

# Nudging towards Optimizing Antibiotic Use: Co-Creating Behavioural Interventions for Semi-Intensive Poultry Production in Uganda

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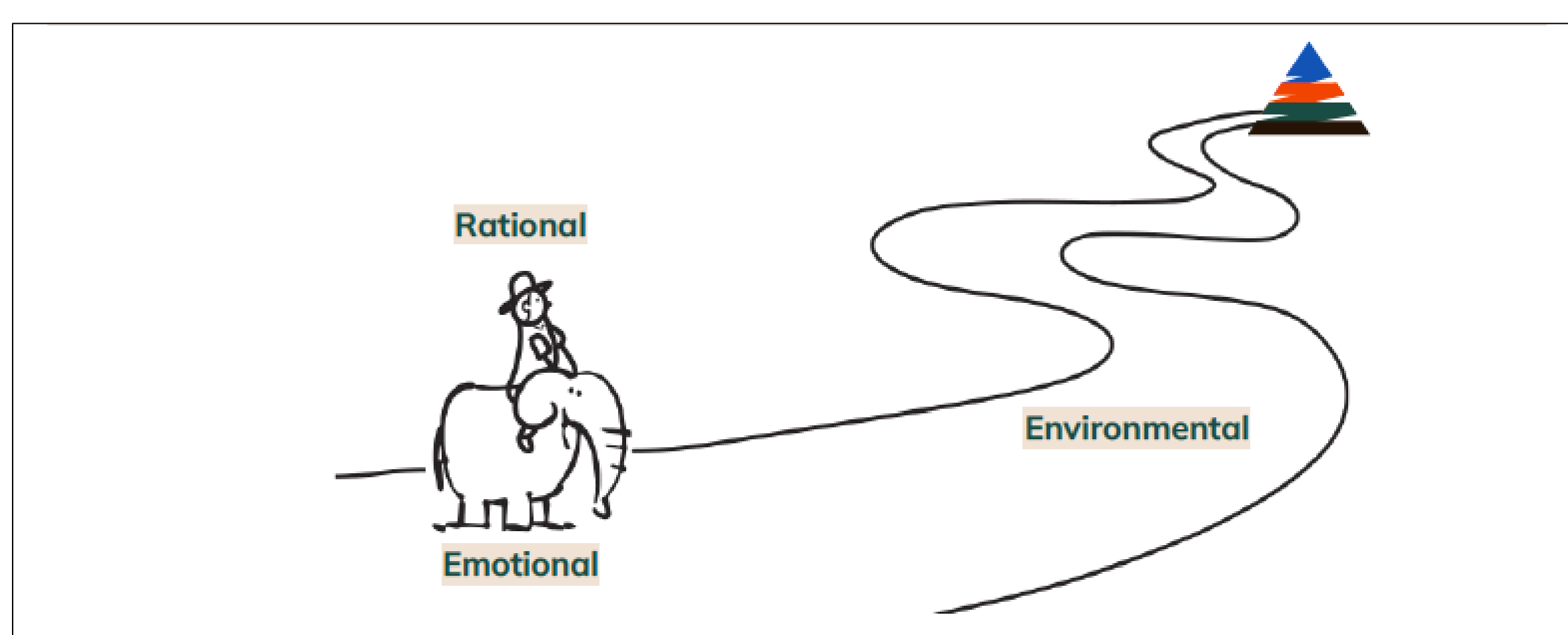
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## Key messages

- **Need for Behavioural Customization Based on Farmer Personas:** We identified two distinct farmer personas—small-scale and large-scale poultry farmers—each requiring tailored behavioural interventions. This customization is crucial for addressing specific challenges and motivating desired behaviours effectively.
- **Prioritization of Key Behaviours:** Out of 34 desired behaviours identified for optimizing antibiotic use, we prioritized three critical behaviours based on their potential to reduce antibiotic use, ease of adoption, and feasibility.
- **Development and Testing of Prototypes:** We developed 14 prototypes and pilot tested them, which was well-received by the target farmer personas, demonstrating their potential for practical implementation and significant impact on reducing antibiotic misuse.

## Our approach

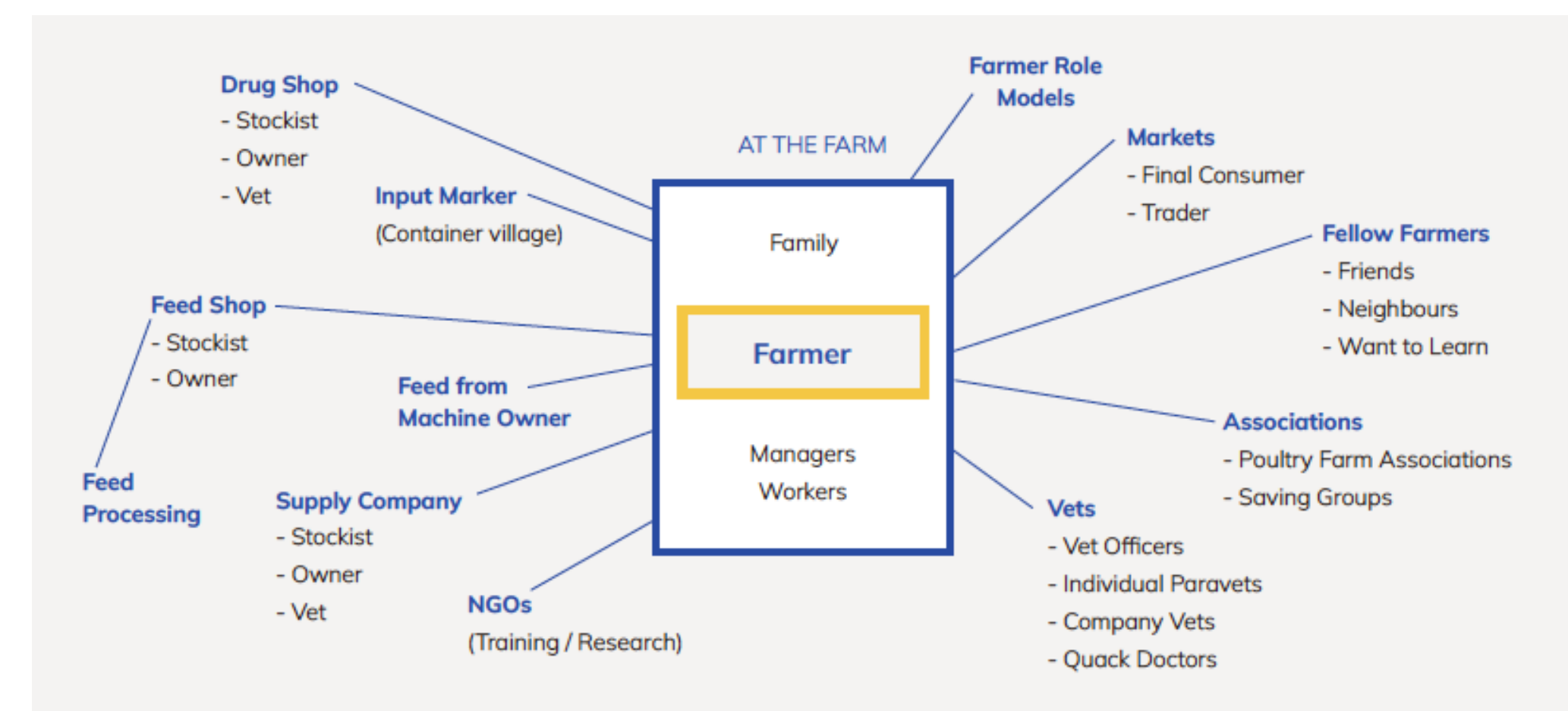
- **Study Period and Location:** October 2021-March 2022 in Wakiso, approximately 25km from Kampala in Uganda.
- **Data Collection:** Expert consultations (n=15), farm observations (n=21), key informant interviews (n=34), and focus group discussions (n=5).
- **Desired behaviour:** Utilized FAO's "How to use antibiotics effectively and responsibly in poultry production" to define 34 ideal behaviours for optimized antibiotic use.
- **Behavioural Analysis:** Applied the "Elephant, Rider, and Path" behavioural theory to identify barriers and motivators for each behaviour.



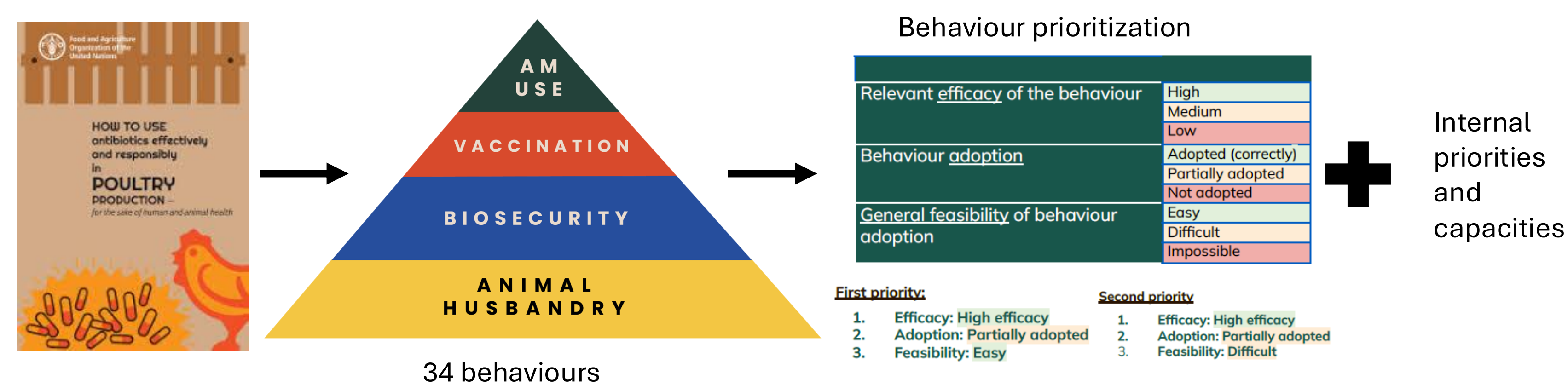
- **Behaviour Prioritization:** Selected three behaviours for developing nudges based on their potential to reduce antibiotic use, ease of adoption, and feasibility.
- **Prototype Development and Pilot testing:** Co-created 14 low-fidelity prototypes to nudge the three prioritised behaviours, with 30 individuals including feed shop owners, poultry farmers, veterinarians, anthropologists, biomedical researchers as well as advertising, communication, and innovation experts.

## Outcomes

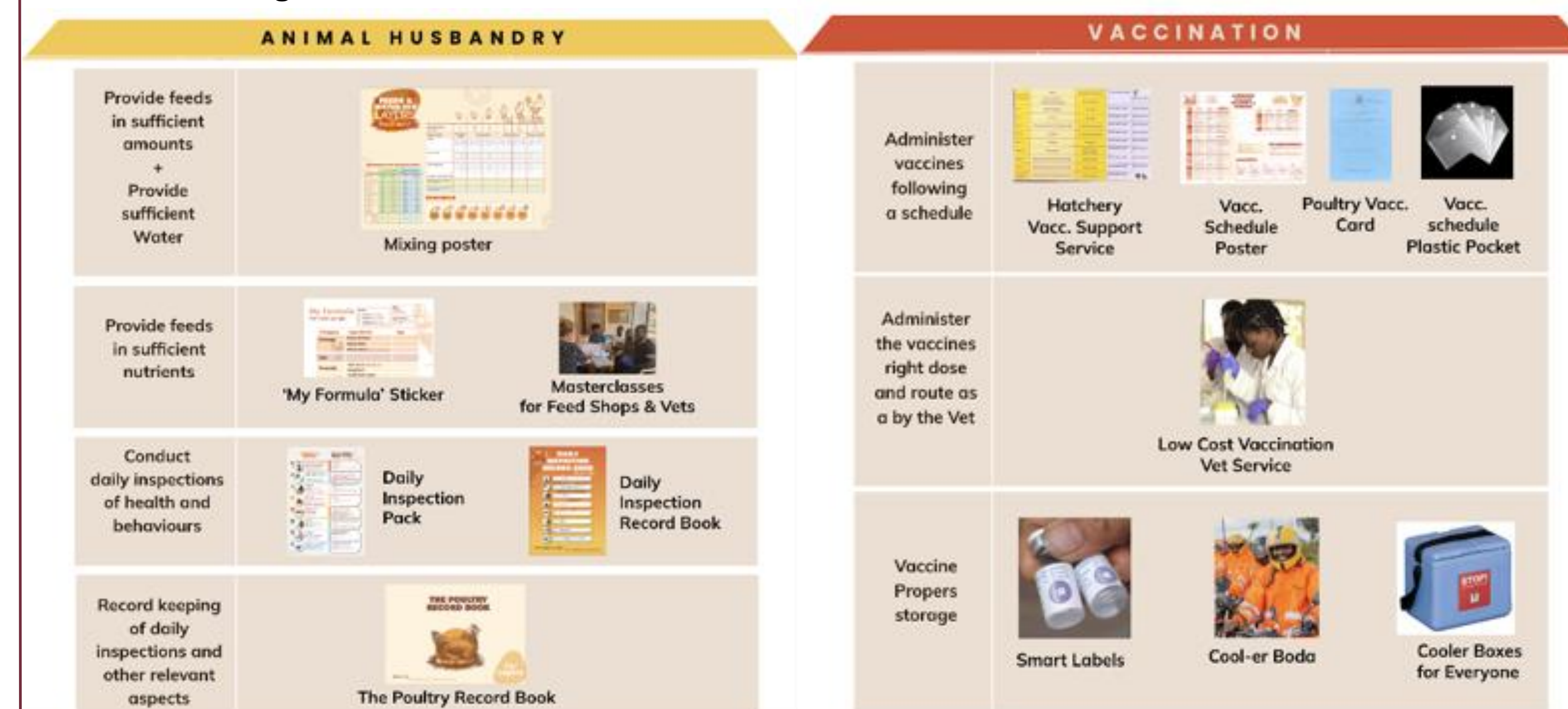
- **Identification of Farmer Personas:** Two distinct farmer personas were identified—small-scale farmers with 500 birds and large-scale farmers with 2000 birds—each requiring tailored behavioural interventions to optimize antibiotic use.
- **Identification of influencers on the Target persona:** We identified various stakeholders who influence the behaviours of semi-intensive farmers



- **Identification and prioritization of desired behaviour:** Identified an initial list of 34 behaviours that are drivers of AMU. List adapted from FAO's guideline (Magnusson 2021), and were arranged into a prioritization pyramid. Using behaviour analysis, three behaviours were prioritized for their potential to reduce AMU: 1) Providing sufficient nutrient-rich feeds, 2) Conducting daily poultry inspections, and 3) Administering vaccines according to a set schedule



- **Development of Prototypes to nudge the selected desired behaviours:** From an initial pool of 400 potential solutions, 14 were selected and low-fidelity prototypes were co-created targeting farmers and agrovets.



- **Pilot Testing Results:** The prototypes were well received by the target stakeholders during a six-day pilot test, demonstrating their feasibility, viability, innovation, and potential to induce significant behaviour changes that could reduce AMU.

## Conclusions

- **Addressing Barriers and Motivators:** Key barriers to adopting desired behaviours included affordability, required effort, and knowledge gaps, while a major motivator for farmers was the potential increase in profits.
- **Impact on Combating AMR:** The study concluded that deep insights into farmer behaviour and practical, tailored nudges could effectively reduce antibiotic misuse, contributing to the fight against antibiotic resistance while maintaining poultry productivity and health.

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