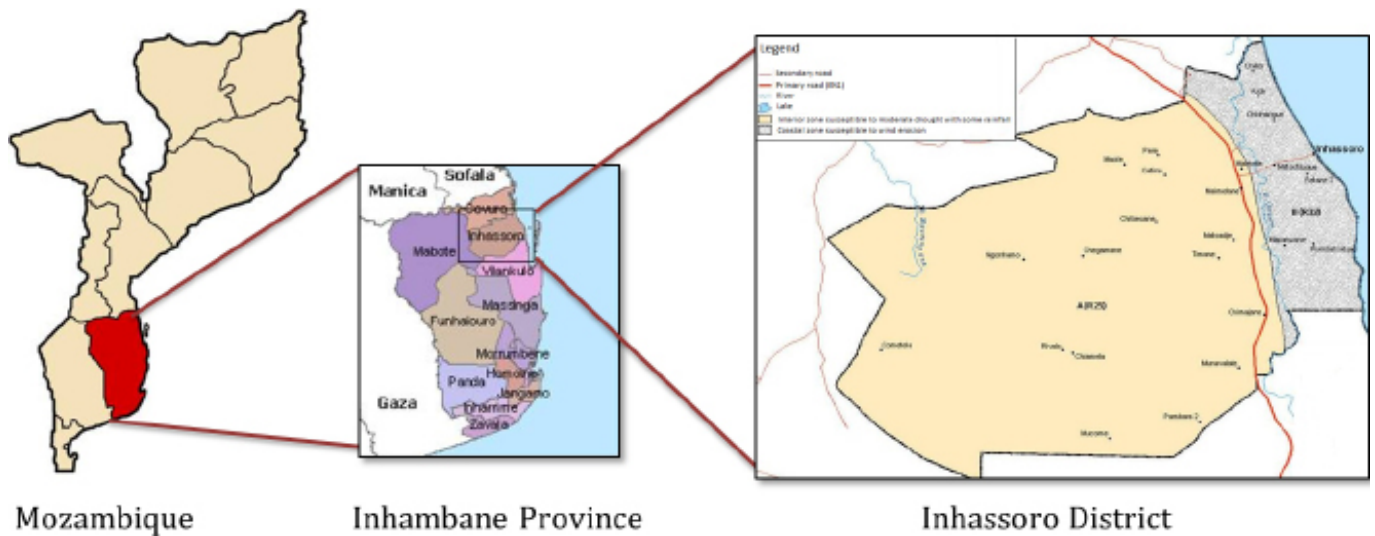
To pilot sustainable and replicable organizational and technical models to strengthen goat value chains in India and Mozambique that increase incomes, reduce vulnerability and enhance welfare amongst marginalized groups, including women.

To document, communicate and promote appropriate evidence-based models for sustainable, pro-poor goat value chains.

This research brief presents a summary of the results of a baseline study carried out in August 2011 in Inhassoro District, Mozambique, as part of the imGoats project, to characterize goat production and marketing systems in the district. The study also identified the main production- and marketing-related constraints faced by the goat value chain actors. Based on these constraints, a number of interventions are recommended to improve goat production and marketing in the district.

## Project area

The project area was the district of Inhassoro in Mozambique's Northern Inhambane Province. The district covers an area of approximately 4800 square kilometres and has a population density of 11 inhabitants per square kilometre.



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## Methodology

In Mozambique, the imGoats project works in 18 communities and targets 350 small-scale agro-pastoralist households. The baseline study was carried out in six project communities and three control communities, which were selected based on three criteria: agro-ecological zone (coastal or interior), market access (distance to tar road) and project participation.

Three types of surveys were carried out:

- focus group discussions at village level;
- key informant interviews; and
- individual household interviews.

Of the total 108 households surveyed, about 22% were headed by women and 56% were participants in the imGoats project.

### Baseline study project communities

- Vulanjane
- Nhapele
- Mabime
- Rumbatsatsa
- Cachane
- Chichangue

### Baseline study control communities

- Chipongo
- Chingueleze
- Mahole

## Results

### Goatkeeping is mainly practised as a side occupation

- Crop production was the main occupation for most respondents (66.7%) whereas livestock keeping was a secondary occupation for about 30% of the respondents. Less than 10% of the respondents kept livestock as their main occupation.
- Goats have always been kept in Inhassoro District. However, during the civil war of 1977-92 the goat population in the district was severely depleted. In Inhambane Province the small ruminant population decreased by 67% from 97,653 in 1975 to 32,135 in 1994. Following the end of the war, the population has increased but it is estimated to be still below what it was before the war.
- Respondents had kept goats for relatively short periods (on average, 7 years for female-headed households and 12 for male-headed households) with a range of 1 to 30 goats kept per household and an average of eight.
- The main motivation for keeping goats was to generate cash income for emergencies such as food shortage and health care. In addition, the majority of the respondents kept goats for meat consumption on a few special occasions during the year such as the festive season in December, when receiving special visitors, and during ceremonies and birthdays.

### Goathousing, breeding and watering practices were extremely limited or even absent

- The main feed type (used by about 70% of respondents) was natural pasture consisting of a mixture of shrubs, trees and grasses. This was combined with the use of forage leaves (about 30%).
- About 85% of respondents tethered their goats in grazing areas while only 3% herded their goats.
- Very few respondents (2–11%) had traditional or improved goat shelters. Most respondents (69%) did not use breeding practices.
- Only about half of the respondents watered their goats.

### Goatkeepers have limited knowledge on goat production and animal health

- About 75% of the respondents had not received any information about goat keeping in the 12-month period preceding the survey, and only 11% had received formal or informal training on goat production in the three years prior to the study. Those who had information on goat production likely received it through training by CARE.
- Health practices were very limited or absent; only 11% of the respondents gave preventive treatment (deworming and treatment against ticks and other parasites) and only 6% gave curative treatment.
- The reported average mortality rate was 0.24 (that is, one death for every four goats) and half of those that died were young animals. Diseases and predators were the main causes of goat deaths.

### At the start of the rainy season when there is a shortage of pasture, demand for labour on agricultural plots takes precedence over the need to harvest forage leaves

- One third of the respondents reported a shortage of feed in the 12-month period prior to the survey. The main period of feed shortage was from the end of the dry season (July) to the beginning of the wet season (November–December). During this time, the availability of pasture gradually decreases and although the wet season officially starts in September, it usually does not rain much until December.
- Several producers reported feeding forage tree leaves to their goats in the dry season.
- The low availability of feed was most acute at the start of the rainy season in November–December when the pasture had not grown sufficiently and when producers were engaged in preparing their agricultural plots ('machambas') and thus did not have time to harvest forage tree leaves for use as fodder.

### Most sales take place at the goat keepers' houses

- About 64% of the respondents sold goats; those who did not sell said it was because of the low number of animals in their herds.
- Most sales (79%) took place at the farmers' houses when buyers visited the community looking for goats for sale. Payment was made in cash at the time of the transaction.
- The main buyers of goats were individual traders (43%) and other smallholder goat keepers (22%). The main factors that producers used to determine the selling price were the age, body condition and sex of the animal.
- The average price was about USD 30 per goat, though there was a large range depending on the type of animal, time of year, location of community and other factors such as the producer's skill in negotiating prices.

### There are two sales peaks per year

- The main sale months were December (46%) and November (14%), coinciding with Christmas and end-year festivities.
- There was a smaller sales peak (about 10%) in June–July most likely associated with festivities during Mozambique's Independence Day (25 June) and the end of Ramadan.
- Most respondents who sold goats were satisfied with the sales months because the high prices they received meant they could cover household needs (in December).
- The animals sold were mainly non-castrated males and old animals.



## Recommended project interventions

Based on the baseline results and constraints identified by project participants, the following interventions are recommended:

- Train producers on goat health, reproduction, housing, watering and feeding.
- Promote the use of dry season feeding techniques to better cope with feed shortages, for example, feeding of forage tree leaves and making of hay bales and mineral licks. These options should take into account the availability of labour.
- Support the development of communal pasture areas to improve goat feeding and watering.
- Organize regular goat fairs for the sale of animals. The use of weighing scales to determine price should be encouraged to avoid selling animals that are too young (less than 20 kg body weight) and to prevent depletion of the herd.
- Support the construction of improved goat shelters.

Page 1

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Page 3

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## Recommended areas for further research

- Assessment of the reasons for fluctuations in sales, demand, prices and availability of goats throughout the year to avoid selling when the prices are low.
- Analysis of herd size, composition and mortality rate to ensure sustainable increase in sales and avoid depletion of the herd.
- Examination of the historical and socio-cultural context of goat keeping in Inhassoro, for example, the reasons why people keep goats and whether these might be affected by increased sales.
- Analysis of labour division in goat production and the involvement of women and children.

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