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## Introduction

- Backyard chicken production makes significant contributions to the incomes of women and rural households in Northern Ghana but is mired by productivity and market constraints.
- Demand for chicken products is being met through meat imports and growth in commercial poultry sectors.
- Niche demand is growing for meat of indigenous chicken ecotypes predominantly produced in backyard systems.
- Study investigated roles of gender and aggregation systems in linking backyard production to emerging markets.



Fig. 1 Live birds aggregated for market on a farm in Upper East Region, Ghana

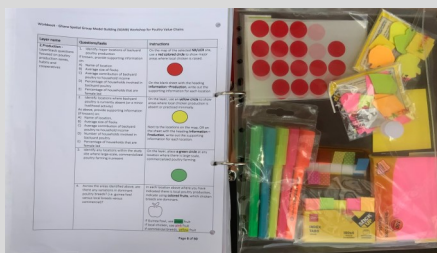


Fig. 2 Offline workbook for collective system mapping

## Methods

- A **systems-thinking** and **qualitative** mapping approach was used to identify system characteristics of the backyard chicken value chain in Northern Ghana.
- Spatial Group Model Building (SGMB) techniques were applied that had been adapted to accommodate restrictions on in-person meetings due to COVID-19.
- Hybrid online and offline approaches yielded collective knowledge to construct and validate systems maps, prioritize system challenges, and identify potential leverage points for system upgrade.
- High-production sites of backyard chicken production in Northern and Upper East regions of Ghana were mapped to demand in nearby to distant markets.

## Results

- Multiple bottlenecks impede growth of production and consumption of chicken products in backyard poultry systems at the study sites in Ghana.
- Poultry disease management drives and is in turn driven by farmer investments, technical know-how and livelihood capacities.
- Market power consolidation amongst traders and aggregators regulates products supply and prices, increases system unpredictability, and dampens farmer investments.
- Scaling up productivity and commercialization increase producer power.
- Gender norms and biases and the lack of resources limit women to production-related and low-value enterprises within the poultry value chain.

## Conclusions

- Production quantities and qualities may not be improved alone without considering the various constraints imposed by local livelihoods, diseases dynamics and marketing processes.
- Enhanced participation of women key to commercialization of the backyard poultry system in Ghana.

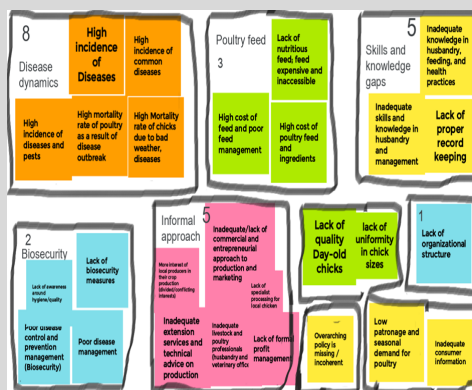


Fig. 3 Screenshot from online problem prioritization exercise - individual problems were clustered by participants to identify common themes

## Results

- Reinforcing feedbacks between production, population and livelihood dynamics, marketing, and disease management combine to create poverty traps for farming households and the regional backyard poultry system.

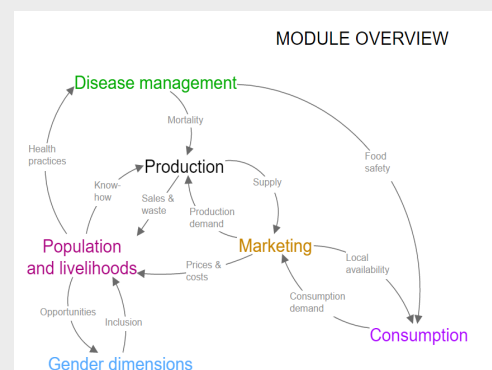


Fig. 4 Model overview of the backyard poultry sector

Photo credits: ILRI