



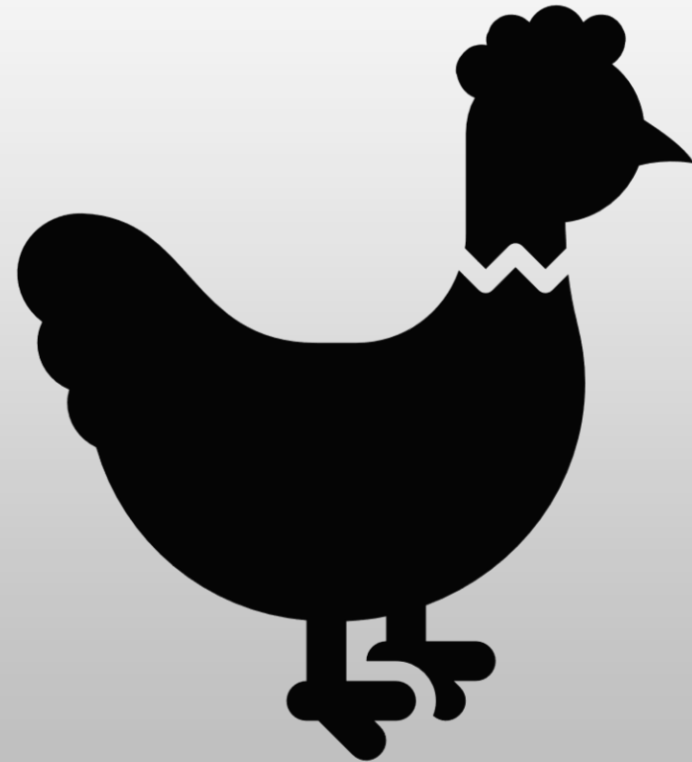
**STATUS AND PREVALENCE OF BATTERY CAGES FOR
CHICKEN PRODUCTION IN NIGERIA:
Engaging Farmers and other stakeholders**

Presented By

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INTRODUCTION AND BACKGROUND



DEFINITION

Poultry farming involves the domestic or commercial breeding and raising of a variety of birds such as chickens, turkeys, ducks, and geese for their meat, eggs, or other by-products

POULTRY FARMING IN NIGERIA

Nigeria is the most populous black nation in the world – estimated pop 213M

95M (over 40%) are engaged in poultry farming & 13M households (mostly small to medium) earn livelihood and income ([Punch Newspapers, 2022](#))

Nigeria has the 2nd largest chicken population in Africa with annual production of 180 million chickens ([Awojulgbe, 2019](#); [Shittu, 2022](#)).

Highest egg producer in Africa with 650 million tons of eggs produced annually

4th highest chicken meat producer in Africa with about 450 million tons of meat produced annually ([Punch Newspapers, 2022](#); [CSIRO](#))

The poultry industry is regarded as the most commercialized, organized, and well-established of the country's agricultural sub-sectors ([Mengesha, 2012](#)).

The industry has a current net worth of about \$4.2 billion and contributes about 25% of agricultural GDP to the Nigerian economy.

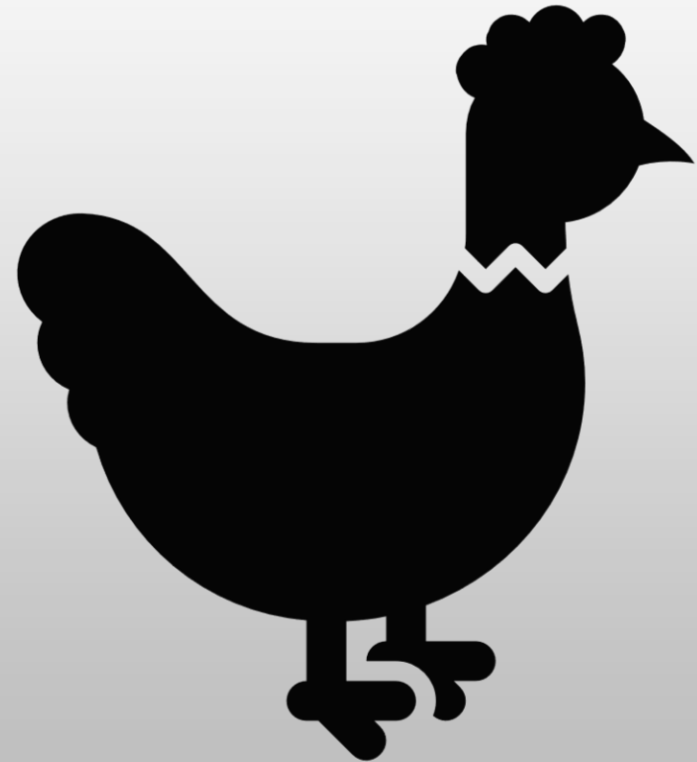
POULTRY FARMING IN NIGERIA (CONT.)

Poultry farming in Nigeria continues to grow due to the following factors:

- Poultry products - especially chicken eggs and meat – have become an important preferred source of animal protein (affordable, nutritious, available).
- Despite these huge amounts of product outputs, substantial demand gaps remain and (illegal) importation meets the gaps
- Considered viable source of income and livelihood - good feed conversion rate in poultry birds, relatively low production cost per unit, short production cycle, expected high ROI which many poultry farmers are mostly interested in.

Therefore, farming is being encouraged in the country.

Research Justification, Goals and Expected Outcomes



RESEARCH JUSTIFICATION

Intensive farming systems for chicken production – especially the use of battery cages – has raised **strong concerns on welfare conditions** and negative impact on their well-being.

Due to these welfare concerns, stakeholders and countries are **demanding for implementation of welfare systems and practices** in poultry farms – particularly calling for the transitioning, phasing-out and outright banning of BCs

We now have evolving & **increasing consumer demand and choice** for purchase, trade and even exports of chicken (and related products) bred in cage-free systems with better welfare conditions

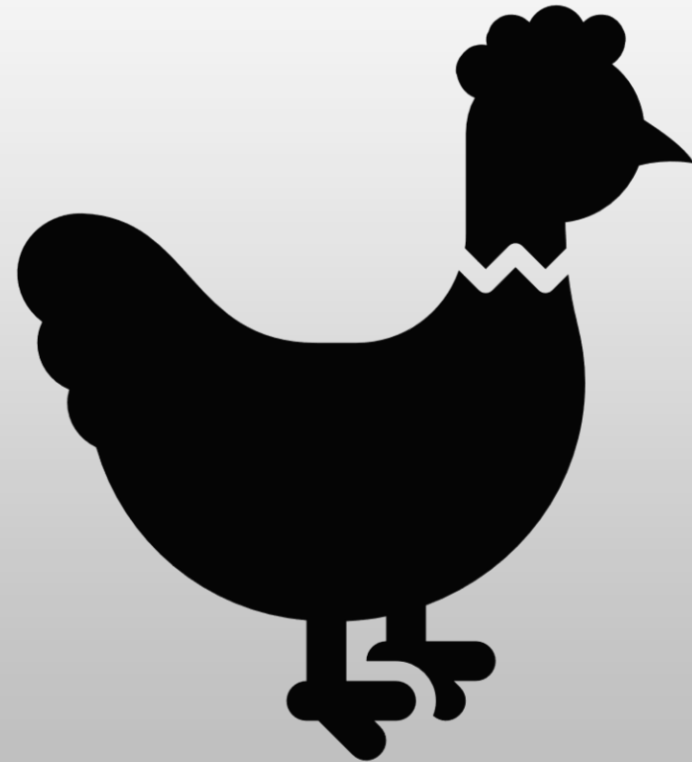
However, for farmers and stakeholders in Nigeria, there is little to no data on their perception and knowledge of the welfare impacts of chicken housing systems, **especially of battery cages.**

RESEARCH GOAL AND EXPECTED OUTCOMES

GOAL: DETERMINE THE STATUS AND PREVALENCE OF COMMERCIAL BATTERY CAGES FOR POULTRY PRODUCTION IN NIGERIA, AND THE PERCEPTION AND KNOWLEDGE OF STAKEHOLDERS ON CBC AND CHICKEN WELFARE

- Guide efforts and strategies at implementing campaigns and advocacy towards supporting farmers and stakeholders in maintaining or transitioning to cage-free welfare-enhancing housing systems for chicken and poultry farms.
- Provide evidence for advocacy on legislative framework for cage-free farming on poultry farms
- Provide insights on areas of further research

Methodology



METHODOLOGY

Literature Review


- ❖ Google & Google Scholar
- ❖ Research papers from peer-reviewed journals
- ❖ Grey literature

Survey Qs

- ❖ 681 Poultry Farmers
- ❖ Online survey platform (Kobo Toolbox)
- ❖ Pretested on 20 farmers

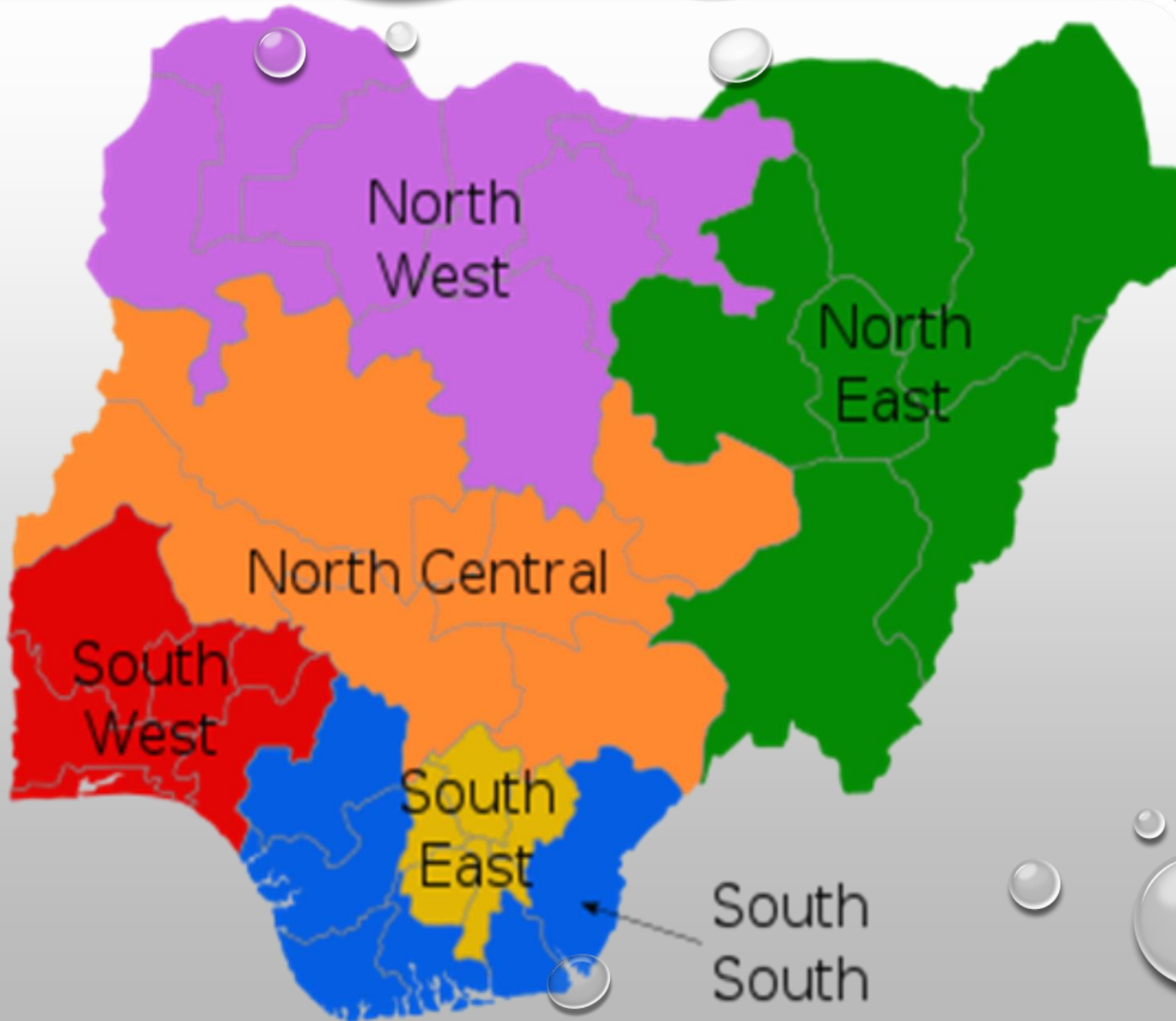
KIIs & FGD

- ❖ 4 AW Researchers
- ❖ 27 DVS in 27 states
- ❖ 4 Federal-level staff of DVS-FMARD

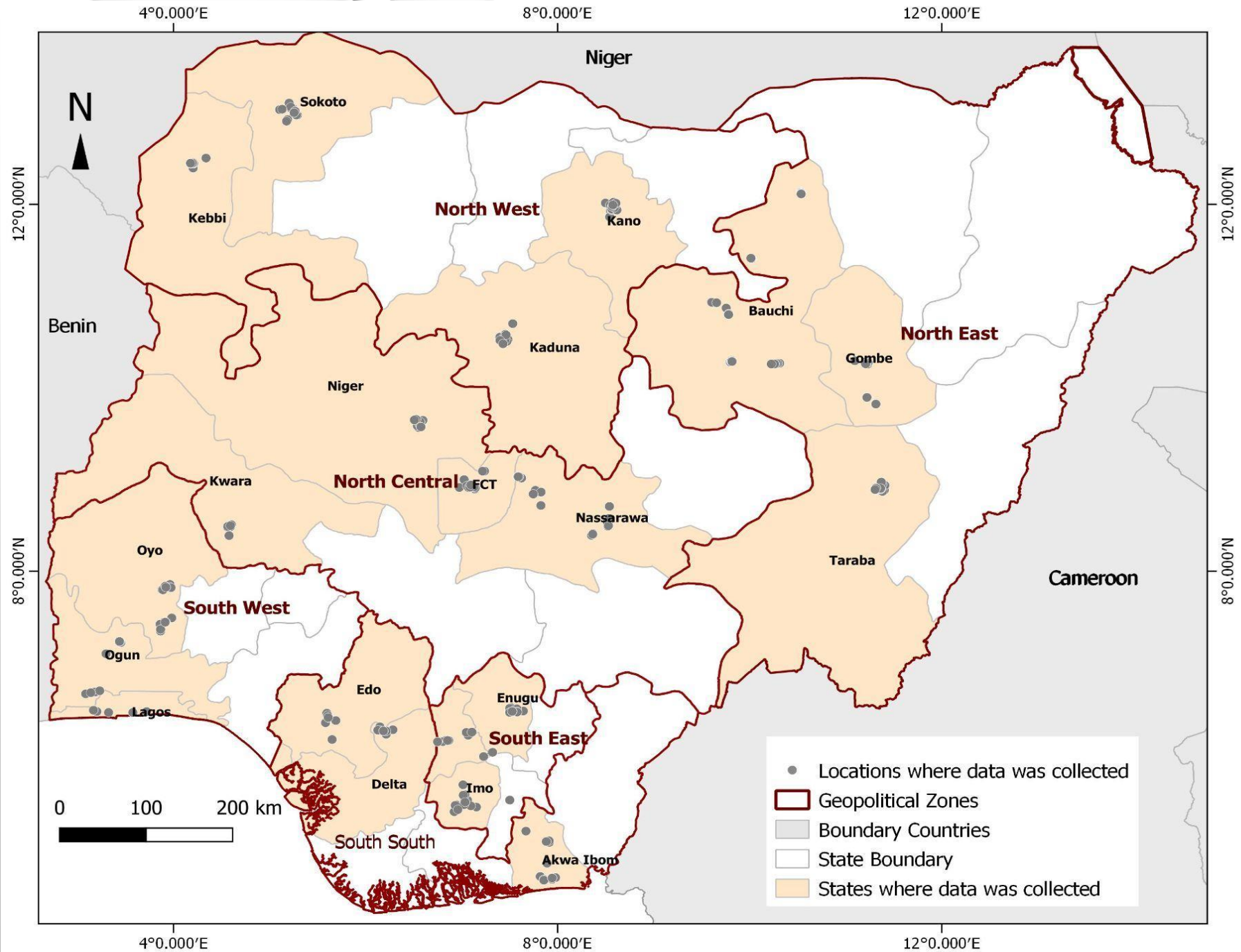


Integrated Mixed-Methods Approach

METHODOLOGY



- ❖ Purposive stratified sampling process
- ❖ 3-4 states in each of the 6 geopolitical zones
- ❖ 20 States (out of 36 states and FCT)



METHODOLOGY – DATA ANALYSIS

Quantitative Data

- ❖ Microsoft Excel
- ❖ SPSS

Qualitative Data

- ❖ Content Analysis
- ❖ Nvivo

Results



LITERATURE REVIEW - DEMOGRAPHY OF POULTRY FARMING SYSTEMS

- Of the 180 million birds, 43% are raised in extensive systems (mostly free range), 33% in semi-intensive (mostly deep litter), and the remaining 24% in intensive systems (mostly BCs) ([Netherlands enterprise agency, 2020](#); [CSIRO](#)).
- There are about 17,000 intensive farms in nigeria, who together keep about 45 million chickens with an average flock size of 2,625 birds per farm ([netherlands enterprise agency, 2020](#))
- Many traditional backyard-based poultry farms have been evolving to medium-sized integrations and commercial farms.

RESULTS – CHICKEN FARMERS' DEMOGRAPHY

Gender

- 75% Male, 25% Female

Age group

- Majority (68%) of respondents are between the ages of 25 and 44

Educational status

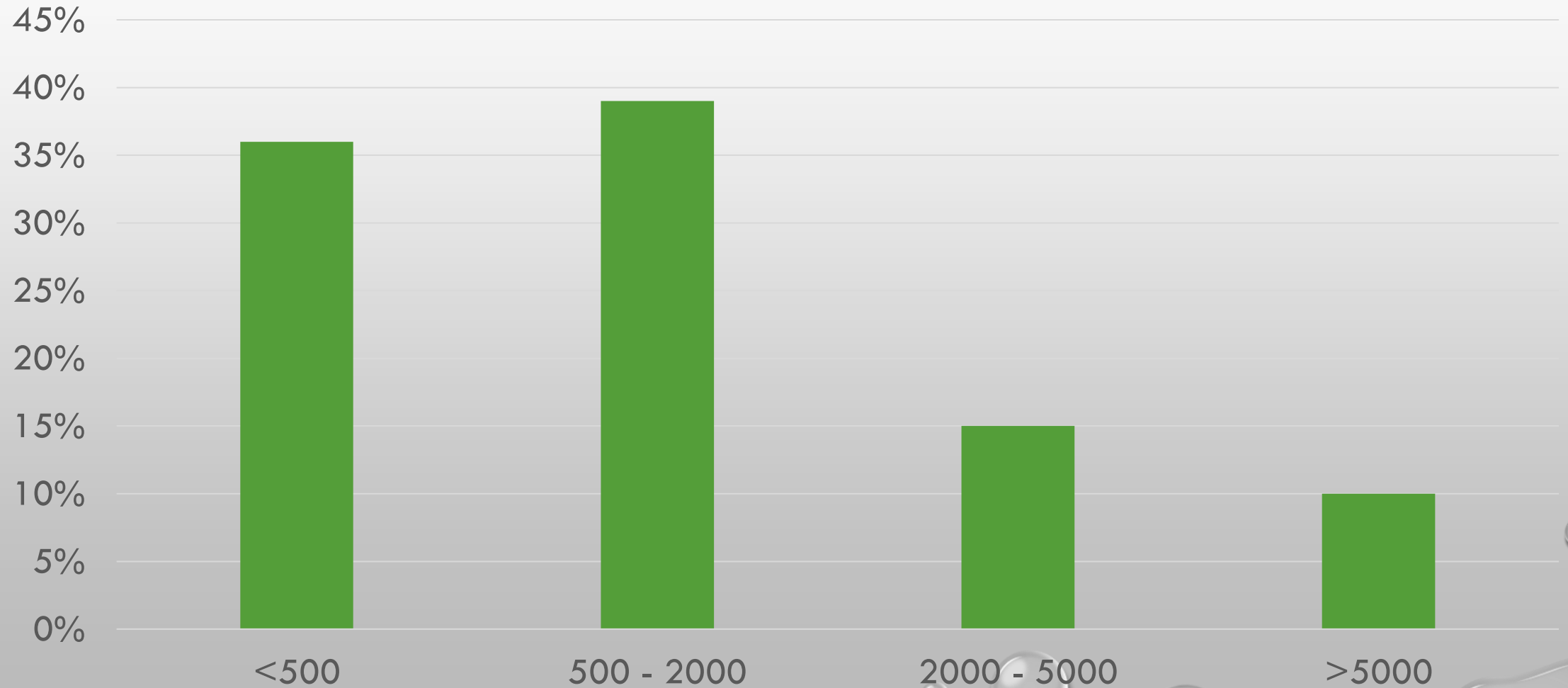
- 31% secondary, 51% graduate & 11% PG

Residence

- 37% Rural, 29% peri-urban, 33% urban

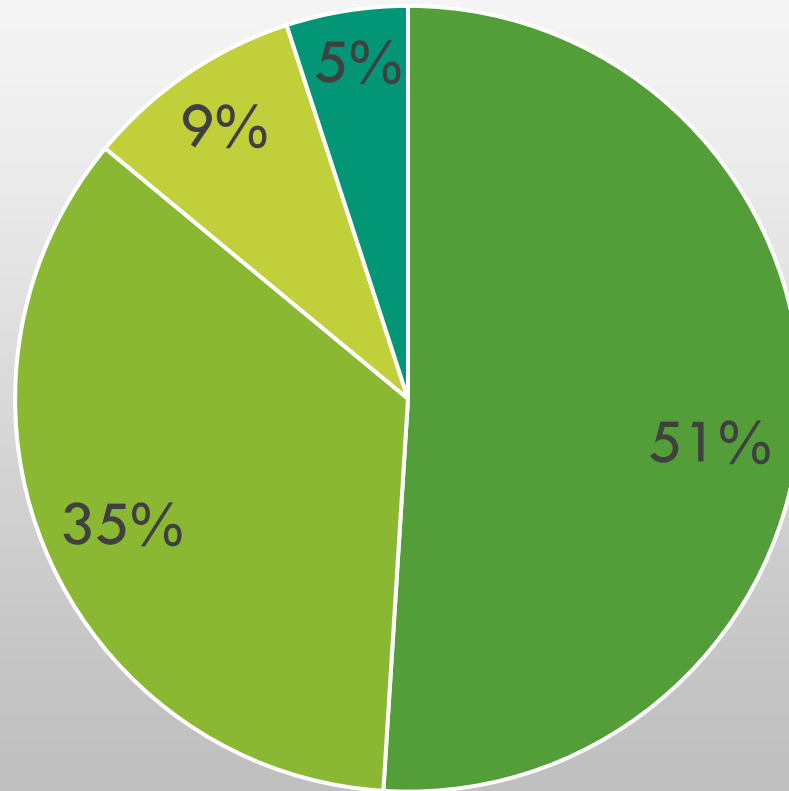
RESULTS – AVERAGE NUMBER OF BIRDS PER FARM

% Distribution of Number of Birds in Nigeria



RESULTS – DISTRIBUTION OF HOUSING SYSTEMS

% Housing Systems among ALL CHICKEN FARMERS



■ Battery cages ■ Deep litter system ■ Free Range ■ Enriched Cage

RESULTS – PREVALENCE OF HOUSING SYSTEMS AMONG LAYER-HEN FARMERS

61%

- Use battery cages

11%

- Use deep litter systems

25%

- Free range systems

RESULTS – CHANGING HOUSING; LAYER HEN FARMERS

26%

- Had previously changed housing systems

100%

- Changed from deep litter to battery cage systems

Reasons indicated for the use of and transitioning from deep-litter/cage-free systems battery cages.

“Freedom from Disease”;
“Eggs are safe”;
“They grow faster”;
“Low mortality rate”;
“More production”;
“Low disease Outbreak”;

“Low eggs wastage”;
“Excellent and conducive for birds”;
“Eggs are safe and free from Disease”;
“prevent feed wastage”;
“Maintain Clean environment”;
“Enhance the welfare of birds”;
“Reduce Mortality and Pecking Behavior”;
“Conserve Energy”
“Reduce Egg cracking”.

RESULTS – ANIMAL WELFARE RESEARCHERS

Understanding of HW

- All showed some understanding of HW – however, emphasis was on health and management practices that favor optimum production, profit making and no mention of animal sentience and its relation to welfare.

Understanding welfare impacts of BCs

- None of the researchers showed understanding of the welfare impacts of BSs and factory farming. Infact, 75% favor CBCs as being better for hen welfare, reduces stress, and emphasis on profit making only.

Prevalence of BCs

- Some belief that BCs are increasing in prevalence due to expected financial gains and ROI. Other belief it is decreasing due to costs of purchase. Limitations to purchasing BCs is mostly due to the higher costs incurred and not necessarily because of concern for welfare

RESULTS – KIIS, STATE-LEVEL DVS

Housing systems

- Battery Cages, Deep litter, Free-range (no mention of enriched cages)

30%

- Demonstrated the knowledge of welfare impacts of battery cages

Prevalence of BCs

- Between 5% and 95%, Average was about 40%

56%

- Belief that BCs prevalence and use are increasing among farmers; where there are decreases, it's only because of financial constraints

61%

- Of DVS favored the use of commercial battery cages and indicated they would be the most recommended for farmers

Results Inference



PREFERENCE FOR BATTERY CAGE SYSTEMS

- This was evident with 51% and 61% prevalence of battery cage use among general poultry farmers and specifically layer hen farmers respectively
- Preference for battery cage system among 75% and 61% of researchers and directors of veterinary services (DVS), respectively
- That all layer-hen farmers who indicated that they had previously changed housing systems, had all changed from deep-litter/cage-free systems to the use of battery cages for their birds.

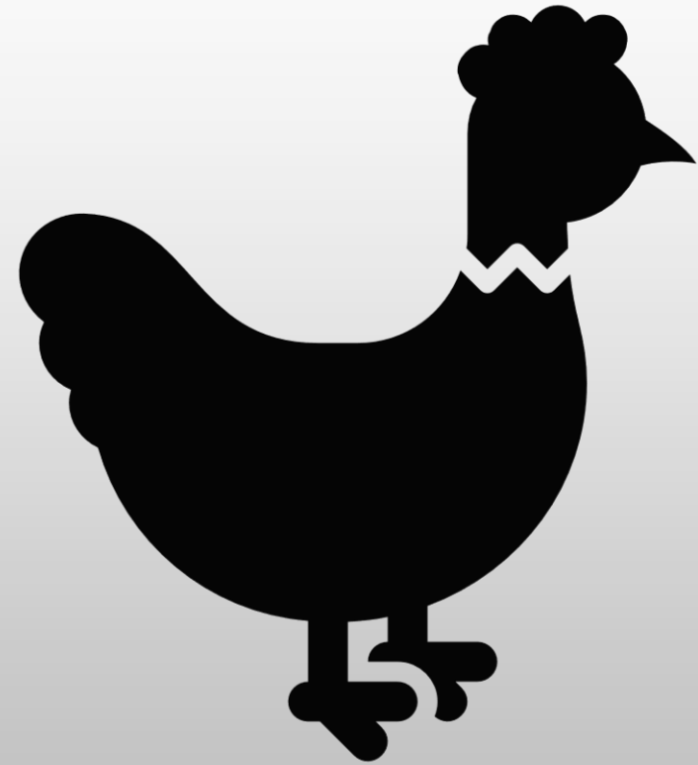
POOR KNOWLEDGE OR AWARENESS

- The low level of awareness and knowledge of farmers and stakeholders on chicken welfare despite education, urban residence etc
- Inadequate knowledge or complete indifference on the welfare impacts of chicken housing systems – especially battery cages.
- There is still little concern or empathy for issues of animal/hen welfare, poor understanding of animal sentience and the capacity of hens to feel pain and suffering.
- Poor knowledge or awareness impacts gap in supportive legislative frameworks to discourage the use of battery cages

SOCIOECONOMIC INFLUENCES

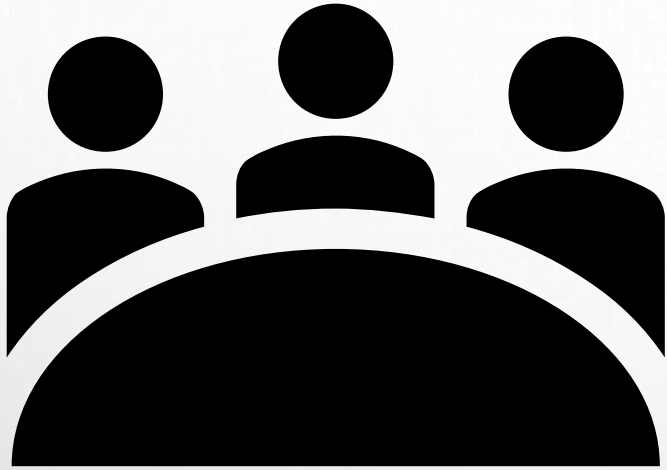
- These preferences and use of battery cages have been largely driven by the need to make profit and livelihood (especially in a country with high poverty rate), poor knowledge and understanding of animal welfare, the role of sentience, and welfare impacts of housing on chickens and other poultry birds.
- Also, 62% of the farmers are based in urban or peri-urban areas and these are often characterized by limited spaces. Therefore, many will tend to gravitate towards the battery cage housing to maximize space and meet high demands in these urban areas.

Recommendations and next steps



RECOMMENDATIONS AND NEXT STEPS

- Public awareness on animal welfare, promoting the knowledge of sentience – using both traditional and social media
- Targeted strategies for farmers' and stakeholders' sensitization, awareness and education
- Train and build the capacity of poultry farmers on alternatives cage-free housing frameworks that would appropriately balance the welfare needs of hens and address/alleviate the economic concerns of the farmers and stakeholders who work in the poultry industry.
- Promote the establishment and implementation of legal frameworks and policies that address animal welfare, hen welfare and discourage the use of battery cages in the country.
- Promote cage-free advocacy and discourse with retailers and consumers to purchase chicken meat, eggs, and other products from only farms that have welfare-enhancing cage-free housing systems for chickens.



QUESTIONS & DISCUSSION

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