

# Digitizing Women Livestock Agents

## Research with The Goat Trust in India



Image created using Midjourney

### THE GOAT TRUST OVERVIEW

The Goat Trust provides vaccinations, basic health services, and market access to goat farmers across several states in India, with a primary focus on Uttar Pradesh. These services are delivered by "Pashu Sakhis," female extension agents who reside within the farming communities and are trained as para-veterinary professionals.

Pashu Sakhis go door-to-door in their communities and collect data on farmers, including the number of goats per farmer, the number of births and deaths, and vaccination schedules. They also keep track of their activities, recording the amount of animal feed sold, vaccinations administered, goats sold via The Goat Trust, and new farmers recruited in their village. This data is shared with The Goat Trust, helping them make decisions and provide customized services to each village.

At present, Pashu Sakhis document data in handwritten registers and then share these records with The Goat Trust during routine meetings. The Goat Trust then allocates staff time to digitize these records.

## Busara's Research: Enabling the Shift to Digital



To optimize their resources, The Goat Trust wants Pashu Sakhis to collect and share the required data via WhatsApp and participate in online meetings on Google Meet. For this purpose, they provided smartphones at a 50% subsidized cost to all Pashu Sakhis. However, they observed that agents were often reluctant to use their phones for data sharing and frequently forgot to upload information on WhatsApp. Busara collaborated with the Goat Trust to research and test solutions that motivate extension agents to collect data digitally.

### The DIG-it-AL Project

With support from the Bill and Melinda Gates Foundation, Busara is researching ways to increase smallholder farmers' adoption and use of digital agricultural services. Our research uses human-centered design to identify and address "behavioral" barriers to digital service use, such as cognitive biases, preferences, and beliefs.

## Methodology

### Phase 1: Diagnostic Phase

We started our research with 30 in-depth interviews with Pashu Sakhis to diagnose the barriers to digital data collection. These interviews aimed to understand their experiences and identify enablers and barriers.

**30** in-depth interviews

### Phase 2: Co-Design Phase

Having a clear understanding of the barriers, we conducted two co-design workshops with Pashu Sakhis to develop solutions collaboratively. We then transformed the ideas into prototypes.

**2** co-design workshops

### Phase 3: Testing Phase

We tested our prototypes in four blocks in Uttar Pradesh, conducting baseline and endline surveys with 120 Pashu Sakhis. We established a baseline for their phone usage, focusing on sharing daily updates on WhatsApp and attending bi-weekly Google Meet meetings. The prototypes were distributed to the Pashu Sakhis during the baseline survey. The three blocks who received the prototypes could engage with them for one month. After this one month of exposure, we conducted endline follow-up surveys with the same sample of Pashu Sakhis.

**120** Pashu Sakhis

## KEY INSIGHTS

### Insights From Our Diagnostic

#### >> **Competing Priorities**

Women juggle numerous responsibilities, such as household and childcare duties, making it difficult to remember to use their phones to share updates with the Goat Trust.

#### >> **Shared Phone Ownership**

Family members who helped pay for the subsidized phone feel a sense of ownership towards the phone. As a result, the entire family uses the phone, and digital data collection becomes less important compared to the other needs the family has for the device.

#### >> **Lack of Experience with Digital Technology**

Many Pashu Sakhis have had limited exposure to digital tools and require extensive training and practice to use phones confidently. Additionally, sharing the phone with their families often restricts their access to and use of technology, further hindering their ability to become comfortable with digital platforms.

#### >> **No Perceived Value in Digital Data Collection**

Agents may not always see the value in switching to digital methods or fully understand the benefits of keeping digital records.

#### >> **Fear of Data Loss**

Women were concerned about accidentally deleting data. Typically, younger children use the phone for entertainment, increasing the agents' perceived risk of accidental deletions.

#### >> **Lack of Transparency**

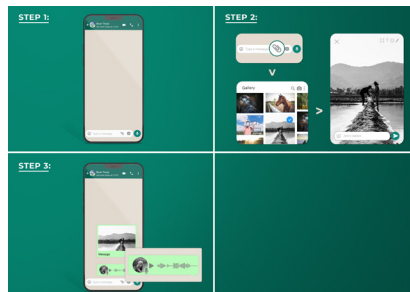
Agents were unsure if the Goat Trust received and documented their digital updates when they were shared on WhatsApp.

### Our Co-Designed Ideas



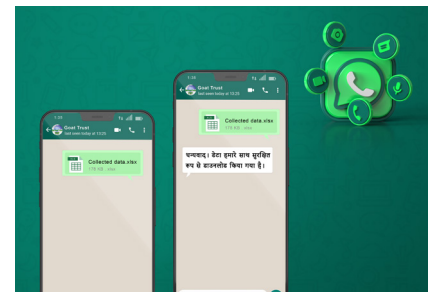
#### **1 Certificate of Achievement**

We created a certificate to publicly recognize and reward high-performing agents who successfully adopted WhatsApp for digital data collection. These certificates serve as motivational tokens to encourage continued use and engagement.



#### **2 Training Poster**

We developed a poster with detailed, step-by-step instructions for using WhatsApp and Google Meet. These posters also remind agents and their families to prioritize phone use for digital data collection and the women's extension work.



#### **3 Auto-Confirmation Message**

We introduced an automated confirmation message on WhatsApp to inform the agents that their data has been safely received and saved, helping to build trust and reduce concerns about data loss.

### Results From Testing Our Solutions

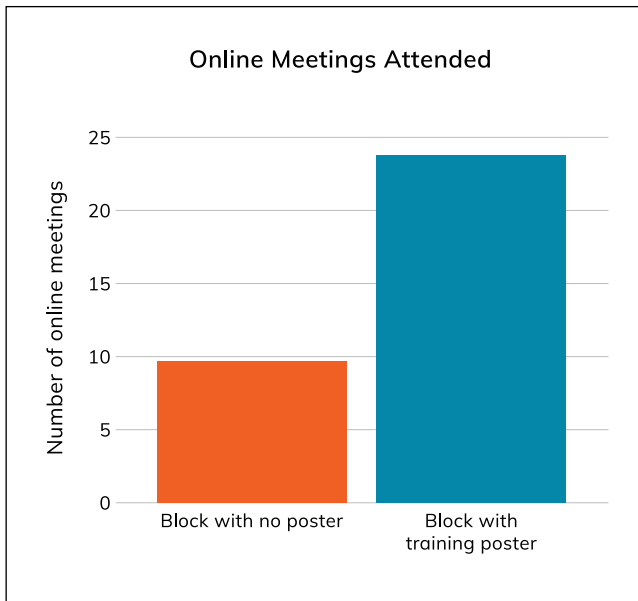
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The agents who took home a certificate at the baseline appeared to use their phones more when interacting with livestock farmers. We found a positive correlation between having received a certificate and the number of daily entries shared on WhatsApp.

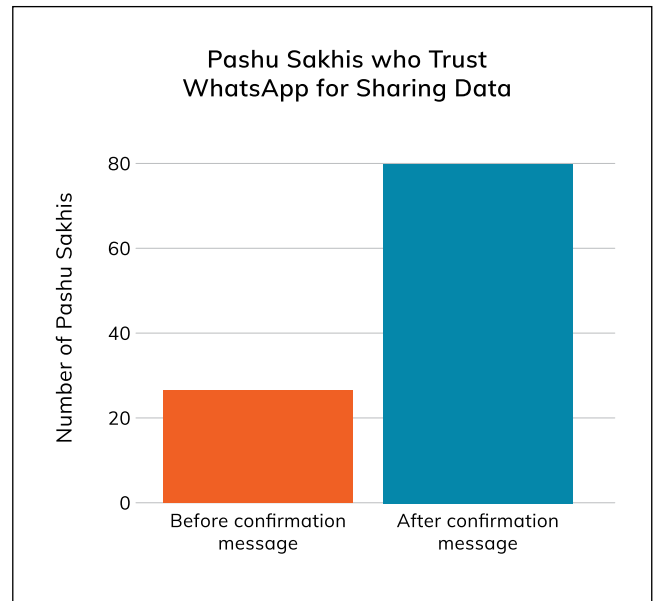
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At the endline, all agents agreed or strongly agreed that obtaining the certificate would result in greater respect from their family members.

- 3** The training posters were correlated with an increase in meeting attendance, with a strong relationship observed between having a poster at home and the number of online Google Meet sessions attended.



- 4** Agents who received the prototypes of the confirmation messages on WhatsApp reported increased trust in the platform for data sharing compared to before they received the message.



## RECOMMENDATIONS AND AREAS FOR FURTHER EXPLORATION TO INCREASE DIGITAL DATA COLLECTION

### 1. Improve Training with Take-Home Aids

One-time training is often insufficient for agents who are new to using phones. To build their skills and confidence, we suggest supplementing the initial training with take-home posters reinforcing key concepts and procedures.

### 2. Incentivize Digital Adoption

Agents may hesitate to transition from familiar paper-based record-keeping to digital methods like WhatsApp. They may require an additional incentive or recognition, such as certificates, to reward their achievements.

### 3. Target the Family

In some cases, families can hinder digital adoption, especially when they share smartphones. Interventions that elevate women's status as agents and increase their families' respect for their work (e.g., certificates) could help ensure that their smartphone needs are prioritized above those of their families.

### 4. Tailor Design to User Needs

Introducing low-cost, low-effort design adjustments, such as auto-confirmation messages, may reduce skepticism about digital tools. These simple changes could increase user trust and comfort with digital platforms.



For more information on this project and Busara's work in leveraging behavioral science to increase the uptake of digital agricultural services, contact Morgan Kabeer at [morgan.kabeer@busara.global](mailto:morgan.kabeer@busara.global)

