

# Technical Innovations for Female Entrepreneurs in the Livestock Value Chain in Rural Nepal

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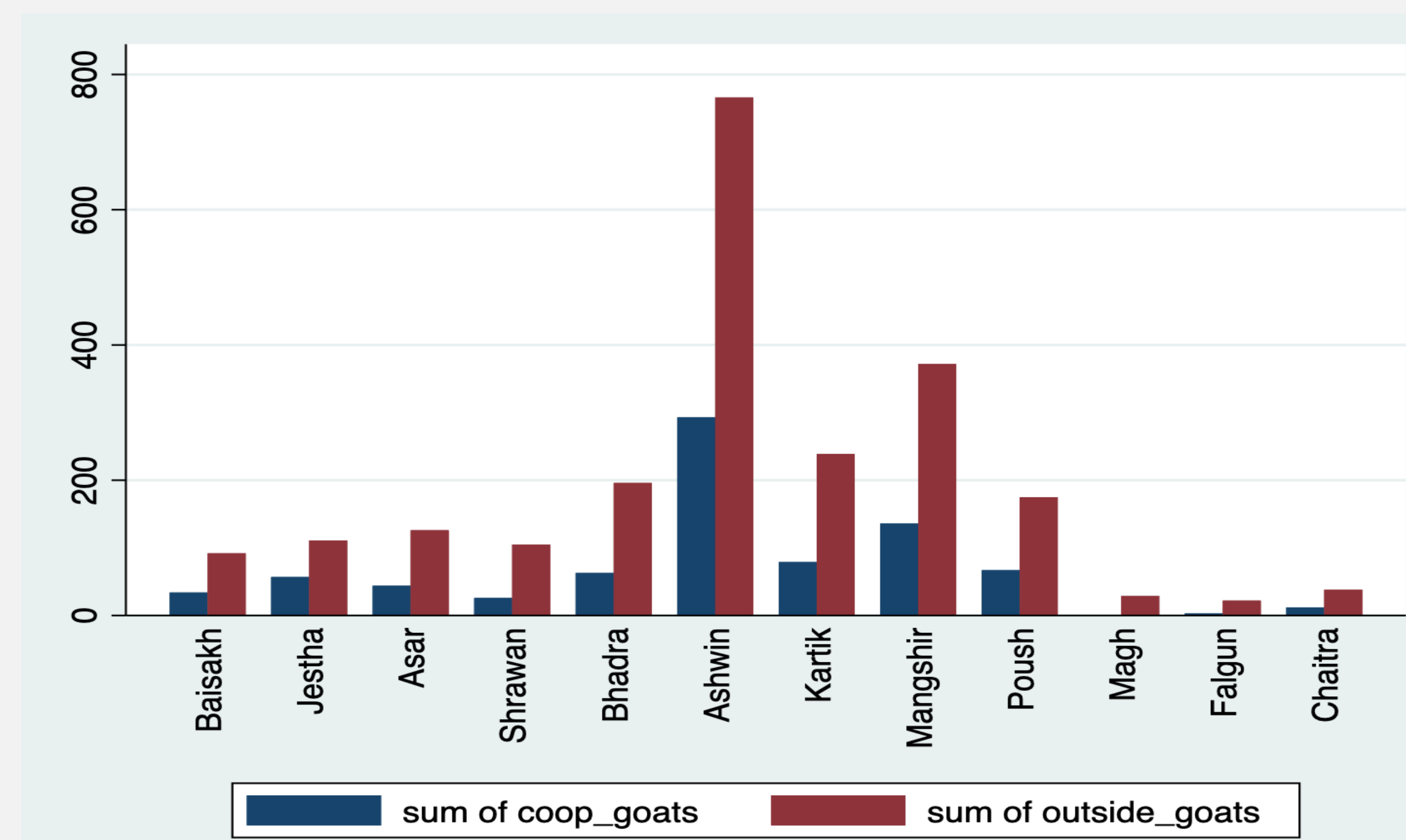
## Research Objectives

1. Marketing: Increase access to markets of meat goats for smallholders in order to improve household income, nutrition, and food security.
2. Extension and animal health: Increase the percentage of female community animal health workers (CAHWs) for improved livestock productivity and the reduction of animal disease.

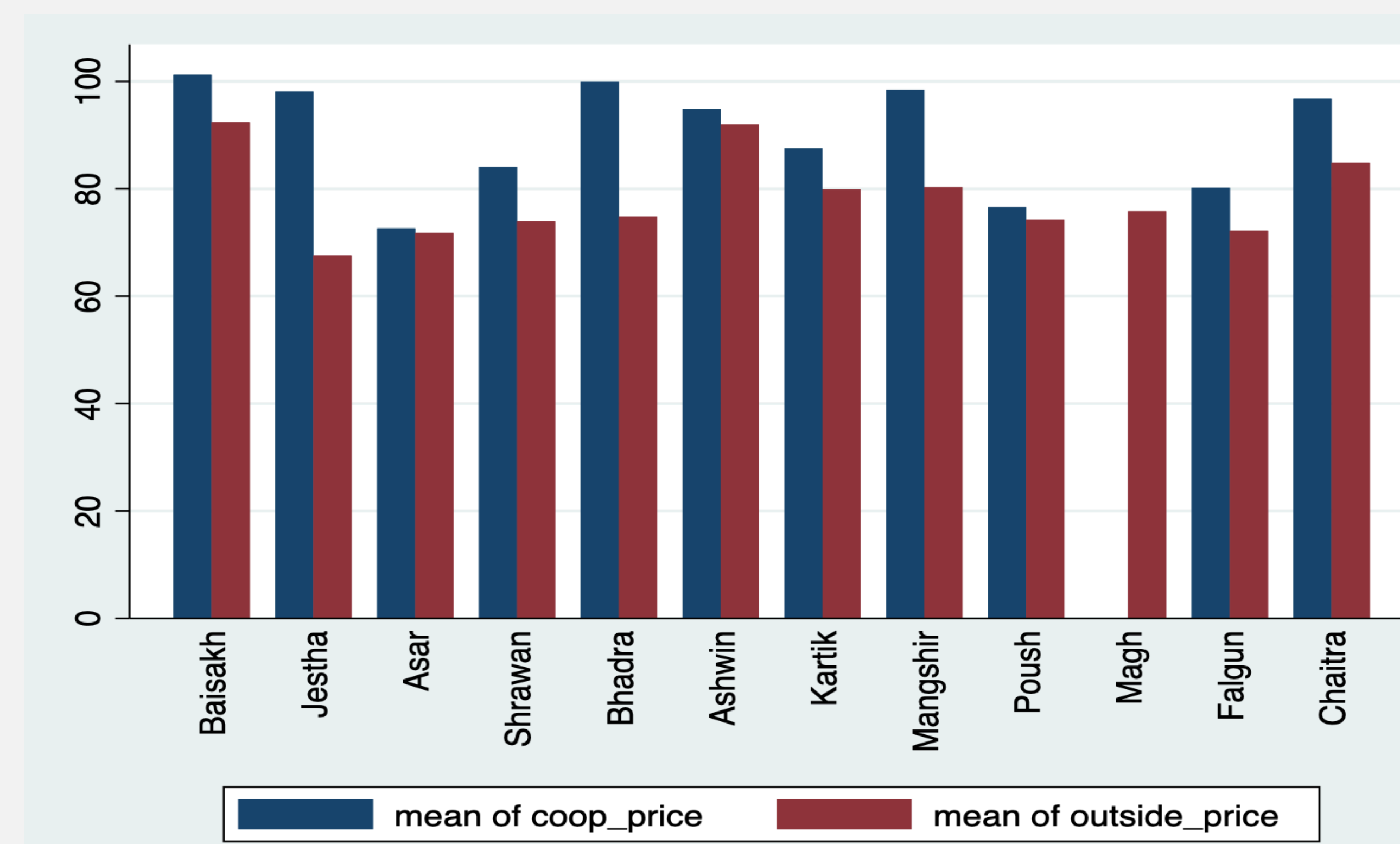
## Methods

1. Marketing:
  - Develop smartphone marketing app (“virtual collection center” or VCC)
  - Evaluate through RCT with 92 cooperatives.
  - Estimate effects on cooperative performance and household-level outcomes
2. Extension and animal health: Develop tablet-based “distance learning” Community Animal Health Worker training platform.
  - Evaluate with RCT of 300 women.
  - 150 invited to training (75 distance/75 classroom), 150 control group members.
  - Evaluate effects on training completion, livelihoods, and empowerment.

### Goat Sales by Month



### Goat Price by Month



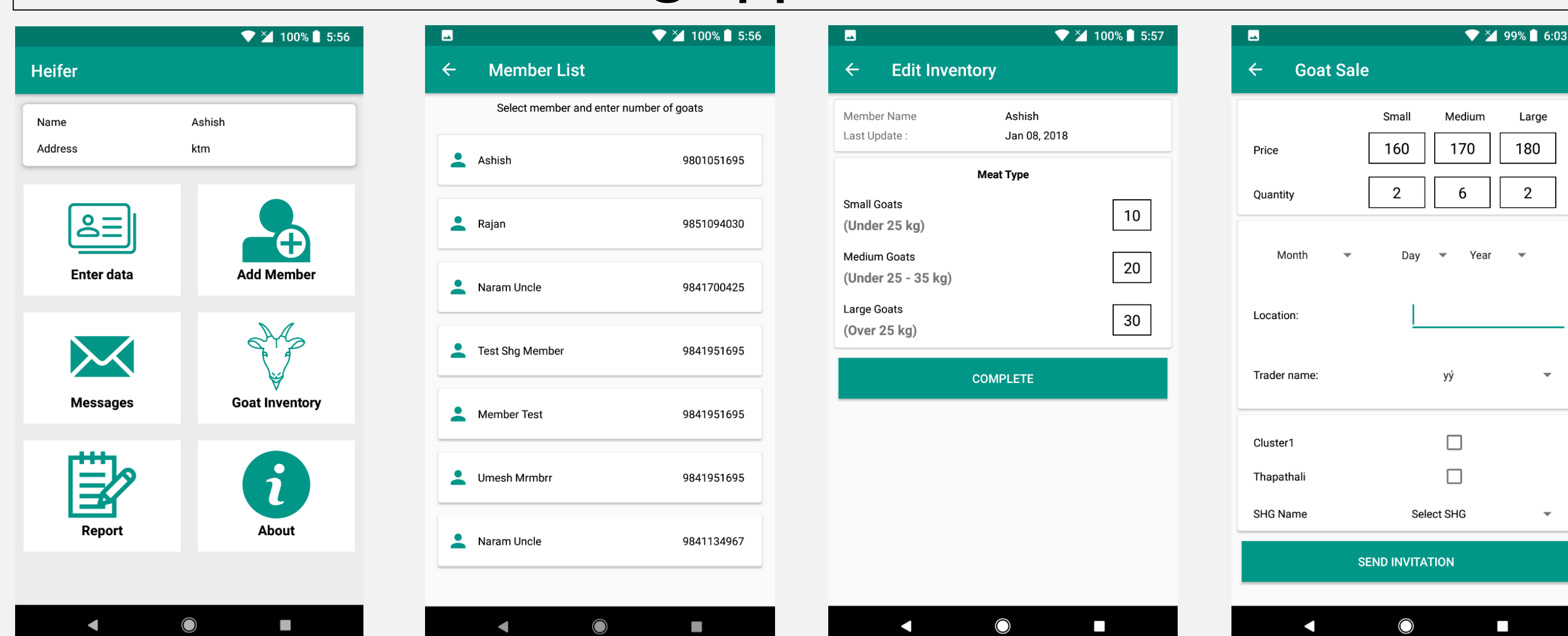
## Results

1. **VCC app:** 241 goats sold through app from February through 19 April.
  - 18% of treatment cooperatives have sold at least one goat through the app so far.
2. **Distance learning:** being offered distance learning increases training enrollment by 18 percentage points relative to traditional training ( $p = 0.015$ ), from 53% to 71%.

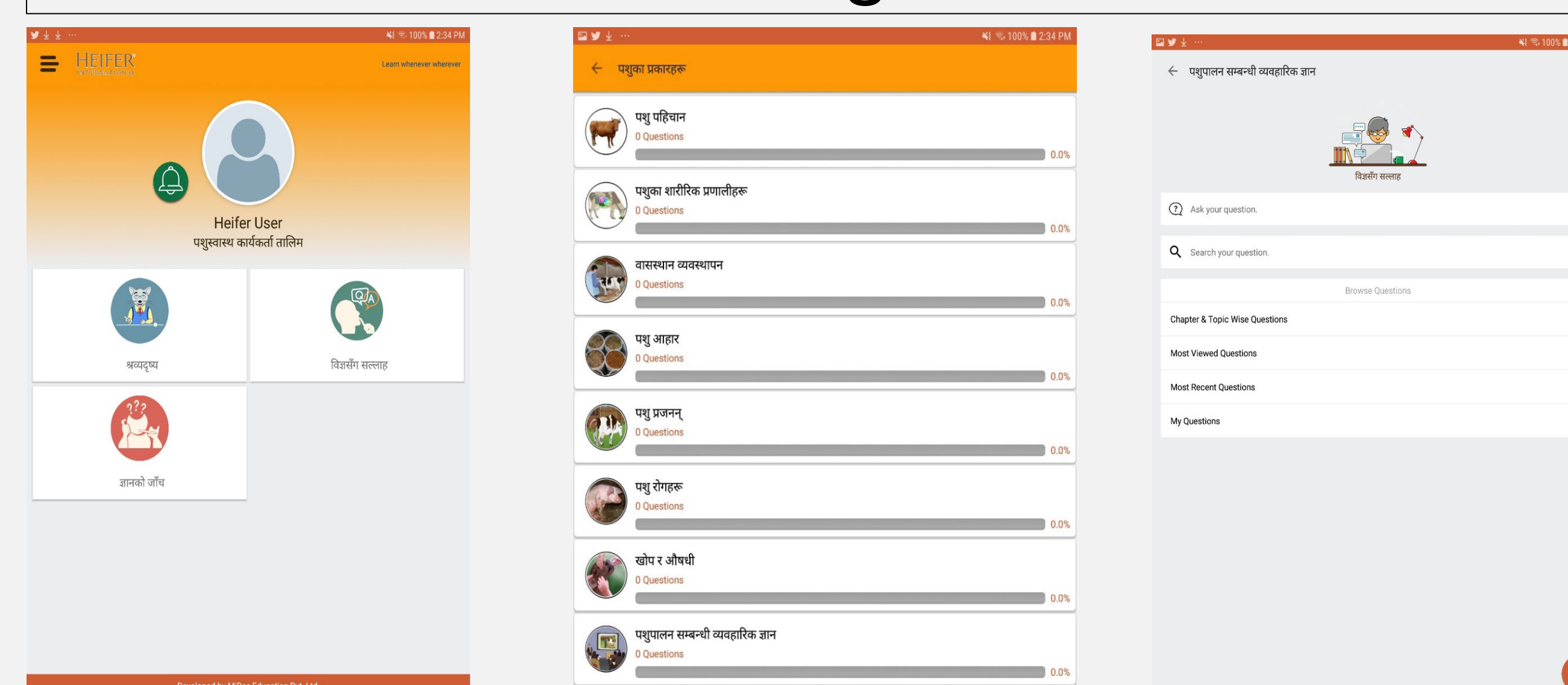
## Cooperative Goat Marketing

- Just 11% of cooperative members who sold goats at baseline did so through their cooperative.
- The largest presence of ‘side-selling’ occurs in Ashwin (September).
- However, cooperative goat prices remain higher than outside goat prices.
- What does this mean? Two interpretations:
  1. Cooperative sales are more desirable (higher price), but cooperatives are unable to coordinate a large number of sales, leaving most members to sell elsewhere.
  2. Cooperative sales are often not desirable, so we only observe the small number of cases where the price difference is high-enough to make selling through the cooperative worthwhile.

### Marketing app screen shots



### Distance learning screen shots



## Next Steps

1. Monitor CAHW trainees, enroll next cohort
2. Improve adoption rates for VCC app
3. Plan endline data collection