

# REPORT

## MIDTERM PERFORMANCE EVALUATION OF THE GHANA POULTRY PROJECT (GPP)

# MIDTERM PERFORMANCE EVALUATION OF THE FY 2015 FOOD FOR PROGRESS GHANA POULTRY PROJECT (GPP)

---

## REPORT

Program: Food for Progress  
Agreement Number: FCC-641-2015/010-00  
Project Duration: 2015-2020  
Implemented by: ACIDI/VOCA

July 15, 2019

This publication was produced for review by the United States Department of Agriculture. It was prepared under CONTRACT/AWARD NO: METSS-641-14-000002 by Directorate of Research, Innovation and Consultancy of the University of Cape Coast (DRIC-UCC), Ghana, by a team of consultants, comprising Prof. Samuel Kobina Annim and Mrs. Millicent Abigail Aning-Agyei. The authors are Prof. Samuel Kobina Annim, Mrs. Millicent Abigail Aning-Agyei, and Messrs Raymond Elikplim Kofinti, Peter Mwinlaaru, and Richard Kwabena Nkrumah.

DISCLAIMER: This evaluation was conducted by an independent third-party firm. The views expressed in this report do not necessarily reflect the views of the United States Department of Agriculture or the United States Government.

Accessibility Note: An accessible version of this report can be made available upon request by emailing [fas.monitoring.evaluation@usda.gov](mailto:fas.monitoring.evaluation@usda.gov).

## TABLE OF CONTENTS

|                                                                                                                                                                                              | Page      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| LIST OF TABLES .....                                                                                                                                                                         | V         |
| LIST OF FIGURES .....                                                                                                                                                                        | V         |
| LIST OF ACRONYMS .....                                                                                                                                                                       | VI        |
| EXECUTIVE SUMMARY.....                                                                                                                                                                       | VII       |
| <b>1.0 INTRODUCTION .....</b>                                                                                                                                                                | <b>1</b>  |
| <b>1.1 Project Background .....</b>                                                                                                                                                          | <b>1</b>  |
| <b>1.2 GPP Evaluation Theory of Change (Development Hypothesis) .....</b>                                                                                                                    | <b>1</b>  |
| <b>1.3 GPP Midterm Performance Indicators.....</b>                                                                                                                                           | <b>2</b>  |
| <b>2.0 EVALUATION PURPOSE AND QUESTIONS .....</b>                                                                                                                                            | <b>2</b>  |
| <b>2.1 Evaluation Purpose .....</b>                                                                                                                                                          | <b>2</b>  |
| <b>2.2 Evaluation Questions.....</b>                                                                                                                                                         | <b>2</b>  |
| <b>3.0 METHODOLOGY .....</b>                                                                                                                                                                 | <b>3</b>  |
| <b>3.1 Evaluation Design.....</b>                                                                                                                                                            | <b>3</b>  |
| <b>3.2 Sample and Sampling Procedure .....</b>                                                                                                                                               | <b>3</b>  |
| 3.2.1 Sampling procedure for poultry producers.....                                                                                                                                          | 4         |
| 3.2.2 Sampling procedure for input suppliers (CAHWs and Veterinary Officers) .....                                                                                                           | 4         |
| 3.2.3 Sampling procedure for poultry households.....                                                                                                                                         | 4         |
| <b>3.3 Midterm Evaluation Instruments .....</b>                                                                                                                                              | <b>5</b>  |
| <b>3.4 Training of Field Staff and Pre-testing of Evaluation Instruments .....</b>                                                                                                           | <b>5</b>  |
| <b>3.5 Data Collection.....</b>                                                                                                                                                              | <b>5</b>  |
| <b>3.6 Data Analyses.....</b>                                                                                                                                                                | <b>6</b>  |
| <b>4.0 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.....</b>                                                                                                                                    | <b>6</b>  |
| <b>4.1 Demographic Characteristics of Poultry Producers .....</b>                                                                                                                            | <b>6</b>  |
| <b>4.2 Indicator Results .....</b>                                                                                                                                                           | <b>8</b>  |
| 4.2.1 Percentage of poultry producers who have signed agreements with input suppliers .....                                                                                                  | 8         |
| 4.2.2 Average poultry mortality rate.....                                                                                                                                                    | 9         |
| 4.2.3 Percentage of poultry farmers who can identify at least four best poultry husbandry practices as a result of USDA-GPP assistance .....                                                 | 11        |
| 4.2.4 Volume of commodities (metric tons - MT) sold by project beneficiaries.....                                                                                                            | 11        |
| 4.2.5 Value of sales by project beneficiaries .....                                                                                                                                          | 13        |
| 4.2.6 Number of firms engaged in agricultural and food security-related production and services that have increased profits or become financially self-sufficient with USDA assistance ..... | 14        |
| 4.2.7 Number of firms that invest in branding or marketing initiatives as a result of USDA assistance.....                                                                                   | 15        |
| 4.2.8 Percentage increase in the number of input suppliers available to GPP poultry producers .....                                                                                          | 16        |
| 4.2.9 Number of firms that regularly use market information to inform decisions.....                                                                                                         | 17        |
| 4.2.10 Number of jobs attributed to USDA assistance.....                                                                                                                                     | 17        |
| 4.2.11 Number of firms that comply with national established vaccination protocols .....                                                                                                     | 18        |
| 4.2.12 Percentage of farmers surveyed who use three or more improved post-production practices .....                                                                                         | 18        |
| 4.2.13 Gross profit per farm.....                                                                                                                                                            | 19        |
| <b>4.3 Findings from Evaluation Questions.....</b>                                                                                                                                           | <b>20</b> |

|            |                                                                                                                                                              |            |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 4.3.1      | Relevance .....                                                                                                                                              | 20         |
| 4.3.2      | Effectiveness .....                                                                                                                                          | 24         |
| 4.3.3      | Efficiency .....                                                                                                                                             | 27         |
| 4.3.4      | Sustainability .....                                                                                                                                         | 28         |
| <b>4.4</b> | <b>Key Findings from Other Stakeholders .....</b>                                                                                                            | <b>33</b>  |
| 4.4.1      | Poultry household survey.....                                                                                                                                | 33         |
| 4.4.2      | Veterinary Service Providers (VSPs) .....                                                                                                                    | 34         |
| 4.4.3      | End Market Actors.....                                                                                                                                       | 35         |
| <b>4.5</b> | <b>Conclusions .....</b>                                                                                                                                     | <b>35</b>  |
| <b>4.6</b> | <b>Recommendations .....</b>                                                                                                                                 | <b>35</b>  |
|            | <b>REFERENCES .....</b>                                                                                                                                      | <b>36</b>  |
|            | <b>ANNEXES .....</b>                                                                                                                                         | <b>37</b>  |
|            | <b>Annex 1: Statement of Work .....</b>                                                                                                                      | <b>37</b>  |
|            | <b>Annex 2: Summary Outcomes of Sampling .....</b>                                                                                                           | <b>55</b>  |
|            | <b>Annex 3: Data Collection Instruments.....</b>                                                                                                             | <b>58</b>  |
|            | 3A. Ghana Poultry Project: Midterm performance evaluation questionnaire for poultry producers .....                                                          | 58         |
|            | 3B. Ghana Poultry Project: Midterm performance evaluation questionnaire for poultry households .....                                                         | 93         |
|            | 3C. Ghana Poultry Project: Midterm performance evaluation questionnaire for animal input suppliers (Veterinarians).....                                      | 105        |
|            | 3D. Ghana Poultry Project: Midterm performance evaluation questionnaire for Veterinary Service Directorate (District level providers) .....                  | 124        |
|            | 3E. Ghana Poultry Project: Midterm performance evaluation questionnaire for end market actors .....                                                          | 130        |
|            | 3F. Ghana Poultry Project: Midterm performance evaluation in-depth interview guide for Government of Ghana Ministries, Departments and Agencies (MDAs) ..... | 139        |
|            | 3G. Ghana Poultry Project: Midterm performance evaluation in-depth interview guide for implementing partners .....                                           | 143        |
|            | 3H. Ghana Poultry Project: Midterm performance evaluation in-depth interview guide financial institutions...147                                              |            |
|            | 3I. Ghana Poultry Project: Midterm performance evaluation in-depth interview guide financial institutions ....151                                            |            |
|            | 3J. Ghana Poultry Project: Midterm performance evaluation in-depth interview guide research institutes.....155                                               |            |
|            | 3K. Ghana Poultry Project: Midterm performance evaluation focus group discussion guide for poultry associations and groups.....                              | 158        |
|            | <b>Annex 4: Training Guide .....</b>                                                                                                                         | <b>162</b> |
|            | <b>Annex 5: Details of Field Staff and Region Allocation .....</b>                                                                                           | <b>185</b> |
|            | <b>Annex 6: Summary Outcome (Response Rate) of Data Collection.....</b>                                                                                      | <b>186</b> |
|            | <b>Annex 7: Metadata in Codebook .....</b>                                                                                                                   | <b>189</b> |
|            | <b>Annex 8: Results .....</b>                                                                                                                                | <b>210</b> |

## LIST OF TABLES

|                                                                                                          | Page |
|----------------------------------------------------------------------------------------------------------|------|
| Table 1: Average Mortality Rates for Broilers, Layers and Cockerels.....                                 | 10   |
| Table 2: Number of Poultry Farmers who can identify at Least Four Best Poultry Husbandry Practices ..... | 11   |
| Table 3: Volume of Sales (in Metric Tons) and Value of Sales (in US\$) .....                             | 12   |
| Table 4: Number of Firms that Invest in Branding because of USDA Assistance .....                        | 15   |
| Table 5: Number of Firms that Invest in Marketing Initiatives because of USDA Assistance ....            | 16   |
| Table 6: Change in Input Suppliers Available to GPP Poultry Producers from 2017 to 2018.....             | 16   |
| Table 7: Number of Firms that Regularly Use Market Information to Inform Decisions .....                 | 17   |
| Table 8: Number of Jobs Attributed to USDA Assistance .....                                              | 18   |
| Table 9: Number of Firms that Follow the National Established Vaccination Protocol .....                 | 18   |
| Table 10: Percentage of Farmers who use Three or More Improved Post-Production Practices .               | 19   |
| Table 11: Average Profit per Head .....                                                                  | 20   |
| Table 12: National and GPP Goal Compatibility Matrix on Poultry Production .....                         | 22   |
| Table 13: Stakeholder Matrix Showing the Likelihood of Project Sustainability .....                      | 31   |
| Table 14: Uptake of CAHW Services across Region .....                                                    | 33   |
| Table 15: Bird Loss and their Cause .....                                                                | 33   |
| Table 16: Disease Outbreak Status .....                                                                  | 34   |

## LIST OF FIGURES

|                                                                                          | Page |
|------------------------------------------------------------------------------------------|------|
| Figure 1: Demographic Characteristics .....                                              | 7    |
| Figure 2: Percentage of Poultry Producers who have Agreements with Input Suppliers ..... | 8    |

## LIST OF ACRONYMS

|           |                                                                                                        |
|-----------|--------------------------------------------------------------------------------------------------------|
| ADVANCE   | Agricultural Development and Value Chain Enhancement                                                   |
| AI        | Avian Influenza                                                                                        |
| AMPLIFIES | Assisting Management in the Poultry and Layer Industries by Feed Improvement and Efficiency Strategies |
| APD       | Animal Production Directorate                                                                          |
| ARI       | Animal Research Institute                                                                              |
| BSAs      | Business Service Advisors                                                                              |
| BUSAC     | Business Sector Advocacy Challenge                                                                     |
| CAHWs     | Community Animal Health Workers                                                                        |
| CAPI      | Computer Assisted Personal Interview                                                                   |
| CE        | Casual Employment                                                                                      |
| CRD       | Chronic Respiratory Disease                                                                            |
| DOCs      | Day Old Chicks                                                                                         |
| DRIC      | Directorate of Research, Innovation and Consultancy                                                    |
| EPA       | Environmental Protection Agency                                                                        |
| FDA       | Food and Drugs Authority                                                                               |
| FFPr      | Food for Progress                                                                                      |
| FGD       | Focus Group Discussion                                                                                 |
| FIs       | Financial Institutions                                                                                 |
| FTE       | Full-Time Employment                                                                                   |
| GoG       | Government of Ghana                                                                                    |
| GPP       | Ghana Poultry Project                                                                                  |
| GSA       | Ghana Standard Authority                                                                               |
| IDI       | In-Depth Interview                                                                                     |
| KNUST     | Kwame Nkrumah University of Science and Technology                                                     |
| METSS     | Monitoring, Evaluation and Technical Support Service                                                   |
| MoFA      | Ministry of Food and Agriculture                                                                       |
| MoTI      | Ministry of Trade and Industry                                                                         |
| MT        | Metric Tons                                                                                            |
| MTE       | Midterm Evaluation                                                                                     |
| NFV       | Net Future Value                                                                                       |
| PPPs      | Public-Private Partnerships                                                                            |
| SOW       | Statement of Work                                                                                      |
| UCC       | University of Cape Coast                                                                               |
| USAID     | United States Agency for International Development                                                     |
| USDA      | United States Department for Agriculture                                                               |
| VSD       | Veterinary Service Directorate                                                                         |
| VSPs      | Veterinary Service Providers                                                                           |

## EXECUTIVE SUMMARY

### Introduction

Considering the important role of poultry in food security, income and employment generation, and provision of raw materials to some industries, the United States Department for Agriculture (USDA) rolled out the Ghana Poultry Project (GPP) as part of its contribution towards promoting the poultry sector in Ghana. The Food for Progress (FFPr) GPP is a five-year (October 2015 - December 2020) initiative which is implemented by ACDI/VOCA and TechnoServe in Ghana. The Project is aimed at strengthening the efficiency and competitiveness of the domestic poultry value chain through an inclusive market system approach.

Ghana's poultry industry has attracted support from the USDA because it has been dwindling in size and struggling for sustenance for almost a decade. This is underpinned by decreasing profitability of poultry business which has resulted in a great fall in production of poultry products. Issues accounting for this include poor macroeconomic conditions in Ghana which make access to financial services by private sector extremely difficult; and high competition for maize (poultry industry's primary feed input) with other industries. Considering that the GPP has been running for three years out of the projected five-year duration, the Directorate of Research, Innovation and Consultancy of the University of Cape Coast (UCC-DRIC) was contracted to conduct a midterm evaluation (MTE) to ascertain how the Project has progressed towards the attainment of its intended objectives and expected outcomes, as well as to guide the implementation of activities in the remaining years of the Project.

### Evaluation Purpose and Questions

The purpose of the MTE of the GPP was to determine:

1. The results of key outcome and output indicators tracked by the Project; and
2. Whether the Project is implemented as intended and whether progress is being made towards the attainment of the Project's goal and objectives.

Nine evaluation questions in four domains were also to be answered during the MTE:

#### *Relevance*

1. To what extent is the Project aligned with national policies and strategies for agriculture production?
2. How relevant is the Project to the stated and immediate needs of stakeholders?

#### *Effectiveness*

1. To what extent is the Project producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives?

2. What, if any, unintended consequences can be attributed to the Project?
3. To what extent has GPP coordinated with the AMPLIFIES Project and other USDA/ United States Agency for International Development (USAID)-funded projects such as the Agricultural Development and Value Chain Enhancement (ADVANCE) program; Ministry of Food and Agriculture (MoFA), other donor projects; and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana?

#### *Efficiency*

1. To what extent is the relationship between inputs and outputs timely, cost-effective and to the expected standards?
2. Were inputs converted into outputs in a timely and cost-effective manner?

#### *Sustainability*

1. To what extent are the Project results likely to continue after the Project?
2. Is stakeholder buy-in likely to continue or be increased after the current contract period?

### **Methodology**

The performance evaluation employed for the GPP MTE involves a before-and-after analysis. The MTE employed the mixed method approach to collect and analyze the data. The qualitative and quantitative data were collected concurrently to allow for cross-validation of the findings on the GPP. With the use of questionnaires, quantitative data were collected from poultry producers (330), poultry households (622), animal health service providers - Community Animal Health Workers - CAHWs (75), and end market actors (12) in the Greater Accra, Ashanti and Brong Ahafo regions. The qualitative data were elicited from the staff of GPP, ACDI/VOCA, TechnoServe, Ministry of Food and Agriculture (MoFA), Veterinary Service Directorate (VSD), Animal Production Directorate, Financial Institutions (FIs), Business Service Advisors (BSAs), and Poultry Associations using in-depth interview and focus group discussion guides. The sampling technique used was stratified random sampling and purposive sampling.

### **Main Findings**

Summary of the findings are as follows:

- Out of 11 poultry producers, three (3) (i.e. 0.92%) and four (4) (i.e. 1.23%) had respectively made formal and informal contracts exclusively with input suppliers. Another four (4) (i.e. 1.23%) had both formal and informal contracts with input suppliers.
- The average mortality for broilers declined from seven (7) percent to two (2) percent across all tiers of production. Layers mortality decreased from 8.4 percent to 1.8 in the midterm, while cockerel mortality reduced from 11 percent to one (1) percent.
- In the midterm, 99.7 percent of the farmers were able to identify at least four (4) best poultry husbandry practices compared to the 2017 Annual Survey figure of 86.6 percent.
- The volume of sales per farm in 2018 was lower than the volume of sales per farm in 2017. The average volume of sales in the 2018 MTE was 7.17 Metric Tons (MT) as against 10.66MT in 2017. The average volume of sales for cockerel, broilers, layers and eggs in the MTE were 2.79MT, 3.65MT, 5.03MT and 2.21MT, respectively.

- The average value of sales per farm reported from the 2015 baseline data was almost twice that of the 2018 MTE. The average value of sales in the MTE was US\$506,990.70 as against US\$677,104.40 in 2017. The average value of sales for cockerel, broilers, layers and eggs in the MTE were US\$25208.29, US\$41584.24, US\$89525.45 and US\$529517.20, respectively.
- About 34.48 percent of poultry producers increased profits. Another 57.47 percent had realized profits in 2018, but lower than they did in 2017. The remaining 8.05 percent of the 261 poultry producers maintained the level of profits in 2017 and 2018.
- Around 36 farms reported that they invest in branding as a business strategy of which 16 indicated that their decision to use branding was as a result of the GPP training.
- The average number of Day Old Chicks (DOCs), drugs and feed suppliers was higher in the MTE than their 2017 averages by 20.02 percent, 8.02 percent and 14.09 percent, respectively. However, the average number of vaccine suppliers decreased by an average of 2.35 percent in 2017.
- The proportion of poultry producers that have access to market information decreased by 10 percentage points between the baseline and the midterm survey periods. However, the use of market information increased by 62.46 percentage points from 37.54 percent in the baseline period to 100 percent in the midterm survey.
- About 73 poultry farms created a total of 289 new jobs between 2016 and 2018. It was found that only 85 of these jobs were as a result of USDA assistance.
- The number of poultry producers who followed national vaccination protocols was 302 (93.5%).
- About 91.3 percent of poultry producers used three or more improved post-production practices. This shows an increase in the percentage of farmers who used three or more improved post-production practices in 2015 by 18.2 percent.
- Gross profit per farm for the MTE was found to be US\$117,533.65. Unlike the findings from the 2017 survey, where most of the gross margins across tiers within regions were negative, the gross margins for all the tiers within the three regions were found to be high; almost all of which were greater than 60 percent.
- The GPP promoted strategic partnerships among the various stakeholders in the poultry value chain. GPP had partnered some FIs to facilitate loans (4%) for actors in the poultry value chain. However, the poultry producers faced a major challenge in securing loans from the FIs. The VSDs perceived a conflict of roles with the intermediary role of the CAWHs in the monitoring and management of husbandry practices on the Project.

## Conclusions and Recommendations

Generally, GPP outcomes have improved between 2015 and 2018. There has been an increase in the number of input suppliers available to poultry producers, number of poultry producers who use branding as a business strategy, number of poultry producers who use market information to make decisions, number of jobs created due to the Project's assistance, number of poultry producers who follow national vaccination protocols; decrease in the mortality rate of poultry birds, among others. The GPP had also made significant contribution to the capacity building of all the value chain actors. The Project, however, recorded a decrease in the average volume and value of sales. Additionally, the difficulties in securing credit facilities from the FIs posed a major challenge to

some of the poultry producers. All the stakeholders were willing to contribute to sustain the tenets and gains from the GPP after completion.

Based on the findings from the MTE, it is recommended that:

- Poultry producers should be encouraged to sign contracts with input suppliers in order to get sustained supply of inputs.
- Education and sharing of success stories on the importance of the use of market information should be intensified. This is particularly more important in the Ashanti region.
- Training on improved post-production practices should be intensified in the Greater Accra region.
- The implementing partners should strengthen the partnership between the poultry farmers and the BSAs to continue to enhance the process of securing credit facilities from the FIs to the poultry sector for expansion. Such a partnership could help eliminate the challenge faced by the farmers in securing loans from the FIs. This could be done by encouraging more poultry producers to get attached to BSAs to improve their business operations. More stakeholder consultations should be organized by the implementing partners for the VSDs and CAHWs to better understand the roles of each other and to foster strong relationship between them.

## 1.0 INTRODUCTION

### 1.1 Project Background

The Food for Progress (FFPr) Ghana Poultry Project (GPP) is a five-year (October 2015 - December 2020) initiative that is being funded by the United States Department for Agriculture (USDA) as part of its contribution to enhancing Ghana's poultry sector through increasing agricultural productivity in the poultry value chain and expanding trade in poultry products (i.e. chicken meat and eggs). The GPP is implemented by ACDI/VOCA and TechnoServe in Ghana and is aimed at strengthening the efficiency and competitiveness of the domestic poultry value chain through an inclusive market-systems approach. The Project sets out to achieve its outcomes by impacting 500 commercial poultry firms, 10,000 poultry households, 10 animal input supply businesses, and 20 out-grower businesses (OBs) or aggregators linked to 175 poultry farms as well as facilitating access to financial services for 26,633 individuals. According to the Statement of Work (SOW) (2018) which is attached as Annex 1, GPP focuses on industry, firm and supply levels with the purpose of achieving its projected outcomes within the poultry value chain through capacity building, input markets improvement, strategic investments and public-private partnerships (PPPs) promotion, and trade of poultry products expansion by improving product quality, production efficiency and market linkages.

Ghana's poultry industry is fundamental to the livelihoods of its people through income generation from employment opportunities, and the nation's socio-economic development. The industry, however, has dwindled in size and struggled for almost a decade to be globally competitive (SOW, 2018). This is underpinned by decreasing profitability of the poultry business, which has resulted in a fall in the production of poultry products. Issues accounting for this include poor macroeconomic conditions in Ghana which make access to financial services by the private sector extremely difficult; high competition for maize (poultry industry's primary feed input) with other industries such as the food processing industry; low drive of the Government of Ghana (GoG) to policy issues regarding quality standards in the industry; and barriers to efficient trade of poultry and poultry feed inputs.

Apart from the GPP, the USDA is also supporting Ghana's poultry industry through the Assisting Management in the Poultry and Layer Industries by Feed Improvement and Efficiency Strategies (AMPLIFIES). Considering that the GPP has been running for three years out of the projected five-year duration, there was the need to conduct a midterm assessment of the GPP to ascertain how it has progressed towards the attainment of its intended objectives and expected outcomes, as well as to guide the implementation of activities in the remaining years of the Project by strengthening various components of the implementation structure.

### 1.2 GPP Evaluation Theory of Change (Development Hypothesis)

The GPP's theory of change is that, if agriculture productivity in the poultry value chain is increased through capacity building of poultry producers, associations, traders, and poultry businesses to better respond to the poultry market demands; input markets are improved; strategic investments are promoted in the poultry industry; PPPs are increased and enhanced; and the quality of the poultry products are improved; then there will be improved efficiencies at key stages of the

poultry value chain, improved profitability of egg production, expanded national and regional trade in poultry products and in sector-related inputs and service markets. These will result in both sustainable and equitable increase in incomes for male and female producers in the poultry and related commodity sectors. The underlying assumptions are that (1) GoG supports domestic poultry market to improve the enabling environment; (2) private sector engagement is responsive to market incentives and invests in necessary upgrades to drive economic growth; and (3) sustainable growth drives prosperity among poultry and interlinked value chain firms, notably smallholder producers of maize and soy.

### **1.3 GPP Midterm Performance Indicators**

The midterm evaluation (MTE) was expected to report on the following 13 GPP Performance Indicators with their corresponding baseline figures as benchmarks, where possible:

1. Percentage of poultry producers who have signed agreements with input suppliers
2. Average Poultry Mortality rate
3. Percentage of poultry farmers who can identify at least four best poultry husbandry practices as a result of USDA-GPP assistance
4. Value of sales by project beneficiaries
5. Volume of commodities (metric tons) sold by project beneficiaries
6. Number of firms engaged in agricultural and food security-related production and services that have increased profits or become financially self-sufficient with USDA assistance
7. Number of firms that invest in branding or marketing initiatives as a result of USDA assistance
8. Percentage increase in the number of input suppliers available to GPP poultry producers
9. Number of firms that regularly use market information to inform decisions
10. Number of jobs attributed to USDA assistance
11. Number of firms that comply with national established vaccination protocols
12. Percentage of farmers surveyed who use three or more improved post-production practices
13. Gross profit per farm

## **2.0 EVALUATION PURPOSE AND QUESTIONS**

### **2.1 Evaluation Purpose**

The purpose of the MTE of the GPP was to determine:

1. The results of key outcome and output indicators tracked by the Project; and
2. Whether the Project is implemented as intended and whether progress is being made towards the attainment of the Project's goal and objectives.

### **2.2 Evaluation Questions**

To help realize the purpose of the evaluation and serve as a guide for the evaluation of the GPP, the following questions were answered based on four (4) broad themes (Relevance, Effectiveness, Efficiency, and Sustainability) under the GPP:

#### *Relevance*

1. To what extent is the Project aligned with national policies and strategies for agriculture production?
2. How relevant is the Project to the stated and immediate needs of stakeholders?

#### *Effectiveness*

1. To what extent is the Project producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives?
2. What, if any, unintended consequences can be attributed to the Project?
3. To what extent has GPP coordinated with the AMPLIFIES Project and other USDA/ United States Agency for International Development (USAID)-funded projects such as the Agricultural Development and Value Chain Enhancement (ADVANCE) program; Ministry of Food and Agriculture (MoFA), other donor projects; and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana?

#### *Efficiency*

1. To what extent is the relationship between inputs and outputs timely, cost-effective and to the expected standards?
2. Were inputs converted into outputs in a timely and cost-effective manner?

#### *Sustainability*

1. To what extent are the Project results likely to continue after the Project?
2. Is stakeholder buy-in likely to continue or be increased after the current contract period?

## **3.0 METHODOLOGY**

### **3.1 Evaluation Design**

The performance evaluation (see USAID, 2013) employed for the GPP MTE involves a before-and-after analysis. Specifically, this MTE adopted the mixed method evaluation design to answer the key evaluation questions and provide results for the GPP Performance Indicators. Accordingly, qualitative and quantitative data were collected concurrently to allow for cross-validation of the findings on the GPP.

### **3.2 Sample and Sampling Procedure**

The MTE of the GPP targeted the project staff (GPP Office); project implementers (ACDI/VOCA and TechnoServe); staff of the donor (USDA in Ghana and Washington); and project target beneficiaries [poultry related organizations (processors, animal input suppliers - Community Animal Health Workers - CAHWs), financial institutions (FIs), business service advisors (BSAs), end market users or buyers) and poultry producers (Tier 1 - large scale farms: more than 50,000 birds, Tier 2 - medium scale farms: more than 5,000 but less than 50,000 birds, Tier 3 - small scale farms: more than 50 but up to 5,000 birds), and poultry households (with maximum of 50 birds)]. Other respondents included staff of partner government institutions such as MoFA and its Veterinary Service Directorate (VSD) and Animal Production Directorate (APD), Environmental Protection Agency (EPA), Ministry of Trade and Industry (MoTI), Food and Drugs Authority (FDA), Ghana Standard Authority (GSA); research institutions [Kwame Nkrumah University of

Science and Technology (KNUST), and Animal Research Institute (ARI)]; and poultry related groups and associations in Ghana, particularly in Greater Accra, Ashanti, and Brong Ahafo regions. [Table 3A](#) under Annex 2 presents a summary of the sample distribution of each category of respondents. The purposive sampling technique was used to select project staff; project implementers, FIs, BSAs, staff of partner government institutions, research institutions and poultry related groups and associations for the qualitative data collection.

### 3.2.1 Sampling procedure for poultry producers

The GPP MTE sampling procedure for poultry producers was guided by theoretical factors in the computation of sample sizes such as margin of error and response rate. The population for the poultry producers was 1,575 which comprised 28 Tier 1, 201 Tier 2 and 1,346 Tier 3 producers. Israel (2009) sample size determination formula was used to determine the theoretical sample size of 319 for the poultry producers. This is given as:

$$n = \frac{\text{Population Size}}{1 + [\text{Population Size} \times (\text{Margin of Error})^2]} = \frac{1575}{1 + [1575 \times (0.05)^2]} = 319$$

A non-response rate of 8.5 percent was added to give a total sample of 346 poultry producers for the MTE (see [Table 3B](#) under Annex 2). The stratified random sampling technique was employed to sample the poultry producers from the three tiers of production. As part of the sampling across tiers, regions with population below 30 were censused, while those with population above 30 were sampled. Accordingly, all the 28 Tier 1 poultry producers within the GPP intervention regions were selected. In the case of the Tier 2 and 3 producers, 40 percent (for Tier 2) and 17 percent (for Tier 3) of poultry producers were sampled where the population was above 30. This was premised on the need to ensure representativeness of the various sub-samples of poultry producers. In all, 28 (Tier 1), 87 (Tier 2) and 231 (Tier 3) poultry producers were sampled across the intervention regions for the MTE. However at the regional level, the number of poultry producers sampled from a district was based on the proportion-to-size approach. Out of 346 poultry producers sampled, 330 participated in the MTE, giving a response rate of 95.38 percent (see [Table 3C](#) under Annex 2 for the various response rates).

### 3.2.2 Sampling procedure for input suppliers (CAHWs and Veterinary Officers)

The estimation of the sample size for the CAHWs and the Veterinary Officers from VSD across the regions of the MTE was carried out. From [Table 3D](#), all the sub-populations that were less than 20 were censused. In cases where the sub-populations were greater than 20, 40 percent of the population were sampled for the MTE. The 40 percent used for the calculation of the sample holds the potential to have all the characteristics of the population within the sample. A total of 208 input suppliers (see [Table 3D](#) under Annex 2) were sampled for the MTE. The response rate was 36.06 percent.

### 3.2.3 Sampling procedure for poultry households

The stratified random sampling technique was used to select the poultry households. The Project's Zone of Influence (ZOI) has a population of 6,335 poultry households, 3,644 households in the Ashanti Region alone, and 1,709 and 982 households in the Brong Ahafo and the Greater Accra

regions, respectively. Sampling of the poultry households was done to represent the regional distribution of households. About 10 percent of the total poultry household of 6,335 was used for the MTE to allow for representativeness. The product of this figure and the proportion to size was used to estimate the sample of poultry households for each of the three regions. Thus, 364, 192 and 136 households (see [Table 3E](#) under Annex 2) were sampled from the Ashanti, Brong Ahafo and the Greater Accra regions, respectively. Within each of the regions, stratified random sampling was used for the district level sampling. Samples for the districts within the regions were estimated using the proportion-to-size approach. This was done in cases where the number of poultry households in the district was greater than 30. However, districts with total poultry households less than 30 were censused. The response rate for the poultry households was 89.88%.

### **3.3 Midterm Evaluation Instruments**

The questionnaire, in-depth interview (IDI) and focus group discussion (FGD) guides were used for data collection (see Annex 3) for the MTE. The questionnaire was used to gather quantitative data from project beneficiaries [poultry producers (large scale, medium scale, small scale and households), and input suppliers (animal health service providers), and end market actors]. The IDI guide was deployed to collect data from Project beneficiaries (FIs and BSAs), implementing partners (Representatives of GPP Office, ACIDI/VOCA, and TechnoServe) and key partners of the Project (Representatives of MoFA, VSD, APD, GSA, FDA, EPA, etc.), while FGD guide was used for relevant poultry groups and associations. The questionnaire for Poultry Producers and households were configured electronically onto a Computer Assisted Personal Interview (CAPI) using the CSPro data entry program.

### **3.4 Training of Field Staff and Pre-testing of Evaluation Instruments**

A five-day training program, which included pre-testing, was organized for the field staff at the University of Cape Coast (UCC) using a training guide (see Annex 4). To introduce the project to the interviewers, presentations were made on the overview of the GPP, including the Project's theory of change, midterm performance indicators to be measured and the objectives of the MTE. The field staff were also trained on the content of the data collection instruments, research ethics, roles and responsibilities of the various field staff, use of the CSPro data entry program capturing, transmission techniques, anticipated challenges and how to resolve them. In all, 21 field staff (3 team supervisors and 18 field assistants - see Annex 5) were trained for the midterm evaluation. Considering that the questionnaire for the poultry producers was merged with that of AMPLIFIES whose midterm evaluation was also underway, the training facilitation was done by resource persons for both GPP and AMPLIFIES. The evaluation instruments (CAPI and paper questionnaire) were pre-tested at the Komenda/Edina/Eguafo/Abrem (KEEA) Municipality, Abura/Asebu/Kwamankeese District and Assin South District.

### **3.5 Data Collection**

The qualitative data collection took the form of IDIs and FGDs. The response rate for the qualitative data was 84.52 percent (see [Table 3F](#) under Annex 6). The data collection for the quantitative aspects of the midterm evaluation was carried out within 16 days (from Monday, February 25, 2019 to Tuesday, March 12, 2019) in Greater Accra, Ashanti and Brong Ahafo

regions. There were three teams for the data collection with a team assigned to each region. The Directorate of Research, Innovation and Consultancy (DRIC) of UCC, METSS and GPP Office monitored the data collection. [Table 3G](#) under Annex 6 presents the category of respondents and their response rate for the quantitative data across the project regions.

In all, data was collected from 1,110 respondents (see [Table 3H](#) under Annex 6), and comprised 330 poultry producers (see [Table 3I](#) under Annex 6 for details on tier 1, 2 and 3); 622 poultry households; 33 animal health service or animal input suppliers (CAHWs); 42 veterinary service provider (District Level); 12 end market actors; a representative each from the GPP Office, ACIDI/VOCA, and TechnoServe; two (2) representatives each from MoFA, GSA and EPA; three (3) representatives each from VSD (Regional level), APD and FDA; five (5) FIs; six (6) BSAs; a representative each from KNUST and ARI; and 40 executive members of poultry-related groups and associations in Ghana, particularly in Greater Accra, Ashanti, and Brong Ahafo regions.

### 3.6 Data Analyses

The data collected were cleaned and processed for analysis. Quantitative data was processed using STATA 15 software, and were presented using a descriptive approach (frequencies, percentages, means and cross-tabulations) and statistical test of differences in means. The Consultant (DRIC-UCC) generated a metadata contained in a codebook (see Annex 7), describing each variable and how they were measured. In consultation with USDA, the MTE validated and compared the data with the 2015 baseline results and the 2017 Annual Survey results.

The qualitative data were transcribed and analyzed. The analytical techniques that were employed under the qualitative data include documentation review, content analysis, goal compatibility analysis (to ascertain whether the goals of GPP and national goals in agriculture are compatible), while stakeholder analysis was done to firm up the quantitative data in terms of providing further insights and explanations.

## 4.0 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This section presents the results of the evaluation based on the 13 midterm performance-monitoring indicators and the evaluation questions as well as other key findings from the stakeholders. It also presents the conclusions and recommendations.

### 4.1 Demographic Characteristics of Poultry Producers

Figure 1 shows key demographic characteristics of poultry producers, namely sex and education level of poultry producers; tier of production; sample distribution across intervention regions; farm size; agricultural training status; type of agricultural training; and system of ownership. From Figure 1, male respondents constitute 85.8 percent of the total sampled respondents. This proportion is similar to the baseline male proportion of 88.5 percent. This clearly indicates that Ghana's poultry industry in the three intervention regions is male-dominated, either at the managerial or ownership level. The figure also shows that more than half (70.3%) of the respondents have at least secondary education. It is again observed that the poultry producers were dominated by Secondary and Primary/JHS certificate holders. Moreover, the median farm size,

according to the tier of production, indicates an average of 3,600 square feet for farms in Tier 3, while farms in Tier 1 had the highest average of 48,000 square feet. The remaining characteristics are shown in Figure 1.

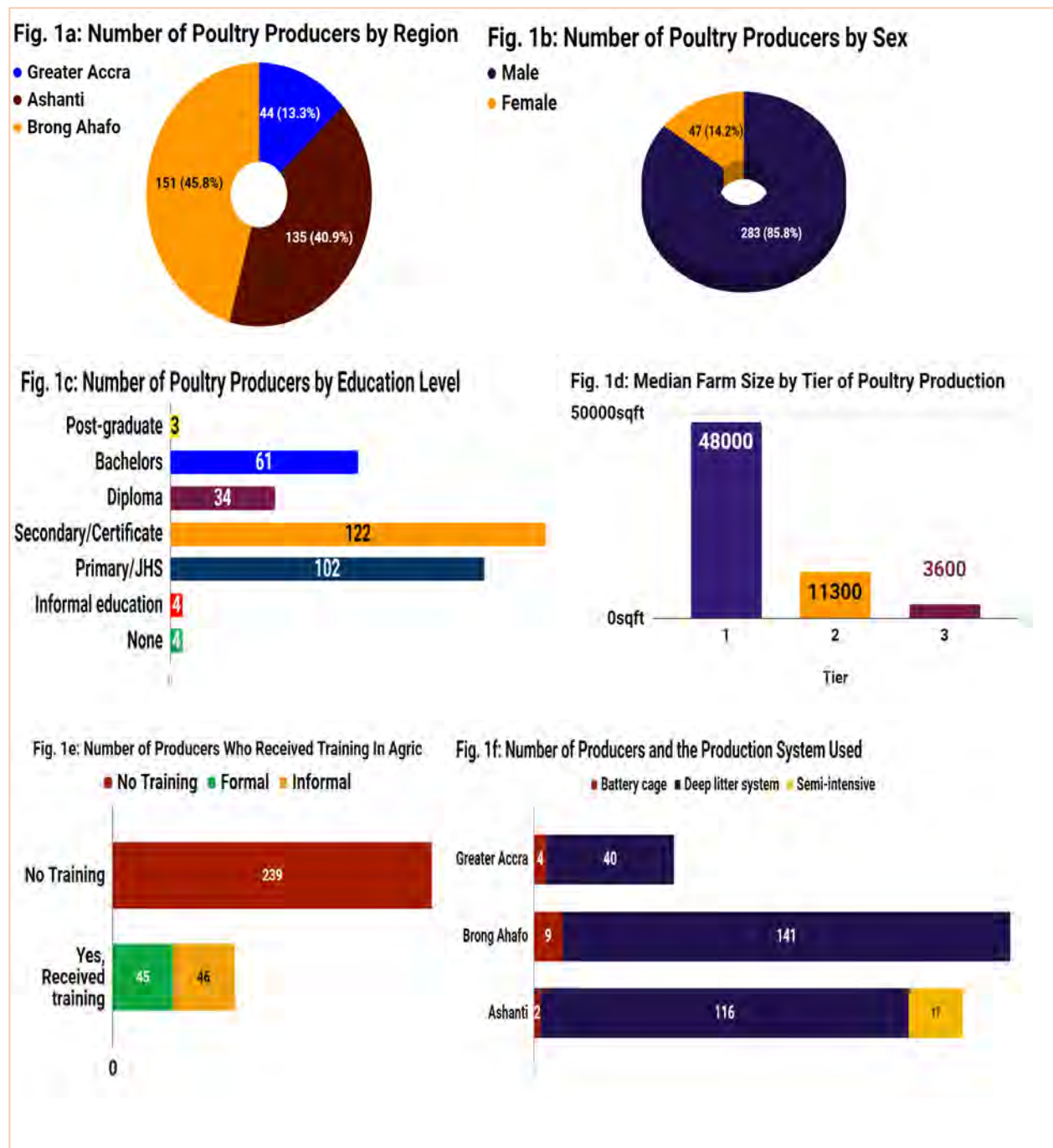


**Figure 1: Demographic Characteristics**

Source: Fieldwork, 2019

## 4.2 Indicator Results

### 4.2.1 Percentage of poultry producers who have signed agreements with input suppliers

Poultry producers, in their operations, deal with a number of value chain actors. They demand Day Old Chicks (DOCs), commercial feed or feed ingredients and veterinary products like drugs and vaccines as inputs from their respective suppliers. Aside their engagement with input suppliers, poultry producers at times supply live birds and eggs to some market actors on credit or cash sales. In their dealings with the value chain actors, poultry producers in certain cases made either formal (signed) or informal (verbal) contractual agreements with these business partners. Figure 2 gives the distribution of poultry producers who had made formal and informal agreements with input suppliers. [Table 4A](#) under Annex 8 gives additional information on the proportions of poultry producers who had either signed or made verbal agreements with the various value chain actors. For instance, [Table 4A](#) indicates that only a few producers have contract with input suppliers such as DOC suppliers (3.07%) followed by feed suppliers (1.84%) and veterinary products suppliers (0.61%).

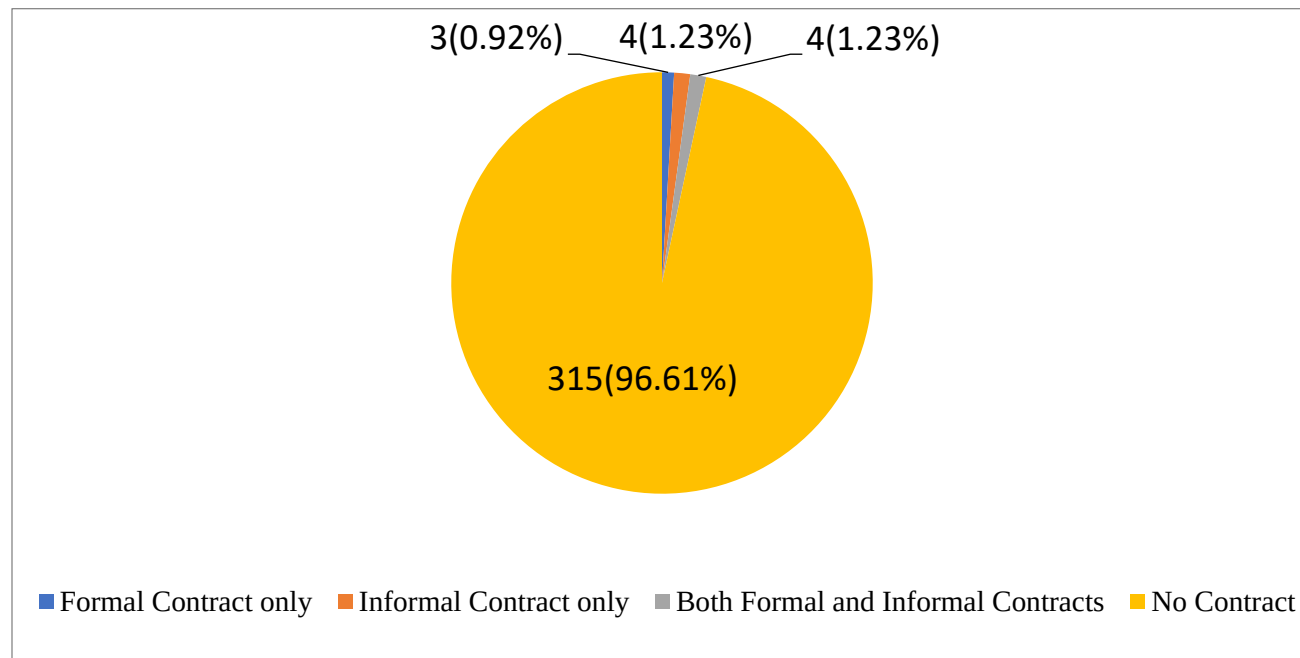


**Figure 2: Percentage of Poultry Producers who have Agreements with Input Suppliers**

Source: Fieldwork, 2019

Out of 326 poultry producers, only 3 (0.92%) and 4 (1.23%) had respectively made formal contracts only and informal contracts only with input suppliers (see Figure 2). Another 4 (1.23%) had formal contracts with some input suppliers and informal contracts with others. A great number of the poultry producers (96.6%) had neither formal nor informal contracts with their input suppliers.

#### 4.2.2 *Average poultry mortality rate*

The midterm average mortality rates show a general reduction in the rate of mortality in broilers, layers and cockerels (see Table 1). The average mortality is measured by counting the deceased birds scaled to the size of bird population. From Table 1, the average mortality for broilers declined from seven (7) percent to two (2) percent across all tiers of production. Layers mortality decreased from 8.4 percent to 1.8 in the midterm, while cockerel mortality reduced from 11 percent to one (1) percent. Likewise, a regional breakdown revealed a fall in the midterm mortality rates for all the three intervention regions. Specifically, the Greater Accra region had a reduction in mortality rates for broilers between 2017 (8.9%) and 2018 (0.6%). Mortality rates for broilers in the Ashanti region also decreased from 7.1 percent to 2.7 percent. Likewise, in the Brong Ahafo region, broiler mortality rates reduced from 9.6 percent to 2.3 percent. Similar trends could be seen for layers and cockerels across all tiers in the GPP intervention regions.

There was a reduction in the mortality rate in birds between 2017 and 2018. This could be attributed to farmers' observance of the vaccination protocols and proper husbandry practices on poultry farms, most especially among tier 1 farms where mortality rates were very low. However, in 2018, the Brong Ahafo region slightly ranked high in mortality rates. Although not tested empirically, the high mortality rates in the region could be explained in the light of the Avian Influenza (AI) outbreak in Dormaa and some parts of Sunyani municipality in 2017.

**Table 1: Average Mortality Rates for Broilers, Layers and Cockerels**

|               | Annual Survey 2017 (%) |     |     |       |        |     |     |       |           |     |     |       | Midterm 2018 (%) |                  |                  |                  |                  |                  |                  |                  |           |   |    |       |
|---------------|------------------------|-----|-----|-------|--------|-----|-----|-------|-----------|-----|-----|-------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|---|----|-------|
|               | Broilers               |     |     |       | Layers |     |     |       | Cockerels |     |     |       | Broilers         |                  |                  |                  | Layers           |                  |                  |                  | Cockerels |   |    |       |
|               | Tiers                  |     |     |       | Tiers  |     |     |       | Tiers     |     |     |       | Tiers            |                  |                  |                  | Tiers            |                  |                  |                  | Tiers     |   |    |       |
| Region        | 1                      | 2   | 3   | Total | 1      | 2   | 3   | Total | 1         | 2   | 3   | Total | 1                | 2                | 3                | Total            | 1                | 2                | 3                | Total            | 1         | 2 | 3  | Total |
| Greater Accra |                        |     |     |       |        |     |     |       |           |     |     |       |                  |                  |                  |                  |                  |                  |                  |                  |           |   |    |       |
| Mean          | 18                     | 4.9 | 4.8 | 5.3   | 16     | 15  | 8.7 | 9.8   | 0         | 41  | 20  | 22    | 0                | 0.5 <sup>b</sup> | 0.7 <sup>b</sup> | 0.6 <sup>b</sup> | 0                | 0.0 <sup>b</sup> | 1.3 <sup>b</sup> | 1.1 <sup>b</sup> | 0         | 0 | 1  | 0.6   |
| SD            | 0                      | 3.8 | 6.8 | 6.6   | 0      | 8.8 | 19  | 18    | 0         | 0   | 22  | 22    |                  | 0.5              | 1.1              | 1                |                  | -                | 2.1              | 2                |           | 0 | 2  | 1.4   |
| n             | 1                      | 5   | 24  | 30    | 1      | 5   | 32  | 38    | 0         | 1   | 10  | 11    | 1                | 3                | 26               | 30               | 1                | 2                | 19               | 22               | 1         | 2 | 11 | 14    |
| Ashanti       |                        |     |     |       |        |     |     |       |           |     |     |       |                  |                  |                  |                  |                  |                  |                  |                  |           |   |    |       |
| Mean          | 6.6                    | 9.5 | 5.1 | 7.6   | 4.8    | 5.7 | 8.3 | 7     | 20        | 3.2 | 11  | 8.9   | 2.6              | 2.8              | 2.7 <sup>b</sup> | 2.7 <sup>b</sup> | 1.1              | 1.1 <sup>b</sup> | 1.3 <sup>b</sup> | 1.2 <sup>b</sup> |           | 1 | 1  | 1.2   |
| SD            | 7.5                    | 9.8 | 4.1 | 8.1   | 3.6    | 5.6 | 11  | 8.9   | 14        | 1.9 | 15  | 13    | 3.7              | 5.3              | 3.2              | 3.7              | 1.7              | 1.8              | 2.2              | 2.1              |           | 1 | 2  | 2     |
| n             | 3                      | 19  | 13  | 35    | 7      | 61  | 72  | 140   | 2         | 11  | 23  | 36    | 2                | 8                | 25               | 35               | 8                | 25               | 67               | 100              |           | 5 | 24 | 29    |
| Brong Ahafo   |                        |     |     |       |        |     |     |       |           |     |     |       |                  |                  |                  |                  |                  |                  |                  |                  |           |   |    |       |
| Mean          | 11                     | 9.9 | 7.1 | 8.4   | 5.1    | 10  | 10  | 9.9   | 0         | 4.8 | 4.2 | 4.5   | 0.3              | 0.3 <sup>b</sup> | 2.5 <sup>b</sup> | 2.3 <sup>b</sup> | 2.0 <sub>b</sub> | 3.8 <sup>a</sup> | 3.9 <sup>b</sup> | 3.9 <sup>b</sup> |           | 2 | 1  | 0.9   |
| SD            | 0                      | 8   | 7.3 | 7.4   | 3.2    | 12  | 10  | 11    | 0         | 2.3 | 2.3 | 2.1   |                  | 0.4              | 5.5              | 5.2              | 2.3              | 9.6              | 12               | 11.7             |           | 2 | 2  | 1.8   |
| n             | 1                      | 9   | 13  | 23    | 10     | 63  | 36  | 109   | 0         | 4   | 4   | 8     | 1                | 6                | 58               | 65               | 2                | 11               | 89               | 102              |           | 2 | 13 | 15    |
| Total         |                        |     |     |       |        |     |     |       |           |     |     |       |                  |                  |                  |                  |                  |                  |                  |                  |           |   |    |       |
| Mean          | 9.8                    | 8.9 | 5.5 | 7     | 5.6    | 8.4 | 8.9 | 8.4   | 20        | 6   | 13  | 11    | 1.4 <sup>b</sup> | 1.5 <sup>b</sup> | 2.1              | 2                | 1.2 <sub>b</sub> | 1.8 <sup>b</sup> | 2.6 <sup>b</sup> | 2.4 <sup>b</sup> | 0         | 1 | 1  | 1     |
| SD            | 7.3                    | 8.7 | 6.3 | 7.5   | 4.1    | 9.8 | 13  | 11    | 14        | 9.5 | 17  | 15    | 2.6              | 3.7              | 4.4              | 4.2              | 1.7              | 5.4              | 8.8              | 8.1              |           | 1 | 2  | 1.8   |
| N             | 5                      | 33  | 50  | 88    | 18     | 129 | 140 | 287   | 2         | 16  | 37  | 55    | 4                | 17               | 109              | 130              | 11               | 38               | 175              | 224              | 1         | 9 | 48 | 58    |

Source: Fieldwork, 2019

Note: <sup>a</sup> implies  $P < 0.01$ ; <sup>b</sup> implies  $P < 0.0$

#### 4.2.3 Percentage of poultry farmers who can identify at least four best poultry husbandry practices as a result of USDA-GPP assistance

Table 2 indicates the number of poultry farmers who can identify at least four (4) best poultry husbandry practices as a result of USDA-GPP assistance. It could be seen that 99.7 percent of the sampled farmers (i.e. 99.6% for males and 100% for females) were able to identify at least four (4) best poultry husbandry practices. This is higher than the results of the annual survey conducted in 2017 by the GPP Office (i.e. 88.7% for males and 64.6% for females). The top five best practices that farmers could identify were: the use of clean water on the farm; provision of proper heat in brooding pens; early treatment of diseases; maintaining flock in a good state of wellbeing; and following recommended vaccination protocol for birds, while the least mentioned was the practice of walling the farm. See [Table 4B](#) under Annex 8 for the ranking of all husbandry practices that poultry producers could identify

**Table 2: Number of Poultry Farmers who can identify at Least Four Best Poultry Husbandry Practices**

| Characteristics | Annual Survey 2017 |                   |                   |                   | Midterm 2018   |                 |                  |                   |
|-----------------|--------------------|-------------------|-------------------|-------------------|----------------|-----------------|------------------|-------------------|
|                 | Tier               |                   |                   |                   | Tier           |                 |                  |                   |
|                 | 1                  | 2                 | 3                 | Total             | 1              | 2               | 3                | Total             |
|                 | %<br>(n/N)         | %<br>(n/N)        | %<br>(n/N)        | %<br>(n/N)        | %<br>(n/N)     | %<br>(n/N)      | %<br>(n/N)       | %<br>(n/N)        |
| <b>Sex</b>      |                    |                   |                   |                   |                |                 |                  |                   |
| Males           | 94.4<br>(17/18)    | 93.0<br>(106/114) | 84.2<br>(112/133) | 88.7<br>(235/265) | 100<br>(11/11) | 98<br>(48/49)   | 100<br>(217/217) | 99.6<br>(276/277) |
| Females         | 5.6<br>(1/18)      | 86.4<br>(19/22)   | 88.0<br>(22/25)   | 64.6<br>(42/65)   | -              | 100<br>(3/3)    | 100<br>(43/43)   | 100<br>(46/46)    |
|                 |                    |                   |                   |                   |                |                 |                  |                   |
| Total           | 100<br>(18/18)     | 91.9<br>(125/136) | 84.8<br>(134/158) | 86.6<br>(277/330) | 100<br>(11/11) | 98.1<br>(51/52) | 100<br>(260/260) | 99.7<br>(322/323) |
| <b>Region</b>   |                    |                   |                   |                   |                |                 |                  |                   |
| Greater Accra   | 100<br>(1/1)       | 66.7<br>(4/6)     | 66.7<br>(26/39)   | 67.4<br>(31/46)   | 100<br>(1/1)   | 100<br>(3/3)    | 100<br>(40/40)   | 100<br>(44/44)    |
| Ashanti         | 100<br>(7/7)       | 95.5<br>(64/67)   | 89.7<br>(70/78)   | 92.8<br>(141/152) | 100<br>(8/8)   | 97<br>(33/34)   | 100<br>(90/90)   | 99<br>(131/132)   |
| Brong Ahafo     | 100<br>(10/10)     | 90.5<br>(57/63)   | 92.7<br>(38/41)   | 92.1<br>(105/114) | 100<br>(2/2)   | 100<br>(15/15)  | 100<br>(130/130) | 100<br>(147/147)  |
|                 |                    |                   |                   |                   |                |                 |                  |                   |
| <b>Total</b>    | 100<br>(18/18)     | 91.9<br>(125/136) | 84.8<br>(134/158) | 88.8<br>(277/312) | 100<br>(11/11) | 100<br>(52/52)  | 100<br>(260/260) | 100<br>(323/323)  |

Source: Fieldwork, 2019

#### 4.2.4 Volume of commodities (metric tons - MT) sold by project beneficiaries

During the midterm survey, 282 poultry producers reported sales in 2018, of which 228 were willing to respond to revenues they made from sales (Table 3). The volume of sales per farm in 2018 was a little lower than that of 2017. This, however, differed across regions and tiers. While the 2018 volume of sales per farm was lesser than that of 2017 in the Ashanti and Brong Ahafo regions, the volume of sales in the Greater Accra region was higher in 2018. Specific to the MTE,

the volume of sales differed across tiers of poultry farms and regions. However, for the Ashanti region, the volume of sales for all the poultry products was highest among Tier 1 producers, followed by Tier 2 producers and lastly, Tier 3 producers. This was expected since the scale of production for Tier 1 producers was the largest, while the scale of production for Tier 3 farms was the smallest. The average volume of sales per farm in the Greater Accra region was 8.12MT (Cockerel – 6.42MT, Broilers – 176.01MT, Layers – 12.96MT and Eggs – 11.90MT), Ashanti region was 7.23MT (Cockerel – 12.81MT, Broilers – 3.61MT, Layers – 41.06MT and Eggs – 24.41MT), and Brong Ahafo region was 6.79MT (Cockerel – 1.77MT, Broilers – 12.12MT, Layers – 104.43MT and Eggs – 21.39MT).

**Table 3: Volume of Sales (in Metric Tons) and Value of Sales (in US\$)**

| Characteristics | VOLUME OF SALES |               |       |                    |              |       | VALUE OF SALES |                   |           |                    |                   |            |
|-----------------|-----------------|---------------|-------|--------------------|--------------|-------|----------------|-------------------|-----------|--------------------|-------------------|------------|
|                 | Midterm         |               |       | 2017 Annual Survey |              |       | Midterm        |                   |           | 2017 Annual Survey |                   |            |
|                 | Obs.            | Mean          | Std.  | Obs.               | Mean         | Std.  | Obs.           | Mean              | Std.      | Obs.               | Mean              | Std.       |
|                 |                 | (MT)          | (MT)  |                    | (MT)         | (MT)  |                | (US\$)            | (US\$)    |                    | (US\$)            | (US\$)     |
| Greater Accra   |                 | <b>8.12</b>   |       |                    | <b>6.12</b>  |       |                | <b>544244.37</b>  |           |                    | <b>194751.04</b>  |            |
| Tier 1          |                 | <b>182.32</b> |       |                    | <b>81.66</b> |       |                | <b>3454000.00</b> |           |                    | <b>2390586.00</b> |            |
| Cockerel        | 1               | 3.73          |       |                    |              |       |                |                   |           |                    |                   |            |
| Broilers        | 1               | 157.89        |       | 1                  | 67.25        |       | 1              | 273858.92         |           | 1                  | 641130.00         |            |
| Layers          | 1               | 9.90          |       | 1                  | 6.60         |       | 1              | 18672.20          |           | 1                  | 58000.00          |            |
| Egg             | 1               | 10.80         |       | 1                  | 7.81         |       | 1              | 424066.39         |           | 1                  | 1691456.00        |            |
| Tier 2          |                 | <b>17.92</b>  |       |                    | <b>7.59</b>  |       |                | <b>5088900.00</b> |           |                    | <b>322868.83</b>  |            |
| Cockerel        | 2               | 1.23          | 0.58  | 6                  | 0.27         | 0.66  | 1              | 2074.69           |           | 4                  | 6538.88           | 13077.75   |
| Broilers        | 3               | 15.97         | 14.99 | 6                  | 4.62         | 6.58  | 2              | 19346.47          | 1687.08   | 6                  | 50853.33          | 64323.26   |
| Layers          | 1               | 1.98          |       | 6                  | 1.65         | 4.04  | 1              | 3485.48           |           | 4                  | 38000.00          | 76000.00   |
| Egg             | 2               | 0.71          | 0.83  | 5                  | 1.26         | 1.10  | 1              | 2067323.65        |           | 6                  | 242322.90         | 255351.80  |
| Tier 3          |                 | <b>2.62</b>   |       |                    | <b>3.96</b>  |       |                | <b>99834.48</b>   |           |                    | <b>118737.15</b>  |            |
| Cockerel        | 10              | 1.46          | 1.31  | 39                 | 0.24         | 0.61  | 7              | 6125.01           | 7207.84   | 21                 | 4236.48           | 9771.17    |
| Broilers        | 24              | 2.15          | 2.56  | 39                 | 2.48         | 3.07  | 20             | 6928.48           | 12427.85  | 39                 | 33213.69          | 40667.07   |
| Layers          | 19              | 1.08          | 1.07  | 39                 | 0.90         | 2.02  | 9              | 3595.39           | 3219.83   | 29                 | 17504.31          | 28351.38   |
| Egg             | 26              | 0.39          | 0.43  | 33                 | 0.40         | 0.59  | 18             | 19190.87          | 27371.24  | 39                 | 70226.26          | 107704.80  |
| Ashanti         |                 | <b>7.23</b>   |       |                    | <b>9.08</b>  |       |                | <b>541263.88</b>  |           |                    | <b>528602.35</b>  |            |
| Tier 1          |                 | <b>37.18</b>  |       |                    | <b>80.83</b> |       |                | <b>4962220.00</b> |           |                    | <b>5294601.60</b> |            |
| Cockerel        | 1               | 1.40          |       | 7                  | 0.20         | 0.52  | 1              | 7468.88           |           | 6                  | 5420.97           | 13278.61   |
| Broilers        | 2               | 1.32          | 0.10  | 7                  | 9.74         | 19.58 | 1              | 3796.68           |           | 7                  | 98058.57          | 191009.90  |
| Layers          | 3               | 31.25         | 26.39 | 7                  | 44.68        | 34.20 | 2              | 7085.06           | 4650.47   | 7                  | 476654.70         | 344853.10  |
| Egg             | 6               | 20.88         | 14.76 | 7                  | 26.21        | 22.86 | 5              | 1024419.09        | 885613.07 | 7                  | 4715242.00        | 3731290.00 |
| Tier 2          |                 | <b>6.94</b>   |       |                    | <b>9.12</b>  |       |                | <b>350860.75</b>  |           |                    | <b>490196.90</b>  |            |

|             |            |               |              |            |              |              |            |                   |                   |            |                   |                   |
|-------------|------------|---------------|--------------|------------|--------------|--------------|------------|-------------------|-------------------|------------|-------------------|-------------------|
| Cockerel    | 6          | 8.60          |              | 67         | 1.05         | 3.47         | 5          | 7343.40           | 12332.08          | 44         | 17355.72          | 60468.02          |
| Broilers    | 5          | 1.36          | 0.99         | 67         | 2.03         | 6.30         | 4          | 3460.06           | 3153.87           | 67         | 21474.36          | 69336.07          |
| Layers      | 19         | 4.74          | 5.16         | 67         | 4.10         | 6.54         | 10         | 8273.86           | 10548.24          | 61         | 52781.84          | 83811.78          |
| Egg         | 28         | 2.13          | 2.70         | 61         | 2.14         | 2.15         | 23         | 70162.12          | 80529.09          | 67         | 409269.70         | 450305.00         |
| Tier 3      |            | <b>5.17</b>   |              |            | <b>2.60</b>  |              |            | <b>287131.91</b>  |                   |            | <b>133873.76</b>  |                   |
| Cockerel    | 27         | 2.81          | 3.93         | 78         | 0.75         | 3.17         | 20         | 5600.77           | 5962.13           | 66         | 5259.41           | 16745.88          |
| Broilers    | 27         | 0.93          | 1.16         | 78         | 0.29         | 0.92         | 17         | 2017.15           | 1658.72           | 78         | 2929.81           | 8264.55           |
| Layers      | 46         | 5.07          | 10.89        | 78         | 0.95         | 2.58         | 27         | 32622.22          | 134729.13         | 70         | 11972.29          | 28629.49          |
| Egg         | 78         | 1.22          | 1.64         | 72         | 0.66         | 1.16         | 63         | 48941.08          | 61942.24          | 78         | 115749.30         | 233073.70         |
| Brong Ahafo |            | <b>6.79</b>   |              |            | <b>14.59</b> |              |            | <b>462226.81</b>  |                   |            | <b>1069741.00</b> |                   |
| Tier 1      |            | <b>106.07</b> |              |            | <b>70.00</b> |              |            | <b>12117256</b>   |                   |            | <b>5332289.8</b>  |                   |
| Broilers    | 1          | 2.22          |              | 10         | 8.83         | 27.92        |            |                   |                   | 10         | 50995.20          | 161261.00         |
| Layers      | 1          | 90.75         |              | 10         | 37.81        | 35.97        | 1          | 311410.79         |                   | 10         | 521799.10         | 654453.40         |
| Egg         | 1          | 13.10         |              | 10         | 23.35        | 13.70        | 1          | 2199170.12        |                   | 10         | 4759496.00        | 2813110.00        |
| Tier 2      |            | <b>20.32</b>  |              |            | <b>12.97</b> |              |            | <b>1080882.50</b> |                   |            | <b>972210.09</b>  |                   |
| Cockerel    | 2          | 0.22          | 0.08         | 63         | 0.02         | 0.09         |            |                   |                   | 42         | 611.90            | 1966.61           |
| Broilers    | 4          | 7.77          | 10.17        | 63         | 1.41         | 7.98         | 4          | 25518.67          | 42840.52          | 63         | 14515.83          | 85393.20          |
| Layers      | 10         | 10.61         | 12.91        | 63         | 7.34         | 9.59         | 6          | 19329.18          | 15313.63          | 58         | 85779.32          | 106570.20         |
| Egg         | 10         | 6.56          | 7.39         | 63         | 4.20         | 5.08         | 8          | 253055.6          | 331593.98         | 63         | 878314.90         | 1117722.00        |
| Tier 3      |            | <b>4.68</b>   |              |            | <b>3.57</b>  |              |            | <b>261759.55</b>  |                   |            | <b>179959.49</b>  |                   |
| Cockerel    | 11         | 1.55          | 2.91         | 41         | 0.48         | 2.48         | 8          | 2313.28           | 2075.41           | 30         | 1821.67           | 8680.18           |
| Broilers    | 53         | 2.13          | 2.31         | 41         | 0.75         | 1.62         | 43         | 4386.04           | 4260.68           | 41         | 7677.63           | 16102.66          |
| Layers      | 73         | 3.07          | 5.05         | 41         | 1.58         | 2.82         | 44         | 9462.22           | 19338.97          | 37         | 17674.92          | 29753.58          |
| Egg         | 95         | 1.73          | 6.77         | 36         | 0.86         | 0.93         | 72         | 58470.50          | 105388.11         | 41         | 154998.40         | 184279.20         |
| Total       | <b>282</b> | <b>7.17</b>   | <b>16.60</b> | <b>312</b> | <b>10.66</b> | <b>20.50</b> | <b>228</b> | <b>506990.70</b>  | <b>1475233.00</b> | <b>312</b> | <b>677104.40</b>  | <b>1467565.00</b> |

Source: Fieldwork, 2019

Table 3 presents the volume of sales of various poultry products across the three tier groupings and the GPP intervention regions. From the table, the volume of sales is highest for the farmers in Tier 1 across all the poultry products except for the case of the cockerel where those in Tier 2 recorded the highest volume. For the regional distribution of volume of sales, farmers in the Ashanti and Brong Ahafo regions recorded the highest volume. The average volume of sales for cockerel, broilers, layers and eggs were 2.79MT, 3.65MT, 5.03MT and 2.21MT, respectively.

#### 4.2.5 Value of sales by project beneficiaries

The average value of sales per farm from the 2017 annual and 2018 midterm surveys among various tier producers in each of the three (3) GPP target regions are presented in Table 3. Given that the 2017 and midterm surveys were conducted at different time periods, the values of sales obtained from the 2017 annual survey for each tier within a region were projected to their

equivalence at the time of the midterm for comparison. This was done using the Net Future Value (NFV) formula. NFV is estimated as the product of baseline value of sales and the scalar  $[1 + 0.16]$  where 0.16 is 2018 annual interest rate expressed in decimal. Similar to differences in the volume of sales between the 2017 and midterm surveys, the average value of sales per farm reported from the 2017 annual survey result was a little higher than the value for the MTE.

Analysis of the volume and value of sales per farm obtained from the sale of various poultry products within tiers in the intervention regions show that, in cases where the volume of sales was higher for a specific period (i.e. 2017 annual or midterm surveys), the value of sales was also higher. This is very intuitive since the value of sales is dependent on the volume of sales made. Specific to the MTE, it was found that for almost all the products within the intervention regions, value of sales was greatest for Tier 1 poultry producers, followed by Tier 2 producers and then, Tier 3 producers. The only different scenarios were in the Greater Accra region (value of sales was greatest among Tier 2 poultry producers, followed by Tier 1 producers and then, Tier 3 producers). The average value of sales for cockerel, broilers, layers and eggs were US\$25208.29, US\$41584.24, US\$89525.45, and US\$529517.20, respectively.

#### *4.2.6 Number of firms engaged in agricultural and food security-related production and services that have increased profits or become financially self-sufficient with USDA assistance*

In all, 261 poultry producers reported revenue and cost values for 2017 and 2018 production years during the MTE. It can be observed from Figure 3 that slightly more than a third (34.48%) indicated that the profit gained in 2018 was higher than that of 2017. However, more than half (57.47%) indicated that their profits in 2018 were lower than 2017. Meanwhile, the profit of 8.05 percent of the poultry producers remained the same between 2017 and 2018. Thus, a greater proportion of producers had a decrease in profits. This could be as a result of higher volume of sales made in 2017 relatively to 2018. The distribution across tiers and regions is shown in [Table 4C](#) under Annex 8.

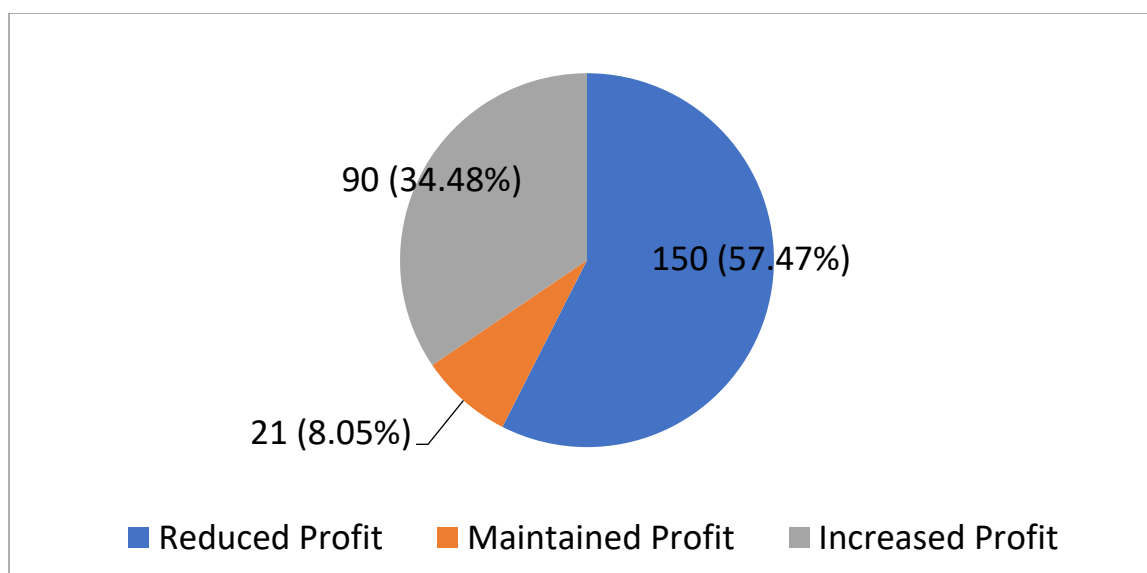


**Figure 3: Number of Firms that Increased Profit**

Source: Fieldwork, 2019

#### 4.2.7 Number of firms that invest in branding or marketing initiatives as a result of USDA assistance

Table 4 and 5 depict the number and proportion of poultry farms that invest in branding and the types of marketing initiatives, respectively. From Table 4, only 36 (11.25%), out of the 320 farms, indicated that they invest in branding as a business strategy. Furthermore, only 16 of those who invest in branding as a business strategy indicated that their decision was as a result of the GPP training. Meanwhile, 34.48 percent of poultry producers who utilize branding as a marketing strategy increased their profits compared to farmers who did not use branding as a marketing strategy. However, the Chi-square value beneath the table indicates that the distribution was not statistically significant.

**Table 4: Number of Firms that Invest in Branding because of USDA Assistance**

| Category                             | Branding or Marketing Initiative |                   |
|--------------------------------------|----------------------------------|-------------------|
| All farmers                          | 11.25 (36/320)                   |                   |
| GPP induced                          | 44.44 (16/36)                    |                   |
| Branding status                      | Did not increase Profit          | Increased Profit  |
|                                      | % (n)                            | % (n)             |
| Branding                             | 65.52 (19)                       | 34.48 (10)        |
| Not into branding                    | 65.52 (152)                      | 34.48 (80)        |
| <b>Total</b>                         | <b>65.52 (171)</b>               | <b>34.48 (90)</b> |
| Pearson chi2 (1) = 0.0000 Pr = 1.000 |                                  |                   |

Source: Fieldwork, 2019

Table 5, on the other hand, presents the number and proportion of farmers who use marketing initiatives in six (6) categories as a result of the GPP training, other trainings and unknown sources. From the table, the highest marketing investment deployed as a result of GPP training emanates from advertisement (25%), whereas none of the poultry producers invested in flyers and brochures as marketing strategies. For the farmers who received other trainings apart from GPP, the largest proportion invested in campaigns or fair participation. However, for those without any form of training, majority of them used media promotion, followed by brand development and advertisement.

**Table 5: Number of Firms that Invest in Marketing Initiatives because of USDA Assistance**

| Marketing Investment        | None          | GPP Induced  | Other Inducement | Total |
|-----------------------------|---------------|--------------|------------------|-------|
| Brand Development           | 47.22(17/36)  | 22.22 (8/36) | 30.56 (11/36)    | 36    |
| Media Promotion             | 55.56 (20/36) | 22.22 (8/36) | 22.22 (8/36)     | 36    |
| Marketing Plan Development  | (22/36)       | 22.22 (8/36) | 16.67 (6/36)     | 36    |
| Flyers and brochures        | 38.89 (14/36) | 0            | 8.3 (3/36)       | 36    |
| Advertisement               | 47.22 (17/36) | 25 (9/36)    | 27.78(10/36)     | 36    |
| Campaign/fair participation | 75 (27/36)    | 13.89 (5/36) | 38.89 (4/36)     | 36    |

Source: Fieldwork, 2019

#### 4.2.8 Percentage increase in the number of input suppliers available to GPP poultry producers

Here, the MTE looked at percentage changes in DOC, vaccine, drugs and feed suppliers available to GPP poultry producers. Generally, it was found that the number of suppliers of most inputs increased between 2017 and 2018 (see Table 6). In the 2017 annual survey, the number of DOC, vaccines and drugs, and feed suppliers available to GPP poultry producers was reported to have increased by three (3) percent, 11 percent and 12 percent, respectively. Data from the MTE generally showed a further increase in the number of DOC, drug and feed suppliers available to GPP poultry producers. For instance, the average number of DOC, drugs and feed suppliers was higher than their 2017 averages by 20.02, 8.02 and 14.09 percentage points, respectively. The average number of vaccine suppliers was, however, found to have decreased from their 2017 average by 2.35 percentage points.

There was spatial variation between the intervention regions with respect to number of input suppliers. In the case of the Brong Ahafo region, the number of suppliers of all the four (4) inputs increased. However, the number of suppliers of some inputs increased in the Ashanti and Greater Accra regions, while others decreased. Specifically, the number of suppliers of vaccines and drugs in the Greater Accra region decreased by 16.67 and 5.43 percentage points, respectively. In the case of the Ashanti region, there was a decrease in the number of vaccines and feed suppliers by 7.73 percent and one (1) percent, respectively. Reasons for the decrease in the number of suppliers of certain inputs in the Greater Accra and Ashanti regions were not explored.

**Table 6: Change in Input Suppliers Available to GPP Poultry Producers from 2017 to 2018**

|  |  | DOCs | Vaccines | Drugs | Feed |
|--|--|------|----------|-------|------|
|--|--|------|----------|-------|------|

|                           |               | (%) Δ | (%) Δ  | (%) Δ | (%)Δ  |
|---------------------------|---------------|-------|--------|-------|-------|
| <b>2017 Annual Survey</b> | Overall       | 3     | 11     |       | 12    |
|                           |               |       |        |       |       |
| <b>Midterm Survey</b>     | Greater Accra | 12.50 | -16.67 | -5.43 | 11.11 |
|                           | Ashanti       | 19.21 | -7.73  | 12.06 | -1.00 |
|                           | Brong Ahafo   | 26.30 | 8.80   | 9.94  | 31.38 |
|                           | Overall       | 20.02 | -2.35  | 8.02  | 14.09 |

Source: Fieldwork, 2019

#### 4.2.9 Number of firms that regularly use market information to inform decisions

Table 7 shows the usage of market information across four categories in the midterm survey: price information, buyer information, alternative channel, and consumer behaviour. The distribution indicates that all the farmers who had access to market information use price information, registering 100 percent. In terms of buyer information, four (4) out of every five (5) farmers who had access to market information use buyer information. The remaining uses of market information are shown in the Table 7. In all, the highest usage of market information was in price information, whereas the least proportion was recorded in alternative channel. All the farmers who had access to market information use, at least, one (1) market information, registering usage of marketing information of 100 percent. Comparing the baseline and midterm proportions, access to market information declined by about 10 percentage points, whereas the use of market information increased by 62.46 percentage points.

**Table 7: Number of Firms that Regularly Use Market Information to Inform Decisions**

| <b>Marketing Information</b> | <b>Midterm</b> |                 |  | <b>Baseline</b> |                 |  |
|------------------------------|----------------|-----------------|--|-----------------|-----------------|--|
|                              | <b>Yes</b>     |                 |  |                 |                 |  |
| Access to market information |                | 34.54 (114/330) |  |                 | 24.44 (100/409) |  |
| Usage of market Information  | Yes            |                 |  |                 |                 |  |
| Price information            |                | 12.96(78/216)   |  |                 |                 |  |
| At least one usage           |                | 0               |  |                 |                 |  |

Source: Fieldwork, 2019

#### 4.2.10 Number of jobs attributed to USDA assistance

Table 8 indicates that out of the 330 farms, only 73 created new jobs between 2016 and 2018. The data are disaggregated by the type of job created into permanent (Full-Time Equivalence [FTE]) and Casual Employment (CE) by male and female employees. The number of new jobs created in FTE between 2016 and 2018 was 203, comprising 170 males and 33 females. In terms of the number of new jobs in CE, a total of 86 were created with males constituting 61 and females 25. It can be observed that the new jobs created were male dominated (80%) and majority was in FTE (70%).

Table 8 further indicates that out of the 289 jobs created, only 85 are attributable to USDA assistance, comprising 55 FTE and 30 CE jobs. There were more males than females to a ratio of

7:1 in the MTE as compared to 5:1 in the 2017 annual survey. Finally, the number of new jobs created in FTE due to USDA assistance was 44 in 2017, but 85 between a period of 2016 and 2018.

**Table 8: Number of Jobs Attributed to USDA Assistance**

| Components of New Employees | Midterm Values |     |       |                                         |     |                 |    |      |     |       | Comparison |         |
|-----------------------------|----------------|-----|-------|-----------------------------------------|-----|-----------------|----|------|-----|-------|------------|---------|
|                             | 2016-2018      |     |       | Jobs created because of USDA assistance |     |                 |    |      |     |       |            |         |
|                             | Total New Jobs |     |       | GPP only                                |     | AMPLIFIE S Only |    | Both |     |       | 2017       | Midterm |
| Adult employees             | FT E           | C E | Total | FT E                                    | C E | FTE             | CE | FT E | C E | Total | FTE        | FTE     |
| Male                        | 170            | 61  | 231   | 21                                      | 9   | 14              | 8  | 14   | 8   | 74    | 37         | 49      |
| Female                      | 33             | 25  | 58    | 4                                       | 2   | 0               | 3  | 2    | 0   | 11    | 7          | 6       |
| Total                       | 203            | 86  | 289   | 25                                      | 11  | 14              | 11 | 16   | 8   | 85    | 44         | 55      |

Source: Fieldwork, 2019

#### 4.2.11 Number of firms that comply with national established vaccination protocols

The number of poultry firms (across tiers in all the GPP intervention regions) that follow national established vaccination protocols is presented in Table 9. Overall, there were 10 out of 11 tier 1 farms, 49 out of 52 tier 2 farms and 243 out of 260 tier 3 farms that follow national vaccination protocol, representing a total of 302 (93.5%) out of 323 farms. The Greater Accra region reported the highest number of compliance, 42 out of 44 (95.5%) farms, while the Ashanti region had the least, 121 out of 132 (91.7%) farms. Yet in all the intervention regions, the MTE indicates an improvement over what was reported in the 2017 Annual Survey (see Table 9).

**Table 9: Number of Firms that Follow the National Established Vaccination Protocol**

| Region        | Annual Survey, 2017 | Midterm             |                     |                       |                       |
|---------------|---------------------|---------------------|---------------------|-----------------------|-----------------------|
|               | % (n/N)             | Tier                |                     |                       |                       |
|               |                     | 1<br>% (n/N)        | 2<br>% (n/N)        | 3<br>% (n/N)          | Total<br>% (n/N)      |
| Greater Accra | 9.7 (16/165)        | 100 (1/1)           | 100 (3/3)           | 95 (38/40)            | 95.5 (42/44)          |
| Ashanti       | 48.5 (80/165)       | 87.5 (7/8)          | 91.2 (31/34)        | 92.2 (83/90)          | 91.6 (121/132)        |
| Brong Ahafo   | 41.2 (69/165)       | 100 (2/2)           | 100 (15/15)         | 93.8 (122/130)        | 94.5 (139/147)        |
| <b>Total</b>  |                     | <b>90.9 (10/11)</b> | <b>94.2 (49/52)</b> | <b>93.5 (243/260)</b> | <b>93.5 (302/323)</b> |

Source: Fieldwork, 2019

#### 4.2.12 Percentage of farmers surveyed who use three or more improved post-production practices

Table 10 indicates that 91.3 percent of farmers surveyed use three or more improved post-production practices, comprising 92 percent of male farmers and 89 percent of female farmers. A regional outlook shows that the Brong Ahafo region had the highest proportion (90.5%) followed by the Ashanti and Greater Accra regions with 90.1 percent and 77.3 percent, respectively. This

finding indicates a rise in the overall percentage of farmers who use three or more improved post-production practices from 73.1 percent in the 2017 annual survey to 91.3 percent. However, the percentage distribution across sex and region was just similar to the findings of the 2017 annual survey conducted by the GPP Office. Some of the improved post-production practices were frequent collection of eggs, regular inspection of eggs, removal of broken eggs, keeping eggs in a well-ventilated place and separating dirty operations from clean operations (see [Table 4D](#) under Annex 8).

**Table 10: Percentage of Farmers who use Three or More Improved Post-Production Practices**

| Number of Post-production Practices | Tier                 |                     |                       | Total                 |
|-------------------------------------|----------------------|---------------------|-----------------------|-----------------------|
|                                     | 1                    | 2                   | 3                     |                       |
| <b>Sex</b>                          |                      |                     |                       |                       |
| Males                               | 100 (11/11)          | 98 (48/49)          | 90 (195/217)          | 92 (254/277)          |
| Females                             |                      | 67 (2/3)            | 91 (39/43)            | 89 (41/46)            |
|                                     |                      |                     |                       |                       |
| <b>Region</b>                       |                      |                     |                       |                       |
| Greater Accra                       | 100.0 (1/1)          | 100.0 (3/3)         | 75.0 (30/40)          | 77.3 (34/44)          |
| Ashanti                             | 100.0 (8/8)          | 94.1 (32/34)        | 88.0 (88/100)         | 90.1 (128/142)        |
| Brong Ahafo                         | 100.0 (2/2)          | 100.0 (15/15)       | 89.2 (116/130)        | 90.5 (133/147)        |
|                                     |                      |                     |                       |                       |
| <b>Total</b>                        | <b>100.0 (11/11)</b> | <b>96.2 (50/52)</b> | <b>90.0 (234/260)</b> | <b>91.3 (295/323)</b> |

Fieldwork, 2018

#### 4.2.13 Gross profit per farm

Gross profit in this context is the difference between total revenue and total cost within the year. As presented in Table 11, gross profit per farm for the MTE was found to be US\$117,533.65. In line with intuition, it can be observed from Table 10 that average gross profit was highest among the Tier 1 farms compared to the other two categories in all the three intervention regions. Also, the average gross profits for Tier 2 sub-samples in the regions were higher than that of their Tier 3 counterparts. To track changes in gross profit between 2017 and 2018, gross margins for the various sub-populations were estimated for 2018 and the estimates compared to those reported from the 2017 annual survey (refer to Table 11). Unlike the findings from the 2017 study, where most of the gross margins across tiers within regions were negative, the gross margins for all the tiers within the three regions were found to be positive and high; almost all of which were greater than 60 percent in the MTE. However, for Tier 2 producers in the Brong Ahafo region, the difference between the gross profits for the midterm and 2017 surveys were not found to be statistically significant. Also, the overall gross margin for the 2018 MTE was found to be significantly higher than that of the 2017 study. Generally, there was an improvement in the profits that GPP poultry producers made.

**Table 11: Average Profit per Head**

|               | Midterm Survey |                   |                   |                          |               | 2017 Annual Survey |
|---------------|----------------|-------------------|-------------------|--------------------------|---------------|--------------------|
| Profit        | Obs            | Mean              | Std.              | Gross Margin             | Std.          | Gross Margin       |
|               |                | (US\$)            | (US\$)            | (%)                      | (%)           | (%)                |
| Greater Accra |                |                   |                   |                          |               |                    |
| Tier 1        | 1              | 716,597.51        |                   | 100                      |               | 48.14              |
| Tier 2        | 3              | 680,234.85        | 1,158,869.29      | 94.23 <sup>a</sup>       | 7.11          | -95.91             |
| Tier 3        | 39             | 17,359.69         | 29,219.81         | 85.47 <sup>a</sup>       | 27.36         | -36.43             |
| Ashanti       |                |                   |                   |                          |               |                    |
| Tier 1        | 8              | 639,131.74        | 838,011.20        | 98.74                    | 2.49          | 29.53              |
| Tier 2        | 33             | 81,088.26         | 135,820.17        | 61.86 <sup>a</sup>       | 119.49        | -34.17             |
| Tier 3        | 89             | 39,089.50         | 62,965.87         | 86.20 <sup>a</sup>       | 31.59         | -225.01            |
| Brong Ahafo   |                |                   |                   |                          |               |                    |
| Tier 1        | 1              | 1,231,755.19      |                   | 97.99                    |               | 57.05              |
| Tier 2        | 14             | 172,403.59        | 320,171.78        | 61.05                    | 48.99         | 24.17              |
| Tier 3        | 128            | 57,057.99         | 249,393.98        | 47.96 <sup>a</sup>       | 163.62        | -94.12             |
| <b>Total</b>  | <b>317</b>     | <b>117,533.65</b> | <b>608,431.33</b> | <b>67.98<sup>a</sup></b> | <b>113.05</b> | <b>15.1</b>        |

Source: Fieldwork, 2019

Note: US\$1=GHS4.82; <sup>a</sup> implies  $P < 0.01$ 

### 4.3 Findings from Evaluation Questions

#### 4.3.1 Relevance

1. To what extent is the Project aligned with national policies and strategies for agriculture production?
2. How relevant is the Project to the stated and immediate needs of stakeholders?

##### 4.3.1.1 Alignment of GPP to national policies and strategies for agriculture production

Goal compatibility analysis was conducted to ascertain the level of congruence between GPP's goals and national goals in agricultural production in Ghana. This analysis was imperative to explain the level of success in the implementation of the various activities under the thematic areas of the Project. The national policy goals on agriculture were teased out from various national agricultural policies, including the Food and Agriculture Sector Development Policy (FASDEP II), Medium Term Agricultural Sector Investment Plan (METASIP II), and the Ghana Livestock Development Policy and Strategy.

The **national goals on agriculture with respect to poultry production** are:

- A. Build the entrepreneurial capacity and skills of poultry value chain actors

The **goals of GPP** are:

- A. Increase agriculture productivity in the poultry value chain through capacity building
- B. Improve input markets

|                                                                                                                                                                 |                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| B. Enhance access to poultry markets, services and value addition                                                                                               | C. Promote strategic investments and private-public partnerships |
| C. Strengthen overall animal health cover through early warning system, prevention, control and disease eradication                                             | D. Increase the trade of poultry products                        |
| D. Support training, research and development initiatives on poultry to increase profitability of the entire value chain                                        | E. Improve product quality                                       |
| E. Improve poultry production by promoting and disseminating technologies developed by the research system                                                      | F. Increase production efficiency                                |
| F. Create an enabling environment to attract investment and finance for improving poultry infrastructure, production, processing, value addition and marketing. | G. Improve market linkages                                       |

The national goals on poultry production and GPP goals were compared with each other to ascertain how each of them supported the other to ensure successful implementation. A supportive relationship implies that the implementation of a GPP goal will either promote the implementation or achievement of a national goal. High mutually-supportive goals attracted high positive score and vice versa for conflicting goals. Neutral score suggests that the implementation of a GPP goal has no clear or direct bearing on the implementation or achievement of a national goal.

Table 12 presents the goal compatibility matrix for the national goals on agriculture with respect to poultry production and the goals of GPP. The goal compatibility was presented in a matrix. The following scores were used to measure the degree of compatibility:

|                  |   |    |
|------------------|---|----|
| VERY SUPPORTIVE  | = | 2  |
| SUPPORTIVE       | = | 1  |
| NEUTRAL          | = | 0  |
| CONFLICTING      | = | -1 |
| VERY CONFLICTING | = | -2 |

Thus, the scores represented the levels of compatibility between two compared goals. A composite score was calculated, indicating the level of compatibility of a GPP goal on all the national goals. A high composite score indicated that a GPP goal was highly compatible with all the national goals and vice versa for low composite score. In other words, a high composite score suggests that the implementation of a GPP goal was relevant to the implementation or achievement of a national goal. The composite goals were used to rank the GPP goals in terms of their compatibility with the national goals. A first ranked goal indicated the most compatible or relevant GPP goal in relation

to the implementation or achievement of the national goals, while the last ranked goal suggested least supportive GPP goal to national goals.

**Table 12: National and GPP Goal Compatibility Matrix on Poultry Production**

| GPP Goals * | National Poultry Policy Goals * |   |   |   |   |   | Total | Rank            |
|-------------|---------------------------------|---|---|---|---|---|-------|-----------------|
|             | A                               | B | C | D | E | F |       |                 |
| A           | 2                               | 2 | 2 | 2 | 2 | 2 | 12    | 1 <sup>st</sup> |
| B           | 2                               | 1 | 1 | 1 | 2 | 2 | 9     | 5 <sup>th</sup> |
| C           | 2                               | 2 | 2 | 2 | 1 | 2 | 11    | 2 <sup>nd</sup> |
| D           | 1                               | 2 | 1 | 1 | 2 | 2 | 9     | 5 <sup>th</sup> |
| E           | 1                               | 2 | 2 | 2 | 1 | 2 | 10    | 4 <sup>th</sup> |
| F           | 2                               | 1 | 2 | 2 | 2 | 2 | 11    | 2 <sup>nd</sup> |
| G           | 2                               | 2 | 2 | 1 | 0 | 2 | 9     | 5 <sup>th</sup> |

\* Refer to the details of the goals from the national poultry policy and GPP goals mentioned earlier

Table 12 shows that the GPP goal of increasing agriculture productivity in the poultry value chain through capacity building was the highest compatible with the national goals on poultry production. The implication is that the implementation of this goal is likely to receive the most support from national actors to achieve the stated targets. Increasing agriculture productivity through capacity building was ranked the highest because the current low level of poultry production is driving high levels of imports to meet demand (SOW, 2018). As a result, any efforts to boost supply of poultry products to meet demand in the country necessarily have to consider increasing production levels. In other words, the concentration of both government and development partners in poultry production has been on measures to increase production to meet local demand (Killebrew & Plotnick, 2010). This was corroborated by the following assertions:

*‘Government has the desire to increase poultry production to meet the high growing local demand as a measure of protecting the local currency and addressing unemployment issues, and GPP helping to solve that problem, will help Ghana in a number of ways.’* [Implementing partners]

*‘The GPP, to a large extent, complements the national agenda... It supports the national agenda to promote poultry business or industry.’* [Representative from VSD]

This was further substantiated by the increase in poultry production between the 2017 annual survey and midterm survey in Greater Accra (see Table 3 on increase in volume of sales across various poultry products) through the GPP capacity building.

Additionally, the promotion of strategic investments and PPPs was ranked as the second highest compatible GPP goal with the national goals. This was because both the national and GPP goals

perceived strategic investments in poultry production as key to increasing productivity and quality of production to meet local demand of poultry products. Thus, strategic investments in poultry production is considered critical in expanding production processes to enjoy scale of preferences to reduce unit cost of production and ultimately reduced market prices for effective competition. Considering that all the GPP goals were supportive of the national goals, it is concluded that the project goals were largely relevant or aligned with national agriculture goals. This could be explained from the fact that the determination of the GPP goals was based on the problems confronting the poultry sector which the government, through stakeholder engagement and national policies, had also identified. Positive composite scores for the fourth and fifth ranked GPP goals even suggested that they were compatible or relevant to the implementation or achievement of the national goals.

#### 4.3.1.2 Relevance of GPP to the stated and immediate needs of stakeholders

The MTE found that GPP had been important to the direct needs of all the stakeholders. This was because the strategies and activities of the Project were targeted at the operational needs and challenges confronting the stakeholders. All the stakeholders admitted that GPP had been relevant to their operations in terms of training, advocacy, awareness creation on poultry standards and policies, etc. The GPP training programs had been beneficial to their operations, as they were introduced to new and improved methods, which had contributed to improving their activities. Some of the training programs that were beneficial to the needs of the stakeholders were training on biosecurity, record keeping, feed preparation, vaccination, deworming, and proper poultry housing. During the FGDs with the Poultry Associations, it was revealed that the training by GPP on vaccination and deworming protocol had contributed significantly to reduce the loss of birds through infections. This could explain the reduction in mortality rates in broilers, layers and cockerels in the GPP intervention regions (see Table 1). Focus group discussants in the Brong Ahafo region stated that GPP had helped them to reduce cost of operations, as the birds were no longer dying like before. Some of the narratives have been described below:

*‘From what I have learnt from GPP, now I know the right quantity of drugs and antibiotics to give to the birds. Previously, I bought so many drugs and antibiotics at very high cost, but now with GPP’s training, I know it is not about the number of drugs you give the birds that will keep them alive, but it is about how clean you keep the farm, the right preparation of feed, taking biosecurity seriously and many other things that make the birds healthy and not dying.’*

*‘Training and practicing of biosecurity is the best thing that has happened to me as a poultry farmer. We have learnt to put chemicals either around the farm or at the entrance gates of the farm such that people will step in them before entering the farm. We also spray all vehicle tires before the vehicles enter the farm. This has helped to reduce mortality of birds in my farm and reduced money spent on drugs and antibiotics.’*

Other FGD participants stated:

*‘Through GPP, now I neither lose my birds to infections nor deaths. Initially, I was losing a lot of the birds, even though I was applying vaccinations and antibiotics. Through the trainings, I got to know that I was losing the birds because of the things I used to do on the farm. I produced some broilers without antibiotics for a complete cycle of broiler production without losing a single bird.’ [Greater Accra region]*

*‘GPP has helped us to know how to maintain our farms, especially proper records keeping, biosecurity, slaughtering of the birds such that the birds do not struggle on the floor, how to dress the meat and cut it into pieces neatly. This has boosted our sales and profits.’ [Ashanti region]*

These quotes suggest that the GPP activities had contributed to reducing operational cost and eventually helping to improve incomes and profits from poultry production. The implication is that some of the poultry producers lacked some of the basic health protocols associated with poultry production which were contributing to reduce their levels of productivity. This suggests that efforts to increase poultry production should critically consider and modernize the methods of operations of the poultry farmers, especially biosecurity practices (see [Table 4B](#) in Annex 8).

#### 4.3.2 Effectiveness

1. *To what extent is the Project producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives?*
2. *What, if any, unintended consequences can be attributed to the Project?*
3. *To what extent has GPP coordinated with the AMPLIFIES Project and other USDA/USAID-funded projects such as the ADVANCE program and MoFA, other donor projects and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana?*

##### 4.3.2.1 Extent to which the Project is producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives

This section sought to examine the extent to which GPP had contributed to increasing agricultural productivity, and expanding trade in poultry products through capacity building and strategic partnerships among the stakeholders. From the MTE, the Project was making progress in achieving some worthwhile results from its strategies. This was largely due to the high responsiveness of the training programs to the operational needs of the poultry producers. Some of the focus group discussants in the three intervention regions admitted having recorded increased levels of poultry production and expanded trade in poultry products (refer to Tables 3 and 4) due to their implementation of the issues (biosecurity, farm management practices, etc.) they were provided training on. The responses below show how the GPP is contributing to achieve meaningful results:

*‘GPP training is teaching the farmers a lot of things that are helping to reduce disease outbreak and therefore increasing production and profits. They teach them how to process meat, package eggs and so on which contribute to increase the consumption of local poultry products.’ [Representative of the APD, Greater Accra region]*

*‘For those of us who sell eggs, GPP has helped us to clean the eggs in order to avoid spoilage, properly and neatly pack our eggs in trays, wear aprons when we are selling our eggs, ventilate areas that we keep our eggs, and protect the entrance of our farms. These teachings have helped us to improve our business by attracting more customers for our poultry products.’ [Discussant, Ashanti region]*

The proportion of farmers that use market information as a business strategy increased by 62.46 percentage points in the MTE as a result of the GPP training programs (see Table 6). Likewise, expansion was realized in the poultry value chains (see Table 5 - input suppliers of DOCs increased by 20% between 2017 and 2018; and feed suppliers also increased by 14% between the same period),

The foregoing issues as well as the quantitative indicator results show that GPP was contributing to increase local production of poultry products, which is one of the goals of the Project and the national goals on poultry as well. This suggests that continuous provision of such training support to the poultry farmers could help improve consumption of local poultry products.

Partnerships among the various stakeholders played an important role in the achievement of the GPP outcomes. The loan portfolio to the poultry sector in 2015 was US\$168,000.00. The MTE found that the Project, through its partnership with the FIs, had contributed in securing a total of US\$ 6,916,863.75 loans to 69 poultry value chain actors. Out of the total beneficiaries, the majority (87%) were males, whereas 13 percent were females. Further, the majority (92.8%) of the loan beneficiaries were poultry employees, 4.4 percent were cereal farmers, while 2.8 percent were soy cake suppliers. Considering that the population size for the poultry producers was 1575, it shows that 4.1 percent had so far benefited from the loan facilities from the FIs.

The MTE found that the Project, in terms of coverage or distribution, has so far been less effective in supporting the farmers to secure funding from FIs. All the stakeholders admitted that the promotion of strategic partnership between the poultry producers and FIs should be improved, as most FIs were still reluctant to provide credit facilities to the poultry value chain actors. Some focus group discussants stated:

*‘At every training by GPP, the poultry farmers will agitate for financial support since they thought they have had enough of the capacity building training...GPP taught us structural expansion, but they did not support us financially to expand our pens... We are still not able to compete with the imported chicken because we do not receive financial support in our operations.’ [Greater Accra region]*

*‘Few people have been given grants by the GPP, while few others have been helped to get loans from FIs. But these beneficiaries are the big farms. In our case, we have complained severally, but they are not giving us anything. So we are thinking of even boycotting their trainings since what they have given us is enough. What we need now is the money. So if they are giving the money to those with very large farms, then they should call those people for their trainings.’ [Brong Ahafo region]*

The statements show that strategic partnerships to provide financial support to the poultry sector was important, but was less evident from the achievements of the Project. Despite the growth in poultry production through the capacity building intervention, farmers complained about the inability to obtain grants or loans to implement the activities and interventions from the training programs. The continuous expression of frustration by the poultry farmers over financial support is an indication that the capacity building alone was not adequate to achieve all the GPP goals. As a result, more efforts should be put in to attract the FIs to support the poultry industry. With respect to gender issues, the MTE found that the Project has supported the formation of two women groups (Women in poultry production, and Women in poultry value chain) each in the Project regions. This initiative has contributed to increase the confidence of women in both poultry production and trading in the poultry sector. As part of the activities of the women groups, the women groups had made the proposal for the GSA to help create standards for eggs on the market. The majority (55%) of the membership of the mentee program was females. All the participants from the MTE also attested to equality, respect and the open participation of both gender groups, without any discrimination, in the GPP activities.

It is concluded that GPP is contributing to increase poultry production and volumes of sales of poultry products through capacity building and strategic partnerships. Thus, training on biosecurity, farm management, and egg handling were indicated to have contributed to expanding business processes. However, difficult access to financial support from the FIs was a major challenge in the poultry industry.

#### 4.3.2.2 Unintended consequences attributed to the Project

Some of the unintended consequences attributed to the GPP were creation of employment through exposure, experience and networking from people's engagement on the Project. The MTE found that some of the beneficiaries from the partner institutions, who were not directly into poultry production, had taken advantage to personally engage in poultry businesses through the exposure given to them by the Project. For example, one representative of the FIs reported that he had started his own poultry farm. Another institutional respondent indicated that he had used the exposure and experience from GPP to establish a poultry business for his sister.

Furthermore, one of the representatives of the VSD stated,

*'GPP has exposed us to new ways of doing things. We have been in this business and it has been business as usual. GPP brought in new approaches to the things we were doing. VSD has learnt some innovation from GPP for focusing on production, processing and marketing; and bringing on board the value chain actors. VSD has become more business-like in its approaches now.'*

The extract suggests that the activities of GPP were indirectly encouraging the VSD to expand their focus of concentration about their roles in poultry production in Ghana. The unintended benefits could impact positively on the livelihoods of people who were not originally targeted by the Project.

#### 4.3.2.3 Extent to which GPP has coordinated with the AMPLIFIES Project and other USDA/USAID-funded projects

From the MTE, GPP coordinated with other USDA/USAID-funded projects, including AMPLIFIES, ADVANCE, FinGAP, RING, Business Sector Advocacy Challenge (BUSAC) Fund, and Rural Enterprise Program (Foundation). With regard to coordination between GPP and AMPLIFIES, the GPP implementing partners reported as follows:

*‘If there are some projects that are related to GPP like AMPLIFIES, we try to see if we can do some things together. For example, since GPP is the only project focusing 100 percent on poultry, we share information with such projects. We also try to link the GPP poultry farmers with the input suppliers under AMPLIFIES.’*

Engagement with the implementing partners also showed that GPP built upon the idea of BSA concept from some of the other USDA/USAID-funded projects. This was corroborated by some of the BSAs who indicated that they had participated on FinGAP and ADVANCE. The continuous use of BSAs across different USDA/USAID-funded projects has given them extensive experience to support operators in the poultry industry to expand their businesses. Some of the BSAs indicated that they got the opportunity to work with GPP through the experiences with other USDA/USAID-funded projects. Others also reported that they got interested working with GPP because of their relationships with USDA/USAID-funded projects such as AMPLIFIES, FinGAP and ADVANCE. The results show that coordination among various USDA/USAID-funded projects could be used to enhance the effective implementation of projects to achieve the intended objectives.

#### 4.3.3 Efficiency

1. *To what extent is the relationship between inputs and outputs timely, cost-effective and to the expected standards?*

##### 4.3.3.1 Extent of relationship between inputs and outputs regarding timeliness, cost-effectiveness and expected standards

The interventions by the GPP included the linkage of input suppliers to poultry farmers, introduction of BSAs and CAHWs into the poultry value chain, and training on vaccination protocols. During the MTE, it was observed that the number of input suppliers available to the poultry producers increased (see Table 5), which made their services easily accessible and less costly, especially with transportation. The GPP MTE found that all the commercial poultry farmers had been trained on vaccination protocols, in terms of the timing and frequency of vaccinating the birds. The GPP had trained the CAHWs to provide vaccination and deworming support as well as early warning system to the poultry households. This provision was to ensure easy access to basic veterinary services among the poultry households to increase productivity. The training programs given to the CAHWs and BSAs were to help them provide critical inputs (e.g. vaccines and drugs) and services (vaccination, preparation of business plans, early warning system for disease control, etc.) into the production of poultry on regular and timely basis in a cost-effective manner. The BSAs linked the poultry farmers to FIs by guiding them to prepare business and marketing plans and applying for credit facilities. They created the connection between inputs and output in the

poultry production chain by helping to improve the operational processes of poultry farmers to make them credit worthy to FIs and also enable them to secure financial support to expand their operations. A representative of one of the FIs indicated that it currently takes them lesser days (3) to process loan applications for the poultry producers. She partly attributed the timing for loan application to the mediating roles played by the BSAs in helping the poultry producers to fill the forms and prepare business plans that meet the expectations and standards of the FIs. A representative of one the FIs also reported that the interest rate on loans and the repayment period partly depended on the business documents that accompanied the applications and the role of the BSA was imperative in helping poultry farmers to secure more flexible loans. Another representative of an FI stated, *‘Those young guys are helping. They prepare the documents for the loan application. It makes our work easier.’*

Another representative of an FI (Brong Ahafo Region) indicated,

*‘Before GPP, most farmers who came for loans were not able to follow the payment agreement. They came with a lot of excuses. That is why it was difficult for us to give them loans. Now, they are able to pay. Out of the eight (8) people who took loans last year, seven (7) have paid. The other one had a problem and he is supposed to finish paying next month and I am sure he will be able to.’*

The narration shows how the BSAs were easing the process in securing loans from the FIs and changing the poor perception the FIs had of the poultry producers. It is expected that when this relation is either maintained or strengthened and extended to many poultry producers and FIs, it will help to address the problem of business financing which has been one of the banes for the underdevelopment of the poultry sector.

The Project had also instituted measures to strengthen the linkages within the value chain and ensure that expected standards are met in the poultry industry. It was indicated from the interaction with the implementing partners that the Project had a Partnership Specialist responsible for networking and integrating all the actors in the poultry value chain, including egg processors, poultry producers, meat processors, sellers and consumers. The linkages are ensured through strategies and programs such as the Consume Ghanaian Campaign and creating websites for individual processors. The GPP also encouraged processors to obtain licensing or certification for their businesses to ensure quality standards in the poultry industry. A representative from the FDA reported that a couple of poultry processors were almost through with their licensing, while others had initiated their licensing processing. These are contributing to increasing the penetration of local poultry products into the market in a timely and coordinated manner, and at the expected standards (refer to Tables 9 and 10 on increase in number of poultry farmers who follow vaccination protocols and post-production practices, respectively).

#### 4.3.4 Sustainability

1. *To what extent are the Project results likely to continue after the Project?*
2. *Is stakeholder buy-in likely to continue or be increased after the current contract period?*

#### 4.3.4.1 Extent to which the Project results are likely to continue after the Project

Findings from the MTE revealed that the CAHWs received extensive trainings to continue providing technical support to the poultry households even after the Project has ended. Parts of the training focused on building their entrepreneurial skills to operate as businesses and become agents for inputs to the poultry households. Thus, the commercialization of the activities of CAHWs is more likely to sustain their interests in the Project, following the official closure of GPP. The MTE recorded that 79 percent of the poultry household are willing to pay ‘a small fee’ for the services of the CAHWs when the GPP is ended. This is likely to promote the sustainability of the services of the CAHWs after the GPP is ended. The GPP had also facilitated good relationships between the VSD and the CAHWs to co-exist peacefully. However, this relationship has to be critically reconsidered, as some of the VSDs perceived that the engaged CAHWs encroached on their jobs. The VSDs perceived the intermediary role of the CAHWs as conflicting with their role, as part of their regular functions had been ceded to the CAHWs. There is, therefore, the likelihood that the CAHW intervention will be difficult to sustain in the future, when the VSDs do not provide the needed supervisory roles over the CAHWs. One of the representatives of the VSDs had this to say:

*‘VSD is directly responsible for the animal health services in Ghana so GPP could only work through the VSD for the services. If the Veterinary Technical Officers are not involved in supervision, then the CAHWs will be assumed to be quacks...The support to the Veterinary Technical Officers for supervision sometimes has been lacking. The Officers are supposed to monitor the CAHWs and give report on their supervision activities. The government only pays the Officers salaries, but they need to be supported with transportation cost.’*

In addition, the BSAs will contribute to the sustenance of the GPP when they continue to render technical assistance to the poultry farmers in terms of record keeping, loan application, business plan preparation, etc. Some of the BSAs complained that some of the farmers were reluctant to pay them for their services and envisaged that the situation could be worse after the completion of the Project which could affect the sustainability of the Project tenets. The implementing partners also complained about the poor attitudes of the government institutions (MoFA, VSD, APD, etc.), which could threaten the Project’s sustainability following its completion. Thus, these issues have to be addressed to guarantee the sustainability of the Project tenets and gains as well as ensure its continuous benefits to all the stakeholders.

The MTE further found that some of the VSDs responded to the calls from the poultry farmers and households in their personal capacities and received token payments to cater for their transportation. As a result, the operations of the CAHWs were considered as competition to the VSDs. Some members of the Greater Accra Poultry Association complained that they could not afford the services of the VSDs due to high cost and long distances to access their services.

Through the MTE, it was learnt that GPP was considering securing a partnership deal with a private company to organize a Poultry Fair, which is expected to help ensure the continuity of the Fair, following the completion of the Project. Members of the Poultry Associations also admitted that they have the capacity to sustain the tenets of the Project following the completion of GPP since they have gained some knowledge and experiences from the Project such as best husbandry

practices (Table 2), vaccination protocols (Table 9), and improved post-production practices (Table 10). Representatives of the APDs also indicated that GPP has strengthened the relationship among the stakeholders in the poultry value chain through a common online platform which could help to sustain their partnership for improved poultry production.

#### 4.3.4.2 Likelihood of stakeholder buy-in continuing or being increased after the current contract period

This section examines the likelihood of sustaining stakeholder interests in the Project after the current contract period. Stakeholder analysis has been presented in Table 13. Results from the stakeholder analysis show that all the partners were willing to contribute to sustain the tenets and gains from the Project, following its completion. This was largely attributed to the benefits the GPP had brought into poultry production value chain. However, the challenges confronting the stakeholders' efforts to this have to be addressed to guarantee the sustainability of the Project benefits after its closure. In addition, some of the actors gave conditioned sustainability willingness by having their challenges addressed. For example, the VSDs indicated that they could continue supporting the implementation of the Project, following its closure, when they have the necessary resources and logistics to play their role effectively. Considering the important role of the VSDs in ensuring the success and sustainability of the Project, their requests have to be considered. This could be addressed by GPP engaging MOFA to decentralize VSDs into every district to reduce the distance barrier for improved interactions with farmers. Further, some logistics such as motorbikes could be provided to VSDs to enhance their mobility to poultry farmers.

**Table 13: Stakeholder Matrix Showing the Likelihood of Project Sustainability**

| STAKEHOLDERS              | INTERESTS                                                                                                 | EXPECTATIONS                                                                                                                | SATISFACTION LEVEL                               | CHALLENGES                                                                     | SUSTAINABILITY | REASONS/CONDITIONS FOR SUSTAINABILITY                                                                                                                                    |
|---------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Poultry Producers</b>  | Improve poultry production and marketing                                                                  | Receive capacity building training on farm management systems<br>Obtain financial support and poultry inputs for production | Satisfied                                        | Lack of financial support                                                      | Yes            | Committed to continue with the practices introduced by the GPP because of knowledge in handling poultry farm business and the benefits from their practices and programs |
| <b>Poultry Households</b> | Improve poultry production                                                                                | Receive capacity building training on farm management systems                                                               | Satisfied                                        | Limited space for expansion                                                    | Yes            | Have benefitted from the Project through improved farm practices which have to be continued                                                                              |
| <b>CAHWs</b>              | Secured employment through the provision of basic animal health services to farmers                       | Farmers will be willing to maintain our relationship for improved production                                                | Very satisfied                                   | Inadequate logistics                                                           | Yes            | Source of employment and livelihood                                                                                                                                      |
| <b>End Market Actors</b>  | Sell or utilize poultry products for final consumption                                                    | Getting value for money                                                                                                     | Satisfied                                        | High cost of local poultry products                                            | Yes            | To consume fresh poultry products                                                                                                                                        |
| <b>VSD</b>                | Provide animal health services to improve the quality of poultry products                                 | Strengthen VSD through resourcing to supervise CAHWs                                                                        | Less satisfied                                   | Sidelining of VSD for CAHWs<br>Under-resourcing of VSD making outing difficult | Yes            | Address the resource challenges of VSD for effective supervision to improve animal health and productivity levels                                                        |
| <b>IPs</b>                | Strengthen efficiency and competitiveness of poultry value chain through inclusive market system approach | Ability of poultry farmers to produce and compete better with imported poultry products                                     | Getting more satisfied with time and the results | Financial constraint due to monetization of the project                        | Yes            | Built entrepreneurial capacities of CAHWs to continue supporting farmers<br>Strengthen relationship among value chain actors                                             |
| <b>MoFA</b>               | Reduce dependence on importation of poultry products                                                      | Increase productivity of poultry products                                                                                   | Satisfied                                        | Poor consultation                                                              | Yes            | Ready and willing to support institutions to consolidate the gains from GPP                                                                                              |
| <b>APD</b>                | Develop and manage livestock from breeding                                                                | Typical projects with active participation of farmers and some pieces of equipment                                          | Less satisfied                                   | Lack of demonstration of technology or use of equipment                        | Yes            | Add more equipment and provide poultry inputs                                                                                                                            |

|                             |                                                                                                                                           |                                                                                                                                 |                   |                                                                                                                           |     |                                                                                                                                                                          |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GSA</b>                  | Develop and promote national standards for poultry products and services                                                                  | Market and package poultry products to compete with imported poultry ones                                                       | Satisfied         | No standards for eggs                                                                                                     | Yes | Strongly drive the demand of poultry products through quality assurance which comes at a price                                                                           |
| <b>FDA</b>                  | Improve regulations in poultry business                                                                                                   | Improvement in local poultry business                                                                                           | Satisfied         | Lack of resources                                                                                                         | Yes | GPP has exposed the processors to licensing                                                                                                                              |
| <b>FIs</b>                  | Assist farmers with loans in running their poultry business<br><br>Assess records of poultry farmers to know their ability to repay loans | Increase in poultry production which increases farm size                                                                        | Somehow satisfied | Poultry businesses on a small-scale basis<br><br>Poultry farmers not put into groups to access financial support or loans | Yes | Working with supply chain actors which has low risk<br><br>Prompt repayment of loans granted by farmers                                                                  |
| <b>BSAs</b>                 | Help poultry farmers with bookkeeping, grant applications, market wages, marketing linkages/ strategies and general assistance            | Link BSAs to more business entities or value chain actors to enhance engagement                                                 | Somehow satisfied | Delays in the release and/or non-payment of allowances for transportation to visit poultry farmers                        | Yes | Willingness of farmers to pay some amount of money in order to access the services of BAS                                                                                |
| <b>Research Institutes</b>  |                                                                                                                                           | Improve farm management practices<br><br>Put up some of facilities to help the farmers                                          | Satisfied         | Lack of funding to visit poultry farmers                                                                                  | Yes | Ghana should have poultry-specific policy and roadmap for improvement                                                                                                    |
| <b>Poultry Associations</b> | Improve poultry production and marketing                                                                                                  | Receive capacity building training on farm management systems<br><br>Obtain financial support and poultry inputs for production | Satisfied         | Lack of financial support                                                                                                 | Yes | Committed to continue with the practices introduced by the GPP because of knowledge in handling poultry farm business and the benefits from their practices and programs |

Source: Fieldwork, 2019

## 4.4 Key Findings from Other Stakeholders

### 4.4.1 Poultry household survey

#### 4.4.1.1 Descriptive characteristics of poultry households

[Table 4E](#) under Annex 8 presents the descriptive characteristics of the 622 poultry households across the three intervention regions. Regarding the regional distribution of the MTE, 135 of the poultry households were in the Greater Accra region, whereas 325 and 162 households were in the Ashanti and the Brong Ahafo regions, respectively. The table indicates that the proportion of male poultry households was higher than their female counterparts except in the Greater Accra region. Majority of the farmers had completed basic school. The MTE further revealed that most of the poultry households practiced the free-range system.

#### 4.4.1.2 Patronage of the CAHW program

Table 14 shows the uptake of CAHWs across the three intervention regions. It is worth emphasizing that the role of the CAHWs is the main intervention for the poultry household. From the table, the majority of poultry households in the Ashanti (92%) and Brong Ahafo (78.4%) regions were using the services of the CAHWs, compared with only 36.30 percent of those in the Greater Accra region. Overall, three (3) out of every four (4) poultry households were benefiting from the services of CAHWs in the three regions of the GPP.

**Table 14: Uptake of CAHW Services across Region**

| Regions       | Yes         | No           | Total     |
|---------------|-------------|--------------|-----------|
| Greater Accra | 36.30 (49)  | 63.70 (86)   | 100 (135) |
| Ashanti       | 92.00 (299) | 8.00 (26)    | 100 (325) |
| Brong Ahafo   | 78.40 (127) | (21.60) (35) | 100 (162) |
| Total         | 76.37 (475) | 23.63 (147)  | 100 (622) |

#### 4.4.1.3 The frequency and causes of bird loss

Table 15 presents the proportion of poultry households which recorded the loss of their birds, and the causes of the loss. It was found that the proportion of households reporting bird loss during the MTE was very high across the three regions – 95 percent in Ashanti, 94 percent in Brong Ahafo and 93 percent in Greater Accra regions. The baseline survey, however, reported relatively lower proportion of poultry households reporting bird loss (Table 15). It was further revealed that diseases constitute the dominant cause of bird loss across the three regions, for both the baseline and the midterm surveys.

**Table 15: Bird Loss and their Cause**

|                               | Baseline         |                  |           | Midterm           |                 |            |
|-------------------------------|------------------|------------------|-----------|-------------------|-----------------|------------|
| Regions                       | Yes% (n)         | No%(n)           | Total%(n) | Yes %(n)          | %(n)            | Total%(n)  |
| Greater Accra                 | 58.30 (7)        | 41.70(5)         | 100(12)   | 93.33(126)        | 6.67(9)         | 135        |
| Ashanti                       | 71.70 (33)       | 28.30 (13)       | 100(46)   | 94.77(308)        | 5.23(17)        | 325        |
| Brong Ahafo                   | 64.30(9)         | 35.70(5)         | 100(14)   | 93.83(152)        | 6.17(10)        | 162        |
| <b>Total</b>                  | <b>68.06(49)</b> | <b>31.94(23)</b> | <b>72</b> | <b>94.21(586)</b> | <b>5.79(36)</b> | <b>622</b> |
|                               |                  |                  |           |                   |                 |            |
| <b>Causes of loss of bird</b> |                  |                  |           |                   |                 |            |
|                               | Greater Accra    |                  | Ashanti   |                   | Brong Ahafo     |            |
|                               | Baseline         | Midterm          | Baseline  | Midterm           | Baseline        | Midterm    |

|                     | % Freq    | % Freq     | % Freq     | % Freq      | % Freq   | % Freq     |
|---------------------|-----------|------------|------------|-------------|----------|------------|
| Diseases            | 42.86 (3) | 91 (114)   | 69.70 (23) | 87.66 (270) | 77.78(7) | 95.39(145) |
| Predators           | 57.14 (4) | 3.1(4)     | 27.27 (9)  | 7.79 (24)   | 22.22(2) | 3.29(5)    |
| Car/lorry accidents | 14.29 (1) | 0 (0)      | 0 (0)      | 0.65 (2)    | 0        | 0          |
| Theft               | 28.57 (2) | 3.2 (4)    | 36.36 (12) | 3.9 (12)    | 22.22(2) | 0          |
| Other               | -         | 2.4 (3)    | -          | 0           | -        | 1.32(2)    |
| <b>Total</b>        | <b>7</b>  | <b>125</b> | <b>33</b>  | <b>308</b>  | <b>9</b> | <b>152</b> |

#### 4.4.1.4 Outbreak of poultry diseases among poultry households

Table 16 depicts information about poultry disease outbreaks and the specific diseases encountered by poultry households. In the baseline survey, 58.3 percent of the poultry households reported an occurrence of a disease outbreak. This proportion increased to 74.3 percent in the midterm survey. In the MTE, the main diseases mentioned by the poultry households were Weakness and Chronic Respiratory Disease (CRD) (16.12%), Fowl Pox (15.47%) and Newcastle (12.85%). In the case of the baseline survey, the major diseases were coccidiosis (42.86%), Newcastle (33.33%), and Weakness and CRD (16.12%).

**Table 16: Disease Outbreak Status**

|                  | Baseline        | Midterm          |
|------------------|-----------------|------------------|
| Yes              | 58.3 (42)       | 74.28 (462)      |
| No               | 41.7 (30)       | 25.72 (160)      |
| Total            | 100 (72)        | 100 (622)        |
| Types of Disease |                 |                  |
| Disease          |                 |                  |
| Newcastle        | 33.33 (14)      | 12.85 (59)       |
| Gumboro          | 11.90 (5)       | 2.83 (13)        |
| Gout             | 9.52 (4)        | 1.09 (5)         |
| Coccidiosis      | 42.86 (18)      | 7.41 (34)        |
| Weakness and CRD | 11.90 (5)       | 16.12 (74)       |
| Fowl Pox         | 9.52 (4)        | 15.47 (71)       |
| Other            | 4.76 (2)        | 1.74 (8)         |
| Don't Know       |                 | 42.48 (195)      |
| <b>Total</b>     | <b>100 (42)</b> | <b>100 (459)</b> |

Source: Fieldwork, 2019

#### 4.4.2 Veterinary Service Providers (VSPs)

##### 4.4.2.1 Constraints hampering veterinary service delivery within the local poultry industry

Veterinary service delivery in the context of the local poultry industry is faced with a number of challenges, [Table 4F](#) under Annex 8 depicts the four (4) main challenges that the VSPs and the CAHWs face in delivering their services. From the table, the most common of all the challenges (about 48%) was the lack of commitment of farmers to follow through prescriptions of improved practices. This is followed by the inadequacy of logistics to the VSPs, and then financial challenges of farmers, that is, inability of farmers to pay for goods and services. In the case of the CAHWs, the highest proportion (42.42%) indicated financial challenges from farmers as a major challenge.

#### 4.4.3 End Market Actors

##### 4.4.3.1 Demand for poultry products among end markets

The end market actors of the poultry value chain include individuals, firms and other institutions such as schools/colleges, hotels, hospitals and egg sellers that sell or utilize poultry products for final consumption. [Table 3G](#) under Annex 8 shows that 41.67 percent of 12 sampled actors demanded local chicken only, 25 percent demand eggs and another 25 percent demand both local and foreign chicken. Only 8.33 percent demanded foreign chicken only.

#### 4.5 Conclusions

Overall, the project outcomes indicate that poultry producers and households have made some progress in the midterm performance indicators. Specifically, there was improvement in mortality rate and profit margins, identification of at least four best practices, number of jobs attributed to the USDA assistance, adoption of at least three post-production practices, adoption of national established vaccination protocols and percentage increase in input suppliers. Furthermore, it emerged from the MTE that the capacity-building and training activities under the Project had contributed to build the technical capacities of the poultry value chain actors – from poultry producers to end market actors. However, the difficulties in securing credit facilities from the FIs posed a major challenge to some of the poultry producers. All the stakeholders were willing to contribute to sustain the tenets and gains from the GPP after completion.

#### 4.6 Recommendations

The MTE recommends that:

- In order to further reduce mortality rate among poultry producers, the GPP Office should intensify training on biosecurity, as it was one of the lowest rated husbandry practices.
- The implementing partners should encourage the poultry producers to sign contracts with input suppliers in order to get sustained supply of inputs.
- Poultry Producers across the three intervention regions should be educated by the GPP Office on the need to invest in branding as a marketing strategy as well as exposed to various branding strategies.
- There should be intensified education on the importance of the use of marketing information by the GPP Office. Particular attention should be paid to the Ashanti region.
- Training on improved post-production practices should be intensified in the Greater Accra region.
- Poultry producers should be educated on the importance of being committed to the directives of VSDs in their operations.
- The implementing partners should strengthen the partnership between the poultry farmers and the BSAs to continue to enhance the process of securing credit facilities from the FIs to the poultry sector for expansion. Such a partnership could help eliminate the challenge faced by the farmers in securing loans from the FIs. This could be done by encouraging more poultry producers to get attached to BSAs to improve their business operations.
- More stakeholder consultations should be organized by the implementing partners for the VSDs and CAHWs to understand the roles of each other and to foster strong relationship between them.

## REFERENCES

- Israel, G. D. (2009). *Determining sample size*. Gainesville, FL: Institute of Food and Agricultural Sciences, University of Florida.
- Killebrew, K., & Plotnick, R. (2010). Poultry market in West Africa: Ghana. *Evans School Policy Analysis and Research Brief*, 83p.
- KNUST (2015). 2015 *Baseline survey report*. Accra: GPP.
- Statement of Work (2018). *Midterm performance evaluation of Ghana Poultry Project*. USAID|Ghana METSS.
- USAID (2013). Technical note: Conducting mixed method evaluations. *Monitoring and Evaluation Series*. Retrieved from [https://www.usaid.gov/sites/default/files/documents/1870/Mixed\\_Methods\\_Evaluations\\_Technical\\_Note.pdf](https://www.usaid.gov/sites/default/files/documents/1870/Mixed_Methods_Evaluations_Technical_Note.pdf) on August 12, 2019.

## ANNEXES

### Annex 1: Statement of Work

#### Mid-Term Performance Evaluation of the Ghana Poultry Project

##### I. PURPOSE OF THE MID-TERM PERFORMANCE EVALUATION

The purpose of the mid-term performance evaluation is to determine the extent to which implementation of the Ghana Poultry Project (GPP) has progressed towards the attainment of its intended objective of “Increased competitiveness of the domestic poultry value chain through inclusive market system approach.” In addition to determining the attainment of targets of a number of key indicators, the evaluation will also determine what components and interventions of the project are working well and why, which perhaps are not and why, and to make mid-course corrections if necessary. These efforts are intended to help guide the implementation of activities in the remaining years of the project.

##### Audience and Intended Uses

The audience of the evaluation report will be the United States Department of Agriculture’s (USDA’s) Food for Progress (FFPr) program, specifically the Food for Development Branch in the Food Assistance Division (FAD), within the Office of Capacity Building and Development (OCBD) of the Foreign Agriculture Services (FAS), and the project Implementing Partners (IP), ACIDI VOCA, Technoserve and the Government of Ghana (GoG) Ministries, Department and Agencies (MDAs) such as the Ministry of Food and Agriculture (MoFA), Veterinary Service Directorate (VSD) of MoFA, the Ministry of Trade and Industry (MoTI), Food and Drugs Authority (FDA), the Ghana Standards Authority (GSA) and the Environmental Protection Agency (EPA). The results of the performance evaluation will be used by USDA FFPr, FAD, OCBD, FAS to better understand progress made by GPP to date and, if necessary, suggest changes to strengthen the current implementation approach of the project. This exercise will also help the implementing partner (IP), ACIDI VOCA, gain a new perspective about their strengths and weaknesses and provide an opportunity for leadership staff to adjust the program’s implementation strategies as appropriate.

##### II. SUMMARY INFORMATION

The USDA Food for Progress (FFPr) Ghana Poultry Project (GPP) is a five-year Project that contributes to USDA’s strategic result of “(1) Increase in agricultural productivity and (2) expanded trade in agricultural products.” The project will increase the poultry sector’s commercial performance by building coordination between firms, promoting the adoption of quality standards, strengthening business planning and market-penetration strategies, and reinforcing buyer-supplier linkages.

**Table 1: Project Identification Data**

| Activity/Project Name                                        | Ghana Poultry Project (GPP)             |
|--------------------------------------------------------------|-----------------------------------------|
| Implementer                                                  | ACDI/VOCA (main) and Techno Serve (sub) |
| Cooperative Agreement/Contract Number                        | [FCC-641-2015/010-00-D]                 |
| Total Estimated Cost of the Evaluated Project/Activity (TEC) | \$ 24,256,000.00                        |

|                                   |                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Life of Project/Activity          | October, 2015 to December, 2020                                                                                                                                                                                                                                                                                                                |
| Active Geographic Regions         | Ghana, Greater Accra, Ashanti, and Brong Ahafo Regions.                                                                                                                                                                                                                                                                                        |
| Development Objective(s)<br>(DOs) | SO 1 - Increasing agriculture productivity in the poultry value chain through capacity building, improving input markets, promoting strategic investments and private-public partnerships<br><br>SO 2 - Increasing the trade of poultry products by improving product quality, increasing production efficiency, and improving market linkages |

### III. Project BACKGROUND

#### A. Description of the Problem, Context and History

Ghana's macroeconomic environment is currently under stress. High inflation, a depreciating currency, high interest rates and slowing economic growth have made doing business in Ghana difficult. Though the Ghanaian financial sector is relatively well developed compared to many countries in the West Africa sub-region, the poor macroeconomic conditions have hindered access to capital by the private sector. The poultry industry's profitability is negatively impacted because of the rising cost of imported poultry inputs as a result of the depreciating currency and a diminishing demand for local poultry products from the economic slowdown. This is further complicated as the poultry sector competes for maize, its main feed input, with other industries. For instance, the food processing industry in Ghana presently absorbs approximately 15 percent of the maize produced in the country and its share is growing.

There are also significant barriers to efficient trade of poultry and poultry feed inputs in Ghana. Maize trade is highly regulated with official imports prohibited in Ghana, except for waivers under certain conditions. The export of poultry meat, other than imports to Ghana, is also limited. Neighboring Cote d'Ivoire, for instance, has banned outright, the importation of poultry meat. Burkina Faso, Ghana's neighbor to the north, also has a weak cold storage infrastructural system, making exports to that country quite infeasible. The short shelf-life of eggs, especially in bad weather conditions, coupled with poor road infrastructure, limits the potential for export within the West Africa sub-Region. The limited trade that exists is often informal cross-border trade and cannot be used as a reliable model for promoting sustained economic growth. Moreover, the lack of government legislative guidelines, as well as inspection and enforcement mechanisms concerning veterinary drugs and other poultry inputs are key factors limiting implementation of quality standards.

The poultry industry is further saddled with high production costs, primarily the result of the high cost of feed, which constitute more than 60 percent of total production cost, inefficient feed management practices, poorly developed input and service markets, poor quality or inappropriate inputs, limited commercial linkages between/among firms, and ineffective value chain governance.

For nearly a decade, the poultry sector in Ghana has contracted as a result of intense competition from imported poultry meat and the decreasing profitability of egg production. According to the United Nations' Food and Agriculture Organization (FAO), domestically produced broiler meat has fallen from nearly 60 percent of all poultry consumed in Ghana in 2000 to 20 percent in 2011. At the same time, imports have increased from 13,900 metric tons (MT) to over 155,000 MT, more than 1,000 percent increase. The 2013 Global Alliance for Improved Nutrition estimates the 2012 domestic market share of

broiler meat at 10 percent of national consumption. This is the result of many poultry producers focusing more on egg production beginning in 2000, with output increasing from roughly five million eggs in 2000 to 10.9 million eggs in 2011 (FAO). Presently, egg sales have significantly slowed.

Even though the Government of Ghana has tried to initiate and implement a number of projects to improve the productivity of the industry, the high cost of quality blended feed, representing more than 60 percent of total production cost, and inefficient feed management practices are largely responsible for the high production cost of poultry products.

These factors, combined with government's lackadaisical attitude towards policy make the poultry industry uncompetitive, globally.

## **B. Project Description**

The United States Government (USG) over the past decades has committed to supporting the Government of Ghana's (GoG's) efforts to improve the enabling environment for increasing investment in the agriculture sector to increase productivity and value chain competitiveness. Through its Feed the Future initiatives, the United States Agency for International Development (USAID) Ghana's Mission is funding more than a dozen interventions to support the productivity of the maize, rice and soybean value chains in Ghana. The United States Department of Agriculture (USDA) on the other hand is also implementing two complimentary agribusiness programs, both focused on strengthening the efficiency and competitiveness of Ghana's poultry industry.

The Ghana Poultry Project (GPP) is a five-year USDA-funded project and is one of the two agribusiness complimentary programs implemented by the USDA in Ghana. The GPP is implemented by ACDI/VOCA and TechnoServe, and was designed to increase the competitiveness of the domestic production and processing of poultry meat and eggs. The project intends to increase targeted sector commercial performance by building coordination between firms, promoting the adoption of quality standards, strengthening business planning and market-penetration strategies and reinforcing buyer-supplier linkages. The project activities will expand end-markets for poultry production input products, raise the income and employment opportunities and accelerate improved efficiencies at key stages of the poultry value chain. The activity implementation will: 1) reduce Ghana's dependence on imported poultry meat; 2) improve the profitability of egg production; and 3) expand national and regional trade in poultry products and in sector-related inputs and service markets, which ultimately will result in both a sustainable and equitable increase in incomes for male and female producers in the poultry, and related commodity sectors.

The project will achieve its intended purpose with the attainment of two Strategic Objectives in Ghana:

1. **(SO 1)** Increased agriculture productivity in the poultry value chain through capacity building, improved input markets, strategic investments and an enhanced private-public partnerships, and;
2. **(SO 2)** Increased trade of poultry products through improved product quality, increased production efficiency, and improved market linkages.

The above strategic objectives will be attained by impacting 500 commercial poultry firms, 10,000 poultry households, 10 animal input supply businesses, and 20 out-grower businesses linked to 175 poultry farms. The project will facilitate access to financial services for 26,633 individuals. The targets would be reached through the implementation of the following activities:

- i. **Activity One:** Capacity building of producer groups and/or cooperatives
- ii. **Activity Two:** Capacity building to promote improved policy and regulatory framework
- iii. **Activity Three:** Capacity building of trade associations
- iv. **Activity Four:** Financial service provision to facilitate agricultural lending
- v. **Activity Five:** Provision of financial services to leverage private and/or public-sector investments
- vi. **Activity Six:** Develop and/or strengthen veterinary inputs services
- vii. **Activity Seven:** Market access – facilitate buyer-seller relationships
- viii. **Activity Eight:** Training on improved agricultural production techniques
- ix. **Activity Nine:** Provide business development skills and technical services to beneficiaries
- x. **Activity Ten:** Develop poultry products end-markets through increased access to market intelligence
- xi. **Activity Eleven:** Training on improved marketing, branding, and social marketing
- xii. **Activity Twelve:** Training on improved poultry processing

The GPP will achieve its development outcomes at multiple levels throughout the value chain. At the industry level, a decrease in imports of poultry meat and an increase in both local consumption and regional trade of eggs will signal effective implementation. At the firm level, the ability of poultry businesses to survive price shocks will indicate a more effective business model. Finally, at the supply level, the reliable off-take of maize, soybean, and broilers by increasingly integrated and commercially stronger firms will provide an expanding and reliable market channel for maize and soybean producers, and broiler out-growers/producers encouraging continued investment in productivity and quality improvement.

The project is supporting the USG Feed the Future objectives in Ghana by indirectly targeting an increase in incomes and employment for smallholder producers who are working with existing USAID/Ghana-funded projects such as the ADVANCE project. The GPP will target ADVANCE aggregators who have contracts with maize or soy farmers, to benefit from the GPP menu of interventions.

## Development Hypothesis

The Ghana Poultry Project's (GPP's) development hypothesis is that "If agriculture productivity in the poultry value chain is increased through capacity building, if the input markets are improved, if strategic investments is promoted in the poultry industry, if private-public partnerships increase and are enhanced, and if the quality of the poultry products are improved, then there will be improved efficiencies at key stages of the poultry value chain, improved profitability of egg production, expanded national and regional trade in poultry products and in sector-related inputs and service markets, resulting in both a sustainable and equitable increase in incomes for male and female producers in the poultry, and related commodity sectors".

## IV. EVALUATION QUESTIONS

This evaluation has two purposes: 1) determine whether the project is implemented as intended and whether progress is being made towards the attainment of the project's goal and objectives; and 2) determine the results of key outcome and output indicators tracked by the project. In order to guide the evaluation, the following questions will be answered:

### Relevance

- I. To what extent is the project aligned with national policies and strategies for agriculture production?

2. How relevant is the project to the stated and immediate needs of stakeholders?

#### *Effectiveness*

1. To what extent is the project producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives?
2. What, if any, unintended consequences can be attributed to the project?
3. To what extent has GPP coordinated with the AMPLIFIES Project and other USAID-funded projects such as the ADVANCE program and MoFA, other donor projects and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana?

#### *Efficiency*

1. To what extent is the relationship between inputs and outputs timely, cost-effective and to the expected standards?
2. Were inputs converted into outputs in a timely and cost-effective manner?

#### *Sustainability*

1. To what extent are the project results likely to continue after the project?
2. Is stakeholder buy-in likely to continue or be increased after the current contract period?

Apart from providing answers for the above listed evaluation questions, the team of evaluators will conduct a quantitative survey to provide annual results for the indicators listed below. The data collection tools and method of collecting data have all been determined. The evaluation team would be responsible for estimating the sample size, as well as implementing the annual survey as part of the mid-term evaluation of the GPP.

List of GPP Performance Indicators for the annual survey:

1. Percentage of poultry producers who have signed agreements with input suppliers
2. Average Poultry Mortality rate
3. Percentage of poultry farmers who can identify at least four identified best poultry husbandry practices as a result of USDA-GPP assistance
4. Value of sales by project beneficiaries
5. Volume of commodities (metric tons) sold by project beneficiaries
6. Number of firms engaged in agricultural and food security-related production and services that have increased profits or become financially self-sufficient with USDA assistance
7. Number of firms that invest in branding or marketing initiatives as a result of USDA assistance
8. Percentage increase in the number of input suppliers available to GPP poultry producers
9. Number of firms that regularly use market information to inform decisions
10. Number of jobs attributed to USDA assistance
11. Number of firms that comply with national established vaccination protocols
12. Percentage of farmers surveyed who use three or more improved post-production practices
13. Gross profit per farm

## **V. EVALUATION DESIGN AND METHODOLOGY**

This performance evaluation is focused on the GPP's implementation, results and immediate outcomes in relation to the project logic and how the activities are perceived and valued by

stakeholders. It is anticipated that a cross-sectional approach will be adopted for this evaluation. Data will be collected from a representative sample at midterm (one point of the project implementation) to estimate results of a number of indicators from which inferences can be made regarding the project relevance, effectiveness, efficiency and sustainability. USDA and the project implementing partners are interested in obtaining a snapshot at midterm and across different subgroups receiving services from the GPP.

It is generally anticipated that the Consultants/evaluation team will employ appropriate scientific data collection methods and a mix of qualitative and quantitative analysis methods, including data triangulation, to arrive at the evaluation findings that fully respond to the evaluation questions and make recommendations thereof.

The performance evaluation will cover GPP's operations since inception, with the key respondents being the project staff, staff of the donor (USDA in Ghana and Washington), the project target beneficiaries, including poultry producers, hatchery operators, poultry processors and staff of partner government institutions such as the Ministry of Food and Agriculture's (MOFA's) Veterinary Service Directorate (VSD) and Animal Production Directorate (APD). Data collection for the key outcome/output indicators, however, will focus on only beneficiaries who received interventions from the Project's inception. In addition, staff of MOFA, VSD and APD will also be contacted for data to assist with estimating results of the key outcome and output indicators. Data will also be collected from financial institutions that partner with the GPP. Depending on the number of target respondents, a census approach may be employed by the Consultants/evaluation team to collect representative data.

The consultants/evaluation team are required to share all data collection tools with USDA via METSS II project for review and feedback and/or discussion, with sufficient time, before they are applied in the field. They should utilize, to the extent possible various data collection methods including but not limited to the following:

1. **Review of existing Documentation:** Project documents that should be reviewed may include but not limited to Project Appraisal Document, baseline reports, quarterly and semi-annual progress reports, annual beneficiary-based survey reports, project monitoring and evaluation plans (or project monitoring plans (PMP)) and any other assessment reports related to the GPP Project.
2. **Key Informant Interviews:** The team is expected to hold interviews with key partners of the project particularly the GPP Project, and other partners including actors in the private sector who have been engaged in the project implementation.
3. **Survey of Beneficiaries:** The team is expected to cover a representative sample of project beneficiaries, institutions and private sector entities who have benefited from the GPP project implementation since its inception.

## **VI. DELIVERABLES AND REPORTING REQUIREMENTS**

**Evaluation Work Plans:** The Consultants/Evaluation Team will prepare a detailed work plan and activity schedule to be submitted to the Chief of Operations (COO) of the METSS II project for approval no later than five (5) working days after the award. The work plan should describe all activities, including timeframes and sequencing, research design and methodology, sample size estimation and the selection of sampled respondents, draft data collection tools and an analysis plan, and a timeline for training enumerators and data collection. The METSS II Project's Research, Monitoring and Evaluation Unit, GPP's Monitoring and Evaluation (M&E) Unit and USDA Foreign Agricultural Service (FAS) Food for Progress (FFPr) Analyst will review the submitted work plans and provide written comments no later

than five (5) working days after receipt of the detailed work plan. The consultants must receive approval of the work plans before beginning the fieldwork.

**In-briefing:** The evaluation team will have an in-briefing (within a day of arrival in Ghana if Consultants are outside of Ghana) with the METSS II Project, USDA/FAS FFP staff, and key members of the GPP team for introductions and to discuss the evaluation team's understanding of the assignment, initial assumptions, evaluation questions, methodology, and work plans, and/or to adjust the Statement of Work (SOW), if necessary.

**Mid-term Briefing and Interim Meetings:** The consulting/evaluation team is expected to hold a midterm briefing with METSS II project, USDA/FAS FFP Analyst and relevant team members of the GPP on the status of the evaluation, including potential challenges and emerging opportunities. The team will also provide the METSS II Chief of Operations with periodic briefings and feedback on the team's findings, as agreed upon during the in-briefing. If desired or necessary, weekly briefings by phone can be arranged.

**Final Exit Briefing:** The evaluation team is expected to hold a final exit briefing (prior to leaving the country, if Consultants are outside of Ghana) to discuss the status of data collection and preliminary findings. The team will present the major findings of the evaluation to METSS II Project and USDA partners (as appropriate and as defined by USDA) through a PowerPoint presentation prior to the team's departure from country. The team will consider partner comments and revise the draft report as appropriate.

**Draft Evaluation Reports:** The draft evaluation reports should be consistent with the guidance provided in the reporting requirement sub-section. The reports will address each of the questions identified in Section IV of this SOW and any other issues the team considers to have a bearing on the objectives of the evaluation. Any such issues can be included in the report only after consultation with METSS II. Once the initial draft report is submitted to the METSS II Project Chief of Operations, the METSS II RM&E team, the USDA/FAS FFP Analyst and the GPP will take nine (9) business days to review and submit consolidated comments on the initial draft. The Consultants/evaluation team will integrate the comments into the draft report and submit the final draft report within five (5) business days to METSS II Project. Each reviewing team (METSS II Project RM&E, GPP M&E and USDA) will take five (5) business days to review and submit final comments on the final draft.

**Final Evaluation Report:** The Consultant/evaluation team will be asked to take no more than three (3) business days to respond/incorporate the final comments from METSS II project, USDA and GPP. The evaluation team leader will then submit the final report to the METSS II Project Chief of Operations. All project data and records will be submitted in full and should be in electronic form in an easily readable format, organized and documented for use by those not fully familiar with the project or evaluation, and owned by USDA.

The final report will be edited/formatted and presented to USDA approximately one month after it has reviewed the content and approved the final revised version of the report.

## **Report Delivery**

The Consultants/evaluation team shall submit the final report to METSS II Chief of Operations in electronic format (Microsoft Word) as well as printed and bound copies (Three copies in English) no later than three (3) working days of the receipt of the comments.

## **VII. EVALUATION TEAM COMPOSITION**

The evaluation team will consist of a team leader and two technical experts. A representative from METSS II Project and USDA may be asked to join the evaluation and participate in the evaluation processes. It is anticipated that the Consultants should have the following experience:

1. Knowledge of US Government supported programs,
2. Technical competence in the field of Agriculture, particularly the poultry sub-sector, agribusiness and agricultural value chains, economics, public policy, or related fields; and
3. Experience with quantitative and qualitative data collection procedures, and management of surveys, including survey data analysis using appropriate statistical analysis packages such as Stata, SPSS, Epi Info, etc.

### **Evaluation Team Leader/ Expert in Agricultural Sciences, Economics or Applicable Social Science: Qualification and Experience**

1. Specialist should have a post graduate degree in agriculture sciences, economics, or an applicable social science field. S/he should have at least 10 years senior level experience working in the agricultural sector in a developing country context.
2. S/he should have extensive experience in project management, conducting both qualitative and quantitative evaluations/ assessments and strong familiarity with the poultry industry. Excellent oral and written skills are required.
3. The Team Leader should also have experience in leading evaluation teams and preparing high quality documents. The Team Leader will take specific responsibility for assessing and analyzing the project's progress towards achieving its targets, factors for such performance, benefits/impact of the strategies, and compare with other possible options. S/he will also suggest ways of improving the present performance of the project, if any.
4. Good interpersonal and diplomatic skills.
5. S/he will provide leadership for the team, finalize the evaluation design, coordinate activities, arrange periodic meetings, consolidate individual input from team members, and coordinate the process of assembling the final findings and recommendations into a high quality document. S/he will write the final report. S/he will also lead the preparation and presentation of the key evaluation findings and recommendations to METSS II project, USDA and GPP.

### **Senior Evaluation Specialist: Qualification and Experience**

1. Master's Degree or equivalent in an agricultural field (Agricultural economics, agribusiness, animal science, agricultural extension and rural sociology, or any other relevant agricultural field), social sciences or related relevant fields.
2. Must have a minimum of 8 years conducting both qualitative and quantitative evaluations/assessments around agriculture productivity, value chain enhancement, improving capacity for service delivery and policy formulation in developing countries.
3. Good interpersonal and diplomatic skills.
4. Excellent oral and written communication skills in English.

### **Team Member: Qualification and Experience**

A proven record of leadership in research, sound technical knowledge and relevant experience in the agricultural sector, social sciences or related relevant fields are required. Experience in program design and implementation, analysis and report writing are an advantage;

1. Experience in conducting both qualitative and quantitative evaluations/assessments around improving capacity for service delivery and policy formulation;

2. A proven team player experience; and
3. Excellent spoken and written skills in English.

The evaluation team shall demonstrate familiarity with USDA's evaluation policies and guidelines.

All team members will be required to provide a signed statement attesting to a lack of conflict of interest or describing any existing conflict of interest.

## **VIII. EVALUATION AND SURVEY SCHEDULE**

### **Period of Performance Evaluation and/or Annual Beneficiary Survey**

Work is to be carried out over a period of approximately 10 weeks, beginning on or about October 29, 2018 with fieldwork and draft report completed by January 4, 2019 and final report and close out concluding January 26, 2019.

### **Illustrative Schedule**

| <b>Timing<br/>(Anticipated<br/>submission date)</b> | <b>Anticipated<br/>Duration (Days)</b> | <b>Proposed Activities</b>                                                                          |
|-----------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------|
| October 29, 2018                                    |                                        | Evaluation contract awarded to Consultants                                                          |
| November 5, 2018                                    | 5                                      | Consultants prepare and submit a detailed evaluation work plan to METSS II Project                  |
| November 7, 2018                                    | 1                                      | Evaluation team (Consultants) conducts in-brief with METSS II, USDA and GPP on evaluation work plan |
| November 12 2018                                    |                                        | USDA, METSS II and GPP review evaluation work plan and submit feedback to evaluation team           |
| November 15, 2018                                   | 2                                      | Evaluation team integrates comments into work plan and submits final document to METSS II Project   |
| November 19, 2018                                   | 3                                      | Evaluation team completes pre-testing of evaluation instruments/tools                               |
| November 24, 2018                                   | 5                                      | Evaluation team trains evaluation/survey enumerators                                                |
| December 10, 2018                                   | 15                                     | Collect data from evaluation respondents in the project target areas                                |
| December 20, 2018                                   | 6                                      | Data Analysis                                                                                       |
| December 28, 2018                                   | 6                                      | Write draft report and submit preliminary findings                                                  |
| January 4, 2019                                     |                                        | USDA, METSS II and GPP review evaluation draft report and submit feedback to evaluation team        |
| January 12, 2018                                    | 3                                      | Evaluation team incorporates comments and prepare final evaluation report                           |
| January 26, 2019                                    | 3                                      | Evaluation team Leader submits formatted Final Evaluation Report                                    |

## **Payment Schedule**

Payment under the prospective evaluation contract shall be as follows:

- a. 30% upon submission of Evaluation Work Plan to METSS II Chief of Operations.
- b. 45% upon submission of Draft Evaluation Report to METSS II Chief of Operations.
- c. 25% upon submission of Final Evaluation Report to METSS II Chief of Operations.

## **Schedule for preparing the work plans and evaluation design**

The Consultants/evaluation team should plan to receive all key documents, and prepare a detailed work plan for the performance evaluation and submit same to the METSS II Chief of Operations for review prior to the commencement of field work. It is expected, within the period of preparing the detailed work plan that the team members in country will begin to make key contacts and plan the recruitment of enumerators for the data collection phase of the evaluation. Key contacts should also be obtained for interviews and discussions in Ghana with project staff, and beneficiaries. Most of this work should be done through meetings and site visits. The team will work through METSS II Chief of Operations and the GPP Chief of Party or their designees to support setting up of as many meetings and interviews as possible.

## **Schedule for collecting data**

The focus at the beginning of this period should be on meeting with USDA, METSS II, staff of GPP, and gathering and reviewing data not already available. The evaluation team should also solidify plans for meetings and visits to beneficiaries and stakeholders to gather qualitative data. The team should strategically finalize their recruitment and plans for training data collectors, which should take place immediately after finalizing the detailed work plan and evaluation data collection tools. Data collection for the outcome indicators will be done using tablets. The electronic data capture tool, simulating the data collection tools for the quantitative element of the evaluation has been designed and ready for use. The training of enumerators will be based on both the paper questionnaire and electronic version of the questionnaire.

It is expected that the evaluation team will randomly sample beneficiaries to collect adequate data for the evaluation report. As time allows, the team will begin analyzing data and preparing the first few sections of the final report.

## **Data Analysis**

The team of consultants is expected to immediately start data analysis using appropriate methods as indicated in the detailed evaluation work plan. The analysis will serve as basis for the completion of the evaluation and survey reports.

## **IX. FINAL REPORT FORMAT**

The evaluation final report should include an executive summary; introduction; background of the project context; the evaluation purpose and questions; the methodology; the limitations to the evaluation; key findings, conclusions, and recommendations; and lessons learned (if applicable).

The evaluation report should be easily understood and should identify key points clearly, distinctly, and succinctly. The findings should be presented as analyzed facts, evidence, and data and not based on anecdotes, hearsay, or simply the compilation of people's opinions.

The **Executive Summary** should be 2-5 pages in length and present a concise and accurate statement of the most critical elements of the report. It should summarize key points (purpose and background, evaluation questions, methods, findings, and conclusions).

The report should provide a brief **Background** information, which should include country and/or sector context; specific problem or opportunity the intervention addresses; and the development hypothesis, theory of change, or simply how the intervention addresses the problem. Describe the specific strategy, project, activity, or intervention to be evaluated including (if available) award numbers, award dates, funding levels, and implementing partners

The **Evaluation Purpose and Questions** should state the purpose of, audience for, and anticipated use(s) of the evaluation. Clearly state the evaluation questions in this section.

Explain the evaluation or survey **Methodology** in detail and clearly state sources of information. Disclose limitations to the evaluation, especially, those associated with the methodology (e.g. selection bias, recall bias, unobservable differences between comparator groups, etc.).

**NOTE:** A summary of methodology can be included in the body of the report, with the full description provided as an annex.

**Findings, Conclusions, and Recommendations:** Address all evaluation questions in this Statement of Work (SOW) or document why some evaluation questions and/or comments from METSS II Project or USDA have not been addressed for approval.

If evaluation findings assess person-level outcomes, they should also be separately assessed for both males and females.

Findings and conclusions should be specific, concise, and supported by strong quantitative or qualitative evidence. If recommendations are included, separate them from findings and conclusions. Recommendations should be supported with specific findings and should be action-oriented, practical and specific.

The **Annexes** to the report shall include:

- The Evaluation SOW;
- Any statements of difference regarding significant unresolved differences of opinion by USDA, METSS II project, GPP, and/or members of the consulting team;
- Indicator data result tables with accompanying statistics
- All data collection and analysis tools used in conducting the evaluation and/or survey, such as questionnaires, checklists, and discussion guides;
- All sources of information, properly identified and listed;
- Signed disclosure of conflict of interest forms for all evaluation team members, either attesting to a lack of conflict of interest or describing existing conflict of; and
- Summary information about evaluation team members, including qualifications, experience, and role on the team.

The final version of the evaluation report will be submitted to USDA and GPP in hard copy as well as electronically. The report format should be restricted to Microsoft products and 12-point Times

New Roman font type should be used throughout the body of the report, with page margins 1" top/bottom and left/right. The report should not exceed 30 pages, excluding references and annexes.

The evaluation team leader shall incorporate METSS II Project, GPP and USDA's comments and submit the final report to USDA in electronic format (Microsoft Word) as well as printed and bound copies (Three copies in English) no later than six working days of the receipt of the comments.

## **X. CRITERIA TO ENSURE THE QUALITY OF THE EVALUATION REPORT**

Per this SOW, an independent report shall be prepared for the evaluation in accordance with USDA Evaluation Policy. The draft and final evaluation reports will be evaluated against the following criteria to ensure the quality meets the minimum standards of a USDA-sponsored evaluation:

- The evaluation reports should represent a thoughtful, well-researched, and well-organized effort to objectively evaluate the project.
- The report should be easily understood and should identify key points clearly, distinctly, and succinctly.
- The executive summary of the report should present a concise and accurate statement of the most critical elements of the report.
- The report should adequately address all evaluation questions included in the statement of work, or the evaluation questions subsequently revised and documented in consultation and agreement with METSS II Project and USDA.
- The methodology should be explained in detail and all sources of information properly identified in the report.
- Limitations to the evaluation should be adequately disclosed in the report, with particular attention to the limitations associated with the methodology (selection bias, recall bias, unobservable differences between comparator groups, etc.).
- Findings should be presented as analyzed facts, evidence, and data and not based on anecdotes, hearsay, or simply the compilation of people's opinions.
- Findings and conclusions should be specific, concise, and supported by strong quantitative or qualitative evidence.
- If findings assess person-level outcomes, they should also be separately assessed for both males and females.
- Recommendations should be supported by a specific set of findings and should be action-oriented, practical and specific.

## **XI. EVALUATION MANAGEMENT**

### **Logistical Support**

The METSS II Project will take lead in making all the necessary logistical arrangement to enable the team of consultants complete this task according to plan and on time. METSS II will collaborate with the GPP to support the evaluation team identify key documents, and arrange for meetings with stakeholders. The evaluation team is responsible for arranging other meetings as identified during the course of the

evaluation and may request support from METSS II and GPP. In all these arrangements the USDA/FAS FFP Analyst should be notified prior to each of those meetings.

The USAID METSS II will be responsible for arranging vehicles needed for site visits, including meetings and will assist with hotel arrangements, if necessary, however, the evaluation team members will be required to make their own payments. METSS II will make available their conference room or another convenient location upon request of the evaluation team as work space. The team of consultants are however expected to use their own computers.

## Technical Direction

Technical direction during the performance of the evaluation will be provided by the METSS II Chief of Operations, who will be the point of contact for the Consultant's Team during performance. The METSS II Chief of Operations will manage the evaluation in consultation with the USDA FAS FFP Analyst

The METSS II Chief of Operations is the only authorized official to make changes to the terms and conditions of the evaluation contract. In the event that the Consultant believes that it is required to perform activities outside the evaluation contract, it must immediately contact/inform the METSS II Chief of Operations before performing these tasks. The Consultant will not be paid any amount in excess of the evaluation budget set forth in the evaluation contract.

## CRITERIA EVALUATING THE TECHNICAL PROPOSAL

Technical proposals will be evaluated based on the criteria outlined below.

| Technical Evaluation Criteria          | Points     |
|----------------------------------------|------------|
| Technical Approach                     | 50         |
| Personnel                              | 50         |
| <b>Total Possible Evaluation Point</b> | <b>100</b> |

Applicants/Consultants should note that these criteria and sub-criteria serve: (a) as the standard against which the proposal will be evaluated, and (b) to identify the significant matters that Applicants should address in their proposal. The specific evaluation criteria are as follows:

### Technical Approach – (50 points)

The technical approach should address the following sub-criteria which will be considered in the evaluation of the proposal:

- A clear strategy to address the evaluation questions, and achieve the evaluation requirements.
- Degree or extent to which the Applicant's technical approach, methodology and activities have the potential to accomplish the tasks within the implementation period.
- Clear articulation of anticipated challenges and description of how they will be addressed.
- An illustrative work plan with timeframes and durations for mobilizing staff, field work, data analysis, and reporting. Work plan should demonstrate logical linkages between task areas and timeframes that combine a strong balance of rigor and reflection.

## Personnel (50 points)

Clear, concise and defined proposed key personnel, their role, responsibility, qualification and relevant experience. Include CVs of proposed key personnel, illustrating experience in similar assignments, and references. Refer to Section VII for the required qualification and experience of the required team members for the evaluation.

## Cost Proposal Evaluation

Contract award will be made on a best value basis, where all non-cost (technical) factors will be significantly more important than cost. The Consultants should have the structure that will allow it to provide the best value and greatest results at the lowest cost. The price proposal of the contract period shall be evaluated in terms of reasonableness and realism to determine the appropriate cost for the work including the Consultant's understanding of the work, and their ability to perform the work.

## INSTRUCTIONS FOR SUBMISSION OF PROPOSAL

Questions and/or enquiries concerning this SOW should be sent by no later than October 17, 2018 at 16:00 hours via email to: [procurement@metssghana.org](mailto:procurement@metssghana.org) Subject: GPP Performance Evaluation Solicitation # METSS-2018-204. No phone calls, please. Any information given to one Applicant concerning this SOW will be furnished to all others who have also applied for the detailed SOW.

Proposals are due on October 22, 2018, 17:00 hours GMT (13:00 EST). Your Proposal in response to this SOW must be sent to [procurement@metssghana.org](mailto:procurement@metssghana.org). Subject: GPP Performance Evaluation Solicitation # METSS-2018-204.

METSS II complies with U.S. Sanctions and Embargo laws and Regulations including Executive Order 13224 on Terrorist Financing, which effectively prohibits transactions with persons or entities that commit, threaten to commit or support terrorism. Any person or entity that participates in this SOW process, either as a consulting firm, or a team of evaluation experts, must certify as part of the bid that they are not on the U.S. Department of Treasury Office of Foreign Assets Control (OFAC), Specially Designated Nationals (SDN) List and is eligible to participate. METSS II shall disqualify any Proposal received from any individual or entity that is found to be on the List or otherwise ineligible.

Applicant(s) are expected to examine the specifications and all instructions contained in this document including the terms and conditions of the resulting contract. Failure to do so will be at the Applicant(s) risk. Applicants are responsible for all costs associated with preparation and submission of their bid package. METSS II will not reimburse bidders for costs of preparing bids.

Applicant(s) must include a completed *Technical Proposal Submission Sheet* which should be requested alongside the detailed SOW by sending an email to [procurement@metssghana.org](mailto:procurement@metssghana.org).

**Technical proposals** will be evaluated for technical merit, and must include:

- a. Resumes for all key personnel including CVs, past experience, and at least 3 references for each key personnel
- b. A clearly articulated strategy to address the evaluation questions, and expected outputs detailed in the Scope of Work
- c. Discussion of a strategy, methodology and activities to accomplish the tasks within the implementation period
- d. Anticipated challenges and their resolutions in the operating areas and provision of a strategy to address challenges and explore opportunities to resolve the challenges.

- e. An illustrative work plan with logical linkages between task areas.

It is important for prospective applicants to state clearly all its on-going evaluations with USDA, USAID and other donors in the submission of its technical proposal. This will assist METSS II and USDA to assess the impact of the prospective applicant's existing work on the anticipated tasks.

## AWARD

Award will be made to that Applicant/Consultant whose proposal provides the government with the best value, all factors considered.

## ANNEX: GHANA POULTRY PROJECT'S CONCEPTUAL FRAMEWORK

The goal of the GPP is to increase the competitiveness of domestic production and processing of poultry meat and eggs. ACDI/VOCA defines competitiveness as sustainable growth of productivity. The project is based on ACDI/VOCA's conceptual model of how change can be brought about, i.e. what chain of events have to occur for the value chain to function successfully (Theory of Change). In turn, a measurement system is then designed to track the activities put in place to influence change and then test if, as a result of those efforts, the changes we anticipate actually occur, and why or why not. For GPP, the implementation approach is rooted in well documented enterprise development, market facilitation and value chain theory and supporting implementation models and our theory is built on the foundational assumptions that; 1) the Government of Ghana drives interest in the growth of the domestic poultry market and is thus working to actively improve the enabling environment; 2) private sector engagement is responsive to market incentives and invests in necessary upgrades to drive economic growth, and; 3) sustainable growth drives prosperity among poultry and interlinked value chain firms, notably smallholder producers of maize and soy beans. Key elements of our development hypothesis and implementation approach are defined in the table that follows.

At ACDI/VOCA, a key paradigm on all of our programs is that we believe in facilitating development interventions among existing actors in the value chain (rather than inserting our self as the primary implementer). Thus, in all cases we search for maximizing the existing service providers and actors already active in the sector.

| Theory of Change Elements                                                                                                                                                                                                        | Implementation Approach                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IF... commercial actors are able to count on a consistent quality and volume of supply <u>then</u> they will invest in their businesses and other businesses (e.g. forward contracting) along the chain, spurring market growth. | GPP focuses on kick starting a cycle of sustained and inclusive growth. This begins <i>with improving trust and reliability between firms</i> , which has undermined the development of cost-efficient business models and fragmented linkages in the poultry and feed value chain, and accordingly supporting certification and inspection of quality standards, demonstrate viability of local products, and support stakeholder coordination and deal-making.                                                                                                                 |
| IF... initial risks and costs associated with adopting a new business model are reduced <u>then</u> firms will demand services to improve their operational and technical efficiency.                                            | GPP facilitates linkages to commercial financing, and performance incentives to buy down initial risks and costs associated with adopting a new business model. There are a number of private firms and public institutions with the capacity and interest to provide this. GPP works with private firms to facilitate the provision of embedded technical services, build capacity of business services advisors to strengthen business/financial planning, and coordinate with industry associations, universities, and other entities to provide fee-based advisory services. |

|                                                                                                                                                                                                 |                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IF... poultry businesses are able to achieve improved cost competitiveness, <u>then</u> they will be positioned to reduce importation of poultry meat and expand trade and consumption of eggs. | To ensure that demand does not slacken, GPP conducts market segmentation studies and helps design marketing plans, assisting with sector wide promotional campaigns, and facilitating linkages between producers and markets. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Ghana Poultry Project's overall goal is to improve the competitiveness of the domestic poultry value chain. In the context of the project, competitiveness means sustainable increases in productivity at competitive pricing.

## I. Vision of Success

### The Increased Sustainable growth & prosperity of Stakeholders



## II. Primary Preconditions

To reach the overall goal, the following three primary preconditions should be put together to facilitate the desired outcome:

1. Competitive pricing (Lower input costs compared to market prices leading to improved market competitiveness of local poultry products vs imported products thus increasing opportunities to grow market share in current import market)
2. Successful marketing (Sustainable local market campaigns to promote sales and consumption of locally produced poultry products that will lead to an increased demand for domestic poultry meat & eggs and grow poultry product end markets)
3. Improved quality/price ratio of locally produced poultry meat (Improved management of and access to quality feeds will improve productivity and lead to improvement in the efficiency of locally produced birds to better compete in end markets with imported poultry meat)

## III. Support Preconditions Stage 1

- Improved business capacity
- Improved business & market linkages
- Improved management of local production

### Assumptions:

- Government Supports Domestic Poultry Sector by ensuring an Enabling Environment
- Improved animal productivity

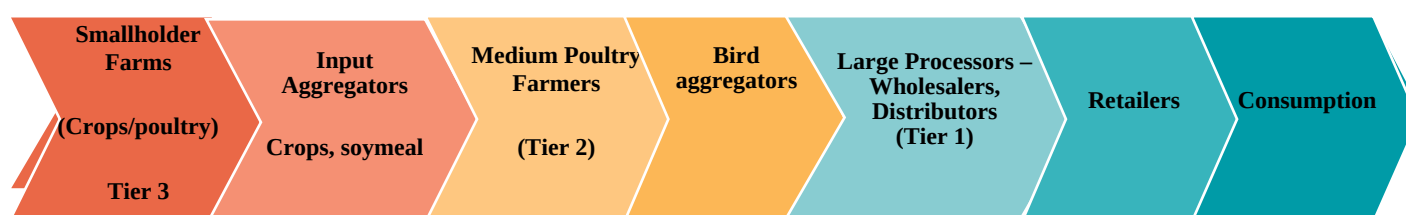
## IV. Support Preconditions Stage 2

- Support marketing campaigns
- Increased demand for domestic poultry & eggs
- Increased market share of expanding end markets

## V. Pathways of change (Outputs)



## VI. Stakeholders



## VII. Interventions

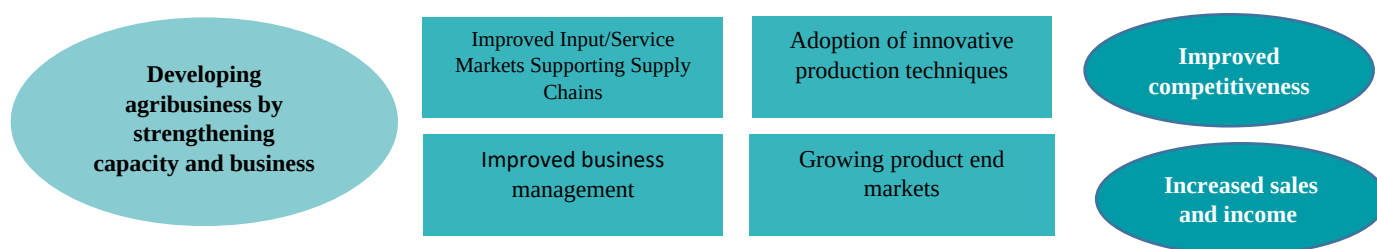
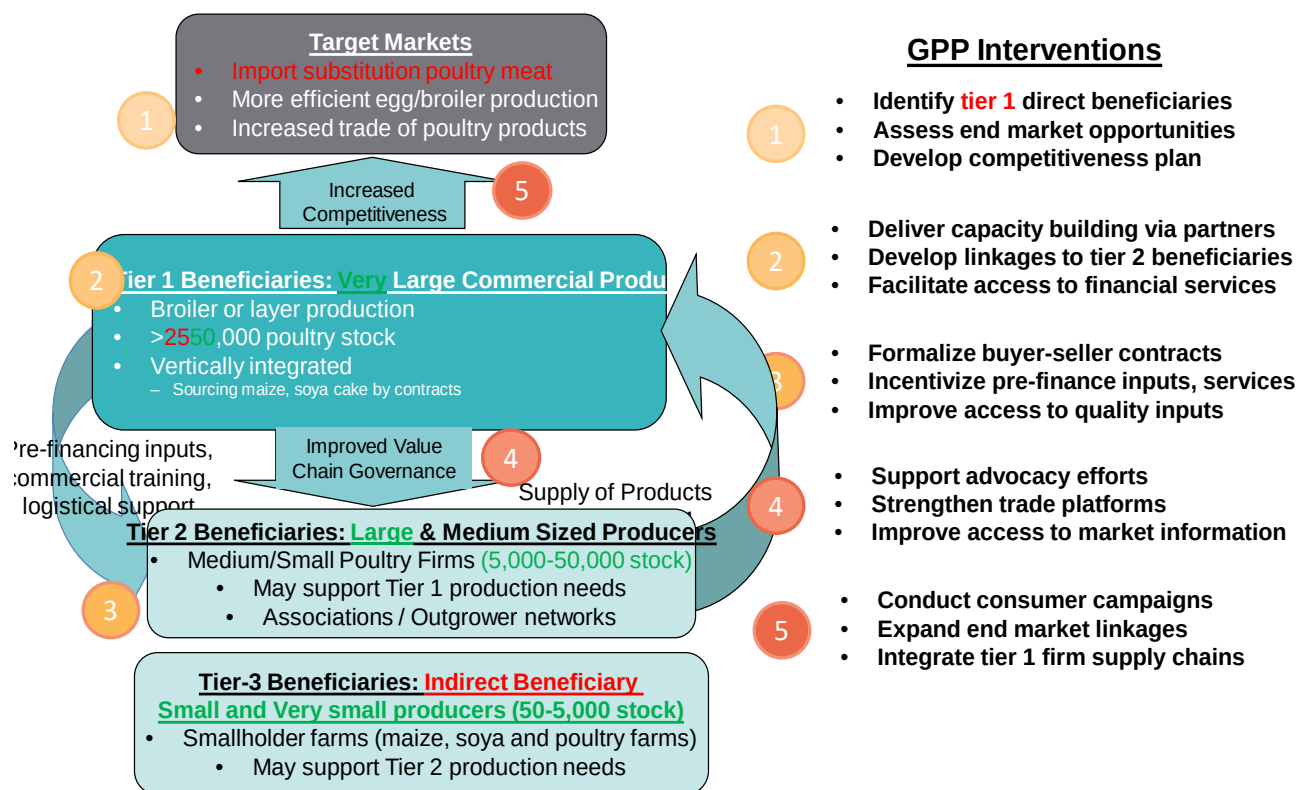


**Figure 3. ACIDI/VOCA GPP Implementation**

## GPP Strategy: Promoting Integrated Poultry Agribusiness Models



## Annex 2: Summary Outcomes of Sampling

**Table 3A: Summary of Sample Distribution across Categories of Respondents**

| No. | Category of respondents                                   | Sample       |
|-----|-----------------------------------------------------------|--------------|
| 1.  | Poultry Producers                                         | 330          |
| 2.  | Poultry Households                                        | 622          |
| 3.  | Input Suppliers [Animal Health Service Providers (CAHWs)] | 33           |
| 4.  | VSD (District Level Providers)                            | 42           |
| 5.  | End Market Actors                                         | 12           |
| 6.  | GPP Office                                                | 1            |
| 7.  | ACDI/VOCA                                                 | 1            |
| 8.  | TechnoServe                                               | 1            |
| 9.  | MoFA                                                      | 2            |
| 10. | VSD (Regional Levels)                                     | 3            |
| 11. | APD                                                       | 3            |
| 12. | GSA                                                       | 3            |
| 13. | FDA                                                       | 3            |
| 14. | EPA                                                       | 3            |
| 15. | USDA (United States and Ghana)                            | 2            |
| 16. | FIs                                                       | 6            |
| 17. | Business Service Advisors                                 | 6            |
| 18. | Research Institutes                                       | 2            |
| 19. | Associations and Groups                                   | 48           |
|     | <b>Total</b>                                              | <b>1,123</b> |

**Table 3B: Sample Sizes for Poultry Producers across Region**

| Regions       | Tier 1    |           | Tier 2     |           | Tier 3       |            | Total        |            |
|---------------|-----------|-----------|------------|-----------|--------------|------------|--------------|------------|
|               | Pop.      | Sample    | Pop.       | Sample    | Pop.         | Sample     | Pop.         | Sample     |
| Ashanti       | 14        | 14        | 106        | 43        | 474          | 81         | 594          | 138        |
| Brong Ahafo   | 12        | 12        | 86         | 35        | 630          | 108        | 728          | 155        |
| Greater Accra | 2         | 2         | 9          | 9         | 242          | 42         | 253          | 53         |
| <b>Total</b>  | <b>28</b> | <b>28</b> | <b>201</b> | <b>87</b> | <b>1,346</b> | <b>231</b> | <b>1,575</b> | <b>346</b> |

**Table 3C: Response Rates for Poultry Producers**

| No. | INDICATOR                                                                                                                                                                        | EXPECTED SAMPLE | ACTUAL SAMPLE | RESPONSE RATE (%) |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------|-------------------|
| 1   | Percentage of poultry producers who have signed agreements with input suppliers                                                                                                  | 330             | 326           | 98.79             |
| 2   | Average poultry mortality rate                                                                                                                                                   | 330             | 330           | 100.00            |
| 3   | Percentage of poultry farmers who can identify at least four best poultry husbandry practices as a result of USDA-GPP assistance                                                 | 330             | 323           | 97.88             |
| 4   | Volume of commodities (metric tons) sold by project beneficiaries                                                                                                                | 330             | 282           | 85.45             |
| 5   | Value of sales by project beneficiaries                                                                                                                                          | 330             | 228           | 69.09             |
| 6   | Number of firms engaged in agricultural and food security-related production and services that have increased profits or become financially self-sufficient with USDA assistance | 330             | 261           | 79.09             |
| 7   | Number of firms that invest in branding as a result of USDA assistance                                                                                                           | 330             | 320           | 96.97             |
| 8   | Percentage increase in the number of input suppliers available to GPP poultry producers                                                                                          | 330             | 330           | 100.00            |
| 9   | Number of firms that regularly use market information to inform decisions                                                                                                        | 330             | 323           | 97.88             |
| 10  | Number of jobs attributed to USDA assistance                                                                                                                                     | 330             | 330           | 100.00            |
| 11  | Number of firms that comply with national established vaccination protocols                                                                                                      | 330             | 323           | 97.88             |
| 12  | Percentage of farmers surveyed who use three or more improved post-production practices                                                                                          | 330             | 323           | 97.88             |
| 13  | Gross profit per farm                                                                                                                                                            | 330             | 317           | 96.06             |

Note: Response rates lesser than 100 percent were due to non-responses or non-applicability of related questions to some poultry producers

**Table 3D: Regional Distribution of Animal Health Service Providers across Affiliations for Veterinarians Only**

| Region        | CAHWs      |           | VSPs       |            | Total      |            |
|---------------|------------|-----------|------------|------------|------------|------------|
|               | Population | Sample    | Population | Sample     | Population | Sample     |
| ASHANTI       | 83         | 33        | 107        | 45         | 190        | 78         |
| BRONG AHAFO   | 79         | 32        | 71         | 29         | 150        | 61         |
| EASTERN       | 0          | 0         | 2          | 2          | 2          | 2          |
| GREATER ACCRA | 44         | 17        | 82         | 38         | 126        | 55         |
| NORTHERN      | 0          | 0         | 4          | 4          | 4          | 4          |
| UPPER WEST    | 0          | 0         | 2          | 2          | 2          | 2          |
| VOLTA         | 0          | 0         | 6          | 6          | 6          | 6          |
| <b>Total</b>  | <b>206</b> | <b>82</b> | <b>272</b> | <b>126</b> | <b>480</b> | <b>208</b> |

**Table 3E: Sampling of Poultry Households across Regions**

| <b>Region</b> | <b>Population</b> | <b>Sample</b> |
|---------------|-------------------|---------------|
| Ashanti       | 3644              | 325           |
| Brong Ahafo   | 1709              | 162           |
| Greater Accra | 982               | 135           |
| <b>Total</b>  | <b>6335</b>       | <b>622</b>    |

### Annex 3: Data Collection Instruments

#### 3A. Ghana Poultry Project: Midterm performance evaluation questionnaire for poultry producers

## MIDTERM PERFORMANCE EVALUATION OF GHANA POULTRY PROJECT & AMPLIFIES QUESTIONNAIRE FOR POULTRY PRODUCERS

### INTRODUCTION AND INFORMED CONSENT

Hello, my name is \_\_\_\_\_ and I am working for the Directorate of Research, Innovation and Consultancy of the University of Cape Coast (DRIC-UCC) and/or MandE Solutions on behalf of the United States Department of Agriculture (USDA). We are conducting an evaluation to assess the economic impact of Ghana Poultry Project (GPP) and/or AMPLIFIES Project on your business. Through either a simple random sampling procedure (GPP) or census (AMPLIFIES), using beneficiaries of the USDA GPP and/or AMPLIFIES beneficiaries, you have been selected to participate in this data collection exercise. The questions that I will ask you will focus on your poultry production business. This interview will take about an hour to complete. Although you have benefited from the GPP and/or AMPLIFIES Project, you will neither be obliged to participate nor compelled to provide responses to all the questions that I will ask you. Your name will neither be cited in our report, nor will it be linked to the data that you will provide and no other person aside the evaluation team and the USDA will have access to the data that you will provide. The only reason for which you will be contacted again about this survey is to help complete this particular survey in case this process is interrupted. If you have questions at any time about the interview or the procedures of the GPP or AMPLIFIES Project, you may contact DRIC-UCC (Phone: 0203915027; Email: [dric@ucc.edu.gh](mailto:dric@ucc.edu.gh)).

Now, do you want to ask anything about the survey?

[ 1 ]-Yes [ 2 ]-No

If **Yes**, please ask your question:

Do you [NAME: \_\_\_\_\_] agree to participate in the study?

[ 1 ]-Yes [ 2 ]-No

If **No**, reason(s) for refusal:

Signature/Thumbprint of Interviewee: \_\_\_\_\_

Date (dd/mm/yyyy):

|  |  |  |  |   |   |   |   |
|--|--|--|--|---|---|---|---|
|  |  |  |  | 2 | 0 | 1 | 9 |
|--|--|--|--|---|---|---|---|

GPS coordinates: .....

Latitude: .....

Longitude: .....

|    |                                                           |                                                                                                                        |   |   |   |   |   |   |   |   |
|----|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|---|
| 1. | Interviewer's name:                                       | _____                                                                                                                  |   |   |   |   |   |   |   |   |
| 2. | Interviewer's code:                                       | <table border="1"> <tr> <td>0</td><td>0</td><td></td><td></td> </tr> </table>                                          | 0 | 0 |   |   |   |   |   |   |
| 0  | 0                                                         |                                                                                                                        |   |   |   |   |   |   |   |   |
| 3. | Date checked by field supervisor<br>(dd/mm/yyyy):         | <table border="1"> <tr> <td></td><td></td> <td></td><td></td> <td>2</td><td>0</td> <td>1</td><td>9</td> </tr> </table> |   |   |   |   | 2 | 0 | 1 | 9 |
|    |                                                           |                                                                                                                        |   | 2 | 0 | 1 | 9 |   |   |   |
| 4. | Field supervisor's signature:                             | _____                                                                                                                  |   |   |   |   |   |   |   |   |
| 5. | Date checked by research team supervisor<br>(dd/mm/yyyy): | <table border="1"> <tr> <td></td><td></td> <td></td><td></td> <td>2</td><td>0</td> <td>1</td><td>9</td> </tr> </table> |   |   |   |   | 2 | 0 | 1 | 9 |
|    |                                                           |                                                                                                                        |   | 2 | 0 | 1 | 9 |   |   |   |
| 6. | Research team supervisor's signature:                     | _____                                                                                                                  |   |   |   |   |   |   |   |   |

## **RESPONDENT IDENTIFICATION**

|                                                           |    |  |  |
|-----------------------------------------------------------|----|--|--|
| <b>1. Region code:</b>                                    |    |  |  |
| <table border="1"> <tr> <td></td><td></td> </tr> </table> |    |  |  |
|                                                           |    |  |  |
| Greater Accra                                             | 03 |  |  |
| Brong Ahafo                                               | 07 |  |  |
| Ashanti                                                   | 05 |  |  |

|                                                                             |  |  |  |  |  |  |  |
|-----------------------------------------------------------------------------|--|--|--|--|--|--|--|
| <b>2. District code:</b>                                                    |  |  |  |  |  |  |  |
| <table border="1"> <tr> <td></td><td></td><td></td><td></td> </tr> </table> |  |  |  |  |  |  |  |
|                                                                             |  |  |  |  |  |  |  |

|    |                                                          |                                                                                |
|----|----------------------------------------------------------|--------------------------------------------------------------------------------|
| 3. | Settlement type:                                         | [ 1 ]-Rural    [ 2 ]-Urban                                                     |
| 4. | Which of the following projects are you benefiting from? | [ 1 ]-AMPLIFIES                      [ 2 ]-GPP<br>[ 3 ]-Both GPP and AMPLIFIES |
| 5. | Respondent's telephone number(s):                        | _____                                                                          |
| 6. | Community code:                                          | _____                                                                          |

|    |                                        |                                                    |
|----|----------------------------------------|----------------------------------------------------|
| 7. | Name of poultry farm:                  | <hr/>                                              |
| 8. | Name of the owner of the poultry farm: | <hr/>                                              |
| 9. | Status of the respondent:              | [ 1 ]-Owner [ 2 ]-Manager<br>[ 3 ]-Senior Employee |

## MODULE A: SOCIOECONOMIC AND FARM CHARACTERISTICS

|    |                                                                                                                                                           |                                                                                                                                                                                              |  |  |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 1. | Sex of <u>respondent</u> :                                                                                                                                | [ 1 ]-Male [ 2 ]-Female                                                                                                                                                                      |  |  |
| 2. | What is your age? (Completed number of years)                                                                                                             | <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 30px; height: 30px;"></td><td style="width: 30px; height: 30px;"></td></tr></table>           |  |  |
|    |                                                                                                                                                           |                                                                                                                                                                                              |  |  |
| 3. | Level of formal education:                                                                                                                                | [ 1 ]-None [ 2 ]-Informal education<br>[ 3 ]-Basic [ 4 ]-Certificate/Secondary<br>[ 5 ]-Diploma [ 6 ]-Bachelors<br>[ 7 ]-Post-graduate                                                       |  |  |
| 4. | Have you completed any specific education in agriculture or agriculture-related course(s) which is independent of GPP or AMPLIFIES training intervention? | [ 1 ]-Yes [ 2 ]-No                                                                                                                                                                           |  |  |
| 5. | If <b>Yes</b> , what is the type of education received?                                                                                                   | [ 1 ]-Formal [ 2 ]-Informal                                                                                                                                                                  |  |  |
| 6. | Is poultry enterprise your <u>main</u> source of income?                                                                                                  | [ 1 ]-Yes [ 2 ]-No                                                                                                                                                                           |  |  |
| 7. | If <b>No</b> , what is your <u>main</u> source of income?                                                                                                 | [ 1 ]-Formal government work<br>[ 2 ]-Formal private work<br>[ 3 ]-Artisan (such as carpenter and mason)<br>[ 4 ]-Trading/commerce [ 5 ]-Farming<br>[ 6 ]-Pension benefits [ 7 ]-Remittances |  |  |

|     |                                                                                                                                                                                           |                                                                                                                                            |  |  |  |  |  |  |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
|     |                                                                                                                                                                                           | [ 8 ]-Other informal service (specify): _____                                                                                              |  |  |  |  |  |  |
| 8.  | For how long have you been involved in poultry production ( <b>Specify in months</b> )?                                                                                                   | <table border="1"> <tr> <td></td> <td></td> <td></td> </tr> </table>                                                                       |  |  |  |  |  |  |
|     |                                                                                                                                                                                           |                                                                                                                                            |  |  |  |  |  |  |
| 9.  | What ownership system are you operating?                                                                                                                                                  | [ 1 ]-Sole-proprietorship<br>[ 2 ]-Limited Partnership<br>[ 3 ]-Limited Liability      [ 4 ]-Corporation                                   |  |  |  |  |  |  |
| 10. | What <u>dominant</u> production system are you practicing?                                                                                                                                | [ 1 ]-Free range      [ 2 ]-Battery cage<br>[ 3 ]-Deep litter system      [ 4 ]-Semi-intensive                                             |  |  |  |  |  |  |
| 11. | What is the average size of your farm structure/unit ( <i>in square feet</i> )?                                                                                                           | <table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>                                         |  |  |  |  |  |  |
|     |                                                                                                                                                                                           |                                                                                                                                            |  |  |  |  |  |  |
| 12. | Please indicate which of the following structures are available on the farm? ( <b>Please tick all the applicable ones</b> )                                                               | [ 1 ]-Brooder house [ 2 ]-Breeder farm<br>[ 3 ]-Hatchery [ 4 ]-Feed mill [ 5 ]-Processing plant [ 6 ]-None                                 |  |  |  |  |  |  |
| 13. | Please indicate which of the following structures are operational on the farm? ( <b>Please tick all the applicable ones</b> )                                                             | [ 1 ]-Brooder house [ 2 ]-Breeder farm<br>[ 3 ]-Hatchery [ 4 ]-Feed mill [ 5 ]-Processing plant [ 6 ]-None                                 |  |  |  |  |  |  |
| 14. | What is your source of poultry feed? ( <b>Select more than one answer, if multiple sources, ranking from the highest to the lowest, where 1 is for the highest and 3 for the lowest</b> ) | [ 1 ]-Self-mixing/Concentrates<br>[ 2 ]-Commercial feed mills<br>[ 3 ]-On-site feed mills/processing plant<br>[ 4 ]-Other (specify): _____ |  |  |  |  |  |  |

## MODULE B: AMPLIFIES PROJECT (EXCLUSIVE)

|            |                                                                    |                                                                             |
|------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>B I</b> | <b>PARTICIPATION IN AMPLIFIES ACTIVITIES</b>                       |                                                                             |
| 1.         | Respondent's poultry activity benefited from AMPLIFIES assistance: | [ 1 ]-Broilers      [ 2 ]-Layers and eggs<br>[ 3 ]-Both layers and broilers |

| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | In what year did you receive your first training (be it one-on-one), technical assistance or attended any AMPLIFIES event)? <input type="checkbox"/> 1]-2016 <input type="checkbox"/> 2]-2017 <input type="checkbox"/> 3]-2018 <input type="checkbox"/> 4]-2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------|-------------|--------------------------------------|--|--|----------------------------|--|--|---------------------------------|--|--|---------------------|--|--|------------------------|--|--|---------------------------------|--|--|
| 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Did you receive any training (be it one-on-one), technical assistance or attended any AMPLIFIES events in 2018? <input type="checkbox"/> 1]-Yes <input type="checkbox"/> 2]-No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                        |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |
| 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>If <b>Yes</b>, what new thing(s) did you learn from AMPLIFIES assistance in 2018? (<b>Select as many answer options as applicable</b>).</p> <p><input type="checkbox"/> 1]-Feeding to genetics and age of birds</p> <p><input type="checkbox"/> 2]-Use of good quality ingredients</p> <p><input type="checkbox"/> 3]-Farm record keeping</p> <p><input type="checkbox"/> 4]-Good storage practices</p> <p><input type="checkbox"/> 5]-Use of good quality ingredients</p> <p><input type="checkbox"/> 6]-Packaging of feed</p> <p><input type="checkbox"/> 7]-Use of feed nutritionist in formulating diets</p> <p><input type="checkbox"/> 8]-Mycotoxin testing (e.g. Aflatoxin testing)</p> <p><input type="checkbox"/> 9]-Uniformity testing and analysis</p> <p><input type="checkbox"/> 10]-Testing for moisture</p> <p><input type="checkbox"/> 11]-Farm sanitation</p> <p><input type="checkbox"/> 12]-Management and maintenance of feed processing (e.g. Maintenance of lift of auger)</p> <p><input type="checkbox"/> 13]-Other (specify): _____</p> |                                        |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |
| 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Which of these techniques/technologies learned did you apply in your poultry business in the years listed? ( <b>Select as many answer options as applicable</b> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |
| <table border="1"> <thead> <tr> <th><b>Techniques/technologies learned</b></th> <th><b>2017</b></th> <th><b>2018</b></th> </tr> </thead> <tbody> <tr> <td>Feeding to genetics and age of birds</td> <td></td> <td></td> </tr> <tr> <td>On farm feed manufacturing</td> <td></td> <td></td> </tr> <tr> <td>Use of good quality ingredients</td> <td></td> <td></td> </tr> <tr> <td>Farm record keeping</td> <td></td> <td></td> </tr> <tr> <td>Good storage practices</td> <td></td> <td></td> </tr> <tr> <td>Use of good quality ingredients</td> <td></td> <td></td> </tr> </tbody> </table> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Techniques/technologies learned</b> | <b>2017</b> | <b>2018</b> | Feeding to genetics and age of birds |  |  | On farm feed manufacturing |  |  | Use of good quality ingredients |  |  | Farm record keeping |  |  | Good storage practices |  |  | Use of good quality ingredients |  |  |
| <b>Techniques/technologies learned</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>2017</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>2018</b>                            |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |
| Feeding to genetics and age of birds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |
| On farm feed manufacturing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |
| Use of good quality ingredients                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |
| Farm record keeping                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |
| Good storage practices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |
| Use of good quality ingredients                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |             |             |                                      |  |  |                            |  |  |                                 |  |  |                     |  |  |                        |  |  |                                 |  |  |

|                                                                                   |  |  |
|-----------------------------------------------------------------------------------|--|--|
| Feed testing                                                                      |  |  |
| Packaging of feed                                                                 |  |  |
| Use of feed nutritionist in formulating diets                                     |  |  |
| Mycotoxin testing (e.g. Aflatoxin testing)                                        |  |  |
| Uniformity testing and analysis                                                   |  |  |
| Testing for moisture                                                              |  |  |
| Feed handling techniques                                                          |  |  |
| Farm sanitation                                                                   |  |  |
| Management and maintenance of feed processing (e.g. Maintenance of lift of auger) |  |  |
| Other (specify): _____                                                            |  |  |

| <b>B2.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>FARM OPERATIONS AND PRODUCTIVITY</b>                                                              |                                                                     |                                       |                                                    |                                               |                                       |                                                    |          |  |  |  |  |        |  |  |  |  |           |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------|----------------------------------------------------|-----------------------------------------------|---------------------------------------|----------------------------------------------------|----------|--|--|--|--|--------|--|--|--|--|-----------|--|--|--|--|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Is your poultry farming business <u>registered</u> ?                                                 | [ 1 ]-Yes      [ 2 ]-No                                             |                                       |                                                    |                                               |                                       |                                                    |          |  |  |  |  |        |  |  |  |  |           |  |  |  |  |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | What is your current bird capacity (# of birds you are able to produce) per cycle?                   | [ 1 ]-Broilers _____<br>[ 2 ]-Layers _____<br>[ 3 ]-Cockerels _____ |                                       |                                                    |                                               |                                       |                                                    |          |  |  |  |  |        |  |  |  |  |           |  |  |  |  |
| 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | How many birds do you currently have on your farm (# of birds you are currently producing)?          | [ 1 ]-Broilers _____<br>[ 2 ]-Layers _____<br>[ 3 ]-Cockerels _____ |                                       |                                                    |                                               |                                       |                                                    |          |  |  |  |  |        |  |  |  |  |           |  |  |  |  |
| 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Please describe your production cycle for the following: ( <b>Please tick the boxes that apply</b> ) |                                                                     |                                       |                                                    |                                               |                                       |                                                    |          |  |  |  |  |        |  |  |  |  |           |  |  |  |  |
| <table border="1"> <thead> <tr> <th></th> <th><b>Continuous<br/>(All year round)</b></th> <th><b>Seasonal<br/>(Festival &amp; Holidays)</b></th> <th><b>Custom<br/>(Special occasions)</b></th> <th><b>Number of<br/>production cycles in<br/>2018</b></th> </tr> </thead> <tbody> <tr> <td>Broilers</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Layers</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Cockerels</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> |                                                                                                      |                                                                     |                                       | <b>Continuous<br/>(All year round)</b>             | <b>Seasonal<br/>(Festival &amp; Holidays)</b> | <b>Custom<br/>(Special occasions)</b> | <b>Number of<br/>production cycles in<br/>2018</b> | Broilers |  |  |  |  | Layers |  |  |  |  | Cockerels |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Continuous<br/>(All year round)</b>                                                               | <b>Seasonal<br/>(Festival &amp; Holidays)</b>                       | <b>Custom<br/>(Special occasions)</b> | <b>Number of<br/>production cycles in<br/>2018</b> |                                               |                                       |                                                    |          |  |  |  |  |        |  |  |  |  |           |  |  |  |  |
| Broilers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                                                     |                                       |                                                    |                                               |                                       |                                                    |          |  |  |  |  |        |  |  |  |  |           |  |  |  |  |
| Layers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                                                     |                                       |                                                    |                                               |                                       |                                                    |          |  |  |  |  |        |  |  |  |  |           |  |  |  |  |
| Cockerels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                      |                                                                     |                                       |                                                    |                                               |                                       |                                                    |          |  |  |  |  |        |  |  |  |  |           |  |  |  |  |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                              |                                          |                                 |                                  |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------|---------------------------------|----------------------------------|
| 5.  | In the table below, indicate the type of feed you use for your birds ( <b>Select as many options as applicable</b> )                                                                                                                                                                                                                                                                                                                          |                                                              |                                          |                                 |                                  |
|     | <b>Bird type</b>                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Self-hand mixed feed</b>                                  | <b>Locally purchased commercial feed</b> | <b>Improved formulated feed</b> | <b>Other (specify):</b><br>_____ |
|     | Broilers                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                              |                                          |                                 |                                  |
|     | Layers                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                              |                                          |                                 |                                  |
| 6.  | What was your average monthly production and average value of sales per month ( <i>in GHS</i> ) of table eggs in 2018?                                                                                                                                                                                                                                                                                                                        |                                                              |                                          |                                 |                                  |
|     |                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Number of crates of eggs (assuming 30 eggs per crate)</b> | <b>Average price per crate (GHS)</b>     | <b>Total Revenue (GHS)</b>      |                                  |
|     | Table eggs                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                              |                                          |                                 |                                  |
| 7.  | What is the average number of eggs produced per hen per life cycle? _____                                                                                                                                                                                                                                                                                                                                                                     |                                                              |                                          |                                 |                                  |
| 8.  | In how many weeks does your bird start laying? _____                                                                                                                                                                                                                                                                                                                                                                                          |                                                              |                                          |                                 |                                  |
| 9.  | For how many weeks did your layers lay eggs during the last production cycle? _____                                                                                                                                                                                                                                                                                                                                                           |                                                              |                                          |                                 |                                  |
| 10. | We will now be asking a few questions to determine the true cost of producing an egg on the farm?<br>I0a. On average, how many hens do you have in a pen each month? _____<br>I0b. On average, how much feed ( <i>in kg</i> ) do you give per pen per month? _____<br>I0c. On average, how much do you spend on feed ( <i>in GHS</i> ) per pen per month? _____<br>I0d. On average, how many table eggs are produced per pen per month? _____ |                                                              |                                          |                                 |                                  |
| 11. | At what weight do you take your broilers to the market ( <i>maturity weight in kg</i> )? _____                                                                                                                                                                                                                                                                                                                                                |                                                              |                                          |                                 |                                  |
| 12. | How long does the bird take to reach the maturity weight ( <i>maturity time in weeks</i> )? _____                                                                                                                                                                                                                                                                                                                                             |                                                              |                                          |                                 |                                  |
| 13. | What is the average weight of day old chicks obtained in the 2018 production cycle? _____                                                                                                                                                                                                                                                                                                                                                     |                                                              |                                          |                                 |                                  |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.        | What is the average weight of birds at sale? _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 15.        | <p>What is the usual end market for your products? <b>Indicate the percentage quantity of your products to the following markets:</b></p> <p>_____ % Open market</p> <p>_____ % Distributors/Wholesalers</p> <p>_____ % Direct retail supply</p> <p>_____ % Other (specify): _____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>B3.</b> | <b>PROCUREMENT OF FEED AND FEED INPUTS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1.         | <p>Do you produce your own poultry feed?</p> <p>[ 1 ]-All the time                      [ 2 ]-Sometimes                      [ 3 ]-Not at all</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2.         | <p>If you mix your own feed and don't purchase commercial feed, state the reason for your decision.</p> <p>_____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 3.         | <p>What would your usual feed typically consist of? (<b>You can select more than one</b>)</p> <p>[ 1 ]-Maize                                      [ 6 ]-Concentrates</p> <p>[ 2 ]-Maize bran                                      [ 7 ]-Premix</p> <p>[ 3 ]-Wheat bran                                      [ 8 ]-Oyster shell</p> <p>[ 4 ]-Soybean meal                                      [ 9 ]-Essential amino acids (lysine, methionine, etc.)</p> <p>[ 5 ]-Fishmeal</p> <p>3a. Kindly estimate the percentage composition of each ingredient? (<b>You can select more than one</b>)</p> <p>_____ % Maize</p> <p>_____ % Maize bran</p> <p>_____ % Wheat bran</p> <p>_____ % Soybean meal</p> <p>_____ % Fishmeal</p> <p>_____ % Concentrates</p> <p>_____ % Premix</p> |

|                           | _____ % Oyster shell<br>_____ % Essential amino acids (lysine, methionine, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------|-------------|-----------------|-------------------|-----------------|-------------|--|--|--|--|--|--------------|--|--|--|--|--|---------------------------|----------|------------------|-------------|--|--|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|--|--|
| 4.                        | <p>From where do you procure the following feed ingredients? <b>(Please tick)</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 15%;">Open market</th> <th style="width: 15%;">Aggregators</th> <th style="width: 15%;">Farm gates</th> <th style="width: 15%;">Imported</th> <th style="width: 20%;">Other (specify)</th> </tr> </thead> <tbody> <tr> <td>White Maize</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Yellow Maize</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>4a. If you buy from an aggregator or directly from farmers, can you please name them?</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 45%;">Name of aggregator/farmer</th> <th style="width: 25%;">Location</th> <th style="width: 30%;">Telephone number</th> </tr> </thead> <tbody> <tr style="background-color: #f2f2f2;"> <td colspan="3">White Maize</td> </tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr style="background-color: #f2f2f2;"> <td colspan="3">Yellow Maize</td> </tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </tbody> </table> |                  | Open market          | Aggregators | Farm gates      | Imported          | Other (specify) | White Maize |  |  |  |  |  | Yellow Maize |  |  |  |  |  | Name of aggregator/farmer | Location | Telephone number | White Maize |  |  |  |  |  |  |  |  |  |  |  | Yellow Maize |  |  |  |  |  |  |  |  |  |  |  |
|                           | Open market                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Aggregators      | Farm gates           | Imported    | Other (specify) |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
| White Maize               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
| Yellow Maize              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
| Name of aggregator/farmer | Location                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Telephone number |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
| White Maize               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
| Yellow Maize              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
| 5.                        | <p>How do you procure your soybean based feed ingredients? <b>(Please tick)</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 25%;">Local soy processors</th> <th style="width: 20%;">Imported</th> <th style="width: 25%;">Other (specify)</th> </tr> </thead> <tbody> <tr> <td>Soybean meal/cake</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>5a. Is there any particular reason(s) for your choice above?</p> <p>[ 1 ]-No reason</p> <p>[ 2 ]-Imported soy ingredients more quality</p> <p>[ 3 ]-Local soy ingredients cheaper</p> <p>[ 4 ]-Local soy ingredients is of more quality</p> <p>[ 5 ]-Imported soy ingredients cheaper</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  | Local soy processors | Imported    | Other (specify) | Soybean meal/cake |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
|                           | Local soy processors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Imported         | Other (specify)      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |
| Soybean meal/cake         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                      |             |                 |                   |                 |             |  |  |  |  |  |              |  |  |  |  |  |                           |          |                  |             |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |

|                   | <p>[ 6 ]-Local soy ingredients easily available</p> <p>[ 7 ]-Imported soy ingredients easily available</p> <p>[ 8 ]-Other (specify) _____</p> <p>5b. If you buy Soybean meal/cake from local soy processors, please name them?</p> <table border="1"> <thead> <tr> <th>Name of Processor</th><th>Location</th><th>Telephone number</th></tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> |                       | Name of Processor | Location | Telephone number |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------|----------|------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Name of Processor | Location                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Telephone number      |                   |          |                  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |                   |          |                  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |                   |          |                  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |                   |          |                  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |                   |          |                  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6.                | <p>Can you please estimate your average monthly demand for the following in metric tons (1,000kg=1 Ton):</p> <p>White Maize           _____</p> <p>Yellow Maize           _____</p> <p>Soybean meal/cake    _____</p>                                                                                                                                                                                                                                                                                                                           |                       |                   |          |                  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7.                | <p>How much do you spend to produce a 50kg bag of the following feed (in GHS): <i>Note: If you produce a larger quantity of feed, please estimate the cost of producing this feed in the smaller quantity specified.</i></p> <p>Chick Mash           _____</p> <p>Grower Mash (Layer) _____</p> <p>Layer Mash           _____</p> <p>Broiler (Starter)     _____</p> <p>Broiler (Grower)     _____</p>                                                                                                                                          |                       |                   |          |                  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8.                | Do you regularly request feed testing/Analysis/Quality control?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | [ 1 ]-Yes    [ 2 ]-No |                   |          |                  |  |  |  |  |  |  |  |  |  |  |  |  |
|                   | <p>8a. If <b>Yes</b>, what type of feed testing do you undertake?</p> <p>_____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                   |          |                  |  |  |  |  |  |  |  |  |  |  |  |  |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | <p>8b. If <b>Yes</b>, where?</p> <p>[ 1 ]-University of Ghana</p> <p>[ 2 ]-KNUST</p> <p>[ 3 ]-Food Research Institute</p> <p>[ 4 ]-Animal Research Institute</p> <p>[ 5 ]-Ghana Standards Authority</p> <p>[ 6 ]-Food and Drugs Authority</p> <p>[ 7 ]-Other (specify): _____</p>                                                                                                                                                                                                                            |
| 9.         | If <b>Yes</b> , how much does it cost for a complete feed analysis per test? (in GHS) _____                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10.        | If <b>Yes</b> , what is the average turnaround time for your feed testing results? _____                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>B4.</b> | <b>STORAGE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1.         | <p>Do you have a storage facility for storing your feed and feed ingredients?</p> <p>[ 1 ]-Yes      [ 2 ]-No</p>                                                                                                                                                                                                                                                                                                                                                                                             |
| 2.         | If <b>Yes</b> , what is the capacity of the storage facility (in metric tons)? _____                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>B5.</b> | <b>ACCESS TO FINANCIAL SERVICES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1.         | <p>Have you ever received a loan or grant for your poultry farming activities?</p> <p>[ 1 ]-Yes      [ 2 ]-No</p> <p>1a. If <b>Yes</b>, from where?</p> <p>[ 1 ]-Bank</p> <p>[ 2 ]-Lending firm</p> <p>[ 3 ]-Micro Finance Institution</p> <p>[ 4 ]-Friends/family members</p> <p>[ 5 ]-Other (specify): _____</p> <p>1b. If <b>Yes</b>, when did you access the loan or grant?</p> <p>[ 1 ]-2017</p> <p>[ 2 ]-2018</p> <p>1c. If <b>Yes</b>, who facilitated access to loan or grant?</p> <p>[ 1 ]-Self</p> |

|            | <p>[ 2 ]-AMPLIFIES project Staff</p> <p>[ 3 ]-Other project staff</p> <p>[ 4 ]-Other (specify): _____</p> <p>Id. If <b>Yes</b>, what amount did you receive_____? (in GHS)</p> <p>Ie. If <b>Yes</b>, what was it used for?</p> <p>[ 1 ]-Build infrastructure</p> <p>[ 2 ]-Procure feed ingredients</p> <p>[ 3 ]-Buy day old chicks</p> <p>[ 4 ]-Purchase plants and equipment</p> <p>[ 5 ]-Other (specify): _____</p>                                                                                                                                                                                                                                                                                                                                                                                                          |                   |                   |                            |                   |                            |                |                |             |    |                                                                                                            |  |  |  |  |  |  |    |                                                                                                 |  |  |  |  |  |  |    |                                                                                                     |  |  |  |  |  |  |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|----------------------------|-------------------|----------------------------|----------------|----------------|-------------|----|------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|----|-------------------------------------------------------------------------------------------------|--|--|--|--|--|--|----|-----------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| 2.         | <p>Have you ever been rejected or denied a loan or grant application? [ 1 ]-Yes [ 2 ]-No</p> <p>2a. If <b>Yes</b>, what was the reason?</p> <p>[ 1 ]-No documentation</p> <p>[ 2 ]-No collateral</p> <p>[ 3 ]-No guarantor</p> <p>[ 4 ]-Other (specify): _____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |                   |                            |                   |                            |                |                |             |    |                                                                                                            |  |  |  |  |  |  |    |                                                                                                 |  |  |  |  |  |  |    |                                                                                                     |  |  |  |  |  |  |
| <b>B6.</b> | <b>PERCEPTION OF RELEVANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                   |                            |                   |                            |                |                |             |    |                                                                                                            |  |  |  |  |  |  |    |                                                                                                 |  |  |  |  |  |  |    |                                                                                                     |  |  |  |  |  |  |
|            | Rate the extent to which you agree or disagree with the following statements:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                   |                            |                   |                            |                |                |             |    |                                                                                                            |  |  |  |  |  |  |    |                                                                                                 |  |  |  |  |  |  |    |                                                                                                     |  |  |  |  |  |  |
|            | <table border="1"> <thead> <tr> <th></th><th></th><th>Strongly Disagree</th><th>Somewhat Disagree</th><th>Neither Agree nor Disagree</th><th>Somewhat Agree</th><th>Strongly Agree</th><th>Not Decided</th></tr> </thead> <tbody> <tr> <td>1.</td><td>Your training needs were adequately addressed by the training programs conducted by the AMPLIFIES project.</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>2.</td><td>AMPLIFIES project objectives had a strong link with the objectives of the Ghana Poultry sector.</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>3.</td><td>The content of training programs were prepared in response to trainee's skills and knowledge needs.</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> |                   |                   | Strongly Disagree          | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree | Not Decided | 1. | Your training needs were adequately addressed by the training programs conducted by the AMPLIFIES project. |  |  |  |  |  |  | 2. | AMPLIFIES project objectives had a strong link with the objectives of the Ghana Poultry sector. |  |  |  |  |  |  | 3. | The content of training programs were prepared in response to trainee's skills and knowledge needs. |  |  |  |  |  |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Strongly Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree    | Strongly Agree             | Not Decided    |                |             |    |                                                                                                            |  |  |  |  |  |  |    |                                                                                                 |  |  |  |  |  |  |    |                                                                                                     |  |  |  |  |  |  |
| 1.         | Your training needs were adequately addressed by the training programs conducted by the AMPLIFIES project.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                   |                            |                   |                            |                |                |             |    |                                                                                                            |  |  |  |  |  |  |    |                                                                                                 |  |  |  |  |  |  |    |                                                                                                     |  |  |  |  |  |  |
| 2.         | AMPLIFIES project objectives had a strong link with the objectives of the Ghana Poultry sector.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |                   |                            |                   |                            |                |                |             |    |                                                                                                            |  |  |  |  |  |  |    |                                                                                                 |  |  |  |  |  |  |    |                                                                                                     |  |  |  |  |  |  |
| 3.         | The content of training programs were prepared in response to trainee's skills and knowledge needs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |                   |                            |                   |                            |                |                |             |    |                                                                                                            |  |  |  |  |  |  |    |                                                                                                 |  |  |  |  |  |  |    |                                                                                                     |  |  |  |  |  |  |

|    |                                                                                                                                    |  |  |  |  |  |  |
|----|------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| 4. | Job profile of the individual within a beneficiary enterprise was considered in selecting trainees for specific training programs. |  |  |  |  |  |  |
| 5. | You were helped in diagnosing your own technical assistance needs.                                                                 |  |  |  |  |  |  |
| 6. | The content of AMPLIFIES training was appropriate for the day-to-day work performance on your farm.                                |  |  |  |  |  |  |
| 7. | The capacity building program of AMPLIFIES was relevant for increasing productivity on your poultry farm.                          |  |  |  |  |  |  |

|            |                                                                                                           |                          |                          |                                   |                       |                       |                    |
|------------|-----------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-----------------------------------|-----------------------|-----------------------|--------------------|
| <b>B7.</b> | <b>PERCEPTION OF EFFECTIVENESS</b>                                                                        |                          |                          |                                   |                       |                       |                    |
|            | Rate the extent to which you agree or disagree with the following statements:                             |                          |                          |                                   |                       |                       |                    |
|            |                                                                                                           | <b>Strongly disagree</b> | <b>Somewhat disagree</b> | <b>Neither agree nor disagree</b> | <b>Somewhat agree</b> | <b>Strongly agree</b> | <b>Not decided</b> |
| 1.         | Overall, you have been satisfied with the interventions of the AMPLIFIES project                          |                          |                          |                                   |                       |                       |                    |
| 2.         | You have acquired some cost saving skills from the AMPLIFIES project.                                     |                          |                          |                                   |                       |                       |                    |
| 3.         | Through interventions of AMPLIFIES, you had improved access to finance for your poultry farming activity. |                          |                          |                                   |                       |                       |                    |
| 4.         | You are confident that managers of AMPLIFIES have adequate capacity building skills.                      |                          |                          |                                   |                       |                       |                    |
| 5.         | Through interventions of the project, you had better access to lower priced poultry feed.                 |                          |                          |                                   |                       |                       |                    |
| 6.         | Through interventions of the project, you had timely access to poultry feed throughout the year.          |                          |                          |                                   |                       |                       |                    |
| 7.         | Through interventions of the project, you were able to increase the output of your poultry farm.          |                          |                          |                                   |                       |                       |                    |
| 8.         | Through interventions of AMPLIFIES, you had access to better storage for your feed.                       |                          |                          |                                   |                       |                       |                    |

|     |                                                                                                                                 |  |  |  |  |  |  |
|-----|---------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| 9.  | Through referrals by AMPLIFIES, your production activity benefited from interventions by other USAID/USDA projects such as GPP. |  |  |  |  |  |  |
| 10. | You can attest to some improvement in the poultry sector as a result of the AMPLIFIES project.                                  |  |  |  |  |  |  |

|            |                                                                                                           |                          |                          |                                   |                       |                       |                    |
|------------|-----------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-----------------------------------|-----------------------|-----------------------|--------------------|
| <b>B8.</b> | <b>PERCEPTION OF EFFICIENCY</b>                                                                           |                          |                          |                                   |                       |                       |                    |
|            | Rate the extent to which you agree or disagree with the following statements:                             |                          |                          |                                   |                       |                       |                    |
|            |                                                                                                           | <b>Strongly Disagree</b> | <b>Somewhat Disagree</b> | <b>Neither Agree nor Disagree</b> | <b>Somewhat Agree</b> | <b>Strongly Agree</b> | <b>Not decided</b> |
| 1.         | Through interventions of the project, you were able to reduce the Feed Conversion Ratio for your poultry. |                          |                          |                                   |                       |                       |                    |

|            |                                                                                                                          |                          |                          |                                   |                       |                       |                    |
|------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-----------------------------------|-----------------------|-----------------------|--------------------|
| <b>B9.</b> | <b>PERCEPTION OF SUSTAINABILITY</b>                                                                                      |                          |                          |                                   |                       |                       |                    |
|            | Rate the extent to which you agree or disagree with the following statements:                                            |                          |                          |                                   |                       |                       |                    |
|            |                                                                                                                          | <b>Strongly disagree</b> | <b>Somewhat disagree</b> | <b>Neither agree nor disagree</b> | <b>Somewhat agree</b> | <b>Strongly agree</b> | <b>Not decided</b> |
| 1.         | You have acquired some performance changing skills that you intend to continue using even when the project ends.         |                          |                          |                                   |                       |                       |                    |
| 2.         | You have developed and maintained contacts with public extension services as a result of support from AMPLIFIES project. |                          |                          |                                   |                       |                       |                    |
| 3.         | You are confident that benefits from the project will be sustained in the absence of AMPLIFIES                           |                          |                          |                                   |                       |                       |                    |
| 4.         | Capacity building support from the project helped you set realistic goals and will continue to do so.                    |                          |                          |                                   |                       |                       |                    |



|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | <input type="checkbox"/> My employers were not supportive enough.<br><input type="checkbox"/> I did not have access to the necessary equipment/technology.<br><input type="checkbox"/> The prevailing legislation/culture/politics in the community did not permit the application of ideas discussed in training.<br><input type="checkbox"/> Experienced financial constraints in applying Knowledge/Skill acquired.<br><input type="checkbox"/> Resistance from other entities or departments whose support was necessary<br><input type="checkbox"/> Other (specify):<br><br>..... |
| 13. | Have you experienced any unintended benefits or challenges as a result of the AMPLIFIES Project?<br>[ 1 ]-Yes                      [ 2 ]-No                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 14. | If <b>Yes</b> , please describe any unintended results (positive or negative) of the AMPLIFIES Project that you observed or that were reported to you by other poultry farmers.<br><br>.....<br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                         |

## MODULE C: GHANA POULTRY PROJECT (EXCLUSIVE)

|    |                                                                                                                      |                                        |                                 |       |                          |       |
|----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------|-------|--------------------------|-------|
| 1. | Is there any contract agreement between you and other value chain actors?<br>[ 1 ]-Yes                      [ 2 ]-No |                                        |                                 |       |                          |       |
| 2. | If <b>Yes</b> , how many of these value chain actors do you have a formal (Signed) or non-formal agreement with?     |                                        |                                 |       |                          |       |
|    | <b>No.</b>                                                                                                           | <b>Value chain actor</b>               | <b>Formal (signed) contract</b> |       | <b>Informal contract</b> |       |
|    |                                                                                                                      |                                        | Number                          | Names | Number                   | Names |
|    | i.                                                                                                                   | Input suppliers (DoC)                  |                                 |       |                          |       |
|    | ii.                                                                                                                  | Input supplier (Feed/feed ingredients) |                                 |       |                          |       |

|  |       |                                      |  |  |  |  |  |
|--|-------|--------------------------------------|--|--|--|--|--|
|  | iii.  | Input supplier (Veterinary products) |  |  |  |  |  |
|  | iv.   | Input supplier (Other)               |  |  |  |  |  |
|  | v.    | Buyers                               |  |  |  |  |  |
|  | vi.   | Live birds sellers                   |  |  |  |  |  |
|  | vii.  | Egg sellers                          |  |  |  |  |  |
|  | viii. | Other 1 (specify): _____             |  |  |  |  |  |
|  | ix.   | Other 2 (specify): _____             |  |  |  |  |  |

| 3. | Provide information on the following broiler batches |                           |      |      |                                                                |      |      |                                                       |      |      |                                                       |      |      |
|----|------------------------------------------------------|---------------------------|------|------|----------------------------------------------------------------|------|------|-------------------------------------------------------|------|------|-------------------------------------------------------|------|------|
|    | <b>Batches</b>                                       | <b>No. of DOCs bought</b> |      |      | <b>No. of deaths of DOC (day 1-4 include during transport)</b> |      |      | <b>No. of deaths during brooding (day 5 - day 10)</b> |      |      | <b>Number of deaths after brooding (after day 10)</b> |      |      |
|    |                                                      | 2016                      | 2017 | 2018 | 2016                                                           | 2017 | 2018 | 2016                                                  | 2017 | 2018 | 2016                                                  | 2017 | 2018 |
|    | Batch 1                                              |                           |      |      |                                                                |      |      |                                                       |      |      |                                                       |      |      |
|    | Batch 2                                              |                           |      |      |                                                                |      |      |                                                       |      |      |                                                       |      |      |
|    | Batch 3                                              |                           |      |      |                                                                |      |      |                                                       |      |      |                                                       |      |      |
|    | Batch 4                                              |                           |      |      |                                                                |      |      |                                                       |      |      |                                                       |      |      |
|    | Batch 5                                              |                           |      |      |                                                                |      |      |                                                       |      |      |                                                       |      |      |
|    | Batch 6                                              |                           |      |      |                                                                |      |      |                                                       |      |      |                                                       |      |      |

| 4. | Provide information on the following cockerel batches |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |
|----|-------------------------------------------------------|---------------------------|------|------|----------------------------------------------------------------|------|------|------------------------------------------------------|------|------|------------------------------------------------------|------|------|
|    | <b>Batches</b>                                        | <b>No. of DOCs bought</b> |      |      | <b>No. of deaths of DOC (day 1-4 include during transport)</b> |      |      | <b>No. of deaths during brooding (day 5 - day 8)</b> |      |      | <b>Number of deaths after brooding (after day 8)</b> |      |      |
|    |                                                       | 2016                      | 2017 | 2018 | 2016                                                           | 2017 | 2018 | 2016                                                 | 2017 | 2018 | 2016                                                 | 2017 | 2018 |
|    | Batch 1                                               |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |
|    | Batch 2                                               |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |
|    | Batch 3                                               |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |

|  |         |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---------|--|--|--|--|--|--|--|--|--|--|--|--|
|  | Batch 5 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Batch 6 |  |  |  |  |  |  |  |  |  |  |  |  |

|    |                                                    |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |
|----|----------------------------------------------------|---------------------------|------|------|----------------------------------------------------------------|------|------|------------------------------------------------------|------|------|------------------------------------------------------|------|------|
| 5. | Provide information on the following layer batches |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |
|    | <b>Batches</b>                                     | <b>No. of DOCs bought</b> |      |      | <b>No. of deaths of DOC (day 1-4 include during transport)</b> |      |      | <b>No. of deaths during brooding (day 5 - day 8)</b> |      |      | <b>Number of deaths after brooding (after day 8)</b> |      |      |
|    |                                                    | 2016                      | 2017 | 2018 | 2016                                                           | 2017 | 2018 | 2016                                                 | 2017 | 2018 | 2016                                                 | 2017 | 2018 |
|    | Batch 1                                            |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |
|    | Batch 2                                            |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |
|    | Batch 3                                            |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |
|    | Batch 4                                            |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |
|    | Batch 5                                            |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |
|    | Batch 6                                            |                           |      |      |                                                                |      |      |                                                      |      |      |                                                      |      |      |

|    |                                                                                                                                                                            |                                                                                                                                                   |  |  |  |  |  |  |  |  |  |  |                 |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|-----------------|
| 6. | What are the things/practices you undertake to ensure that your birds are healthy and perform at their best? <b>(Please tick all practices as mentioned by respondent)</b> |                                                                                                                                                   |  |  |  |  |  |  |  |  |  |  |                 |
|    | <b>No.</b>                                                                                                                                                                 | <b>Poultry husbandry practices</b>                                                                                                                |  |  |  |  |  |  |  |  |  |  | <b>Tick (✓)</b> |
|    | i.                                                                                                                                                                         | There is proper bio-security measure on the farm (Farm entrance and entrance of each pen has a disinfecting bath which is refreshed twice a week) |  |  |  |  |  |  |  |  |  |  |                 |
|    | ii.                                                                                                                                                                        | The farm is walled (for security reasons and to prevent intruders from the farm)                                                                  |  |  |  |  |  |  |  |  |  |  |                 |
|    | iii.                                                                                                                                                                       | Routine cleaning is done on the farm to remove all dirt (including cobwebs)                                                                       |  |  |  |  |  |  |  |  |  |  |                 |
|    | iv.                                                                                                                                                                        | Brooding pens are cleaned and disinfected before arrival of DOCs                                                                                  |  |  |  |  |  |  |  |  |  |  |                 |
|    | v.                                                                                                                                                                         | Proper heat is provided in brooding pens before arrival of DOCs                                                                                   |  |  |  |  |  |  |  |  |  |  |                 |
|    | vi.                                                                                                                                                                        | Anti-biotic treatment is given to birds only during disease outbreak                                                                              |  |  |  |  |  |  |  |  |  |  |                 |
|    | vii.                                                                                                                                                                       | Dead birds are taken to veterinary laboratory for post-mortem examination                                                                         |  |  |  |  |  |  |  |  |  |  |                 |
|    | viii.                                                                                                                                                                      | Clean water (water from pipe, well, borehole) is used on the farm                                                                                 |  |  |  |  |  |  |  |  |  |  |                 |
|    | ix.                                                                                                                                                                        | All waste materials are dug and buried on the farm                                                                                                |  |  |  |  |  |  |  |  |  |  |                 |
|    | x.                                                                                                                                                                         | The producer keeps proper technical and financial records of the farm                                                                             |  |  |  |  |  |  |  |  |  |  |                 |
|    | xi.                                                                                                                                                                        | Feed is not stored for too long before given to birds                                                                                             |  |  |  |  |  |  |  |  |  |  |                 |
|    | xii.                                                                                                                                                                       | Day old chicks should be the only birds that are introduced onto the farm                                                                         |  |  |  |  |  |  |  |  |  |  |                 |
|    | xiii.                                                                                                                                                                      | Control of movement of staff and equipment around the farm                                                                                        |  |  |  |  |  |  |  |  |  |  |                 |
|    | xiv.                                                                                                                                                                       | Provision of shower facilities and clean clothing for staff and visitors                                                                          |  |  |  |  |  |  |  |  |  |  |                 |
|    | xv.                                                                                                                                                                        | Provide wash facilities for staff, essential visitors and vehicles prior to entry                                                                 |  |  |  |  |  |  |  |  |  |  |                 |
|    | xvi.                                                                                                                                                                       | Usage of disinfectant foot baths at the entry to each shed                                                                                        |  |  |  |  |  |  |  |  |  |  |                 |
|    | xvii.                                                                                                                                                                      | Clean and disinfect all sheds between flocks                                                                                                      |  |  |  |  |  |  |  |  |  |  |                 |

|                          | xxviii.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Maintain flock in a good state of wellbeing by good nutrition and housing                                                                                                                                                                                                                           |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------------------------------|------|------------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------------|------|------|------|------|------|------|----------------|--|--|--|--|--|--|----------|--|--|--|--|--|--|-------|--|--|--|--|--|--|--------------------|--|--|--|--|--|--|--------------------------|--|--|--|--|--|--|--------------------------|--|--|--|--|--|--|--|
|                          | xix.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Recommended vaccination protocol for birds                                                                                                                                                                                                                                                          |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | xx.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Practice suitable prevention medication program                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | xxi.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Measurement of all ingredients must be accurate                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | xxii.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The micro-ingredients such as the amino acids, vitamins and other similar materials should not be too old and should be stored in cool storage                                                                                                                                                      |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | xxiii.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Feed formulation must follow specified ingredients                                                                                                                                                                                                                                                  |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | xxiv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | There should be records of all business activities and transactions on the farm                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | xxv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Identification of diseases in their early stage                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | xxvi.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Early treatment of diseases                                                                                                                                                                                                                                                                         |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | xxvii.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Day old chicks should be the only birds that are introduced onto the farm                                                                                                                                                                                                                           |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | It is important to use monitoring procedures to keep a check on the disease organism status of the farm, to check on the effectiveness of cleaning and sanitation procedures and to test the immunity levels to certain diseases in the stock to check the effectiveness of the vaccination program |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | xxviii.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Other 1 (specify): _____                                                                                                                                                                                                                                                                            |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| xxix.                    | Other 2 (specify): _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| 7.                       | How many input suppliers did you engage with from the 2016 to 2018 production years?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | <table border="1"> <thead> <tr> <th rowspan="2"><b>Inputs</b></th> <th colspan="3"><b>Total No. of suppliers</b></th> <th colspan="3"><b>No. of input suppliers in your district</b></th> </tr> <tr> <th>2016</th> <th>2017</th> <th>2018</th> <th>2016</th> <th>2017</th> <th>2018</th> </tr> </thead> <tbody> <tr> <td>Day old chicks</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Vaccines</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Drugs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Feed / Feed inputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other 1 (specify): _____</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other 2 (specify): _____</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | <b>Inputs</b>                                                                                                                                                                                                                                                                                       | <b>Total No. of suppliers</b> |                                                |      | <b>No. of input suppliers in your district</b> |                                                                                                         |                   | 2016 | 2017 | 2018 | 2016 | 2017 | 2018 | Day old chicks |  |  |  |  |  |  | Vaccines |  |  |  |  |  |  | Drugs |  |  |  |  |  |  | Feed / Feed inputs |  |  |  |  |  |  | Other 1 (specify): _____ |  |  |  |  |  |  | Other 2 (specify): _____ |  |  |  |  |  |  |  |
| <b>Inputs</b>            | <b>Total No. of suppliers</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                     |                               | <b>No. of input suppliers in your district</b> |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2017                                                                                                                                                                                                                                                                                                | 2018                          | 2016                                           | 2017 | 2018                                           |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| Day old chicks           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| Vaccines                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| Drugs                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| Feed / Feed inputs       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| Other 1 (specify): _____ |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| Other 2 (specify): _____ |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| 8.                       | Do you have access to poultry market information? [ 1 ]-Yes [ 2 ]-No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| 9.                       | What types of market information do you use and how frequent do you use market information?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | <table border="1"> <thead> <tr> <th>Market information</th> <th>Do you use .....</th> <th>How frequent do you use this information?</th> </tr> </thead> <tbody> <tr> <td></td> <td><b>1=Yes</b><br/><b>0=No</b></td> <td><b>1= daily, 2 = weekly, 3 = monthly, 4= quarterly, 5=semi-annually, 6=annually, 7= other (specify)</b></td> </tr> <tr> <td>Price information</td> <td></td> <td></td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Market information                                                                                                                                                                                                                                                                                  | Do you use .....              | How frequent do you use this information?      |      | <b>1=Yes</b><br><b>0=No</b>                    | <b>1= daily, 2 = weekly, 3 = monthly, 4= quarterly, 5=semi-annually, 6=annually, 7= other (specify)</b> | Price information |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| Market information       | Do you use .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | How frequent do you use this information?                                                                                                                                                                                                                                                           |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
|                          | <b>1=Yes</b><br><b>0=No</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>1= daily, 2 = weekly, 3 = monthly, 4= quarterly, 5=semi-annually, 6=annually, 7= other (specify)</b>                                                                                                                                                                                             |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |
| Price information        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                     |                               |                                                |      |                                                |                                                                                                         |                   |      |      |      |      |      |      |                |  |  |  |  |  |  |          |  |  |  |  |  |  |       |  |  |  |  |  |  |                    |  |  |  |  |  |  |                          |  |  |  |  |  |  |                          |  |  |  |  |  |  |  |

|  |                        |  |  |
|--|------------------------|--|--|
|  | Buyer information      |  |  |
|  | Alternative channel    |  |  |
|  | Consumer behavior      |  |  |
|  | Other (Specify): _____ |  |  |

10. What is your main source of market information?  
 [ 1 ]-MoFA [ 2 ]-Fellow farmers [ 3 ]-Poultry farmer associations [ 4 ]-NGOs  
 [ 5 ]-Research institutions [ 6 ]-Buyer [ ] [ 7 ]-Lead Farm for outgrowers  
 [ 8 ]-IT institution [ 9 ]-Other (specify): \_\_\_\_\_

11. How is the poultry market information communicated to you?  
 [ 1 ]-Face-to-face [ 2 ]-Mobile phones [ 3 ]-Internet (email)  
 [ 4 ]-Newsletters/Newspapers [ 5 ]-Seminars/meetings [ 6 ]-TV station  
 [ 7 ]-Radio station [ 8 ]-Other (specify): \_\_\_\_\_

12. What is your preferred channel of receiving market information?  
 [ 1 ]-FM radio station [ 2 ]-TV station [ 3 ]-News paper [ 4 ]-Internet  
 [ 5 ]-MoFA [ 6 ]-Fellow farmers [ 7 ]-Poultry farmer association  
 [ 8 ]-Personal contact [ 9 ]-Others (specify): \_\_\_\_\_

13. Do you follow the recommended vaccination protocol for your birds? [ 1 ]-Yes [ 2 ]-No

14. If **Yes**, which of the specific vaccination protocol do you follow? (**Please tick all the applicable ones**)

| Commercial |     |                                       | Breeder |     |                                                    |
|------------|-----|---------------------------------------|---------|-----|----------------------------------------------------|
| Age        |     | Vaccination Type                      | Age     |     | Vaccination Type                                   |
| Week       | Day |                                       | Week    | Day |                                                    |
| 1          | 7   | Gumboro Intermediate [ ]              |         | 1   | Marek's Vaccine [ ]                                |
| 2          | 14  | HBI [ ]                               | 1       | 7   | Gumboro Intermediate [ ]                           |
| 3          | 21  | Gumboro Intermediate Plus [ ]         | 2       | 14  | HBI [ ]                                            |
| 4          | 28  | LaSota [ ]                            | 3       | 21  | Gumboro Intermediate Plus [ ]                      |
| 5          | 35  | Gumboro Intermediate / Plus [ ]       | 4       | 28  | LaSota [ ]                                         |
| 8          | 53  | 1 <sup>st</sup> Fowl Pox [ ]          | 5       | 35  | Gumboro Intermediate / Plus [ ]                    |
| 10         | 70  | LaSota [ ]                            | 8       | 53  | 1 <sup>st</sup> Fowl Pox [ ]                       |
| 12         | 84  | 2 <sup>nd</sup> Fowl Pox [ ]          | 10      | 70  | LaSota [ ]                                         |
| 16         | 112 | 3 <sup>rd</sup> Newcastle Vaccine [ ] | 12      | 84  | 2 <sup>nd</sup> Fowl Pox [ ]                       |
|            |     |                                       | 16      | 112 | 3 <sup>rd</sup> Newcastle Vaccine + IBD Matern [ ] |

|     |                                                                                   |                                  |                                                                                                                                                                                                                                                                |                                                       |
|-----|-----------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
|     |                                                                                   | 42                               | 294                                                                                                                                                                                                                                                            | 3 <sup>rd</sup> Newcastle Vaccine +<br>IBD Matern [ ] |
| 15. | Any other vaccination protocol (for breeder) being adopted: [ 1 ]-Yes [ 2 ]-No    |                                  |                                                                                                                                                                                                                                                                |                                                       |
| 16. | If <b>Yes</b> , specify:<br>_____                                                 |                                  |                                                                                                                                                                                                                                                                |                                                       |
| 17. | Any other vaccination protocol (for commercial) being adopted: [ 1 ]-Yes [ 2 ]-No |                                  |                                                                                                                                                                                                                                                                |                                                       |
| 18. | If <b>Yes</b> , specify:<br>_____                                                 |                                  |                                                                                                                                                                                                                                                                |                                                       |
| 19. | How do you perform the following activities?                                      |                                  |                                                                                                                                                                                                                                                                |                                                       |
|     | <b>No.</b>                                                                        | <b>Post-production practices</b> | <b>Tick (✓) here</b>                                                                                                                                                                                                                                           |                                                       |
|     | <b>a.</b>                                                                         | <b>Collection of eggs</b>        | [ 1 ]-Frequent collection of eggs<br>[ 2 ]-Separate clean eggs from dirty ones<br>[ 3 ]-Collect eggs in an easy to clean container<br>[ 4 ]-Not stacking eggs too high (=≤5 trays)<br>[ 5 ]-Other (specify): _____<br>[ 6 ]-None of the above                  |                                                       |
|     | <b>b.</b>                                                                         | <b>Cleaning of eggs</b>          | [ 1 ]-Inspect egg<br>[ 2 ]-Cooling eggs steadily before cleaning<br>[ 3 ]-Dry clean eggs with a clean sponge<br>[ 4 ]-Clean with warm water<br>[ 5 ]-Don't leave water on the egg after cleaning it<br>[ 6 ]-Other (specify): _____<br>[ 7 ]-None of the above |                                                       |
|     | <b>c.</b>                                                                         | <b>Sorting/grading of eggs</b>   | <b>Egg Sorters:</b><br>[ 1 ]-Wear appropriate clothing<br>[ 2 ]-Ensure hands are clean<br><br><b>Exterior:</b>                                                                                                                                                 |                                                       |

|  |                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |                                                                                            | <p>[ 3 ]-Examine shell for cleanliness</p> <p>[ 4 ]-Examine texture and shape</p> <p>[ 5 ]-Remove broken eggs</p> <p><b>Interior:</b></p> <p>[ 6 ]-Candling</p> <p>[ 7 ]-Breakout method</p> <p>[ 8 ]-Other (specify): _____</p> <p>[ 9 ]-None of the above</p>                                                                                                                                                                                                                                                                                                                                                                       |
|  | <p><b>d. Storage of Eggs</b></p> <p><i>Enumerators should observe/ask for evidence</i></p> | <p>[ 1 ]-Keep eggs refrigerated</p> <p>[ 2 ]-Keep eggs at room temperature</p> <p>[ 3 ]-Keep eggs in a well ventilated place</p> <p>[ 4 ]-Keep eggs in a separate room</p> <p>[ 5 ]-Other (specify): _____</p>                                                                                                                                                                                                                                                                                                                                                                                                                        |
|  | <b>For Farms with Processing Units</b>                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|  | <p><b>e. Slaughtering of birds for sale</b></p>                                            | <p>[ 1 ]-Floors, walls, doors and other surfaces are made of washable material and easy to clean</p> <p>[ 2 ]-Sufficient space to operate hygienically</p> <p>[ 3 ]-Dirty operations are separated from clean operations</p> <p>[ 4 ]-Area protected from pest / insect / rodent</p> <p>[ 5 ]-Refrigerated place to store processed poultry</p> <p>[ 6 ]-Hand wash facilities with hot and cold running water</p> <p>[ 7 ]-Staff changing facilities</p> <p>[ 8 ]-Suitably drained floors</p> <p>[ 9 ]-Waste water that is correctly ducted (so it does not flow directly across floors)</p> <p>[10]-Adequate drainage facilities</p> |

|                     | <p><i>Enumerators should observe/ask for evidence</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>[11]-Sufficient lighting</p> <p>[12]-Sufficient ventilation and rooms that are free from condensation</p> <p>[13]-Clean room and equipment, including regular cleaning and disinfection of the room and equipment</p> <p>[14]-Storage area for equipment, cleaning products, disinfectants, sanitizers that are separate from food areas</p> <p>[15]-Adequate supply of potable water</p> <p>[16]-Adequate collection and storage of waste and animal by-products</p> <p>[17]-Arrangements in place for the correct disposal of waste and animal by-products</p> <p>[18]-Vehicles that transport poultry meat are clean and, where necessary, refrigerated</p> <p>[19]-Adequate staff personal hygiene</p> <p>[20]-The slaughter of poultry takes place in a hygienic manner with due regard for animal welfare</p> |                                              |                         |                         |                         |                                              |                        |                         |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------|-------------------------|-------------------------|----------------------------------------------|------------------------|-------------------------|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|
| 20.                 | <p>Please provide us with record on your DOCs for all production batches in 2018</p> <table border="1"> <thead> <tr> <th><b>Batch number</b></th> <th><b>Number of chicks</b></th> <th><b>Unit price (GHS)</b></th> <th><b>No. of birds that died from the stock</b></th> </tr> </thead> <tbody> <tr> <td>Batch 1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Batch 2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Batch 3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Batch 4</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              | <b>Batch number</b>     | <b>Number of chicks</b> | <b>Unit price (GHS)</b> | <b>No. of birds that died from the stock</b> | Batch 1                |                         |  |  | Batch 2 |  |  |  | Batch 3 |  |  |  | Batch 4 |  |  |  |
| <b>Batch number</b> | <b>Number of chicks</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Unit price (GHS)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>No. of birds that died from the stock</b> |                         |                         |                         |                                              |                        |                         |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Batch 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                         |                         |                         |                                              |                        |                         |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Batch 2             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                         |                         |                         |                                              |                        |                         |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Batch 3             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                         |                         |                         |                                              |                        |                         |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| Batch 4             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                         |                         |                         |                                              |                        |                         |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| 21.                 | <p>Please provide information on miscellaneous items in 2017 and 2018</p> <table border="1"> <thead> <tr> <th><b>No.</b></th> <th><b>Item</b></th> <th><b>Quantity</b></th> <th><b>Unit cost (GHS)</b></th> <th><b>Total cost (GHS)</b></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                         | <b>No.</b>              | <b>Item</b>             | <b>Quantity</b>                              | <b>Unit cost (GHS)</b> | <b>Total cost (GHS)</b> |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
| <b>No.</b>          | <b>Item</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Quantity</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Unit cost (GHS)</b>                       | <b>Total cost (GHS)</b> |                         |                         |                                              |                        |                         |  |  |         |  |  |  |         |  |  |  |         |  |  |  |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                         |                         |                         |                                              |                        |                         |  |  |         |  |  |  |         |  |  |  |         |  |  |  |

|       |                                                                                                                           |  |                               |      |                                          |      |      |      |  |
|-------|---------------------------------------------------------------------------------------------------------------------------|--|-------------------------------|------|------------------------------------------|------|------|------|--|
|       |                                                                                                                           |  | 2017                          | 2018 | 2017                                     | 2018 | 2017 | 2018 |  |
| i.    | Water (in 34 liters bucket)                                                                                               |  |                               |      |                                          |      |      |      |  |
| ii.   | Lightening/energy                                                                                                         |  |                               |      |                                          |      |      |      |  |
| iii.  | Litter                                                                                                                    |  |                               |      |                                          |      |      |      |  |
| iv.   | Milling of maize (kg)                                                                                                     |  |                               |      |                                          |      |      |      |  |
| v.    | Transportation of chicks                                                                                                  |  |                               |      |                                          |      |      |      |  |
| vi.   | Transportation of feed/feed ingredients                                                                                   |  |                               |      |                                          |      |      |      |  |
| vii.  | Cost of hatching                                                                                                          |  |                               |      |                                          |      |      |      |  |
| viii. | Maintenance/repairs                                                                                                       |  |                               |      |                                          |      |      |      |  |
| ix.   | Other (specify): _____                                                                                                    |  |                               |      |                                          |      |      |      |  |
| 22.   | Is the farm investing in branding or marketing?      [ 1 ]-Yes      [ 2 ]-No                                              |  |                               |      |                                          |      |      |      |  |
| 23.   | If <b>Yes</b> , is it as a result of GPP intervention / training / facilitation/ grant, etc.?<br>[ 1 ]-Yes      [ 2 ]- No |  |                               |      |                                          |      |      |      |  |
| 24.   | What kind of investment do you use to market or brand the product/farm?                                                   |  |                               |      |                                          |      |      |      |  |
|       | <b>Kind of investment</b>                                                                                                 |  | <b>Tick where appropriate</b> |      | <b>Attribution</b><br>1-GPP      2-Other |      |      |      |  |
| i.    | Brand development (Social media)                                                                                          |  |                               |      |                                          |      |      |      |  |
| ii.   | Media promotion (Traditional media)                                                                                       |  |                               |      |                                          |      |      |      |  |
| iii.  | Marketing plan development and implementation                                                                             |  |                               |      |                                          |      |      |      |  |
| iv.   | Flyers and brochures                                                                                                      |  |                               |      |                                          |      |      |      |  |
| v.    | Advertisement (stickers, billboards, wall advertisement, sign post, etc.)                                                 |  |                               |      |                                          |      |      |      |  |
| vi.   | Campaign/fair participation                                                                                               |  |                               |      |                                          |      |      |      |  |
| vii.  | Other (specify): _____                                                                                                    |  |                               |      |                                          |      |      |      |  |

| 25.                    | Do you use marketing campaigns or branding as a strategy in selling your poultry products?                      [ 1 ]-Yes                      [ 2 ]-No                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------|-------------|------------------------|----------------------|-------------------|----------------------|------|----------|-------------|----------|-------------|----------|--|--|------|--|----------|--|------|--|--|--------------|------|--|--|--|------------------|--|--|--|--|
| 26.                    | If <b>No</b> , what are some of the reasons preventing you from deploying marketing strategy? Mention: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| 27.                    | Has the use of marketing campaigns or branding led to an increase in the sale of your products?                      [ 1 ]-Yes                      [ 2 ]-No                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| 28.                    | If <b>Yes</b> , indicate the sales made in the 2017 and 2018 production years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
|                        | <table border="1"> <thead> <tr> <th rowspan="2"><b>Poultry Product</b></th> <th colspan="2"><b>Sales in 2017</b></th> <th colspan="2"><b>Sales in 2018</b></th> </tr> <tr> <th>Quantity</th> <th>Price (GHS)</th> <th>Quantity</th> <th>Price (GHS)</th> </tr> </thead> <tbody> <tr> <td>Cockerel</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Broilers</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Spent layers</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Eggs (in crates)</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> |                   |                      |             | <b>Poultry Product</b> | <b>Sales in 2017</b> |                   | <b>Sales in 2018</b> |      | Quantity | Price (GHS) | Quantity | Price (GHS) | Cockerel |  |  |      |  | Broilers |  |      |  |  | Spent layers |      |  |  |  | Eggs (in crates) |  |  |  |  |
| <b>Poultry Product</b> | <b>Sales in 2017</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   | <b>Sales in 2018</b> |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
|                        | Quantity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Price (GHS)       | Quantity             | Price (GHS) |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| Cockerel               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| Broilers               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| Spent layers           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| Eggs (in crates)       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| 29.                    | Indicate your total revenue and cost for the following production years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
|                        | <table border="1"> <thead> <tr> <th><b>Production year</b></th> <th><b>Total revenue</b></th> <th><b>Total cost</b></th> <th><b>Total profit</b></th> </tr> </thead> <tbody> <tr> <td>2014</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2015</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2016</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2017</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2018</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>                                                                                                                 |                   |                      |             | <b>Production year</b> | <b>Total revenue</b> | <b>Total cost</b> | <b>Total profit</b>  | 2014 |          |             |          | 2015        |          |  |  | 2016 |  |          |  | 2017 |  |  |              | 2018 |  |  |  |                  |  |  |  |  |
| <b>Production year</b> | <b>Total revenue</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Total cost</b> | <b>Total profit</b>  |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| 2014                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| 2015                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| 2016                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| 2017                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| 2018                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
|                        | <b>EFFECTIVENESS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| 30.                    | Have you experienced any unintended challenges as a result of the Ghana Poultry Project?                      [ 1 ]-Yes                      [ 2 ]-No                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |
| 31.                    | If <b>Yes</b> , please describe any unintended challenges of the Ghana Poultry Project that you observed or that were reported to you by other poultry farmers.<br><br>_____                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |                      |             |                        |                      |                   |                      |      |          |             |          |             |          |  |  |      |  |          |  |      |  |  |              |      |  |  |  |                  |  |  |  |  |

|     |                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                        |                                                       |                                        |                          |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------|--------------------------|
|     |                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                        |                                                       |                                        |                          |
| 32. | Indicate which of the following coordinated trainings have improved the competitiveness of your poultry industry                                                                                                                                                                                                                                                                                 |                                                                                                                                                        |                                                       |                                        |                          |
| No. | Training                                                                                                                                                                                                                                                                                                                                                                                         | Have any of your organization's management and/or employees received training in.....?<br>1-Yes, 2-No<br>(If <b>No</b> , skip to next row or training) | When was the most recent training received?<br>(year) | Who provided the most recent training? | Was the training useful? |
| i.  | <b>Improved production practices</b><br>[ 1 ]-Implementation of GMP/HACCP-based standard operation procedures and records<br>[ 2 ]-Good handling (catching, depopulation, harvesting)<br>[ 3 ]-Implementation of sanitation standard operation procedures<br>[ 4 ] -Implementation of regulatory guidelines<br>[ 5 ]-Selection and storage of hatchable eggs<br>[ 6 ]-Handling of hatched chicks |                                                                                                                                                        |                                                       |                                        |                          |
| ii. | <b>Improved post production practices</b><br>[ 1 ]-How to maintain the cold chain of processed chicken and chicken products<br>[ 2 ] -How to store eggs and improve their shelf life                                                                                                                                                                                                             |                                                                                                                                                        |                                                       |                                        |                          |

|     |                                                                            |                                                                                                                                                                                                                                                                                                   |                        |  |  |  |
|-----|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--|--|--|
|     |                                                                            | [ 3 ]-Collection, grading and appropriate transportation of eggs to the market<br>[ 3 ]-Waste and effluents disposal<br>[ 4 ]-Good sanitation and safety at processing plant<br>[ 5 ]-Designing and packaging dressed birds<br>[ 6 ]-Determining best before dates and labelling of dressed birds |                        |  |  |  |
|     | iii.                                                                       | Organizational record keeping                                                                                                                                                                                                                                                                     |                        |  |  |  |
|     | iv.                                                                        | Financial planning and management                                                                                                                                                                                                                                                                 |                        |  |  |  |
|     | v.                                                                         | Vaccination                                                                                                                                                                                                                                                                                       |                        |  |  |  |
|     | vi.                                                                        | Business plan development                                                                                                                                                                                                                                                                         |                        |  |  |  |
|     | vii.                                                                       | Cash flow preparation                                                                                                                                                                                                                                                                             |                        |  |  |  |
|     | viii.                                                                      | Balance sheet preparation                                                                                                                                                                                                                                                                         |                        |  |  |  |
|     | ix.                                                                        | Income statement preparation                                                                                                                                                                                                                                                                      |                        |  |  |  |
|     | x.                                                                         | DOC management                                                                                                                                                                                                                                                                                    |                        |  |  |  |
|     | xi.                                                                        | Handling of birds and eggs                                                                                                                                                                                                                                                                        |                        |  |  |  |
|     | xii.                                                                       | Packaging of eggs                                                                                                                                                                                                                                                                                 |                        |  |  |  |
|     | xiii.                                                                      | Poultry processing                                                                                                                                                                                                                                                                                |                        |  |  |  |
|     | xiv.                                                                       | Packaging of processed poultry                                                                                                                                                                                                                                                                    |                        |  |  |  |
|     | xv.                                                                        | Labeling                                                                                                                                                                                                                                                                                          |                        |  |  |  |
|     | xvi.                                                                       | Storage                                                                                                                                                                                                                                                                                           |                        |  |  |  |
|     | xvii.                                                                      | Distribution                                                                                                                                                                                                                                                                                      |                        |  |  |  |
|     | xviii.                                                                     | Flock density                                                                                                                                                                                                                                                                                     |                        |  |  |  |
| 33. | What were some of your unintended benefits from the Ghana Poultry Project? |                                                                                                                                                                                                                                                                                                   |                        |  |  |  |
|     | No.                                                                        | Benefits                                                                                                                                                                                                                                                                                          | Tick where appropriate |  |  |  |

|     |                                                                                                           |                                                                                   |                                                                                                                                                                              |
|-----|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | i.                                                                                                        | Social recognition                                                                |                                                                                                                                                                              |
|     | ii.                                                                                                       | Non-poultry businesses lines                                                      |                                                                                                                                                                              |
|     | iii.                                                                                                      | Business recognition                                                              |                                                                                                                                                                              |
|     | iv.                                                                                                       | Acquisition of landed property, including houses and payment of fees for children |                                                                                                                                                                              |
|     | v.                                                                                                        | Ability to meet health needs of the household                                     |                                                                                                                                                                              |
|     | vi.                                                                                                       | Ability to meet household nutritional needs                                       |                                                                                                                                                                              |
|     | vii.                                                                                                      | Other (specify): _____                                                            |                                                                                                                                                                              |
| 34. | Apart from the GPP, do/did you participate in any of the following?                                       |                                                                                   |                                                                                                                                                                              |
|     | <b>No.</b>                                                                                                | <b>Other projects</b>                                                             | <b>Tick if Applicable</b><br><br><b>Level of contribution to the development of your poultry business</b><br><i>1-Very high 2-High<br/>3-Don't know 4-Low<br/>5-Very low</i> |
|     | i.                                                                                                        | AMPLIFIES                                                                         |                                                                                                                                                                              |
|     | ii.                                                                                                       | Resiliency in Northern Ghana (RING)                                               |                                                                                                                                                                              |
|     | iii.                                                                                                      | Agricultural Technology Transfer (ATT)                                            |                                                                                                                                                                              |
|     | iv.                                                                                                       | Agricultural Policy Support Project (APSP)                                        |                                                                                                                                                                              |
|     | v.                                                                                                        | Agricultural Development and Value Chain Enhancement Project (ADVANCE)            |                                                                                                                                                                              |
|     | vi.                                                                                                       | Financing Ghanaian Agricultural Project (FINGAP)                                  |                                                                                                                                                                              |
|     | vii.                                                                                                      | Ghana Commercial Agriculture Program (GCAP)                                       |                                                                                                                                                                              |
|     | viii.                                                                                                     | MoFA projects (specify): _____                                                    |                                                                                                                                                                              |
|     | ix.                                                                                                       | Private sector projects (specify): _____                                          |                                                                                                                                                                              |
|     | <b>SUSTAINABILITY</b>                                                                                     |                                                                                   |                                                                                                                                                                              |
| 35. | Which of the following will be continued after the GPP is ended? ( <i>Tick all that apply</i> )           |                                                                                   |                                                                                                                                                                              |
|     | [ 1 ]-Maintain profits<br>[ 2 ]-Cover cost of production<br>[ 3 ]-Cover cost of vaccination and deworming |                                                                                   |                                                                                                                                                                              |

|                                                          | [ 4 ]-Maintain the number of employees<br>[ 5 ]-Maintain the number of poultry birds<br>[ 6 ]-Other (specify): _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------|-------------------------------|--------------------------------------|----------------------|---------------------------------|--|-----------------------------------------------------|--|--------------------------|----------------------------------------------------------|--|--|---------------------------|--|--|---------------------|--|--|----------------|--|--|
| 36.                                                      | Do you plan to formalize all informal business relations?      [ 1 ]-Yes      [ 2 ]-No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| 37.                                                      | If <b>No</b> , what are the reasons(s) for your decision not to formalize?<br><table border="1"> <thead> <tr> <th><i>Reasons</i></th><th><i>Tick where appropriate</i></th></tr> </thead> <tbody> <tr> <td>Lack of trust</td><td></td></tr> <tr> <td>Lack of value on such agreement</td><td></td></tr> <tr> <td>Lack of education on formalizing business relations</td><td></td></tr> <tr> <td>Other I (specify): _____</td><td></td></tr> </tbody> </table>                                                                                                                                                                                                                                                 |                                      | <i>Reasons</i>      | <i>Tick where appropriate</i> | Lack of trust                        |                      | Lack of value on such agreement |  | Lack of education on formalizing business relations |  | Other I (specify): _____ |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| <i>Reasons</i>                                           | <i>Tick where appropriate</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| Lack of trust                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| Lack of value on such agreement                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| Lack of education on formalizing business relations      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| Other I (specify): _____                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| 38.                                                      | In case profit falls, are there any strategies to continue in poultry business and for how long      [ 1 ]-Specify: _____      [ 2 ]-How long (in years): _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| 39.                                                      | On completion of the GPP, which of the stakeholders can spearhead the continuity of the interventions in the poultry sector in Ghana?<br><table border="1"> <thead> <tr> <th><i>Stakeholders</i></th><th><i>Tick where appropriate</i></th><th><i>Intervention(s) and reason(s)</i></th></tr> </thead> <tbody> <tr> <td>Poultry Associations</td><td></td><td></td></tr> <tr> <td>MoFA</td><td></td><td></td></tr> <tr> <td>Agricultural-related Ministries, Department and Agencies</td><td></td><td></td></tr> <tr> <td>ACDI/VOCA and TechnoServe</td><td></td><td></td></tr> <tr> <td>Research Institutes</td><td></td><td></td></tr> <tr> <td>Private Sector</td><td></td><td></td></tr> </tbody> </table> |                                      | <i>Stakeholders</i> | <i>Tick where appropriate</i> | <i>Intervention(s) and reason(s)</i> | Poultry Associations |                                 |  | MoFA                                                |  |                          | Agricultural-related Ministries, Department and Agencies |  |  | ACDI/VOCA and TechnoServe |  |  | Research Institutes |  |  | Private Sector |  |  |
| <i>Stakeholders</i>                                      | <i>Tick where appropriate</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <i>Intervention(s) and reason(s)</i> |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| Poultry Associations                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| MoFA                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| Agricultural-related Ministries, Department and Agencies |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| ACDI/VOCA and TechnoServe                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| Research Institutes                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| Private Sector                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| 40.                                                      | Is your farm susceptible to any shock?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | [ 1 ]-Yes      [ 2 ]-No              |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |
| 41.                                                      | Can you accommodate shocks when they occur?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | [ 1 ]-Yes      [ 2 ]-No              |                     |                               |                                      |                      |                                 |  |                                                     |  |                          |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |

|     |                                                                                                       |                               |                                               |
|-----|-------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------|
| 42. | Which of the following shocks will have an adverse effect on the continuity of your poultry business? |                               |                                               |
|     | <b>Shocks</b>                                                                                         | <b>Tick where appropriate</b> | <b>How do you intend dealing with shocks?</b> |
|     | Environmental (Pollution concerns)                                                                    |                               |                                               |
|     | Macroeconomic conditions                                                                              |                               |                                               |
|     | Disease outbreak                                                                                      |                               |                                               |
|     |                                                                                                       |                               |                                               |

## **MODULE D: AMPLIFIES AND GPP**

I. Please provide information on the production and sale of poultry products

|                  | (i)<br>Period<br>(Dates) | (ii)<br>Quantity<br>produced | (iii)<br>Quantity<br>sold | (iv)<br>Unit<br>Price<br>(GHS) | (v)<br>Revenue<br>(GHS) |
|------------------|--------------------------|------------------------------|---------------------------|--------------------------------|-------------------------|
|                  | 2016                     |                              |                           |                                |                         |
| Broiler-Cycle 1  |                          |                              |                           |                                |                         |
| Broiler-Cycle 2  |                          |                              |                           |                                |                         |
| Broiler-Cycle 3  |                          |                              |                           |                                |                         |
| Layer Pen 1      |                          |                              |                           |                                |                         |
| Layer Pen 2      |                          |                              |                           |                                |                         |
| Layer Pen 3      |                          |                              |                           |                                |                         |
| Cockerel-Cycle 1 |                          |                              |                           |                                |                         |
| Cockerel-Cycle 2 |                          |                              |                           |                                |                         |
| Cockerel-Cycle 3 |                          |                              |                           |                                |                         |
| Eggs (in crate)  |                          |                              |                           |                                |                         |
|                  | 2017                     |                              |                           |                                |                         |
| DOC-Batch 1      |                          |                              |                           |                                |                         |

|                          |      |  |  |  |  |
|--------------------------|------|--|--|--|--|
| DOC-Batch 2              |      |  |  |  |  |
| DOC-Batch 3              |      |  |  |  |  |
| Broiler-Cycle 1          |      |  |  |  |  |
| Broiler-Cycle 2          |      |  |  |  |  |
| Broiler-Cycle 3          |      |  |  |  |  |
| Layer Pen 1              |      |  |  |  |  |
| Layer Pen 2              |      |  |  |  |  |
| Layer Pen 3              |      |  |  |  |  |
| Cockerel-Cycle 1         |      |  |  |  |  |
| Cockerel-Cycle 2         |      |  |  |  |  |
| Cockerel-Cycle 3         |      |  |  |  |  |
| Eggs ( <i>in crate</i> ) |      |  |  |  |  |
|                          | 2018 |  |  |  |  |
| DOC-Batch 1              |      |  |  |  |  |
| DOC-Batch 2              |      |  |  |  |  |
| DOC-Batch 3              |      |  |  |  |  |
| Broiler-Cycle 1          |      |  |  |  |  |
| Broiler-Cycle 2          |      |  |  |  |  |
| Broiler-Cycle 3          |      |  |  |  |  |
| Layer Pen 1              |      |  |  |  |  |
| Layer Pen 2              |      |  |  |  |  |
| Layer Pen 3              |      |  |  |  |  |
| Cockerel-Cycle 1         |      |  |  |  |  |
| Cockerel-Cycle 2         |      |  |  |  |  |
| Cockerel-Cycle 3         |      |  |  |  |  |
| Eggs ( <i>in crate</i> ) |      |  |  |  |  |

2. Kindly provide information on inputs and outputs from 2016 to 2018 production cycles

|  | 2016 | 2017 | 2018 |
|--|------|------|------|
|--|------|------|------|

| Item                                 | Quantity | Unit Price<br>(GHS) | Unit Cost<br>(GHS) | Quantity | Unit Price<br>(GHS) | Unit Cost<br>(GHS) | Quantity | Unit Price<br>(GHS) | Unit Cost<br>(GHS) |
|--------------------------------------|----------|---------------------|--------------------|----------|---------------------|--------------------|----------|---------------------|--------------------|
| <b>Input (Products that move in)</b> |          |                     |                    |          |                     |                    |          |                     |                    |
| Day old chicks                       |          |                     |                    |          |                     |                    |          |                     |                    |
| Broilers                             |          |                     |                    |          |                     |                    |          |                     |                    |
| Layers                               |          |                     |                    |          |                     |                    |          |                     |                    |
| Cockerel                             |          |                     |                    |          |                     |                    |          |                     |                    |
| Feed                                 |          |                     |                    |          |                     |                    |          |                     |                    |
| Layer starter feed (kg)              |          |                     |                    |          |                     |                    |          |                     |                    |
| Layer grower feed (kg)               |          |                     |                    |          |                     |                    |          |                     |                    |
| Layer finisher feed (kg)             |          |                     |                    |          |                     |                    |          |                     |                    |
| Broiler Starter feed (kg)            |          |                     |                    |          |                     |                    |          |                     |                    |
| Broiler grower feed (kg)             |          |                     |                    |          |                     |                    |          |                     |                    |
| Broiler finisher feed (kg)           |          |                     |                    |          |                     |                    |          |                     |                    |
| Yellow maize (kg)                    |          |                     |                    |          |                     |                    |          |                     |                    |
| Yellow soy (kg)                      |          |                     |                    |          |                     |                    |          |                     |                    |
| Soy cake                             |          |                     |                    |          |                     |                    |          |                     |                    |
| Starter concentrate (kg)             |          |                     |                    |          |                     |                    |          |                     |                    |
| Grower concentrate (kg)              |          |                     |                    |          |                     |                    |          |                     |                    |
| Finisher concentrate (kg)            |          |                     |                    |          |                     |                    |          |                     |                    |
| Medicine/vaccine                     |          |                     |                    |          |                     |                    |          |                     |                    |
| Vaccines (doses)                     |          |                     |                    |          |                     |                    |          |                     |                    |
| Drugs (kg)                           |          |                     |                    |          |                     |                    |          |                     |                    |
| Disinfectants (liters)               |          |                     |                    |          |                     |                    |          |                     |                    |
| Antibiotics (kg)                     |          |                     |                    |          |                     |                    |          |                     |                    |

|                                             |  |  |  |  |  |  |  |  |  |
|---------------------------------------------|--|--|--|--|--|--|--|--|--|
| Mineral supplements                         |  |  |  |  |  |  |  |  |  |
| Supplements (mg)                            |  |  |  |  |  |  |  |  |  |
| Vitamin premix (mg)                         |  |  |  |  |  |  |  |  |  |
| Mineral (mg)                                |  |  |  |  |  |  |  |  |  |
| Other feed supplements (specify):<br>_____  |  |  |  |  |  |  |  |  |  |
| Capital                                     |  |  |  |  |  |  |  |  |  |
| Maintenance of machinery and Infrastructure |  |  |  |  |  |  |  |  |  |
| Rent                                        |  |  |  |  |  |  |  |  |  |
| Interest paid on loan                       |  |  |  |  |  |  |  |  |  |
| Salaries of workers                         |  |  |  |  |  |  |  |  |  |
| Permanent worker                            |  |  |  |  |  |  |  |  |  |
| Casual workers                              |  |  |  |  |  |  |  |  |  |
| Mentees                                     |  |  |  |  |  |  |  |  |  |
| <b>Output (Products that move out)</b>      |  |  |  |  |  |  |  |  |  |
| Manure                                      |  |  |  |  |  |  |  |  |  |
| Eggs (in crates)                            |  |  |  |  |  |  |  |  |  |

| 3.                                       | How many employees does your poultry business currently have? _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                      |                                   |                                        |  |  |                                          |  |  |                                     |  |  |                                       |  |  |                       |  |  |  |  |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------|-----------------------------------|----------------------------------------|--|--|------------------------------------------|--|--|-------------------------------------|--|--|---------------------------------------|--|--|-----------------------|--|--|--|--|
| 4.                                       | Did your business employ new workers between 2016 and now?<br>[ 1 ]-Yes                      [ 2 ]-No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                    |                                      |                                   |                                        |  |  |                                          |  |  |                                     |  |  |                                       |  |  |                       |  |  |  |  |
| 5.                                       | If <b>Yes</b> , provide the needed information below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                    |                                      |                                   |                                        |  |  |                                          |  |  |                                     |  |  |                                       |  |  |                       |  |  |  |  |
|                                          | <table border="1"> <thead> <tr> <th><b>Components of new employees</b></th> <th><b>Number<br/>(&lt;18 years old)</b></th> <th><b>Number<br/>(≥18 years old)</b></th> </tr> </thead> <tbody> <tr> <td>Number of new male permanent employees</td> <td></td> <td></td> </tr> <tr> <td>Number of new female permanent employees</td> <td></td> <td></td> </tr> <tr> <td>Number of new casual male employees</td> <td></td> <td></td> </tr> <tr> <td>Number of new casual female employees</td> <td></td> <td></td> </tr> <tr> <td>Number of new mentees</td> <td></td> <td></td> </tr> </tbody> </table> | <b>Components of new employees</b> | <b>Number<br/>(&lt;18 years old)</b> | <b>Number<br/>(≥18 years old)</b> | Number of new male permanent employees |  |  | Number of new female permanent employees |  |  | Number of new casual male employees |  |  | Number of new casual female employees |  |  | Number of new mentees |  |  |  |  |
| <b>Components of new employees</b>       | <b>Number<br/>(&lt;18 years old)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Number<br/>(≥18 years old)</b>  |                                      |                                   |                                        |  |  |                                          |  |  |                                     |  |  |                                       |  |  |                       |  |  |  |  |
| Number of new male permanent employees   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                    |                                      |                                   |                                        |  |  |                                          |  |  |                                     |  |  |                                       |  |  |                       |  |  |  |  |
| Number of new female permanent employees |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                    |                                      |                                   |                                        |  |  |                                          |  |  |                                     |  |  |                                       |  |  |                       |  |  |  |  |
| Number of new casual male employees      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                    |                                      |                                   |                                        |  |  |                                          |  |  |                                     |  |  |                                       |  |  |                       |  |  |  |  |
| Number of new casual female employees    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                    |                                      |                                   |                                        |  |  |                                          |  |  |                                     |  |  |                                       |  |  |                       |  |  |  |  |
| Number of new mentees                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                    |                                      |                                   |                                        |  |  |                                          |  |  |                                     |  |  |                                       |  |  |                       |  |  |  |  |

|    |                                                                                                                                                                  |               |                  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|
|    |                                                                                                                                                                  |               |                  |
| 6. | How many of the new employees were <u>employed</u> as a result of GPP or AMPLIFIES assistance (facilitated loan/training/technical assistance/ market linkages)? |               |                  |
|    |                                                                                                                                                                  | <b>GPP</b>    | <b>AMPLIFIES</b> |
|    | Males permanent employees (<18 years old)                                                                                                                        |               |                  |
|    | Females permanent employees (<18 years old)                                                                                                                      |               |                  |
|    | Males permanent employees (≥18 years old)                                                                                                                        |               |                  |
|    | Females permanent employees (≥18 years old)                                                                                                                      |               |                  |
|    | Males casual employees (<18 years old)                                                                                                                           |               |                  |
|    | Females casual employees (<18 years old)                                                                                                                         |               |                  |
|    | Males casual employees (≥18 years old)                                                                                                                           |               |                  |
|    | Females casual employees (≥18 years old)                                                                                                                         |               |                  |
|    | Mentees                                                                                                                                                          |               |                  |
| 7. | Of these new hired employees (in Question 6), what is the duration of each employee contract in months?                                                          |               |                  |
|    | <b>Employee</b>                                                                                                                                                  | <b>Gender</b> | <b>Months</b>    |
|    | 1 <sup>st</sup> Rank Employee                                                                                                                                    |               |                  |
|    | 2 <sup>nd</sup> Rank Employee                                                                                                                                    |               |                  |
|    | 3 <sup>rd</sup> Rank Employee                                                                                                                                    |               |                  |
|    | 4 <sup>th</sup> Rank Employee                                                                                                                                    |               |                  |
|    | 5 <sup>th</sup> Rank Employee                                                                                                                                    |               |                  |
|    | 6 <sup>th</sup> Rank Employee                                                                                                                                    |               |                  |
|    | 7 <sup>th</sup> Rank Employee                                                                                                                                    |               |                  |
|    | 8 <sup>th</sup> Rank Employee                                                                                                                                    |               |                  |
|    | 9 <sup>th</sup> Rank Employee                                                                                                                                    |               |                  |
|    | 10 <sup>th</sup> Rank Employee                                                                                                                                   |               |                  |

|     |                                                                                                                                                                                                                                                                                                                                                |  |  |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|     | Beyond 10 <sup>th</sup> Rank employee ( <i>indicate the average</i> )                                                                                                                                                                                                                                                                          |  |  |
| 8.  | Have you engaged any of your family members on your farm?<br>[ 1 ]-Yes      [ 2 ]-No                                                                                                                                                                                                                                                           |  |  |
| 9.  | How many family members actively work on your farm? ( <b><i>Include only adults above 18 years</i></b> )<br>[ 1 ]-Male _____ [ 2 ]-Female _____                                                                                                                                                                                                |  |  |
| 10. | What is your source(s) of poultry feed? ( <b><i>Select more than one answer, if multiple sources, rank from the highest to the lowest, where 1 is for the highest and 3 for the lowest</i></b> )<br>[ 1 ]-Self-mixing/Concentrates<br>[ 2 ]-Commercial feed mills<br>[ 3 ]-On-site feed mills/processing plant<br>[ 4 ]-Other (specify): _____ |  |  |

## **MODULE E: RECOMMENDATIONS**

|    |                                                                                                                                                                                                         |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Which of the projects would you recommend to other poultry farmers?<br>[ 1 ] GPP      [ 2 ]-AMPLIFIES      [ 3 ]-Both GPP and AMPLIFIES      [ 4 ]-None                                                 |
| 2. | From your experience with the AMPLIFIES project, do you have any recommendations for improving future projects aimed at increasing productivity of poultry feed and feed input production?<br><br>_____ |
| 3. | From your experience with the GPP, do you have any recommendations for improving future projects aimed at increasing productivity of poultry products in Ghana?<br><br>_____                            |

**Survey End Time:** \_\_\_\_\_

Thank you

*3B. Ghana Poultry Project: Midterm performance evaluation questionnaire for poultry households*

**UNIVERSITY OF CAPE COAST  
DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY**

**QUESTIONNAIRE FOR POULTRY HOUSEHOLDS**

**Introduction and Informed Consent**

Hello, my name is \_\_\_\_\_ and I am working for the Directorate of Research, Innovation and Consultancy of the University of Cape Coast (DRIC-UCC) on behalf of the United States Department of Agriculture (USDA). We are conducting an evaluation to assess the economic impact of Ghana Poultry Project (GPP) on your business. Through a simple random sampling procedure, using beneficiaries of the USDA GPP beneficiaries, you have been selected to participate in this data collection exercise. The questions that I will ask you will focus on your poultry production business. This interview will take about an hour to complete. Although you have benefited from the GPP, you will neither be obliged to participate nor compelled to provide responses to all the questions that I will ask you. Your name will neither be cited in our report, nor will it be linked to the data that you will provide and no other person aside the evaluation team and the USDA will have access to the data that you will provide. The only reason for which you will be contacted again about this survey is to help complete this particular survey in case this process is interrupted. If you have questions at any time about the interview or the procedures of the GPP, you may contact DRIC-UCC (Phone: 0203915027; Email: [dric@ucc.edu.gh](mailto:dric@ucc.edu.gh)).

Now, do you want to ask anything about the survey?

[ 1 ]-Yes

[ 2 ]-No

If **Yes**, please ask your question:

---

---

Do you [NAME: \_\_\_\_\_] agree to participate in the study?

[ 1 ]-Yes

[ 2 ]-No

If **No**, reason(s) for refusal:

---

---

Signature/Thumbprint of Interviewee: \_\_\_\_\_

Date (dd/mm/yyyy):

|  |  |  |  |   |   |   |   |
|--|--|--|--|---|---|---|---|
|  |  |  |  | 2 | 0 | 1 | 9 |
|--|--|--|--|---|---|---|---|

|     |                                                           |                                                                                                                 |   |   |   |   |   |   |   |   |
|-----|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|---|
| 7.  | Interviewer's name:                                       | _____                                                                                                           |   |   |   |   |   |   |   |   |
| 8.  | Interviewer's code:                                       | <table border="1"><tr><td>0</td><td>0</td><td></td><td></td></tr></table>                                       | 0 | 0 |   |   |   |   |   |   |
| 0   | 0                                                         |                                                                                                                 |   |   |   |   |   |   |   |   |
| 9.  | Date checked by field supervisor<br>(dd/mm/yyyy):         | <table border="1"><tr><td></td><td></td><td></td><td></td><td>2</td><td>0</td><td>1</td><td>9</td></tr></table> |   |   |   |   | 2 | 0 | 1 | 9 |
|     |                                                           |                                                                                                                 |   | 2 | 0 | 1 | 9 |   |   |   |
| 10. | Field supervisor's signature:                             | _____                                                                                                           |   |   |   |   |   |   |   |   |
| 11. | Date checked by research team supervisor<br>(dd/mm/yyyy): | <table border="1"><tr><td></td><td></td><td></td><td></td><td>2</td><td>0</td><td>1</td><td>9</td></tr></table> |   |   |   |   | 2 | 0 | 1 | 9 |
|     |                                                           |                                                                                                                 |   | 2 | 0 | 1 | 9 |   |   |   |

|     |                                       |       |
|-----|---------------------------------------|-------|
| 12. | Research team supervisor's signature: | _____ |
|-----|---------------------------------------|-------|

## **RESPONDENT IDENTIFICATION**

|                         |                      |
|-------------------------|----------------------|
| <b>10. Region code:</b> |                      |
| <input type="text"/>    | <input type="text"/> |
| Greater Accra           | 03                   |
| Brong Ahafo             | 07                   |
| Ashanti                 | 05                   |

|                           |                      |                      |                      |
|---------------------------|----------------------|----------------------|----------------------|
| <b>11. District code:</b> |                      |                      |                      |
| <input type="text"/>      | <input type="text"/> | <input type="text"/> | <input type="text"/> |

|     |                                   |                            |
|-----|-----------------------------------|----------------------------|
| 12. | Settlement type:                  | [ 1 ]-Rural    [ 2 ]-Urban |
| 13. | Respondent's telephone number(s): | _____                      |
| 14. | Community code:                   | _____                      |
| 15. | Number of birds:                  | _____                      |

## **MODULE A: SOCIOECONOMIC AND HOUSEHOLD POULTRY CHARACTERISTICS**

|     |                                                        |                                                                                                                                                                |
|-----|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15. | Sex of respondent:                                     | [ 1 ]-Male                      [ 2 ]-Female                                                                                                                   |
| 16. | What is your age? ( <i>Completed number of years</i> ) | <input type="text"/> <input type="text"/>                                                                                                                      |
| 17. | Level of formal education:                             | [ 1 ]-None                      [ 2 ]-Informal education<br>[ 3 ]-Basic    [ 4 ]-Secondary    [ 5]-Diploma<br>[ 6 ]-Bachelors              [ 7 ]-Post-graduate |

| 18.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Have you completed any specific education in agriculture or agriculture-related course(s) which is not related to GPP? | [ 1 ]-Yes                      [ 2 ]-No                                                                                                                         |                        |               |  |  |  |             |             |             |             |         |  |  |  |  |              |  |  |  |  |       |  |  |  |  |        |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------|--|--|--|-------------|-------------|-------------|-------------|---------|--|--|--|--|--------------|--|--|--|--|-------|--|--|--|--|--------|--|--|--|--|
| 19.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | If <b>Yes</b> , what is the type of education received?                                                                | [ 1 ]-Formal                      [ 2 ]-Informal                                                                                                                |                        |               |  |  |  |             |             |             |             |         |  |  |  |  |              |  |  |  |  |       |  |  |  |  |        |  |  |  |  |
| 20.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | What <u>dominant</u> production system are you practicing?                                                             | [ 1 ]-Free range                      [ 2 ]-Battery cage<br>[ 3 ]-Deep litter system    [ 4 ]-Intensive<br>[ 5 ]-Semi-intensive<br>[ 6 ]-Other (specify): _____ |                        |               |  |  |  |             |             |             |             |         |  |  |  |  |              |  |  |  |  |       |  |  |  |  |        |  |  |  |  |
| 21.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | What was the total number of birds for the following years?                                                            |                                                                                                                                                                 |                        |               |  |  |  |             |             |             |             |         |  |  |  |  |              |  |  |  |  |       |  |  |  |  |        |  |  |  |  |
| <table border="1"> <thead> <tr> <th rowspan="2"><i>Type of Poultry</i></th> <th colspan="4"><i>Number</i></th> </tr> <tr> <th><i>2015</i></th> <th><i>2016</i></th> <th><i>2017</i></th> <th><i>2018</i></th> </tr> </thead> <tbody> <tr> <td>Chicken</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Guinea fowls</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ducks</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Turkey</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> |                                                                                                                        |                                                                                                                                                                 | <i>Type of Poultry</i> | <i>Number</i> |  |  |  | <i>2015</i> | <i>2016</i> | <i>2017</i> | <i>2018</i> | Chicken |  |  |  |  | Guinea fowls |  |  |  |  | Ducks |  |  |  |  | Turkey |  |  |  |  |
| <i>Type of Poultry</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <i>Number</i>                                                                                                          |                                                                                                                                                                 |                        |               |  |  |  |             |             |             |             |         |  |  |  |  |              |  |  |  |  |       |  |  |  |  |        |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <i>2015</i>                                                                                                            | <i>2016</i>                                                                                                                                                     | <i>2017</i>            | <i>2018</i>   |  |  |  |             |             |             |             |         |  |  |  |  |              |  |  |  |  |       |  |  |  |  |        |  |  |  |  |
| Chicken                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                        |                                                                                                                                                                 |                        |               |  |  |  |             |             |             |             |         |  |  |  |  |              |  |  |  |  |       |  |  |  |  |        |  |  |  |  |
| Guinea fowls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                                                 |                        |               |  |  |  |             |             |             |             |         |  |  |  |  |              |  |  |  |  |       |  |  |  |  |        |  |  |  |  |
| Ducks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                        |                                                                                                                                                                 |                        |               |  |  |  |             |             |             |             |         |  |  |  |  |              |  |  |  |  |       |  |  |  |  |        |  |  |  |  |
| Turkey                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                        |                                                                                                                                                                 |                        |               |  |  |  |             |             |             |             |         |  |  |  |  |              |  |  |  |  |       |  |  |  |  |        |  |  |  |  |

## MODULE B: DISEASE CONTROL

|    |                                                                                                                                                                                                                                                                                               |                                         |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 1. | Do you lose your birds?                                                                                                                                                                                                                                                                       | [ 1 ]-Yes                      [ 2 ]-No |
| 2. | How often do you lose your birds?<br>[ 1 ]-Daily                      [ 2 ]-Weekly                      [ 3 ]-Monthly                      [ 4 ]-Quarterly<br>[ 5 ]-Semi-annually                      [ 6 ]-Yearly                      [ 7 ]-At festivities<br>[ 8 ]-Other (specify): _____ |                                         |



|                                                                                                      |                                                             |                                       |                      |     |                                                    |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------|----------------------|-----|----------------------------------------------------|
|                                                                                                      | [ 4 ]- _____                                                |                                       |                      |     |                                                    |
| 9.                                                                                                   | How often do you vaccinate your birds?                      | [ 1 ]-Weekly                          | [ 2 ]-Monthly        |     |                                                    |
|                                                                                                      |                                                             | [ 3 ]-Quarterly                       | [ 4 ]-Semi-annually  |     |                                                    |
|                                                                                                      |                                                             | [ 5 ]-Yearly                          | [ 6 ]-Once in a year |     |                                                    |
| 10. Which of the vaccination protocols do you follow? ( <b>Please tick all the applicable ones</b> ) |                                                             |                                       |                      |     |                                                    |
| Commercial                                                                                           |                                                             |                                       | Breeder              |     |                                                    |
| Age                                                                                                  |                                                             |                                       | Age                  |     |                                                    |
| Week                                                                                                 | Day                                                         | Vaccination Type                      | Week                 | Day |                                                    |
| 1                                                                                                    | 7                                                           | Gumboro Intermediate [ ]              |                      | 1   | Marek's Vaccine [ ]                                |
| 2                                                                                                    | 14                                                          | HBI [ ]                               | 1                    | 7   | Gumboro Intermediate [ ]                           |
| 3                                                                                                    | 21                                                          | Gumboro Intermediate Plus [ ]         | 2                    | 14  | HBI [ ]                                            |
| 4                                                                                                    | 28                                                          | LaSota [ ]                            | 3                    | 21  | Gumboro Intermediate Plus [ ]                      |
| 5                                                                                                    | 35                                                          | Gumboro Intermediate / Plus [ ]       | 4                    | 28  | LaSota [ ]                                         |
| 8                                                                                                    | 53                                                          | 1 <sup>st</sup> Fowl Pox [ ]          | 5                    | 35  | Gumboro Intermediate / Plus [ ]                    |
| 10                                                                                                   | 70                                                          | LaSota [ ]                            | 8                    | 53  | 1 <sup>st</sup> Fowl Pox [ ]                       |
| 12                                                                                                   | 84                                                          | 2 <sup>nd</sup> Fowl Pox [ ]          | 10                   | 70  | LaSota [ ]                                         |
| 16                                                                                                   | 112                                                         | 3 <sup>rd</sup> Newcastle Vaccine [ ] | 12                   | 84  | 2 <sup>nd</sup> Fowl Pox [ ]                       |
|                                                                                                      |                                                             |                                       | 16                   | 112 | 3 <sup>rd</sup> Newcastle Vaccine + IBD Matern [ ] |
|                                                                                                      |                                                             |                                       | 42                   | 294 | 3 <sup>rd</sup> Newcastle Vaccine + IBD Matern [ ] |
| 11.                                                                                                  | What are the reasons for adoption of vaccination protocols? |                                       |                      |     |                                                    |
|                                                                                                      | [ 1 ]- _____                                                |                                       |                      |     |                                                    |

|     |                                                                                                               |                                                                                                                                                                                                       |
|-----|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | [ 2 ]- _____<br>[ 3 ]- _____<br>[ 4 ]- _____                                                                  |                                                                                                                                                                                                       |
| 12. | What disease do you vaccinate your birds against?                                                             | [ 1 ]-Newcastle    [ 2 ]-Gumboro<br>[ 3 ]-Gout        [ 4 ]-Coccidiosis<br>[ 5 ]-Weakness and Chronic respiratory disease (CRD)<br>[ 6 ]-Fowl pox<br>[ 7 ]-Other (specify): _____<br>[ 8 ]-Don't know |
| 13. | What vaccine do you use?<br>[ 1 ]- _____<br>[ 2 ]- _____<br>[ 3 ]- _____                                      |                                                                                                                                                                                                       |
| 14. | Do you deworm your birds?                                                                                     | [ 1 ]-Yes        [ 2 ]-No                                                                                                                                                                             |
| 15. | If <b>Yes</b> , why do you deworm your birds?<br>[ 1 ]- _____<br>[ 2 ]- _____<br>[ 3 ]- _____<br>[ 4 ]- _____ |                                                                                                                                                                                                       |

## MODULE C: DISEASE OUTBREAK AND CONTROL

|                                    |                                                                                           |                                                                                                                                                                                                               |
|------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.                                 | Has there been poultry disease outbreak among your birds during the last production year? | [ 1 ]-Yes                      [ 2 ]-No                                                                                                                                                                       |
| <b>(If No, skip to Question 5)</b> |                                                                                           |                                                                                                                                                                                                               |
| 2.                                 | If <b>Yes</b> , indicate the diseases:                                                    | [ 1 ]-Newcastle      [ 2 ]-Gumboro<br>[ 3 ]-Gout              [ 4 ]-Coccidiosis<br>[ 5 ]-Weakness and Chronic respiratory disease (CRD)<br>[ 6 ]-Fowl pox<br>[ 7 ]-Other (specify): _____<br>[ 8 ]-Don't know |
| 3.                                 | Did you have access to drugs for your birds during this outbreak?                         | [ 1 ]-Yes                      [ 2 ]-No                                                                                                                                                                       |
| <b>(If No, skip to Question 5)</b> |                                                                                           |                                                                                                                                                                                                               |
| 4.                                 | What was the <u>main</u> source of drugs supply during this outbreak?                     | [ 1 ]-Local                      [ 2 ]-Imported<br>[ 3 ]-Traditional method<br>[ 4 ]-Community Animal Health Workers (CAHWs)/Community Volunteers                                                             |
| 5.                                 | How many birds died during the disease outbreak in the last year? _____                   |                                                                                                                                                                                                               |

## **MODULE D: EXTENSION SERVICES**

|                                    |                                                                                                                                                                                     |                                                                                                                                     |                                                                                                            |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 1.                                 | Do you receive any extension or veterinary services?                                                                                                                                | [ 1 ]-Yes                                                                                                                           | [ 2 ]-No                                                                                                   |
| <b>(If No, skip to Question 3)</b> |                                                                                                                                                                                     |                                                                                                                                     |                                                                                                            |
| 2.                                 | Please complete this table:                                                                                                                                                         |                                                                                                                                     |                                                                                                            |
|                                    | <b>Source of technical advice</b><br><br>i. Extension agents<br>ii. Veterinary service providers<br>iii. More experienced poultry farmer<br>iv. NGO<br>v. Other (specify):<br>_____ | <b>Did you receive extension or veterinary service from this source?</b><br>1 = Yes, 2 = No<br><i>(If No, skip to next service)</i> | <b>Do you pay for the service?</b><br>1 = Yes<br>2 = No<br><br><b>Frequency of visits within last year</b> |
| 3.                                 | Do you know of the existence of Community Animal Health Workers (CAHW) in your community?                                                                                           | [ 1 ]-Yes                                                                                                                           | [ 2 ]-No                                                                                                   |
| 4.                                 | Have you been accessing/receiving vaccination services for your poultry household from the CAHW?                                                                                    | [ 1 ]-Yes                                                                                                                           | [ 2 ]-No                                                                                                   |
| 5.                                 | How often do you receive such services?                                                                                                                                             | [ 1 ]-Weekly      [ 2 ]-Monthly<br>[ 3 ]-Quarterly      [ 4 ]-Semi-annually<br>[ 5 ]-Yearly      [ 6 ]-Once in more than a year     |                                                                                                            |

|    |                                                                                                 |                    |
|----|-------------------------------------------------------------------------------------------------|--------------------|
| 6. | Will you continue to patronize the services of the CAHW for a small fee after the GPP is ended? | [ 1 ]-Yes [ 2 ]-No |
|----|-------------------------------------------------------------------------------------------------|--------------------|

## **MODULE E: EFFECTIVENESS**

|    |                                                                                                                                                          |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | <p>Have you experienced any unintended challenges as a result of the Ghana Poultry Project?</p> <p>[ 1 ]-Yes [ 2 ]-No</p>                                |
| 2. | <p>If <b>Yes</b>, can you mention some of the unintended challenges?</p> <p>[ 1 ]- _____</p> <p>[ 2 ]- _____</p> <p>[ 3 ]- _____</p> <p>[ 4 ]- _____</p> |
| 3. | <p>Have you made any attempt to remedy the unintended challenges mentioned above?</p> <p>[ 1 ]-Yes [ 2 ]-No</p>                                          |
| 4. | <p>If <b>Yes</b>, mention some of these attempts</p> <p>[ 1 ]- _____</p> <p>[ 2 ]- _____</p> <p>[ 3 ]- _____</p> <p>[ 4 ]- _____</p>                     |
| 5. | <p>Indicate which of the following coordinated trainings have improved the competitiveness of your Poultry business:</p>                                 |

|  | <b>Training</b>                 | <b>Have you received training in.....?</b><br>[ 1 ]-Yes<br>[ 2 ]-No<br>(If <b>No</b> , skip to next row or training) | <b>When was the most recent training received?</b><br>(year) | <b>Who provided the most recent training?</b> | <b>Was the training useful?</b> |
|--|---------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------|---------------------------------|
|  | i. Record keeping               |                                                                                                                      |                                                              |                                               |                                 |
|  | ii. Vaccination                 |                                                                                                                      |                                                              |                                               |                                 |
|  | iii. Handling of birds and eggs |                                                                                                                      |                                                              |                                               |                                 |
|  | iv. Packaging of eggs           |                                                                                                                      |                                                              |                                               |                                 |

## **MODULE F: EFFICIENCY**

| 6.      |                                                                             | Which of the following practices do you undertake to ensure that your birds are healthy and perform at their best? ( <b>Please tick all practices as mentioned by respondent</b> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |
|---------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------|-------------|------|-----------------------------------------------------------------------------|--|-------|----------------------------------------------------------------------|--|--------|---------------------------------------------------------------------|--|--------|--------------------------------------------|--|-------|-------------------------------------------------|--|-------|-------------------------------------------------|--|-------|-----------------------------|--|--------|--------------------------|--|---------|--------------------------|--|
|         |                                                                             | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%; text-align: center;">No.</th> <th style="width: 70%; text-align: center;">Poultry husbandry practices</th> <th style="width: 20%; text-align: center;">Tick<br/>(✓)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">xxx.</td> <td>Routine cleaning is done on the farm to remove all dirt (including cobwebs)</td> <td></td> </tr> <tr> <td style="text-align: center;">xxxi.</td> <td>Anti-biotic treatment is given to birds only during disease outbreak</td> <td></td> </tr> <tr> <td style="text-align: center;">xxxii.</td> <td>Clean water (water from pipe, well, borehole) is used for the birds</td> <td></td> </tr> <tr> <td style="text-align: center;">xxiii.</td> <td>Recommended vaccination protocol for birds</td> <td></td> </tr> <tr> <td style="text-align: center;">xxiv.</td> <td>Practice suitable prevention medication program</td> <td></td> </tr> <tr> <td style="text-align: center;">xxxv.</td> <td>Identification of diseases in their early stage</td> <td></td> </tr> <tr> <td style="text-align: center;">xxvi.</td> <td>Early treatment of diseases</td> <td></td> </tr> <tr> <td style="text-align: center;">xxvii.</td> <td>Other 1 (specify): _____</td> <td></td> </tr> <tr> <td style="text-align: center;">xxviii.</td> <td>Other 2 (specify): _____</td> <td></td> </tr> </tbody> </table> | No. | Poultry husbandry practices | Tick<br>(✓) | xxx. | Routine cleaning is done on the farm to remove all dirt (including cobwebs) |  | xxxi. | Anti-biotic treatment is given to birds only during disease outbreak |  | xxxii. | Clean water (water from pipe, well, borehole) is used for the birds |  | xxiii. | Recommended vaccination protocol for birds |  | xxiv. | Practice suitable prevention medication program |  | xxxv. | Identification of diseases in their early stage |  | xxvi. | Early treatment of diseases |  | xxvii. | Other 1 (specify): _____ |  | xxviii. | Other 2 (specify): _____ |  |
| No.     | Poultry husbandry practices                                                 | Tick<br>(✓)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |
| xxx.    | Routine cleaning is done on the farm to remove all dirt (including cobwebs) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |
| xxxi.   | Anti-biotic treatment is given to birds only during disease outbreak        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |
| xxxii.  | Clean water (water from pipe, well, borehole) is used for the birds         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |
| xxiii.  | Recommended vaccination protocol for birds                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |
| xxiv.   | Practice suitable prevention medication program                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |
| xxxv.   | Identification of diseases in their early stage                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |
| xxvi.   | Early treatment of diseases                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |
| xxvii.  | Other 1 (specify): _____                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |
| xxviii. | Other 2 (specify): _____                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |                             |             |      |                                                                             |  |       |                                                                      |  |        |                                                                     |  |        |                                            |  |       |                                                 |  |       |                                                 |  |       |                             |  |        |                          |  |         |                          |  |

|      |                                                                                               |                                                                                   |                               |
|------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------|
| 7.   | What were some of the unintended benefits from the GPP? ( <i>Tick as many as applicable</i> ) |                                                                                   |                               |
|      | <b>No.</b>                                                                                    | <b>Benefits</b>                                                                   | <b>Tick where appropriate</b> |
|      | viii.                                                                                         | Social recognition                                                                |                               |
|      | ix.                                                                                           | Non-poultry businesses lines                                                      |                               |
|      | x.                                                                                            | Business recognition                                                              |                               |
|      | xi.                                                                                           | Acquisition of landed property, including houses and payment of fees for children |                               |
|      | xii.                                                                                          | Ability to meet health needs of the household                                     |                               |
|      | xiii.                                                                                         | Ability to meet household nutritional needs                                       |                               |
| xiv. | Other (specify): _____                                                                        |                                                                                   |                               |

## **MODULE G: SUSTAINABILITY**

|                                     |                                                                                                                         |           |          |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------|----------|
| 8.                                  | Will you continue to use vaccines and dewormers after GPP is completed?                                                 | [ 1 ]-Yes | [ 2 ]-No |
| <b>(If No, skip to Question 11)</b> |                                                                                                                         |           |          |
| 9.                                  | If <b>Yes</b> , how for how long ( <i>in years</i> )? _____                                                             |           |          |
| 10.                                 | If <b>Yes</b> , what strategies do you intend to adopt?<br>[ 1 ]- _____<br>[ 2 ]- _____<br>[ 3 ]- _____<br>[ 4 ]- _____ |           |          |
| 11.                                 | Which of the following shocks will have an adverse effect on the continuity of your household poultry?                  |           |          |

|     | Shocks                             | Tick where appropriate | How do you intend dealing with shocks? |
|-----|------------------------------------|------------------------|----------------------------------------|
|     | Environmental (Pollution concerns) |                        |                                        |
|     | Macroeconomic conditions           |                        |                                        |
|     | Disease outbreak                   |                        |                                        |
| 12. | Any other comment(s):              |                        |                                        |
|     | [ 1 ]- _____                       |                        |                                        |
|     | [ 2 ]- _____                       |                        |                                        |
|     | [ 3 ]- _____                       |                        |                                        |
|     | [ 4 ]- _____                       |                        |                                        |

**Survey End Time:** \_\_\_\_\_

Thank you

*3C. Ghana Poultry Project: Midterm performance evaluation questionnaire for animal input suppliers (Veterinarians)*

**UNIVERSITY OF CAPE COAST  
DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY**

**QUESTIONNAIRE FOR INPUT SUPPLIERS  
(VETERINARIANS)**

**Introduction and Informed Consent**

Hello, my name is \_\_\_\_\_ and I am working for the Directorate of Research, Innovation and Consultancy of the University of Cape Coast (DRIC-UCC) on behalf of the United States Department of Agriculture (USDA). We are conducting an evaluation to assess the economic impact of Ghana Poultry Project (GPP) on your business. Through a simple random sampling procedure, using beneficiaries of the USDA GPP beneficiaries, you have been selected to participate in this data collection exercise. The questions that I will ask you will focus on your poultry production business. This interview will take about an hour to complete. Although you have

benefited from the GPP, you will neither be obliged to participate nor compelled to provide responses to all the questions that I will ask you. Your name will neither be cited in our report, nor will it be linked to the data that you will provide and no other person aside the evaluation team and the USDA will have access to the data that you will provide. The only reason for which you will be contacted again about this survey is to help complete this particular survey in case this process is interrupted. If you have questions at any time about the interview or the procedures of the GPP, you may contact DRIC-UCC (Phone: 0203915027; Email: [dric@ucc.edu.gh](mailto:dric@ucc.edu.gh)).

Now, do you want to ask anything about the survey?

[ 1 ]-Yes

[ 2 ]-No

If **Yes**, please ask your question:

---

Do you [NAME: \_\_\_\_\_] agree to participate in the study?

[ 1 ]-Yes

[ 2 ]-No

If **No**, reason(s) for refusal:

---



---



---

Signature/Thumbprint of Interviewee: \_\_\_\_\_

Date (dd/mm/yyyy):

|  |  |  |  |   |   |   |   |
|--|--|--|--|---|---|---|---|
|  |  |  |  | 2 | 0 | 1 | 9 |
|--|--|--|--|---|---|---|---|

|     |                                                   |                                                                                                                     |   |   |   |   |   |   |   |   |
|-----|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|---|
| 13. | Interviewer's name:                               | _____                                                                                                               |   |   |   |   |   |   |   |   |
| 14. | Interviewer's code:                               | <table border="1"> <tr> <td>0</td><td>0</td><td></td><td></td> </tr> </table>                                       | 0 | 0 |   |   |   |   |   |   |
| 0   | 0                                                 |                                                                                                                     |   |   |   |   |   |   |   |   |
| 15. | Date checked by field supervisor<br>(dd/mm/yyyy): | <table border="1"> <tr> <td></td><td></td><td></td><td></td><td>2</td><td>0</td><td>1</td><td>9</td> </tr> </table> |   |   |   |   | 2 | 0 | 1 | 9 |
|     |                                                   |                                                                                                                     |   | 2 | 0 | 1 | 9 |   |   |   |

|     |                                                           |                                                                                                                       |  |   |   |   |   |   |   |   |
|-----|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--|---|---|---|---|---|---|---|
| 16. | Field supervisor's signature:                             | <br><br><hr/>                                                                                                         |  |   |   |   |   |   |   |   |
| 17. | Date checked by research team supervisor<br>(dd/mm/yyyy): | <table border="1"> <tr> <td></td><td></td> <td></td><td></td> <td>2</td><td>0</td><td>1</td><td>9</td> </tr> </table> |  |   |   |   | 2 | 0 | 1 | 9 |
|     |                                                           |                                                                                                                       |  | 2 | 0 | 1 | 9 |   |   |   |
| 18. | Research team supervisor's signature:                     | <br><br><hr/>                                                                                                         |  |   |   |   |   |   |   |   |

## **RESPONDENT IDENTIFICATION**

|                                                       |    |  |  |
|-------------------------------------------------------|----|--|--|
| <b>16. Region code:</b>                               |    |  |  |
| <table border="1"><tr><td></td><td></td></tr></table> |    |  |  |
|                                                       |    |  |  |
| Greater Accra                                         | 03 |  |  |
| Brong Ahafo                                           | 07 |  |  |
| Ashanti                                               | 05 |  |  |

|                                                       |  |  |                                                       |  |  |                                                       |  |  |                                                       |  |  |
|-------------------------------------------------------|--|--|-------------------------------------------------------|--|--|-------------------------------------------------------|--|--|-------------------------------------------------------|--|--|
| <b>17. District code:</b>                             |  |  |                                                       |  |  |                                                       |  |  |                                                       |  |  |
| <table border="1"><tr><td></td><td></td></tr></table> |  |  | <table border="1"><tr><td></td><td></td></tr></table> |  |  | <table border="1"><tr><td></td><td></td></tr></table> |  |  | <table border="1"><tr><td></td><td></td></tr></table> |  |  |
|                                                       |  |  |                                                       |  |  |                                                       |  |  |                                                       |  |  |
|                                                       |  |  |                                                       |  |  |                                                       |  |  |                                                       |  |  |
|                                                       |  |  |                                                       |  |  |                                                       |  |  |                                                       |  |  |
|                                                       |  |  |                                                       |  |  |                                                       |  |  |                                                       |  |  |

## **MODULE A: SOCIOECONOMIC AND INPUT SUPPLIER'S CHARACTERISTICS**

|     |                                               |                                                                                                                                        |  |  |
|-----|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 22. | Sex of respondent:                            | [ 1 ]-Male      [ 2 ]-Female                                                                                                           |  |  |
| 23. | What is your age? (Completed number of years) | <table border="1"><tr><td></td><td></td></tr></table>                                                                                  |  |  |
|     |                                               |                                                                                                                                        |  |  |
| 24. | Level of formal education:                    | [ 1 ]-None      [ 2 ]-Informal education<br>[ 3 ]-Basic    [ 4 ]-Secondary    [ 5]-Diploma<br>[ 6 ]-Bachelors      [ 7 ]-Post-graduate |  |  |

|     |                                                                                                                                     |                                                                                                                                                                                                                                        |
|-----|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 25. | Have you completed any specific education in agriculture or agriculture-related course(s) which is not related to GPP or AMPLIFIES? | [ 1 ]-Yes                      [ 2 ]-No                                                                                                                                                                                                |
| 26. | If <b>Yes</b> , what is the type of education received?                                                                             | [ 1 ]-Formal                      [ 2 ]-Informal                                                                                                                                                                                       |
| 27. | How many people have you employed in your supply business since your engagement with GPP?                                           | [ 1 ]-Total: _____<br>[ 2 ]-Male: _____<br>[ 3 ]-Female: _____                                                                                                                                                                         |
| 28. | Number of staff in management <i>[out of the figure mentioned in Question 6]</i> :                                                  | [ 1 ]-Total: _____<br>[ 2 ]-Male: _____<br>[ 3 ]-Female: _____                                                                                                                                                                         |
| 29. | Number of employees who are casual workers <i>[out of the figure mentioned in Question 6]</i> :                                     | [ 1 ]-Total: _____<br>[ 2 ]-Male: _____<br>[ 3 ]-Female: _____                                                                                                                                                                         |
| 30. | Is supply of poultry input your <u>main</u> source of income?                                                                       | [ 1 ]-Yes                      [ 2 ]-No                                                                                                                                                                                                |
| 31. | If <b>No</b> , what is your <u>main</u> source of income?                                                                           | [ 1 ]-Formal government work<br>[ 2 ]-Formal private work<br>[ 3 ]-Artisan (such as carpenter and mason)<br>[ 4 ]-Trading/commerce                      [ 5 ]-Farming<br>[ 6 ]-Pension benefits                      [ 7 ]-Remittances |

|                           |                                                                                                                                                                                                                                                                                                                                      | [ 8 ]-Other informal service                                                                                                                                        |                           |                   |  |         |  |                       |  |                           |  |  |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------|--|---------|--|-----------------------|--|---------------------------|--|--|
| 32.                       | For how long have you been involved in poultry supply business ( <i>Specify in months</i> )?                                                                                                                                                                                                                                         | <table border="1"> <tr> <td></td> <td></td> <td></td> </tr> </table>                                                                                                |                           |                   |  |         |  |                       |  |                           |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                     |                           |                   |  |         |  |                       |  |                           |  |  |
| 33.                       | In what capacity have you been involved in the supply business?                                                                                                                                                                                                                                                                      | [ 1 ]-Owner<br>[ 2 ]-Employee                                                                                                                                       |                           |                   |  |         |  |                       |  |                           |  |  |
| 34.                       | Which of the following inputs do you supply to poultry farmers?                                                                                                                                                                                                                                                                      |                                                                                                                                                                     |                           |                   |  |         |  |                       |  |                           |  |  |
|                           | <table border="1"> <thead> <tr> <th><i>Inputs</i></th> <th><i>Tick if applicable</i></th> </tr> </thead> <tbody> <tr> <td>a. Day old chicks</td> <td></td> </tr> <tr> <td>b. Feed</td> <td></td> </tr> <tr> <td>c. Drugs and vaccines</td> <td></td> </tr> <tr> <td>d. Other (specify): _____</td> <td></td> </tr> </tbody> </table> | <i>Inputs</i>                                                                                                                                                       | <i>Tick if applicable</i> | a. Day old chicks |  | b. Feed |  | c. Drugs and vaccines |  | d. Other (specify): _____ |  |  |
| <i>Inputs</i>             | <i>Tick if applicable</i>                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                     |                           |                   |  |         |  |                       |  |                           |  |  |
| a. Day old chicks         |                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                     |                           |                   |  |         |  |                       |  |                           |  |  |
| b. Feed                   |                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                     |                           |                   |  |         |  |                       |  |                           |  |  |
| c. Drugs and vaccines     |                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                     |                           |                   |  |         |  |                       |  |                           |  |  |
| d. Other (specify): _____ |                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                     |                           |                   |  |         |  |                       |  |                           |  |  |
| 35.                       | Which affiliation do you belong?                                                                                                                                                                                                                                                                                                     | [ 1 ]-Veterinary Service Department (VSD)<br>[ 2 ]-Community Animal Health Worker (CAHW)<br>[ 3 ]-Aggregator<br>[ 4 ]-Feed producer<br>[ 5 ]-Other (specify): _____ |                           |                   |  |         |  |                       |  |                           |  |  |

## MODULE B: INPUT SUPPLIER'S RELATIONS WITH POULTRY PRODUCERS

|    |                                                                                                     |                                    |                                        |                             |
|----|-----------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------|-----------------------------|
| 1. | Is there any contract agreement between you and some poultry farmers?                               | [ 1 ]-Yes [ 2 ]-No                 |                                        |                             |
| 2. | If <b>Yes</b> , mention the names of poultry farmers you have formal or non-formal agreements with? |                                    |                                        |                             |
|    | <i>Poultry farmer name</i>                                                                          | <i>Tick if agreement is formal</i> | <i>Tick if agreement is non-formal</i> | <i>Type of input traded</i> |
|    |                                                                                                     |                                    |                                        | [ 1 ]-DOC                   |
|    |                                                                                                     |                                    |                                        | [ 2 ]-Feed                  |

|  |       |  |  |                                                          |
|--|-------|--|--|----------------------------------------------------------|
|  |       |  |  | [ 3 ]-Drug or vaccine<br>[ 4 ]-Other (specify):<br>_____ |
|  | i.    |  |  |                                                          |
|  | ii.   |  |  |                                                          |
|  | iii.  |  |  |                                                          |
|  | iv.   |  |  |                                                          |
|  | v.    |  |  |                                                          |
|  | vi.   |  |  |                                                          |
|  | vii.  |  |  |                                                          |
|  | viii. |  |  |                                                          |
|  | ix.   |  |  |                                                          |
|  | x.    |  |  |                                                          |

3. Provide information on the quantity and price(s) (*in GHS*) of inputs sold to poultry farmers from 2015 to 2018?

| <b>Input</b>                                | <b>2015</b> |       | <b>2016</b> |       | <b>2017</b> |       | <b>2018</b> |       |
|---------------------------------------------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|
|                                             | Qty         | Price | Qty         | Price | Qty         | Price | Qty         | Price |
| Day old chicks<br>(in singles)              |             |       |             |       |             |       |             |       |
| Feed (in kg)                                |             |       |             |       |             |       |             |       |
| Feed<br>Ingredients (in<br>kg)              |             |       |             |       |             |       |             |       |
| Drugs (in kg)<br>and vaccines (in<br>doses) |             |       |             |       |             |       |             |       |

| Other (specify):<br>_____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------|--------------------|--|----------------------------------------------------------------------|--|--|--|-----------------|------------------------|--------------------------------|--------------------|------------------------------------|--|------------------------|--|------------------------------------|--|----------------------------|--|-----------------------------------------------------------------------|--|-------------------------------------|--|-----------------------------------|--|--|--|------|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Indicate your total revenue and cost for the following production years:             |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Production Year</th> <th style="width: 20%;">Total Revenue (GHS)</th> <th style="width: 20%;">Total Cost (GHS)</th> <th style="width: 20%;">Total Profit (GHS)</th> </tr> </thead> <tbody> <tr><td>2014</td><td></td><td></td><td></td></tr> <tr><td>2015</td><td></td><td></td><td></td></tr> <tr><td>2016</td><td></td><td></td><td></td></tr> <tr><td>2017</td><td></td><td></td><td></td></tr> <tr><td>2018</td><td></td><td></td><td></td></tr> </tbody> </table>                                                                                                                                                                      |                                                                                      |                  |                    |  |                                                                      |  |  |  | Production Year | Total Revenue (GHS)    | Total Cost (GHS)               | Total Profit (GHS) | 2014                               |  |                        |  | 2015                               |  |                            |  | 2016                                                                  |  |                                     |  | 2017                              |  |  |  | 2018 |  |  |  |
| Production Year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Total Revenue (GHS)                                                                  | Total Cost (GHS) | Total Profit (GHS) |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| 2014                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| 2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Do poultry producers sometimes complain of some of the services you provide to them? |                  |                    |  | <input type="checkbox"/> [ 1 ]-Yes <input type="checkbox"/> [ 2 ]-No |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| 6.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | If <b>Yes</b> , what complains do they make?                                         |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">Complaints</th> <th style="width: 20%;">Tick where appropriate</th> </tr> </thead> <tbody> <tr><td>i. High cost of day old chicks</td><td></td></tr> <tr><td>ii. Lack of quality day old chicks</td><td></td></tr> <tr><td>iii. High cost of feed</td><td></td></tr> <tr><td>iv. Low quality of compounded feed</td><td></td></tr> <tr><td>v. High cost of medication</td><td></td></tr> <tr><td>vi. Transportation of inputs (high cost, unavailability of transport)</td><td></td></tr> <tr><td>vii. High mortality rates of chicks</td><td></td></tr> <tr> <td>viii. Other I (specify):<br/>_____</td> <td></td> </tr> </tbody> </table> |                                                                                      |                  |                    |  |                                                                      |  |  |  | Complaints      | Tick where appropriate | i. High cost of day old chicks |                    | ii. Lack of quality day old chicks |  | iii. High cost of feed |  | iv. Low quality of compounded feed |  | v. High cost of medication |  | vi. Transportation of inputs (high cost, unavailability of transport) |  | vii. High mortality rates of chicks |  | viii. Other I (specify):<br>_____ |  |  |  |      |  |  |  |
| Complaints                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Tick where appropriate                                                               |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| i. High cost of day old chicks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| ii. Lack of quality day old chicks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| iii. High cost of feed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| iv. Low quality of compounded feed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| v. High cost of medication                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| vi. Transportation of inputs (high cost, unavailability of transport)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| vii. High mortality rates of chicks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |
| viii. Other I (specify):<br>_____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                      |                  |                    |  |                                                                      |  |  |  |                 |                        |                                |                    |                                    |  |                        |  |                                    |  |                            |  |                                                                       |  |                                     |  |                                   |  |  |  |      |  |  |  |

|        | ix. Other 2 (specify):<br>_____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------|-----|----------|------------------------|-----|--------------------|--|------|------------------------------|--|-------|----------------------|--|--------|-----------------------------------------------------------------------------------|--|------|-----------------------------------------------|--|-----|---------------------------------------------|--|
|        | x. Other 3 (specify):<br>_____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
|        | xi. Other 4 (specify):<br>_____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
| 7.     | Have you made any attempt to remedy the challenges mentioned in Question 6?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                        | [ 1 ]-Yes [ 2 ]-No |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
| 8.     | If <b>Yes</b> , can you mention some of these attempts?<br>_____<br>_____<br>_____<br>_____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
| 9.     | What were some of the unintended benefits from the GPP? ( <i>Tick as many as applicable</i> ) <table border="1"> <thead> <tr> <th>No.</th> <th>Benefits</th> <th>Tick where appropriate</th> </tr> </thead> <tbody> <tr> <td>xv.</td> <td>Social recognition</td> <td></td> </tr> <tr> <td>xvi.</td> <td>Non-poultry businesses lines</td> <td></td> </tr> <tr> <td>xvii.</td> <td>Business recognition</td> <td></td> </tr> <tr> <td>xviii.</td> <td>Acquisition of landed property, including houses and payment of fees for children</td> <td></td> </tr> <tr> <td>xix.</td> <td>Ability to meet health needs of the household</td> <td></td> </tr> <tr> <td>xx.</td> <td>Ability to meet household nutritional needs</td> <td></td> </tr> </tbody> </table> |                        |                    | No. | Benefits | Tick where appropriate | xv. | Social recognition |  | xvi. | Non-poultry businesses lines |  | xvii. | Business recognition |  | xviii. | Acquisition of landed property, including houses and payment of fees for children |  | xix. | Ability to meet health needs of the household |  | xx. | Ability to meet household nutritional needs |  |
| No.    | Benefits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tick where appropriate |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
| xv.    | Social recognition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
| xvi.   | Non-poultry businesses lines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
| xvii.  | Business recognition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
| xviii. | Acquisition of landed property, including houses and payment of fees for children                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
| xix.   | Ability to meet health needs of the household                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |
| xx.    | Ability to meet household nutritional needs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                        |                    |     |          |                        |     |                    |  |      |                              |  |       |                      |  |        |                                                                                   |  |      |                                               |  |     |                                             |  |

|     |                                                                                                                                     |                                                                   |                                            |
|-----|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------|
|     | xxi.                                                                                                                                | Other (specify):<br>_____                                         |                                            |
| 10. | What complaints do you make against poultry producers?<br>[ 1 ]- _____<br>[ 2 ]- _____<br>[ 3 ]- _____<br>[ 4 ]- _____              |                                                                   |                                            |
| 11. | Have they made attempts to solve those problems?                                                                                    | [ 1 ]-Yes                                                         | [ 2 ]-No                                   |
| 12. | If <b>Yes</b> , what attempts have they made to solve the problems?<br>[ 1 ]- _____<br>[ 2 ]- _____<br>[ 3 ]- _____<br>[ 4 ]- _____ |                                                                   |                                            |
| 13. | What is your level of satisfaction of the attempts made by the producers so far?                                                    | [ 1 ]-Very satisfied<br>[ 3 ]-Less satisfied<br>5 ]-Not satisfied | [ 2 ]-Satisfied<br>[ 4 ]-Least satisfied [ |

### MODULE C: EFFECTIVENESS OF GPP

|    |                                                                                          |           |          |
|----|------------------------------------------------------------------------------------------|-----------|----------|
| 1. | Have you experienced any unintended challenges as a result of the Ghana Poultry Project? | [ 1 ]-Yes | [ 2 ]-No |
| 2. | If <b>Yes</b> , mention the unintended challenges:<br>[ 1 ]- _____                       |           |          |

|                                                                                                                                       |                                                                                                                 |                                                                                                                                                                                       |                              |                                                              |                                               |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------------------------------------------|-----------------------------------------------|
|                                                                                                                                       | [ 2 ]- _____<br>[ 3 ]- _____<br>[ 4 ]- _____                                                                    |                                                                                                                                                                                       |                              |                                                              |                                               |
| 3.                                                                                                                                    | Have you made any attempt to remedy the unintended challenges mentioned in Question 2?                          | [ 1 ]-Yes                      [ 2 ]-No                                                                                                                                               |                              |                                                              |                                               |
| 4.                                                                                                                                    | If <b>Yes</b> , mention some of these attempts:<br>[ 1 ]- _____<br>[ 2 ]- _____<br>[ 3 ]- _____<br>[ 4 ]- _____ |                                                                                                                                                                                       |                              |                                                              |                                               |
| 5. Indicate which of the following coordinated trainings you or any of your organization's management and/or employees have received: |                                                                                                                 |                                                                                                                                                                                       |                              |                                                              |                                               |
|                                                                                                                                       | <b>Training</b>                                                                                                 | <b>Have any of your organization's management and/or employees received training between 2016 and 2018?</b><br>[ 1 ]-Yes<br>[ 2 ]-No<br>(If <b>No</b> , skip to next row or training) | <b>Source(s) of training</b> | <b>When was the most recent training received?</b><br>(year) | <b>Who provided the most recent training?</b> |
|                                                                                                                                       | i. Improved Production practices                                                                                |                                                                                                                                                                                       |                              |                                                              |                                               |
|                                                                                                                                       | ii. Organizational record keeping                                                                               |                                                                                                                                                                                       |                              |                                                              |                                               |

|       |                                   |  |  |  |  |  |
|-------|-----------------------------------|--|--|--|--|--|
| iii.  | Financial planning and management |  |  |  |  |  |
| iv.   | Business plan development         |  |  |  |  |  |
| v.    | Cash Flow preparation             |  |  |  |  |  |
| vi.   | Balance sheet preparation         |  |  |  |  |  |
| vii.  | Income statement preparation      |  |  |  |  |  |
| viii. | Feed preparation                  |  |  |  |  |  |
| ix.   | Setting of prices                 |  |  |  |  |  |
| x.    | Packaging of inputs               |  |  |  |  |  |
| xi.   | Labeling                          |  |  |  |  |  |
| xii.  | Storage                           |  |  |  |  |  |
| xiii. | Distribution                      |  |  |  |  |  |

|                                                                       |                           |                                                                                                                                                             |
|-----------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6. Apart from the GPP do/did you participate in any of the following? |                           |                                                                                                                                                             |
| <b>Other projects</b>                                                 | <b>Tick if Applicable</b> | <b>Level of contribution to the development of your supply business</b><br>[ 1 ]-Very high    [ 2 ]-High<br>[ 3 ]-Don't know    [ 4 ]-Low<br>[ 5 ]-Very low |
| i. AMPLIFIERS                                                         |                           |                                                                                                                                                             |

|                                                                           |  |  |
|---------------------------------------------------------------------------|--|--|
|                                                                           |  |  |
| ii. Resiliency in Northern Ghana (RING)                                   |  |  |
| iii. Agricultural Technology Transfer (ATT)                               |  |  |
| iv. Agricultural Policy Support Project (APSP)                            |  |  |
| v. Agricultural Development and Value Chain Enhancement Project (ADVANCE) |  |  |
| vi. Financing Ghanaian Agricultural Project (FINGAP)                      |  |  |
| vii. Ghana Commercial Agriculture Program (GCAP)                          |  |  |
| viii. MoFA projects (specify):<br>_____                                   |  |  |
| ix. Private sector projects (specify): _____<br>_____                     |  |  |

## MODULE D: EFFICIENCY OF GPP

|                                                            |               |                                             |                            |
|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------|
| I. Provide information on your supplies from 2014 to 2018: |               |                                             |                            |
| <b>2014</b>                                                |               |                                             |                            |
| <b>Inputs</b>                                              | <b>Number</b> | <b>Production or acquisition cost (GHS)</b> | <b>Selling price (GHS)</b> |

|                    |               |                                                 |                            |
|--------------------|---------------|-------------------------------------------------|----------------------------|
| Day Old Chicks     |               |                                                 |                            |
| Feed               |               |                                                 |                            |
| Feed Ingredients   |               |                                                 |                            |
| Drugs and vaccines |               |                                                 |                            |
| <b>2015</b>        |               |                                                 |                            |
| <b>Inputs</b>      | <b>Number</b> | <b>Production or<br/>acquisition cost (GHS)</b> | <b>Selling price (GHS)</b> |
| Day Old Chicks     |               |                                                 |                            |
| Feed               |               |                                                 |                            |
| Drugs and vaccines |               |                                                 |                            |
| <b>2016</b>        |               |                                                 |                            |
| <b>Inputs</b>      | <b>Number</b> | <b>Production or<br/>acquisition cost (GHS)</b> | <b>Selling price (GHS)</b> |
| Day Old Chicks     |               |                                                 |                            |
| Feed               |               |                                                 |                            |
| Drugs and vaccines |               |                                                 |                            |
| <b>2017</b>        |               |                                                 |                            |
| <b>Inputs</b>      | <b>Number</b> | <b>Production or<br/>acquisition cost (GHS)</b> | <b>Selling price (GHS)</b> |
| Day Old Chicks     |               |                                                 |                            |
| Feed               |               |                                                 |                            |
| Drugs and vaccines |               |                                                 |                            |
| <b>2018</b>        |               |                                                 |                            |
| <b>Inputs</b>      | <b>Number</b> | <b>Production or<br/>acquisition cost (GHS)</b> | <b>Selling price (GHS)</b> |
| Day Old Chicks     |               |                                                 |                            |
| Feed               |               |                                                 |                            |
| Drugs and vaccines |               |                                                 |                            |

2. Please provide us with information on your current permanent workers:

| <b>Type of labor</b>           | <b>Permanent workers</b> |            |      |            |                |            |      |            |
|--------------------------------|--------------------------|------------|------|------------|----------------|------------|------|------------|
|                                | <b>Males</b>             |            |      |            | <b>Females</b> |            |      |            |
|                                | 2017                     |            | 2018 |            | 2017           |            | 2018 |            |
|                                | No.                      | Total wage | No.  | Total wage | No.            | Total wage | No.  | Total wage |
| Administrative staff           |                          |            |      |            |                |            |      |            |
| Technical/<br>production staff |                          |            |      |            |                |            |      |            |
| Laborers                       |                          |            |      |            |                |            |      |            |
| Other (specify):<br>_____      |                          |            |      |            |                |            |      |            |
| Total                          |                          |            |      |            |                |            |      |            |

3. Please provide us with information on your current casual workers:

| <b>Type of labor</b> | <b>Casual workers</b> |            |      |            |                |            |      |            |
|----------------------|-----------------------|------------|------|------------|----------------|------------|------|------------|
|                      | <b>Males</b>          |            |      |            | <b>Females</b> |            |      |            |
|                      | 2017                  |            | 2018 |            | 2017           |            | 2018 |            |
|                      | No.                   | Total wage | No.  | Total wage | No.            | Total wage | No.  | Total wage |

|                                |  |  |  |  |  |  |  |  |
|--------------------------------|--|--|--|--|--|--|--|--|
| Administrative staff           |  |  |  |  |  |  |  |  |
| Technical/<br>production staff |  |  |  |  |  |  |  |  |
| Laborers                       |  |  |  |  |  |  |  |  |
| Other (specify):<br>_____      |  |  |  |  |  |  |  |  |
| Total                          |  |  |  |  |  |  |  |  |

4. Have you engaged any of your family members in your business?  
[ 1 ]-Yes [ 2 ]-No

5. Please provide us with information on the number of family workers and how much you would have paid them:

| <b>Family Labor</b> |                               |                |                               |
|---------------------|-------------------------------|----------------|-------------------------------|
| <b>Males</b>        |                               | <b>Females</b> |                               |
| <i>Number</i>       | <i>Assumed wage (monthly)</i> | <i>Number</i>  | <i>Assumed wage (monthly)</i> |
|                     |                               |                |                               |
|                     |                               |                |                               |
|                     |                               |                |                               |

| 6. Please provide us with information on <u>feed inputs produced and sold</u> in 2017 and 2018: |                     |      |                                                  |      |               |      |                  |      |                     |      |
|-------------------------------------------------------------------------------------------------|---------------------|------|--------------------------------------------------|------|---------------|------|------------------|------|---------------------|------|
| Feed                                                                                            | Number of customers |      | Quantity produced<br>(Enter 0, if don't produce) |      | Quantity sold |      | Unit price (GHS) |      | Total revenue (GHS) |      |
|                                                                                                 | 2017                | 2018 | 2017                                             | 2018 | 2017          | 2018 | 2017             | 2018 | 2017                | 2018 |
| i. Layer Starter feed (kg)                                                                      |                     |      |                                                  |      |               |      |                  |      |                     |      |
| ii. Layer grower feed (kg)                                                                      |                     |      |                                                  |      |               |      |                  |      |                     |      |
| iii. Layer finisher feed (kg)                                                                   |                     |      |                                                  |      |               |      |                  |      |                     |      |
| iv. Broiler Starter feed (kg)                                                                   |                     |      |                                                  |      |               |      |                  |      |                     |      |
| v. Broiler grower feed (kg)                                                                     |                     |      |                                                  |      |               |      |                  |      |                     |      |
| vi. Broiler finisher feed (kg)                                                                  |                     |      |                                                  |      |               |      |                  |      |                     |      |
| vii. Supplements (mg)                                                                           |                     |      |                                                  |      |               |      |                  |      |                     |      |
| viii. Vitamin Premix (mg)                                                                       |                     |      |                                                  |      |               |      |                  |      |                     |      |
| ix. Mineral (mg)                                                                                |                     |      |                                                  |      |               |      |                  |      |                     |      |

|                                                   |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------|--|--|--|--|--|--|--|--|--|--|
|                                                   |  |  |  |  |  |  |  |  |  |  |
| x. Other feed supplements (specify):<br><br>_____ |  |  |  |  |  |  |  |  |  |  |

7. Please provide cost information on other miscellaneous items in 2017 and 2018:

| Item                        | Unit | Unit cost (GHS) |      | Total cost (GHS) |      |
|-----------------------------|------|-----------------|------|------------------|------|
|                             |      | 2017            | 2018 | 2017             | 2018 |
| i. Water                    |      |                 |      |                  |      |
| ii. Lighting/energy         |      |                 |      |                  |      |
| iii. Litter                 |      |                 |      |                  |      |
| iv. Milling of maize        |      |                 |      |                  |      |
| v. Transportation of chicks |      |                 |      |                  |      |
| vi. Transportation of feed  |      |                 |      |                  |      |
| vii. Cost of hatching       |      |                 |      |                  |      |
| viii. Maintenance           |      |                 |      |                  |      |

|                                                                                              |                                                                                                              |                                                                                                                                                                                                                                                                                                                         |  |  |  |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
|                                                                                              |                                                                                                              |                                                                                                                                                                                                                                                                                                                         |  |  |  |
| <p><b>Skip to Module E, if respondent is not a Community Animal Health Worker (CAHW)</b></p> |                                                                                                              |                                                                                                                                                                                                                                                                                                                         |  |  |  |
| 8.                                                                                           | How frequent do you provide vaccination services to the poultry producers?                                   | <input type="checkbox"/> 1]-Weekly <input type="checkbox"/> 2]-Monthly<br><input type="checkbox"/> 3]-Quarterly <input type="checkbox"/> 4]-Semi-annually<br><input type="checkbox"/> 5]-Yearly<br><input type="checkbox"/> 6]-Once in more than a year                                                                 |  |  |  |
| 9.                                                                                           | Is disease outbreak common among poultry producers?                                                          | <input type="checkbox"/> 1]-Yes <input type="checkbox"/> 2]-No                                                                                                                                                                                                                                                          |  |  |  |
| 10.                                                                                          | If <b>Yes</b> , what is the most common type of disease outbreak among the poultry producers and households? | <input type="checkbox"/> 1]-Newcastle <input type="checkbox"/> 2]-Gumboro<br><input type="checkbox"/> 3]-Gout <input type="checkbox"/> 4]-Coccidiosis<br><input type="checkbox"/> 5]-Chronic respiratory disease (CRD)<br><input type="checkbox"/> 6]-Fowl pox<br><input type="checkbox"/> 7]-Other (specify):<br><hr/> |  |  |  |

## MODULE E: SUSTAINABILITY OF GPP

|     |                                                                                                                                                                                               |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 43. | Do you plan to formalize all informal business relations you made through the GPP after the program is ended? <input type="checkbox"/> 1]-Yes <input type="checkbox"/> 2]-No                  |
| 44. | <p>In case profit falls, are there any strategy you would adopt to continue the supply business and for how long?</p> <p><input type="checkbox"/> 1]-Specify strategy: _____</p> <p>_____</p> |

|                                                          | [ 2 ]-How long (in years): _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------|-----------------------------------------------|------------------------------------|--|--|--------------------------|--|--|----------------------------------------------------------|--|--|---------------------------|--|--|---------------------|--|--|----------------|--|--|--|
| 45.                                                      | On completion of the GPP, which of the stakeholders can spearhead the continuity of the interventions in the poultry sector in Ghana?                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
|                                                          | <table border="1"> <thead> <tr> <th><b>Stakeholders</b></th><th><b>Tick where appropriate</b></th><th><b>Intervention(s) and reason(s)</b></th></tr> </thead> <tbody> <tr> <td>Poultry Associations</td><td></td><td></td></tr> <tr> <td>MoFA</td><td></td><td></td></tr> <tr> <td>Agricultural-related Ministries, Department and Agencies</td><td></td><td></td></tr> <tr> <td>ACDI/VOCA and TechnoServe</td><td></td><td></td></tr> <tr> <td>Research Institutes</td><td></td><td></td></tr> <tr> <td>Private Sector</td><td></td><td></td></tr> </tbody> </table> | <b>Stakeholders</b>                           | <b>Tick where appropriate</b> | <b>Intervention(s) and reason(s)</b>          | Poultry Associations               |  |  | MoFA                     |  |  | Agricultural-related Ministries, Department and Agencies |  |  | ACDI/VOCA and TechnoServe |  |  | Research Institutes |  |  | Private Sector |  |  |  |
| <b>Stakeholders</b>                                      | <b>Tick where appropriate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Intervention(s) and reason(s)</b>          |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| Poultry Associations                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| MoFA                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| Agricultural-related Ministries, Department and Agencies |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| ACDI/VOCA and TechnoServe                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| Research Institutes                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| Private Sector                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| 46.                                                      | How long do you plan to resolve disputes with your engagement with other stakeholders? ( <i>Specify in days</i> ): _____                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| 47.                                                      | Can you accommodate shocks when they occur?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | [ 1 ]-Yes      [ 2 ]-No                       |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| 48.                                                      | Which of the following shocks will have an adverse effect on the continuity of your supply business?                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
|                                                          | <table border="1"> <thead> <tr> <th><b>Shocks</b></th><th><b>Tick where appropriate</b></th><th><b>How do you intend dealing with shocks?</b></th></tr> </thead> <tbody> <tr> <td>Environmental (Pollution concerns)</td><td></td><td></td></tr> <tr> <td>Macroeconomic conditions</td><td></td><td></td></tr> </tbody> </table>                                                                                                                                                                                                                                      | <b>Shocks</b>                                 | <b>Tick where appropriate</b> | <b>How do you intend dealing with shocks?</b> | Environmental (Pollution concerns) |  |  | Macroeconomic conditions |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| <b>Shocks</b>                                            | <b>Tick where appropriate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>How do you intend dealing with shocks?</b> |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| Environmental (Pollution concerns)                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |
| Macroeconomic conditions                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |                               |                                               |                                    |  |  |                          |  |  |                                                          |  |  |                           |  |  |                     |  |  |                |  |  |  |

|     |                                                                                       |  |  |
|-----|---------------------------------------------------------------------------------------|--|--|
|     | Disease outbreak                                                                      |  |  |
| 49. | Any other comment(s):<br>[ 1 ]- _____<br>[ 2 ]- _____<br>[ 3 ]- _____<br>[ 4 ]- _____ |  |  |

**Survey End Time:** \_\_\_\_\_

Thank you

*3D. Ghana Poultry Project: Midterm performance evaluation questionnaire for Veterinary Service Directorate (District level providers)*

**UNIVERSITY OF CAPE COAST  
DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY**

**QUESTIONNAIRE FOR VETERINARY SERVICE  
DIRECTORATE (DISTRICT LEVEL PROVIDERS)**

**Introduction and Informed Consent**

Hello, my name is \_\_\_\_\_ and I am working for the Directorate of Research, Innovation and Consultancy of the University of Cape Coast (DRIC-UCC) on behalf of the United States Department of Agriculture (USDA). We are conducting an evaluation to assess the economic impact of Ghana Poultry Project (GPP) on your business. Through a simple random sampling procedure, using beneficiaries of the USDA GPP beneficiaries, you have been selected to participate in this data collection exercise. The questions that I will ask you will focus on your poultry production business. This interview will take about 30 minutes to complete. Although you have benefited from the GPP, you will neither be obliged to participate nor compelled to provide responses to all the questions that I will ask you. Your name will neither be cited in our report, nor will it be linked to the data that you will provide and no other person aside the evaluation team and the USDA will have

access to the data that you will provide. The only reason for which you will be contacted again about this survey is to help complete this particular survey in case this process is interrupted. If you have questions at any time about the interview or the procedures of the GPP, you may contact DRIC-UCC (Phone: 0203915027; Email: [dric@ucc.edu.gh](mailto:dric@ucc.edu.gh)).

Now, do you want to ask anything about the survey?

[ 1 ]-Yes

[ 2 ]-No

If **Yes**, please ask your question:

---

---

Do you [NAME: \_\_\_\_\_] agree to participate in the study?

[ 1 ]-Yes

[ 2 ]-No

If **No**, reason(s) for refusal:

---

---

Signature/Thumbprint of Interviewee: \_\_\_\_\_

Date (dd/mm/yyyy): 

|  |  |
|--|--|
|  |  |
|--|--|

|  |  |
|--|--|
|  |  |
|--|--|

|   |   |   |   |
|---|---|---|---|
| 2 | 0 | 1 | 9 |
|---|---|---|---|

|     |                                                   |                                                                                                                                                                                                                                                                                                                                                                  |   |   |  |  |   |   |   |   |
|-----|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|--|--|---|---|---|---|
| 19. | Interviewer's name:                               | <hr/>                                                                                                                                                                                                                                                                                                                                                            |   |   |  |  |   |   |   |   |
| 20. | Interviewer's code:                               | <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>0</td><td>0</td><td> </td><td> </td></tr></table>                                                                                                                                                                                                                               | 0 | 0 |  |  |   |   |   |   |
| 0   | 0                                                 |                                                                                                                                                                                                                                                                                                                                                                  |   |   |  |  |   |   |   |   |
| 21. | Date checked by field supervisor<br>(dd/mm/yyyy): | <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table> <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table> <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>2</td><td>0</td><td>1</td><td>9</td></tr></table> |   |   |  |  | 2 | 0 | 1 | 9 |
|     |                                                   |                                                                                                                                                                                                                                                                                                                                                                  |   |   |  |  |   |   |   |   |
|     |                                                   |                                                                                                                                                                                                                                                                                                                                                                  |   |   |  |  |   |   |   |   |
| 2   | 0                                                 | 1                                                                                                                                                                                                                                                                                                                                                                | 9 |   |  |  |   |   |   |   |
| 22. | Field supervisor's signature:                     | <hr/>                                                                                                                                                                                                                                                                                                                                                            |   |   |  |  |   |   |   |   |

|     |                                                           |                                                                                                                       |  |   |   |   |   |   |   |   |
|-----|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--|---|---|---|---|---|---|---|
| 23. | Date checked by research team supervisor<br>(dd/mm/yyyy): | <table border="1"> <tr> <td></td><td></td> <td></td><td></td> <td>2</td><td>0</td><td>1</td><td>9</td> </tr> </table> |  |   |   |   | 2 | 0 | 1 | 9 |
|     |                                                           |                                                                                                                       |  | 2 | 0 | 1 | 9 |   |   |   |
| 24. | Research team supervisor's signature:                     | _____                                                                                                                 |  |   |   |   |   |   |   |   |

## **RESPONDENT IDENTIFICATION**

| 18. Region code: |    |
|------------------|----|
|                  |    |
| Greater Accra    | 03 |
| Brong Ahafo      | 07 |
| Ashanti          | 05 |

| 19. District code: |  |  |  |
|--------------------|--|--|--|
|                    |  |  |  |

|     |                                   |                            |
|-----|-----------------------------------|----------------------------|
| 20. | Settlement type:                  | [ 1 ]-Rural    [ 2 ]-Urban |
| 21. | Respondent's telephone number(s): | _____                      |
| 22. | Community code:                   | _____                      |

## **MODULE A: EFFICIENCY, EFFECTIVENESS AND SUSTAINABILITY**

|     |                                                                           |                             |                                          |
|-----|---------------------------------------------------------------------------|-----------------------------|------------------------------------------|
| 36. | What are some of the services you have provided to the poultry producers? |                             |                                          |
|     | <b>Services</b>                                                           | <b>Tick where necessary</b> | <b>Average number of times per month</b> |
|     | a. Vaccination of birds                                                   |                             |                                          |
|     | b. Prescription of drugs                                                  |                             |                                          |
|     | c. Educating farmers on best practices                                    |                             |                                          |

|                                        | d. Access to vaccines                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------|------------|-------------------------|--|--------------------------|--|----------------------------------------|--|-----------------------|--|--------------------|--|
|                                        | e. Access to drugs                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |
|                                        | f. Other 1 (specify): _____<br>_____                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |
|                                        | g. Other 2 (specify): _____<br>_____                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |
| 37.                                    | <p>In case a farmer calls you for an emergency service, how long does it take you to respond?</p> <p>[ 1 ]-Few hours                      [ 2 ]-Same day                      [ 3 ]-Next day</p> <p>[ 4 ]-Two to three days                      [ 5 ]-One week                      [ 6 ]-More than a week</p>                                                                                                                                                           |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |
| 38.                                    | <p>Have you experienced challenges with any of the services provided below?</p> <table border="1"> <thead> <tr> <th>Services</th><th>Challenges</th></tr> </thead> <tbody> <tr> <td>a. Vaccination of birds</td><td></td></tr> <tr> <td>b. Prescription of drugs</td><td></td></tr> <tr> <td>c. Educating farmers on best practices</td><td></td></tr> <tr> <td>d. Access to vaccines</td><td></td></tr> <tr> <td>e. Access to drugs</td><td></td></tr> </tbody> </table> |  |  | Services | Challenges | a. Vaccination of birds |  | b. Prescription of drugs |  | c. Educating farmers on best practices |  | d. Access to vaccines |  | e. Access to drugs |  |
| Services                               | Challenges                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |
| a. Vaccination of birds                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |
| b. Prescription of drugs               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |
| c. Educating farmers on best practices |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |
| d. Access to vaccines                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |
| e. Access to drugs                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |          |            |                         |  |                          |  |                                        |  |                       |  |                    |  |

|  |                                         |  |
|--|-----------------------------------------|--|
|  | f. Other 2 (specify):<br>_____<br>_____ |  |
|  | g. Other 2 (specify):<br>_____<br>_____ |  |

| 39.                           | How many vaccinations do you give each batch of poultry? <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th style="width: 35%;"><i><b>Poultry product</b></i></th><th style="width: 15%;"><i><b>Life span<br/>(in months)</b></i></th><th style="width: 20%;"><i><b>Required number<br/>of vaccination</b></i></th><th style="width: 30%;"><i><b>Actual number<br/>of vaccination</b></i></th></tr> <tr> <td>a. Layers</td><td></td><td></td><td></td></tr> <tr> <td>b. Broilers</td><td></td><td></td><td></td></tr> <tr> <td>c. Cockerel</td><td></td><td></td><td></td></tr> </table> | <i><b>Poultry product</b></i>                    | <i><b>Life span<br/>(in months)</b></i>        | <i><b>Required number<br/>of vaccination</b></i> | <i><b>Actual number<br/>of vaccination</b></i> | a. Layers |  |  |  | b. Broilers |  |  |  | c. Cockerel |  |  |  |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------|--------------------------------------------------|------------------------------------------------|-----------|--|--|--|-------------|--|--|--|-------------|--|--|--|
| <i><b>Poultry product</b></i> | <i><b>Life span<br/>(in months)</b></i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <i><b>Required number<br/>of vaccination</b></i> | <i><b>Actual number<br/>of vaccination</b></i> |                                                  |                                                |           |  |  |  |             |  |  |  |             |  |  |  |
| a. Layers                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |                                                |                                                  |                                                |           |  |  |  |             |  |  |  |             |  |  |  |
| b. Broilers                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |                                                |                                                  |                                                |           |  |  |  |             |  |  |  |             |  |  |  |
| c. Cockerel                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |                                                |                                                  |                                                |           |  |  |  |             |  |  |  |             |  |  |  |

| 40.                                     | What are some of the factors that prevent you from providing the required number of vaccinations? <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th style="width: 60%;"><i><b>Problems</b></i></th><th style="width: 40%;"><i><b>Tick where appropriate</b></i></th></tr> <tr> <td>a. Financial challenges from farmer</td><td></td></tr> <tr> <td>b. Lack of commitment from farmers</td><td></td></tr> <tr> <td>c. Lack of trust from poultry producers</td><td></td></tr> <tr> <td>d. Inadequate logistics</td><td></td></tr> <tr> <td>e. Other (specify): _____<br/>_____</td><td></td></tr> <tr> <td>f. Other (specify): _____<br/>_____</td><td></td></tr> </table> | <i><b>Problems</b></i> | <i><b>Tick where appropriate</b></i> | a. Financial challenges from farmer |  | b. Lack of commitment from farmers |  | c. Lack of trust from poultry producers |  | d. Inadequate logistics |  | e. Other (specify): _____<br>_____ |  | f. Other (specify): _____<br>_____ |  |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------|-------------------------------------|--|------------------------------------|--|-----------------------------------------|--|-------------------------|--|------------------------------------|--|------------------------------------|--|
| <i><b>Problems</b></i>                  | <i><b>Tick where appropriate</b></i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |                                      |                                     |  |                                    |  |                                         |  |                         |  |                                    |  |                                    |  |
| a. Financial challenges from farmer     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                        |                                      |                                     |  |                                    |  |                                         |  |                         |  |                                    |  |                                    |  |
| b. Lack of commitment from farmers      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                        |                                      |                                     |  |                                    |  |                                         |  |                         |  |                                    |  |                                    |  |
| c. Lack of trust from poultry producers |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                        |                                      |                                     |  |                                    |  |                                         |  |                         |  |                                    |  |                                    |  |
| d. Inadequate logistics                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                        |                                      |                                     |  |                                    |  |                                         |  |                         |  |                                    |  |                                    |  |
| e. Other (specify): _____<br>_____      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                        |                                      |                                     |  |                                    |  |                                         |  |                         |  |                                    |  |                                    |  |
| f. Other (specify): _____<br>_____      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                        |                                      |                                     |  |                                    |  |                                         |  |                         |  |                                    |  |                                    |  |

|     |                                                                                                                               |                                   |                                          |
|-----|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------|
| 41. | Do you receive fringe benefits for the services provided?                                                                     |                                   |                                          |
|     | <b>Benefit/Gift</b>                                                                                                           | <b>Monetary value per service</b> | <b>Frequency of visits<br/>in a week</b> |
|     | Broiler                                                                                                                       |                                   |                                          |
|     | Cockerel                                                                                                                      |                                   |                                          |
|     | Egg                                                                                                                           |                                   |                                          |
|     | Other1 (specify):<br>_____                                                                                                    |                                   |                                          |
|     | Other2 (specify):<br>_____                                                                                                    |                                   |                                          |
| 42. | Do you plan to formalize all business relations with poultry producers after the GPP is ended?<br>[ 1 ]-Yes          [ 2 ]-No |                                   |                                          |
| 43. | Do you have any formal relation with any of the following stakeholders?                                                       |                                   |                                          |
|     | <b>Stakeholders</b>                                                                                                           | <b>Tick where appropriate</b>     |                                          |
|     | Poultry Association                                                                                                           |                                   |                                          |
|     | Agricultural-related Ministries and Department<br>and Agencies                                                                |                                   |                                          |
|     | ACDI/VOCA and TechnoServe                                                                                                     |                                   |                                          |
|     | Research Institutes                                                                                                           |                                   |                                          |
| 44. | Any other comment(s):<br><br>_____<br><br>_____                                                                               |                                   |                                          |

**Survey End Time:** \_\_\_\_\_

Thank you

*3E. Ghana Poultry Project: Midterm performance evaluation questionnaire for end market actors*

**UNIVERSITY OF CAPE COAST  
DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY**

**QUESTIONNAIRE FOR END MARKET ACTORS**

**Introduction and Informed Consent**

Hello, my name is \_\_\_\_\_ and I am working for the Directorate of Research, Innovation and Consultancy of the University of Cape Coast (DRIC-UCC) on behalf of the United States Department of Agriculture (USDA). We are conducting an evaluation to assess the economic impact of Ghana Poultry Project (GPP) on your business. Through a simple random sampling procedure, using beneficiaries of the USDA GPP beneficiaries, you have been selected to participate in this data collection exercise. The questions that I will ask you will focus on your poultry production business. This interview will take about 30 minutes to complete. Although you have benefited from the GPP, you will neither be obliged to participate nor compelled to provide responses to all the questions that I will ask you. Your name will neither be cited in our report, nor will it be linked to the data that you will provide and no other person aside the evaluation team and the USDA will have access to the data that you will provide. The only reason for which you will be contacted again about this survey is to help complete this particular survey in case this process is interrupted. If you have questions

at any time about the interview or the procedures of the GPP, you may contact DRIC-UCC (Phone: 0203915027; Email: [dric@ucc.edu.gh](mailto:dric@ucc.edu.gh)).

Now, do you want to ask anything about the survey?

[ 1 ]-Yes

[ 2 ]-No

If **Yes**, please ask your question:

---

Do you [NAME: \_\_\_\_\_] agree to participate in the study?

[ 1 ]-Yes

[ 2 ]-No

If **No**, reason(s) for refusal:

---

---

---

Signature/Thumbprint of Interviewee: \_\_\_\_\_

Date (dd/mm/yyyy):

|  |  |  |  |   |   |   |   |
|--|--|--|--|---|---|---|---|
|  |  |  |  | 2 | 0 | 1 | 9 |
|--|--|--|--|---|---|---|---|

|     |                                                   |                                                                                                                 |   |   |   |   |   |   |   |   |
|-----|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|---|
| 25. | Interviewer's name:                               | _____                                                                                                           |   |   |   |   |   |   |   |   |
| 26. | Interviewer's code:                               | <table border="1"><tr><td>0</td><td>0</td><td></td><td></td></tr></table>                                       | 0 | 0 |   |   |   |   |   |   |
| 0   | 0                                                 |                                                                                                                 |   |   |   |   |   |   |   |   |
| 27. | Date checked by field supervisor<br>(dd/mm/yyyy): | <table border="1"><tr><td></td><td></td><td></td><td></td><td>2</td><td>0</td><td>1</td><td>9</td></tr></table> |   |   |   |   | 2 | 0 | 1 | 9 |
|     |                                                   |                                                                                                                 |   | 2 | 0 | 1 | 9 |   |   |   |
| 28. | Field supervisor's signature:                     | _____                                                                                                           |   |   |   |   |   |   |   |   |

|     |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29. | Date checked by research team supervisor<br>(dd/mm/yyyy): | <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 30px; height: 30px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; margin-right: 5px; text-align: center;">2</div> <div style="border: 1px solid black; width: 30px; height: 30px; margin-right: 5px; text-align: center;">0</div> <div style="border: 1px solid black; width: 30px; height: 30px; margin-right: 5px; text-align: center;">1</div> <div style="border: 1px solid black; width: 30px; height: 30px; margin-right: 5px; text-align: center;">9</div> </div> |
| 30. | Research team supervisor's signature:                     | <div style="border-bottom: 1px solid black; height: 40px; width: 100%;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## RESPONDENT IDENTIFICATION

|                         |    |
|-------------------------|----|
| <b>23. Region code:</b> |    |
|                         |    |
| Greater Accra           | 03 |
| Brong Ahafo             | 07 |
| Ashanti                 | 05 |

|                           |  |  |  |
|---------------------------|--|--|--|
| <b>24. District code:</b> |  |  |  |
|                           |  |  |  |

|     |                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 25. | Settlement type:                                                                                                                                                                                                                                                                                                                                                                                          | [ 1 ]-Rural      [ 2 ]-Urban                                                   |
| 26. | Respondent's telephone number(s):                                                                                                                                                                                                                                                                                                                                                                         | <div style="border-bottom: 1px solid black; height: 40px; width: 100%;"></div> |
| 27. | Community code:                                                                                                                                                                                                                                                                                                                                                                                           | <div style="border-bottom: 1px solid black; height: 40px; width: 100%;"></div> |
| 28. | Name of end market actor:                                                                                                                                                                                                                                                                                                                                                                                 | <div style="border-bottom: 1px solid black; height: 40px; width: 100%;"></div> |
| 29. | Type of business of end market actor:<br><div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>[ 1 ]-Hotel/Restaurant</span> <span>[ 2 ]-School/College</span> <span>[ 3 ]-Hospital</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>[ 4 ]-Supermarket/Cold Store</span> <span>[ 5 ]-Other (specify): _____</span> </div> |                                                                                |

## MODULE A: END-USER BACKGROUND AND PREFERENCES

| 45.                   | How long have you engaged with GPP?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | _____ (months)                                                       |                    |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------|--------------------------------------------|-------|-----------------------|--|----------------------------------------------------------------------|------------|--------------------------------------------|--|----------|-------|----|---------------------|--|--------------------|--|--|-----|-------------------------|--|--------------------|--|--|------|--------------------|--|----|--|--|-----|----------------------------|--|--------|--|--|----|----------------------------|--|--------|--|--|-----|----------------------------|--|--------|--|--|------|---------------------------|--|--------|--|--|-------|-----------------|--|----|--|--|
| 46.                   | How often does your firm/business/institution purchase or utilize chicken or chicken products?<br>[ 1 ]-Daily    [ 2 ]-Weekly    [ 3 ]-Monthly    [ 4 ]-Quarterly    [ 5 ]-Semi-annually<br>[ 6 ]-Yearly    [ 7 ]-At festivities    [ 8 ]-Other (specify): _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                      |                    |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| 47.                   | Does your firm/business/institution purchase/use/sell local or foreign chicken or both?<br>[ 1 ]-Local chicken only    [ 2 ]-Foreign chicken only    [ 3 ]-Both                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                      |                    |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| 48.                   | In which form do you usually purchase poultry meat?<br>[ 1 ]-Live bird                      [ 2 ]-Whole dressed bird                      [ 3 ]-Cut portions<br>[ 4 ]-Other (specify): _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                      |                    |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| 49.                   | Please indicate the quantities of chicken and chicken products demanded by your firm/business/institution per a <b>typical week</b> . ( <i>Should be asked, if end user type is hotel, restaurant, school/college, and hospital</i> ).<br><b>Skip to Question 6 for supermarkets or cold store or live bird sellers/egg sellers</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                      |                    |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
|                       | <table border="1"> <thead> <tr> <th colspan="2" rowspan="2">a<br/>Chicken products</th> <th rowspan="2">b<br/>Quantities<br/>(enter 0, if<br/>NONE and skip<br/>to next product)</th> <th rowspan="2">c<br/>Units</th> <th colspan="2">d<br/>Quantity of total .....<br/>being ....</th> </tr> <tr> <th>Imported</th> <th>Local</th> </tr> </thead> <tbody> <tr> <td>i.</td> <td>Live bird (Broiler)</td> <td></td> <td>Number<br/>of birds</td> <td></td> <td></td> </tr> <tr> <td>ii.</td> <td>Live bird (Spent layer)</td> <td></td> <td>Number<br/>of birds</td> <td></td> <td></td> </tr> <tr> <td>iii.</td> <td>Whole dressed bird</td> <td></td> <td>kg</td> <td></td> <td></td> </tr> <tr> <td>iv.</td> <td>Eggs (30 pieces per crate)</td> <td></td> <td>Crates</td> <td></td> <td></td> </tr> <tr> <td>v.</td> <td>Eggs (18 pieces per crate)</td> <td></td> <td>Crates</td> <td></td> <td></td> </tr> <tr> <td>vi.</td> <td>Eggs (12 pieces per crate)</td> <td></td> <td>Crates</td> <td></td> <td></td> </tr> <tr> <td>vii.</td> <td>Eggs (6 pieces per crate)</td> <td></td> <td>Crates</td> <td></td> <td></td> </tr> <tr> <td>viii.</td> <td>Chicken sausage</td> <td></td> <td>kg</td> <td></td> <td></td> </tr> </tbody> </table> |                                                                      |                    |                                            |       | a<br>Chicken products |  | b<br>Quantities<br>(enter 0, if<br>NONE and skip<br>to next product) | c<br>Units | d<br>Quantity of total .....<br>being .... |  | Imported | Local | i. | Live bird (Broiler) |  | Number<br>of birds |  |  | ii. | Live bird (Spent layer) |  | Number<br>of birds |  |  | iii. | Whole dressed bird |  | kg |  |  | iv. | Eggs (30 pieces per crate) |  | Crates |  |  | v. | Eggs (18 pieces per crate) |  | Crates |  |  | vi. | Eggs (12 pieces per crate) |  | Crates |  |  | vii. | Eggs (6 pieces per crate) |  | Crates |  |  | viii. | Chicken sausage |  | kg |  |  |
| a<br>Chicken products |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | b<br>Quantities<br>(enter 0, if<br>NONE and skip<br>to next product) | c<br>Units         | d<br>Quantity of total .....<br>being .... |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                      |                    | Imported                                   | Local |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| i.                    | Live bird (Broiler)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                      | Number<br>of birds |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| ii.                   | Live bird (Spent layer)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                      | Number<br>of birds |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| iii.                  | Whole dressed bird                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                      | kg                 |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| iv.                   | Eggs (30 pieces per crate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                      | Crates             |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| v.                    | Eggs (18 pieces per crate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                      | Crates             |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| vi.                   | Eggs (12 pieces per crate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                      | Crates             |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| vii.                  | Eggs (6 pieces per crate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                      | Crates             |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |
| viii.                 | Chicken sausage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                      | kg                 |                                            |       |                       |  |                                                                      |            |                                            |  |          |       |    |                     |  |                    |  |  |     |                         |  |                    |  |  |      |                    |  |    |  |  |     |                            |  |        |  |  |    |                            |  |        |  |  |     |                            |  |        |  |  |      |                           |  |        |  |  |       |                 |  |    |  |  |

|     |                                                                                                                                                                                                                  |                |  |    |  |  |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--|----|--|--|
|     | ix.                                                                                                                                                                                                              | Drum sticks    |  | kg |  |  |
|     | x.                                                                                                                                                                                                               | Chicken thighs |  | kg |  |  |
|     | xi.                                                                                                                                                                                                              | Chicken wings  |  | kg |  |  |
|     | xii.                                                                                                                                                                                                             | Chicken livers |  | kg |  |  |
|     | xiii.                                                                                                                                                                                                            | Chicken breast |  | kg |  |  |
|     | xiv.                                                                                                                                                                                                             | Gizzards       |  | kg |  |  |
|     | xv.                                                                                                                                                                                                              | Chicken neck   |  | kg |  |  |
| 50. | Please indicate the quantities of chicken and chicken products demanded by your firm/business/institution per a <b>typical week</b> . <i>(Should be answered, if end user type is supermarket or cold store)</i> |                |  |    |  |  |

| a<br>Chicken products          | b<br>Qty<br>(enter 0 if NONE and skip to next product) | c<br>Units   | d<br>Qty of total .....being ... |            |       |            | e<br>Qty SOLD per typical week | How much of..... sold is ..... |                  |       |                  |
|--------------------------------|--------------------------------------------------------|--------------|----------------------------------|------------|-------|------------|--------------------------------|--------------------------------|------------------|-------|------------------|
|                                |                                                        |              | Imported                         | Unit price | Local | Unit price |                                | Imported                       | Unit price (GHS) | local | Unit price (GHS) |
| i. Live bird (Broiler)         |                                                        | No. of birds |                                  |            |       |            |                                |                                |                  |       |                  |
| ii. Live bird (Spent layer)    |                                                        | No. of birds |                                  |            |       |            |                                |                                |                  |       |                  |
| iii. Whole dressed bird        |                                                        | kg           |                                  |            |       |            |                                |                                |                  |       |                  |
| iv. Eggs (30 pieces per crate) |                                                        | Crates       |                                  |            |       |            |                                |                                |                  |       |                  |
| v. Eggs (18 pieces per crate)  |                                                        | Crates       |                                  |            |       |            |                                |                                |                  |       |                  |
| vi. Eggs (12 pieces per crate) |                                                        | Crates       |                                  |            |       |            |                                |                                |                  |       |                  |

|       |                           |  |        |  |  |  |  |  |  |  |  |  |
|-------|---------------------------|--|--------|--|--|--|--|--|--|--|--|--|
| vii.  | Eggs (6 pieces per crate) |  | Crates |  |  |  |  |  |  |  |  |  |
| viii. | Chicken sausage           |  | kg     |  |  |  |  |  |  |  |  |  |
| ix.   | Drum sticks               |  | kg     |  |  |  |  |  |  |  |  |  |
| x.    | Chicken thighs            |  | kg     |  |  |  |  |  |  |  |  |  |
| xi.   | Chicken wings             |  | kg     |  |  |  |  |  |  |  |  |  |
| xii.  | Chicken livers            |  | kg     |  |  |  |  |  |  |  |  |  |
| xiii. | Chicken breast            |  | Kg     |  |  |  |  |  |  |  |  |  |
| xiv.  | Gizzards                  |  | kg     |  |  |  |  |  |  |  |  |  |
| xv.   | Chicken neck              |  | kg     |  |  |  |  |  |  |  |  |  |

|     |                                                                                                                                                                                                                                                                                                              |                                              |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 51. | When your firm/business/institution is <b>purchasing chicken and chicken products</b> , how important are these attributes? Please use the scales provided below to rate the following the attributes ( <b>1=not important at all, 2=not very important, 3=neutral, 4=important, 5=extremely important</b> ) |                                              |
|     | <b>Attributes of chicken and chicken products</b>                                                                                                                                                                                                                                                            | Please rate using the codes <b>1-5</b> above |
|     | a. Appearance/neatness/skin color                                                                                                                                                                                                                                                                            |                                              |
|     | b. Aroma                                                                                                                                                                                                                                                                                                     |                                              |
|     | c. Attractive packaging                                                                                                                                                                                                                                                                                      |                                              |
|     | d. Availability                                                                                                                                                                                                                                                                                              |                                              |

|                                                  | e. Convenient (ready for use)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|----------------------------------------------|-----------------|--|---------------|--|--------------|--|-------------|--|---------------------------------------|--|-------------------------|--|----------------------------------------|--|----------|--|--------------|--|----------------------|--|
|                                                  | f. Origin (whether imported or local)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | g. Existence of expiry date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | h. Fat content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | i. FDA certification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | j. Freshness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | k. Halal method of slaughter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | l. Hygienic shopping environment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | m. Informative product label                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | n. Price                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | o. Proximity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | p. Taste                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | q. Tenderness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
|                                                  | r. Texture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| s. Yield (shrinking, or expansion after cooking) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| 52.                                              | <p>When your firm/business/institution is <b>purchasing eggs</b> how important are these attributes?<br/> Please use the scales provided below to rate the following the attributes (<i>1=not important at all, 2=not very important, 3=neutral, 4=important, 5=extremely important</i>)</p> <table border="1"> <thead> <tr> <th>Attributes of eggs</th> <th>Please rate using the codes <i>1-5</i> above</th> </tr> </thead> <tbody> <tr> <td>a. Availability</td> <td></td> </tr> <tr> <td>b. Egg weight</td> <td></td> </tr> <tr> <td>c. Freshness</td> <td></td> </tr> <tr> <td>d. Labeling</td> <td></td> </tr> <tr> <td>e. Origin (whether imported or local)</td> <td></td> </tr> <tr> <td>f. Attractive packaging</td> <td></td> </tr> <tr> <td>g. Number of eggs per crate or package</td> <td></td> </tr> <tr> <td>h. Price</td> <td></td> </tr> <tr> <td>i. Proximity</td> <td></td> </tr> <tr> <td>j. Shell cleanliness</td> <td></td> </tr> </tbody> </table> |  | Attributes of eggs | Please rate using the codes <i>1-5</i> above | a. Availability |  | b. Egg weight |  | c. Freshness |  | d. Labeling |  | e. Origin (whether imported or local) |  | f. Attractive packaging |  | g. Number of eggs per crate or package |  | h. Price |  | i. Proximity |  | j. Shell cleanliness |  |
| Attributes of eggs                               | Please rate using the codes <i>1-5</i> above                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| a. Availability                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| b. Egg weight                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| c. Freshness                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| d. Labeling                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| e. Origin (whether imported or local)            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| f. Attractive packaging                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| g. Number of eggs per crate or package           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| h. Price                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| i. Proximity                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |
| j. Shell cleanliness                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |                                              |                 |  |               |  |              |  |             |  |                                       |  |                         |  |                                        |  |          |  |              |  |                      |  |

|  |                               |  |
|--|-------------------------------|--|
|  | k. Shell color                |  |
|  | l. Shell smoothness           |  |
|  | m. Shell soundness (unbroken) |  |
|  | n. Shell thickness            |  |
|  | o. Size of egg                |  |
|  | p. Yolk color                 |  |
|  |                               |  |

## **MODULE B: END USERS MARKETING CHANNELS AND LINKAGES**

|     |                                                                                                                                                                                                                             |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 53. | Does your firm/business/institution have any agreement or long-term business relationships with poultry producers or farmers to supply poultry products?<br><br>[ 1 ]-Yes      [ 2 ]-No <i>(If No, skip to Question 13)</i> |
| 54. | If <b>Yes</b> to Question 9, is there a written contract between you and the poultry producers?<br>[ 1 ]-Yes      [ 2 ]-No                                                                                                  |
| 55. | If <b>Yes</b> to Question 10, was the contract based on quality or quantity of chicken products?      [ 1 ]-Quality      [ 2 ]-Quantity      [ 3 ]-Both                                                                     |
| 56. | Was the poultry producer able to meet the product specification in the contract?<br><br>[ 1 ]-Yes      [ 2 ]-No                                                                                                             |
| 57. | If <b>No</b> to Question 9, is your firm/business/institution willing to link up with local poultry producers to meet your demand for poultry products?<br><br>[ 1 ]-Yes      [ 2 ]-No                                      |

## **MODULE C: EFFECTIVENESS AND SUSTAINABILITY**

|     |                                                                                                            |
|-----|------------------------------------------------------------------------------------------------------------|
| 58. | Have you experienced any benefits as a result of the Ghana Poultry Project?<br><br>[ 1 ]-Yes      [ 2 ]-No |
|-----|------------------------------------------------------------------------------------------------------------|

|     |                                                                                                                                                                                          |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 59. | <p>If <b>Yes</b>, can you mention some of the benefits?</p> <hr/> <hr/> <hr/> <hr/>                                                                                                      |
| 60. | <p>Have you experienced any unintended challenges as a result of the Ghana Poultry Project?<br/> [ 1 ]-Yes                      [ 2 ]-No</p>                                             |
| 61. | <p>If <b>Yes</b>, can you mention some of the unintended challenges?</p> <hr/> <hr/> <hr/> <hr/>                                                                                         |
| 62. | <p>When the GPP is ended, will you continue to buy poultry products from the poultry farmers you are engaging with now?                      [ 1 ]-Yes                      [ 2 ]-No</p> |
| 63. | <p>Reasons for your answer:</p> <hr/> <hr/> <hr/> <hr/>                                                                                                                                  |
| 64. | <p>Any other comments:</p> <hr/> <hr/> <hr/> <hr/>                                                                                                                                       |

**Survey End Time:** \_\_\_\_\_

Thank you

*3F. Ghana Poultry Project: Midterm performance evaluation in-depth interview guide for Government of Ghana Ministries, Departments and Agencies (MDAs)*

**UNIVERSITY OF CAPE COAST**  
**DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY**  
**MIDTERM PERFORMANCE EVALUATION OF THE GHANA POULTRY PROJECT**

**IN-DEPTH INTERVIEW GUIDE GOVERNMENT OF GHANA  
MINISTRIES, DEPARTMENTS AND AGENCIES (FOR MoFA,  
APD, VSD, GSA, MOTI, EPA, ETC)**

*NB: Specific questions will be directed at particular institutions*

**Introduction**

My name is \_\_\_\_\_ and I am from the Directorate of Research, Innovation and Consultancy of the University of Cape Coast. We have been tasked by the United States Department of Agriculture (USDA) to conduct a Midterm Performance Evaluation of the Ghana Poultry Project (GPP). You have been asked to participate in this study to provide responses to the questions that I will ask you on issues that border on implementation of the GPP. You are being invited to take part in the interview because we feel that your involvement in the Project can contribute much to achieving the aim of this evaluation. The data that you will provide will be considered as confidential, and no one else except members of the research team will have access to it. Your

name will neither be used in our report, nor will it be linked to the data that you will provide. However, we will not force you to participate in the study, if you decide not to. May I proceed with asking you a few questions about yourself?

- 1) Date:
- 2) Name of Interviewer:
- 3) Time of start of interview:
- 4) Name of Ministry, Department and Agency:

## Section A: Background Data

- 1) Phone number of Respondents:
- 2) What is the contribution of your institution to the Project?

## Section B: Evaluation of GPP

### **EQ1: Relevance:**

1. ***Extent of alignment of the GPP goals with national policies and strategies for agriculture production***
  - a. What are the national goals/policies/regulations on poultry production in Ghana? *(Collect copies of such agriculture policies/legislations/regulations)*
  - b. What strategies/procedures have been adopted to meet these national goals in poultry production?
  - c. How relevant is the GPP project towards the achievement of the national goals on poultry production?
  - d. What were your expectations on the GPP project prior to its implementation?
  - e. To what extent have the expectations on the GPP been met?
  - f. What do you think might have accounted for that level of achievement?
2. ***Relevance of the Project to the stated and immediate needs of stakeholders***
  - a. How relevant is the implementation of the GPP to your operations? *(Probe for reasons)*
  - b. How responsive are the GPP goals to the needs of the target beneficiaries in the poultry industry? *(Probe for reasons)*
  - c. What feedback do you get from the other stakeholders about the implementation of the GPP?
  - d. How will you describe your level of satisfaction about the implementation of the GPP?
  - e. What challenges do you encounter in the implementation of the GPP?
  - f. What mitigation mechanisms do you think should be instituted to improve the implementation process of GPP?

### **EQ2: Effectiveness:**

**1. Extent to which the Project is producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives**

- a. How has the GPP project impacted on your operations?
- b. How has your institution, through the GPP, impacted on the poultry industry in Ghana?
- c. What strategies have been implemented by the GPP to achieve any of the following:
  - i. Increasing poultry production
  - ii. Improving quality of poultry products
  - iii. Reducing cost of poultry production
  - iv. Promoting strategic investments
  - v. Improving market and service linkages
  - vi. Building capacities of poultry farmers and other stakeholders
  - vii. Promoting PPPs
  - viii. Facilitation of access to financial services
- d. What are the implications of the following on the outcomes of the GPP?
  - i. Cost
  - ii. Time
  - iii. Staffing
- e. In your view, how will you describe the performance of GPP in increasing sales and profitability through the following strategies: *(Probe for reasons in all cases)*
  - i. Improving access to veterinary services in poultry production
  - ii. Reducing cost of production in poultry businesses
  - iii. Improving market linkages among stakeholders (poultry farmers, input suppliers, end-market users, consumers, etc.)
  - iv. Increasing poultry production levels in Ghana
  - v. Capacity building
  - vi. Contribution of your institution to the GPP
- f. What specific measures have you implemented to ensure that gender issues are reflected in your activities in relation to the GPP? *(Probe for dispensation given to women in terms of capacity building)*

**2. Unintended consequences attributed to the Project**

- a. As an institution, have you identified any unintended benefits of GPP? If yes, can you share your experiences? *(Probe for most significant unintended impacts)*
- b. As an institution, have you identified any unforeseen challenges of GPP? If yes, can you share your experiences? *(Probe for most significant unintended impacts)*
- c. What has been your institution's contribution to mitigating the challenges?
- d. Are you aware of any other institution's contributions to mitigate the challenges?

**3. Extent that GPP has coordinated with the AMPLIFIES Project and other USDA/USAID-funded projects such as the Agricultural Development and Value Chain Enhancement (ADVANCE) program; Ministry of Food and Agriculture (MoFA) or other donor projects; and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana**

- a. Apart from the GPP, do/did you participate in
  - i. Other USDA/USAID-funded projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
    - Agricultural Development and Value Chain Enhancement (ADVANCE) program
    - Financing Ghanaian Agriculture Project (FinGAP)
    - Resiliency in Northern Ghana (RING) project
    - Ghana Commercial Agriculture Program (GCAP)
    - Agricultural Technology Transfer (ATT) project
    - Agricultural Policy Support Project (APSP)
  - ii. USDA funded project
    - AMPLIFIES
  - iii. Ministry of Food and Agriculture (MoFA) projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
  - iv. Other donor projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
  - v. Private sector (*Probe for significant similarities and differences, and capture what makes GPP unique*)
- b. How will you compare your experiences with the other donor-funded projects with the GPP implementation?
- c. How have all these projects contributed to the competitiveness of the poultry value chain in Ghana?
- d. What challenges do/did you encounter in the other donor-funded projects in the poultry industry?
- e. How do you think future donor-funded projects should be implemented to enhance their responsiveness to the development of the poultry industry?

#### **EQ4: Sustainability:**

##### **I. Extent to which the Project results are likely to continue after the Project**

- a. How will you describe your capacity to sustain the success of the GPP after funding is withdrawn?
- b. What strategies have you instituted to sustain the successes of the project following the withdrawal of funding by the USDA?
- c. What other mechanisms do you think the GPP should establish to ensure the sustenance of the project benefits after the withdrawal of funding?
- d. How will you describe the capacities of the other stakeholders in sustaining the successes of the project, following the withdrawal of funding by USDA? (*Probe for reasons*)
- e. How do you intend to maintain the partnerships/collaborations established among various stakeholders in the poultry industry, following the withdrawal of support by USDA?
- f. What challenges do you envisage will be encountered in the process of sustaining the successes achieved by the GPP after the withdrawal of support by the USDA?
- g. What do you think could be done to mitigate or avoid such challenges?

2. ***Stakeholder buy-in likely to continue or be increased after the current contract period***

- a. To what extent have your interests been met by the GPP?
- b. Will you continue to show interest in the tenets of the GPP after the completion of the project? (*Probe for reasons*)
- c. How will you describe the commitment of your institution/office in continuing with the practices proposed by the project after USDA funding is withdrawn?
- d. What strategies have you instituted to sustain the interest of other stakeholders in the tenets of the project after its completion?
- e. What challenges do you think could cause your institution not to sustain the gains from the Project?
- f. What do you think could be done to avoid such challenges?

**Time of end of interview:** \_\_\_\_\_

Thank you

*3G. Ghana Poultry Project: Midterm performance evaluation in-depth interview guide for implementing partners*

**UNIVERSITY OF CAPE COAST**  
**DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY**  
**MIDTERM PERFORMANCE EVALUATION OF THE GHANA POULTRY PROJECT**  
**IN-DEPTH INTERVIEW GUIDE FOR IMPLEMENTING PARTNERS/AGENCIES**  
**(GPP OFFICE, ACDI/VOCA, TECHNOSERVE AND USDA)**

*NB: Specific questions will be directed at particular implementing partners*

**Introduction**

My name is \_\_\_\_\_ and I am from the Directorate of Research, Innovation and Consultancy of the University of Cape Coast. We have been tasked by the United States Department of Agriculture (USDA) to conduct a Midterm Performance Evaluation of the Ghana Poultry Project (GPP). You have been asked to participate in this study to provide responses to the questions that I will ask you on issues that border on implementation of the GPP. You are being invited to take part in the interview because we feel that your involvement in the Project can contribute much to achieving the aim of this evaluation. The data that you will provide will be considered as confidential, and no one else except members of the research team will have access to it. Your name will neither be used in our report, nor will it be linked to the data that you will provide. However, we will not force you to participate in the study, if you decide not to. May I proceed with asking you a few questions about yourself?

I) Date: \_\_\_\_\_

- 2) Name of Interviewer:
- 3) Time of start of interview:
- 4) Name of Implementing Agency:

## Section A: Background Data of Respondent

- 1) Number of years of working with GPP
- 2) What is the role of your agency on GPP?

## Section B: Evaluation of GPP

### **EQ1: Relevance:**

1. ***Extent of alignment of the GPP with national policies and strategies for agriculture production***
  - a. What are the national goals/policies/regulations on poultry production in Ghana? *(Collect copies of such agriculture policies/legislations/regulations)*
  - b. What strategies/procedures have been adopted to meet these national goals in poultry production?
  - c. How relevant is the GPP towards the achievement of the national goals on poultry production?
  - d. What were your expectations on the GPP prior to its implementation?
  - e. To what extent have the expectations on the GPP been met?
  - f. What do you think might have accounted for that level of achievement?
2. ***Relevance of the Project to the stated and immediate needs of stakeholders***
  - a. How responsive are the GPP goals to the needs of the target beneficiaries in the poultry industry? *(Probe for reasons)*
  - b. What feedback do you get from the other stakeholders about the implementation of the GPP?
  - c. How will you describe your level of satisfaction about the implementation of GPP?
  - d. What challenges do you encounter in the implementation of GPP?
  - e. What mitigation mechanisms do you think should be instituted to improve the implementation process of GPP?

### **EQ2: Effectiveness:**

1. ***Extent to which the Project is producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives***
  - a. What strategies have been implemented by the GPP to achieve the following:
    - i. Increasing poultry production
    - ii. Improving quality of poultry products
    - iii. Reducing cost of poultry production
    - iv. Promoting strategic investments
    - v. Improving market and service linkages
    - vi. Building capacities of stakeholders

- vii. Promoting PPPs
  - viii. Facilitation of access to financial services
- b. What are the implications of the following on the outcomes of the GPP?
  - i. Cost
  - ii. Time
  - iii. Staffing
- c. In your view, how will you describe the performance of GPP in increasing sales and profitability through the following strategies: *(Probe for reasons in all cases)*
  - i. Improving access to veterinary services in poultry production
  - ii. Reducing cost of production in poultry businesses
  - iii. Improving market linkages among stakeholders (poultry farmers, input suppliers, end-market users, consumers, etc.)
  - iv. Increasing poultry production levels in Ghana
  - v. Capacity building
  - vi. Contribution of your institution to the GPP
- d. What specific measures have you implemented to ensure that gender issues are reflected in your activities in relation to the GPP? *(Probe for dispensation given to women in terms of capacity building)*

**2. Unintended consequences attributed to the Project**

- a. As an agency, have you identified any unintended benefits of GPP? If yes, can you share your experiences? *(Probe for most significant unintended impacts)*
- b. What factors affected the achievements and results of the Project?
- c. As an agency, have you identified any unforeseen challenges of GPP? If yes, can you share your experiences? *(Probe for most significant unintended impacts)*
- d. What has been your agency's contribution to mitigating the challenges?
- e. What are the lessons learned and best practices, and from which stakeholders did you learn?

**3. Extent that GPP has coordinated with the AMPLIFIES Project and other USDA/USAID-funded projects such as the Agricultural Development and Value Chain Enhancement (ADVANCE) program; Ministry of Food and Agriculture (MoFA) or other donor projects; and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana**

- a. Apart from GPP, do/did you participate in
  - i. Other USAID-funded projects *(Probe for significant similarities and differences, and capture what makes GPP unique)*
    - 1. Agricultural Development and Value Chain Enhancement (ADVANCE) program
    - 2. Financing Ghanaian Agriculture Project (FinGAP)
    - 3. Resiliency in Northern Ghana (RING) project
    - 4. Ghana Commercial Agriculture Program (GCAP)
    - 5. Agricultural Technology Transfer (ATT) project
    - 6. Agricultural Policy Support Project (APSP)
  - ii. USDA funded project

#### I. AMPLIFIES

- iii. Ministry of Food and Agriculture (MoFA) projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
- iv. Other donor projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
- v. Private sector (*Probe for significant similarities and differences, and capture what makes GPP unique*)
- b. How will you compare your experiences with the other donor-funded projects with the GPP implementation?
- c. How have all these projects contributed to the competitiveness of the poultry value chain in Ghana?
- d. What challenges do/did you encounter in the other donor-funded projects in the poultry industry?
- e. How do you think future donor-funded projects should be implemented to enhance their responsiveness to the development of poultry industry?

#### **EQ3: Efficiency:**

- 1. **Extent of relationship between inputs and outputs regarding timeliness, cost-effectiveness and expected standards**
  - a. What operational standards does GPP support in terms of the following:
    - i. Frequency of vaccination of poultry birds in a year
    - ii. Timeliness for veterinary officers to respond to the needs of poultry producers
  - b. What other strategies have GPP put in place to strengthen linkages within the Value Chain? (*Probe for details of strategies and successes*)
- 2. **Conversion of Inputs into outputs in a timely and cost-effective manner**
  - a. How will you describe the contribution of GPP in reducing cost of operations of poultry farmers?
  - b. How satisfied are you with the current cost of operations in the poultry industry?
  - c. How do you think the cost of operations could be reduced further?

#### **EQ4: Sustainability**

- 1. **Extent of the Project results are likely to continue after the Project**
  - a. What strategies have you instituted to sustain the successes of the project and its results following the withdrawal of funding by the USDA?
  - b. What other mechanisms do you think the GPP should establish to ensure the sustenance of the tenets of the project after the withdrawal of funding?
  - c. How will you describe the capacities of the other stakeholders in sustaining the successes of the project following the withdrawal of funding by the USDA? (*Probe for reasons*)
  - d. What challenges do you envisage will be encountered in the process of sustaining the successes achieved by the GPP after the withdrawal of funding by the USDA?
  - e. What do you think could be done to avoid such challenges?

**2. Stakeholder buy-in likely to continue or be increased after the current contract period**

- a. As an implementer, to what extent have your interests been met by the GPP?
- b. How do you intend to sustain the interest of other stakeholders in strategies and activities of the Project following the withdrawal of funding by the USDA?
- c. What strategies have you instituted to sustain the interest of other stakeholders in the project following the withdrawal of funding by the USDA?
- d. What challenges do you think could cause your institution not to sustain the gains from the Project?
- e. What do you think could be done to avoid such challenges?

**Time of end of interview:** \_\_\_\_\_ Thank you

*3H. Ghana Poultry Project: Midterm performance evaluation in-depth interview guide financial institutions*

**UNIVERSITY OF CAPE COAST**  
**DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY**  
**MIDTERM PERFORMANCE EVALUATION OF THE GHANA POULTRY PROJECT**

**IN-DEPTH INTERVIEW GUIDE FOR FINANCIAL INSTITUTIONS**

**Introduction**

My name is \_\_\_\_\_ and I am from the Directorate of Research, Innovation and Consultancy of the University of Cape Coast. We have been tasked by the United States Department of Agriculture (USDA) to conduct a Midterm Performance Evaluation of the Ghana Poultry Project (GPP). You have been asked to participate in this study to provide responses to the questions that I will ask you on issues that border on implementation of the GPP. You are being invited to take part in the interview because we feel that your involvement in the Project can contribute much to achieving the aim of this evaluation. The data that you will provide will be considered as confidential, and no one else except members of the research team will have access to it. Your name will neither be used in our report, nor will it be linked to the data that you will provide. However, we will not force you to participate in the study, if you decide not to. May I proceed with asking you a few questions about yourself?

- 1) Date:
- 2) Name of Interviewer:
- 3) Time of start of interview:
- 4) Name of Financial institution
- 5) Region:
- 6) District

**Section A: Background Data of Respondent**

- 1) Phone number
- 2) What is the role of your agency on GPP?

## **Section B: Evaluation of GPP**

### ***EQ1: Relevance:***

- 1. Extent of alignment of the GPP goals with national policies and strategies for agriculture production***
  - a. What are the goals/aims of GPP?
  - b. What strategies have been employed to achieve the stated goals?
  - c. What are the national goals/policies/regulations of poultry production in Ghana?
  - d. What strategies/procedures have been adopted to meet these national goals in poultry?
  - e. How relevant is the GPP towards the achievement of the national goals on poultry production?
  - f. What were your expectations on the GPP prior to its implementation?
  - g. To what extent have the expectations on the GPP been met?
  - h. What do you think might have accounted for the level of achievement?
- 2. Relevance of the Project to the stated and immediate needs of stakeholders***
  - a. How relevant is the implementation of the GPP to your operations? *(Probe for reasons)*
  - b. How responsive are the GPP goals to the needs of the target beneficiaries in the poultry industry? *(Probe for reasons)*
  - c. What feedback do you get from the other stakeholders about the implementation of the GPP?
  - d. How will you describe your level of satisfaction about the implementation of GPP?
  - e. What challenges do you encounter in the implementation of GPP?
  - f. What mitigation mechanisms do you think should be instituted to improve the implementation process of GPP?

### ***EQ2: Effectiveness:***

- 1. Extent to which the Project is producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives***
  - a. How many poultry producers on GPP have you supported with loans? *(Probe for number and amount of loans to poultry farms – collect document(s), if available)*
  - b. Have you benefitted from any capacity building intervention under the GPP? *(Probe for details of training and benefits)*
  - c. How will you describe the effectiveness of your role in the implementation of the GPP?
- 2. Unintended consequences attributed to the Project***

- a. As an institution, have you identified any unintended benefits of GPP? If yes, can you share your experiences? *(Probe for most significant unintended impacts)*
  - b. As an institution, have you identified any unforeseen challenges of GPP? If yes, can you share your experiences? *(Probe for most significant unintended impacts)*
  - c. What has been your institution's contribution to mitigating the challenges?
  - d. Are you aware of any other institution's contributions to mitigate the challenges?
  - e. What are the lessons learned and best practices, and from which stakeholders did you learn?
3. **Extent that GPP has coordinated with the AMPLIFIES Project and other USDA/USAID-funded projects such as the Agricultural Development and Value Chain Enhancement (ADVANCE) program; Ministry of Food and Agriculture (MoFA) or other donor projects; and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana**
  - a. Apart from the GPP, do/did you participate in
    - i. Other USAID-funded projects *(Probe for significant similarities and differences, and capture what makes GPP unique)*
      - Agricultural Development and Value Chain Enhancement (ADVANCE) program
      - Financing Ghanaian Agriculture Project (FinGAP)
      - Resiliency in Northern Ghana (RING) project
      - Ghana Commercial Agriculture Program (GCAP)
      - Agricultural Technology Transfer (ATT) project
      - Agricultural Policy Support Project (APSP)
    - ii. USDA funded project
      - AMPLIFIES
    - iii. Ministry of Food and Agriculture (MoFA) projects *(Probe for significant similarities and differences, and capture what makes GPP unique)*
    - iv. Other donor projects *(Probe for significant similarities and differences, and capture what makes GPP unique)*
    - v. Private sector *(Probe for significant similarities and differences, and capture what makes GPP unique)*
  - b. How will you compare your experiences with the other donor-funded projects with the GPP implementation?
  - c. What challenges do/did you encounter in the other donor-funded projects in the poultry industry?
  - d. How do you think future donor-funded projects should be implemented to enhance their responsiveness to the development of poultry industry?

### **EQ3: Efficiency:**

1. **Conversion of Inputs into outputs in a timely and cost-effective manner**
  - a. On the average, how long does it take to process a loan application for poultry value chain actors under the GPP?
  - b. How will you describe the loan repayment rate/time of the poultry value chain actors under the GPP?

- c. How will you describe the assistance of business service advisors to poultry value chain actors in accessing financial support from the financial institutions?
- d. What risks do you encounter in dealing with the poultry value chain actors in GPP?
- e. How are you managing such risks?

**EQ4: Sustainability**

**1. Extent of the Project results are likely to continue after the Project**

- a. What strategies have you instituted to sustain your engagement with the poultry value chain actors when the Project is completed?
- b. What other mechanisms do you think the GPP should establish to ensure the sustenance of the Project results when it is completed?
- c. What challenges do you envisage will be encountered in your engagement with the poultry value chain actors when the Project is completed?
- d. What do you think could be done to avoid such challenges?

**2. Is stakeholder buy-in likely to continue or be increased after the current contract period?**

- a. To what extent have the FI's interests been met by the GPP?
- b. Will you continue to show interest in the tenets of the GPP after the completion of the project? (*Probe for reasons*)
- c. What challenges do you think could cause your institution not to sustain the gains from the Project?
- d. What do you think could be done to avoid such challenges?

**Time of end of interview:** \_\_\_\_\_

Thank you

*3I. Ghana Poultry Project: Midterm performance evaluation in-depth interview guide financial institutions*

**UNIVERSITY OF CAPE COAST**  
**DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY**  
**MIDTERM PERFORMANCE EVALUATION OF THE GHANA POULTRY PROJECT**

**IN-DEPTH INTERVIEW GUIDE FOR BUSINESS SERVICE ADVISORS**

**Introduction**

My name is \_\_\_\_\_ and I am from the Directorate of Research, Innovation and Consultancy of the University of Cape Coast. We have been tasked by the United States Department of Agriculture (USDA) to conduct a Midterm Performance Evaluation of the Ghana Poultry Project (GPP). You have been asked to participate in this study to provide responses to the questions that I will ask you on issues that border on implementation of the GPP. You are being invited to take part in the interview because we feel that your involvement in the Project can contribute much to achieving the aim of this evaluation. The data that you will provide will be considered as confidential, and no one else except members of the research team will have access to it. Your name will neither be used in our report, nor will it be linked to the data that you will provide. However, we will not force you to participate in the study, if you decide not to. May I proceed with asking you a few questions about yourself?

- 1) Date:
- 2) Name of Interviewer:
- 3) Time of start of interview:
- 4) Name of Business Service Advisor:
- 5) Region:
- 6) District:
- 7) Community:

**Section A: Background Data of Respondent**

- 1) Phone number
- 2) What is the role of your agency on GPP?

**Section B: Evaluation of GPP**

**EQI: Relevance:**

1. **Extent of alignment of the GPP goals with national policies and strategies for agriculture production**
  - a. What are the goals/aims of GPP?
  - b. What strategies have been employed to achieve the stated goals?
  - c. What were your expectations on the GPP prior to its implementation?
  - d. To what extent have the expectations on the GPP been met?
  - e. What do you think might have accounted for the level of achievement?
2. **Relevance of the Project to the stated and immediate needs of stakeholders**
  - a. How relevant is the implementation of the GPP to your operations? (*Probe for reasons*)
  - b. How responsive are the GPP goals to the needs of the target beneficiaries in the poultry industry? (*Probe for reasons*)
  - c. What feedback do you get from the other stakeholders about the implementation of the GPP?
  - d. How will you describe your level of satisfaction about the implementation of the GPP?
  - e. What challenges do you encounter in the implementation of the GPP?
  - f. What mitigation mechanisms do you think should be instituted to improve the implementation process of GPP?

**EQ2: Effectiveness:**

1. **Extent to which the Project is producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives**
  - a. How has the GPP impacted on your operations?
  - b. How has the GPP impacted on the poultry industry in Ghana?
  - c. How have you contributed in meeting the Project outcomes through the following services?
    - i. Developing business plans
    - ii. Marketing plans
    - iii. Linking poultry value chain actors to financial institutions for loans
2. **Unintended consequences attributed to the Project**
  - a. Have you identified any unintended benefits of GPP? If yes, can you share your experiences? (*Probe for most significant unintended impacts*)
  - b. Have you identified any unforeseen challenges of GPP on your activities? If yes, can you share your experiences? (*Probe for most significant unintended impacts*)
  - c. What has been your contribution to mitigating the challenges?
  - d. Are you aware of any other stakeholder's contributions to mitigate the challenges?
3. **Extent that GPP has coordinated with the AMPLIFIES Project and other USDA/USAID-funded projects such as the Agricultural Development and Value Chain Enhancement (ADVANCE) program; Ministry of Food and Agriculture**

**(MoFA) or other donor projects; and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana**

- a. Apart from the GPP, do/did you participate in
  - i. Other USAID-funded projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
    - Agricultural Development and Value Chain Enhancement (ADVANCE) program
    - Financing Ghanaian Agriculture Project (FinGAP)
    - Resiliency in Northern Ghana (RING) project
    - Ghana Commercial Agriculture Program (GCAP)
    - Agricultural Technology Transfer (ATT) project
    - Agricultural Policy Support Project (APSP)
  - vi. USDA funded project
    - AMPLIFIES
  - ii. Ministry of Food and Agriculture (MoFA) projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
  - iii. Other donor projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
  - iv. Private sector (*Probe for significant similarities and differences, and capture what makes GPP unique*)
- b. How will you compare your experiences with the other donor-funded projects with the GPP implementation?
- c. How have all these projects contributed to the competitiveness of the poultry value chain in Ghana?
- d. What challenges do/did you encounter in the other donor-funded projects in the poultry industry?
- e. How do you think future donor-funded projects should be implemented to enhance their responsiveness to the development of the poultry industry?

**EQ3: Efficiency:**

1. **To what extent is the relationship between inputs and outputs timely, cost-effective and to the expected standards?**
  - a. How many poultry value chain actors and associations have you engaged with?
  - b. How many poultry value chain actors have you successfully secured loans for?
  - c. How much financial support have you assisted poultry value chain actors to access from financial institutions? (*Probe for amount to individual poultry farmers and specific financial institutions*)
  - d. How will you describe the level of timeliness in securing financial support for poultry value chain actors under the GPP?
  - e. How have you assisted poultry value chain actors with good record keeping?
  - f. How has your services improved the efficiency of poultry value chain actors? (*Probe for the services and efficiency*)
2. **Conversion of inputs into outputs in a timely and cost-effective manner**

- a. How will you describe the contribution of GPP in reducing cost of operations of poultry value chain actors?
- b. How satisfied are you with the current cost of operations in the poultry industry?
- c. How will describe the timely services of the poultry value chain actors under the GPP?

**EQ4: Sustainability**

1. ***To what extent are the Project results are likely to continue after the Project?***
  - a. What strategies have you instituted to sustain your services to the poultry value chain actors under the Project when it is completed?
  - b. What other mechanisms do you think the GPP should establish to ensure the sustenance of the Project benefits after the withdrawal of funding?
  - c. How do you intend to maintain the partnerships/collaborations established among various stakeholders in the poultry industry, when the Project is completed?
  - d. What challenges do you envisage will be encountered in the process of sustaining the successes achieved by the GPP after the withdrawal of support by the USDA?
  - e. What do you think could be done to mitigate or avoid such challenges?
2. ***Stakeholder buy-in likely to continue or be increased after the current contract period***
  - a. To what extent have your interests been met by the GPP?
  - b. Will you continue to show interest in the tenets of the GPP after the completion of the project? (*Probe for reasons*)
  - c. What strategies have you instituted to sustain the interest of other stakeholders in the tenets of the Project after its completion?
  - d. What challenges do you think could cause you to pull out of the project after the withdrawal of the USDA funding?
  - e. What do you think could be done to avoid such challenges?

**Time of end of interview:** \_\_\_\_\_

Thank you

**UNIVERSITY OF CAPE COAST**  
**DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY**  
**MIDTERM PERFORMANCE EVALUATION OF THE GHANA POULTRY PROJECT**

**IN-DEPTH INTERVIEW GUIDE FOR RESEARCH INSTITUTES**

**Introduction**

My name is \_\_\_\_\_ and I am from the Directorate of Research, Innovation and Consultancy of the University of Cape Coast. We have been tasked by the United States Department of Agriculture (USDA) to conduct a Midterm Performance Evaluation of the Ghana Poultry Project (GPP). You have been asked to participate in this study to provide responses to the questions that I will ask you on issues that border on implementation of the GPP. You are being invited to take part in the interview because we feel that your involvement in the Project can contribute much to achieving the aim of this evaluation. The data that you will provide will be considered as confidential, and no one else except members of the research team will have access to it. Your name will neither be used in our report, nor will it be linked to the data that you will provide. However, we will not force you to participate in the study, if you decide not to. May I proceed with asking you a few questions about yourself?

- 1) Date:
- 2) Name of Interviewer:
- 3) Time of start of interview:
- 4) Name of Research Institute:

**Section A: Background Data of Respondent**

- 1) Phone number
- 2) What is the contribution of your institution to GPP?

**Section B: Evaluation of GPP**

**EQI: Relevance:**

- 1. Extent of alignment of the GPP goals with national policies and strategies for agriculture production**
  - a. What are the national goals/policies/regulations on poultry production in Ghana? *(Collect copies of such agriculture policies/legislations/regulations)*
  - b. What strategies/procedures have been adopted to meet these national goals in poultry production?
  - c. How relevant is the GPP towards the achievement of the national goals on poultry production?

- d. What were your expectations on the GPP prior to its implementation?
  - e. To what extent have the expectations on the GPP been met?
  - f. What do you think might have accounted for the level of achievement?
2. **Relevance of the Project to the stated and immediate needs of stakeholders**
- a. How relevant is the implementation of the GPP to your operations? (*Probe for reasons*)
  - b. How responsive are the GPP goals to the needs of the target beneficiaries in the poultry industry? (*Probe for reasons*)
  - c. How will you describe your level of satisfaction about the implementation of the GPP?
  - d. What challenges do you encounter in the implementation of the GPP?
  - e. What mitigation mechanisms do you think should be instituted to improve the implementation process of GPP?

**EQ2: Effectiveness:**

1. **To what extent is the Project producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives?**
- a. How has the GPP impacted on the poultry industry in Ghana?
  - b. What strategies have been implemented by the GPP to achieve any of the following:
    - i. Increasing poultry production
    - ii. Improving quality of poultry products
    - iii. Reducing cost of poultry production
    - iv. Promoting strategic investments
    - v. Improving market and service linkages
    - vi. Building capacities of poultry farmers and other stakeholders
    - vii. Promoting PPPs
    - viii. Facilitation of access to financial services
  - b. How satisfied is your institution regarding your engagement on the Project? (*Probe for details and reasons*)
2. **Extent that GPP has coordinated with the AMPLIFIES Project and other USDA/USAID-funded projects such as the Agricultural Development and Value Chain Enhancement (ADVANCE) program; Ministry of Food and Agriculture (MoFA) or other donor projects; and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana**
- a. Apart from the GPP, do/did you participate in
    - i. Other USAID-funded projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
      - Agricultural Development and Value Chain Enhancement (ADVANCE) program
      - Financing Ghanaian Agriculture Project (FinGAP)
      - Resiliency in Northern Ghana (RING) project

- Ghana Commercial Agriculture Program (GCAP)
- Agricultural Technology Transfer (ATT) project
- Agricultural Policy Support Project (APSP)
- ii. USDA funded project
  - AMPLIFIES
- iii. Ministry of Food and Agriculture (MoFA) projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
- iv. Other donor projects (*Probe for significant similarities and differences, and capture what makes GPP unique*)
- v. Private sector (*Probe for significant similarities and differences, and capture what makes GPP unique*)
- b. How will you describe the importance of your experiences from the other USDA-funded projects to the GPP implementation?
- c. How have all these projects contributed to the competitiveness of the poultry value chain in Ghana?
- d. What challenges do/did you encounter in the other donor-funded projects in the poultry industry?
- e. How do you think future donor-funded projects should be implemented to enhance their responsiveness to the development of the poultry industry?

**EQ4: Sustainability:**

1. **Extent to which the Project results are likely to continue after the Project**
  - a. What other mechanisms do you think the GPP should establish to ensure the sustenance of the project benefits after the withdrawal of funding?
  - b. What challenges do you envisage will be encountered in the process of sustaining the successes achieved by the GPP after the withdrawal of support by the USDA?
  - c. What do you think could be done to mitigate or avoid such challenges?
2. **Stakeholder buy-in likely to continue or be increased after the current contract period**
  - a. Will you continue to show interest in the tenets of the GPP after the completion of the project? (*Probe for reasons*)
  - b. What challenges do you think could cause your institution not to sustain the gains from the Project?
  - c. What do you think could be done to avoid such challenges?

**Time of end of interview:** \_\_\_\_\_

Thank you

3K. Ghana Poultry Project: Midterm performance evaluation focus group discussion guide for poultry associations and groups

**UNIVERSITY OF CAPE COAST**  
**DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY**  
**MIDTERM PERFORMANCE EVALUATION OF THE GHANA POULTRY PROJECT**  
**FOCUS GROUP DISCUSSION GUIDE FOR POULTRY ASSOCIATIONS AND GROUPS**

**Introduction**

My name is \_\_\_\_\_ and I am from the Directorate of Research, Innovation and Consultancy of the University of Cape Coast. We have been tasked by the United States Department of Agriculture (USDA) to conduct a Midterm Performance Evaluation of the Ghana Poultry Project (GPP). You have been asked to participate in this study to provide responses to the questions that I will ask you on issues that border on implementation of the GPP. You are being invited to take part in the interview because we feel that your involvement in the Project can contribute much to achieving the aim of this evaluation. The data that you will provide will be considered as confidential, and no one else except members of the research team will have access to it. Your name will neither be used in our report, nor will it be linked to the data that you will provide. However, we will not force you to participate in the study, if you decide not to. May I proceed with asking you a few questions about yourself?

- 1) Date:
- 2) Name of Interviewer:
- 3) Time of start of interview:
- 4) Name of Association:
- 5) Region:
- 6) District:

**Section A: Background Data of Respondents**

- 1) Phone numbers
- 2) What is the contribution of your institution to GPP?

**Section B: Evaluation of GPP**

**EQ1: Relevance:**

1. **Extent of alignment of the GPP goals with national policies and strategies for agriculture production**
  - a. What are the national goals/policies/regulations of poultry production in Ghana?
  - b. What strategies/procedures have been adopted by the government to meet these national goals in poultry production?
  - c. What are the goals/aims of GPP?
  - d. What strategies have been employed by the GPP to achieve the stated goals?
  - e. What conflicts do you encounter between the implementation of the national and GPP strategies in poultry production?

- f. How do you think such conflicts should be addressed?
  - g. What new strategies have you introduced in your poultry production resulting from the GPP?
  - h. What were your expectations on the GPP prior to its implementation?
  - i. To what extent have the expectations on the GPP been met?
  - j. What do you think might have accounted for the level of achievement?
2. **Relevance of the Project to the stated and immediate needs of stakeholders**
- a. How relevant is the implementation of the GPP to your operations? (*Probe for reasons*)
  - b. How responsive are the GPP goals to the needs of the value chain actors in the poultry industry? (*Probe for reasons*)
  - c. What feedback do you get from the other stakeholders about the implementation of the GPP?
  - d. How will you describe your level of satisfaction about the implementation of the GPP?
  - e. What challenges do you encounter in the implementation of the GPP?
  - f. What mitigation mechanisms do you think should be instituted to improve the implementation process of GPP?

**EQ2: Effectiveness:**

1. **Extent to which the Project is producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives**
- a. What strategies have been implemented by the GPP to achieve any of the following:
    - i. Increasing poultry production
    - ii. Improving quality of poultry products
    - iii. Reducing cost of poultry production
    - iv. Promoting strategic investments
    - v. Improving market and service linkages
    - vi. Building capacities of poultry farmers and other stakeholders
    - vii. Promoting PPPs
    - viii. Facilitation of access to financial services
  - b. How has the GPP influenced your technical capacity in poultry production?
  - c. How has the GPP influenced your financial capacity in poultry production?
  - d. What specific measures have you implemented to ensure that gender issues are reflected in your activities in relation to the GPP? (*Probe for dispensation given to women in terms of capacity building*)
2. **Unintended consequences attributed to the Project**
- a. As an association, have you identified any unintended benefits of GPP? If yes, can you share your experiences? (*Probe for most significant unintended impacts*)

- b. As an association, have you identified any unforeseen challenges of GPP? If yes, can you share your experiences? *(Probe for most significant unintended impacts)*
  - c. What has been your institution's contribution to mitigating the challenges?
  - d. Are you aware of any other institution's contributions to mitigate the challenges?
  - e. To what extent did the association participate in the following phases of the GPP?
    - i. Project planning
    - ii. Project implementation
    - iii. Project management
  - f. How will you describe the level of satisfaction of the association's participation in the GPP?
3. ***Extent that GPP has coordinated with the AMPLIFIES Project and other USDA/USAID-funded projects such as the Agricultural Development and Value Chain Enhancement (ADVANCE) program; Ministry of Food and Agriculture (MoFA) or other donor projects; and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana***
- a. Apart from the GPP, do/did you participate in
    - i. Other USAID-funded projects *(Probe for significant similarities and differences, and capture what makes GPP unique)*
      - Agricultural Development and Value Chain Enhancement (ADVANCE) program
      - Financing Ghanaian Agriculture Project (FinGAP)
      - Resiliency in Northern Ghana (RING) project
      - Ghana Commercial Agriculture Program (GCAP)
      - Agricultural Technology Transfer (ATT) project
      - Agricultural Policy Support Project (APSP)
    - ii. USDA funded project
      - AMPLIFIES
    - iii. Ministry of Food and Agriculture (MoFA) projects *(Probe for significant similarities and differences, and capture what makes GPP unique)*
    - iv. Other donor projects *(Probe for significant similarities and differences, and capture what makes GPP unique)*
    - v. Private sector *(Probe for significant similarities and differences, and capture what makes GPP unique)*
  - b. How will you compare your experiences with the other donor-funded projects with the GPP implementation?
  - c. How have all these projects contributed to the competitiveness of the poultry value chain in Ghana?
  - d. What challenges do/did you encounter in the other donor-funded projects in the poultry industry?
  - e. How do you think future donor-funded projects should be implemented to enhance their responsiveness to the development of the poultry industry?

### **EQ3: Efficiency:**

1. **Extent of relationship between inputs and outputs regarding timeliness, cost-effectiveness and expected standards**
  - a. What operational standards have been supported by the GPP in terms of the following:
    - i. Frequency of vaccination of poultry birds in a year
    - ii. Timeliness for veterinary officers to respond to the needs of poultry producers
  - b. How often do you require veterinary services in a year?
  - c. How often do you get them?
  - d. How often do you place orders for feed inputs in a quarter?
  - e. How difficult is it to get them on time?
2. **Conversion of Inputs into outputs in a timely and cost-effective manner**
  - a. How will you describe the contribution of GPP in reducing cost of operations of poultry value chain actors?
  - b. How satisfied are you with the timeliness within which your members receive the following (*Probe for more details*):
    - i. Day Old Chicks
    - ii. Veterinary services
    - iii. Business advisory services
  - c. How satisfied are you with the cost of securing the following? (*Probe for reasons*):
    - iv. Day Old Chicks
    - v. Veterinary services
  - d. How do you think the cost of operations could be reduced further?

#### **EQ4: Sustainability:**

1. **Extent of the Project results are likely to continue after the Project**
  - a. How will you describe your capacity to sustain the success of the Project its completion?
  - b. What strategies have you instituted to sustain the successes of the project following the withdrawal of funding by the USDA?
  - c. What other mechanisms do you think the GPP should establish to ensure the sustenance of the project benefits after the withdrawal of funding?
  - d. How will you describe the capacities of the other stakeholders in sustaining the successes of the project, following the withdrawal of funding by USDA? (*Probe for reasons*)
  - e. How do you intend to maintain the partnerships/collaborations established among various stakeholders in the poultry industry, following the withdrawal of support by USDA?
  - f. What challenges do you envisage will be encountered in the process of sustaining the successes achieved by the GPP after the withdrawal of support by the USDA?
  - g. What do you think could be done to mitigate or avoid such challenges?
2. **Stakeholder buy-in likely to continue or be increased after the current contract period**
  - a. To what extent have your interests been met by the GPP?

- b. Will you continue to show interest in the tenets of the GPP after the completion of the project? (*Probe for reasons*)
- c. What strategies have you instituted to sustain the interest of other stakeholders in the tenets of the project after its completion?
- d. What challenges do you think could cause your association to pull out of the project after the withdrawal of the USDA funding?
- e. What do you think could be done to avoid such challenges?

**Time of end of discussion:** \_\_\_\_\_

Thank you

## **Annex 4: Training Guide**

# MIDTERM PERFORMANCE EVALUATION OF THE GHANA POULTRY PROJECT (GPP)

## TRAINING GUIDE

DIRECTORATE OF RESEARCH, INNOVATION AND CONSULTANCY  
UNIVERSITY OF CAPE COAST

FEBRUARY 2019

### LIST OF ACRONYMS

AMPLIFIES    Assisting Management in the Poultry and Layer Industries by Feed  
Improvement and Efficiency Strategies

|       |                                                      |
|-------|------------------------------------------------------|
| APD   | Animal Production Directorate                        |
| CAHWs | Community Animal Health Workers                      |
| DRIC  | Directorate of Research, Innovation and Consultancy  |
| FGD   | Focus Group Discussion                               |
| GMP   | Good Manufacturing Practice                          |
| GPP   | Ghana Poultry Project                                |
| HACCP | Hazard Analysis and Critical Control Point           |
| IDI   | In-Depth Interview                                   |
| METSS | Monitoring, Evaluation and Technical Support Service |
| UCC   | University of Cape Coast                             |
| USAID | United States Agency for International Development   |
| USDA  | United States Department for Agriculture             |
| VSD   | Veterinary Service Directorate                       |

## **PROGRAM OUTLINE FOR TRAINING OF FIELD STAFF**

**February 15 – 19, 2019 at College of Distance of Education (CoDE) Conference Room, UCC**

**DAY 1**

| TIME                                                                | ACTIVITIES                                           | PRESENTER                   |
|---------------------------------------------------------------------|------------------------------------------------------|-----------------------------|
| 8:30am                                                              | Arrival of Stakeholders                              |                             |
| 9:00am                                                              | Welcome Address and Introduction                     | Prof. S. K. Annim, UCC-DRIC |
| 9:10am                                                              | Project Background                                   | Representative, METSS       |
| 9:20am                                                              | Training Agenda                                      | Prof. S. K. Annim, UCC-DRIC |
| <b>Exposure to and Translation of Survey Instruments using PAPI</b> |                                                      |                             |
| 9:30am                                                              | Questionnaire (Poultry Producers)                    | Resource Persons, UCC-DRIC  |
| 10:30am                                                             | SNACK BREAK                                          |                             |
| 10:45am                                                             | Questionnaire (Poultry Producers) – <i>Continued</i> | Resource Persons, UCC-DRIC  |
| 2:00pm                                                              | LUNCH BREAK                                          |                             |
| 2:40pm                                                              | Questionnaire (Poultry Households)                   | Resource Persons, UCC-DRIC  |
| 4:30pm                                                              | Questionnaire (Animal Input Suppliers)               | Resource Persons, UCC-DRIC  |
| 5:30pm                                                              | CLOSING                                              |                             |

**DAY 2**

| TIME    | ACTIVITIES                                                                         | PRESENTER                  |
|---------|------------------------------------------------------------------------------------|----------------------------|
| 8:00am  | Arrival of Stakeholders                                                            |                            |
| 8:30am  | Questionnaire (Animal Input Suppliers) – <i>Continued</i>                          | Resource Persons, UCC-DRIC |
| 9:30am  | Questionnaire (Veterinary Service Directorate – District Level)                    | Resource Persons, UCC-DRIC |
| 10:30am | SNACK BREAK                                                                        |                            |
| 10:45am | Questionnaire (Veterinary Service Directorate – District Level) – <i>Continued</i> | Resource Persons, UCC-DRIC |
| 11:45pm | Questionnaire (End Market Actors)                                                  | Resource Persons, UCC-DRIC |
| 1:00pm  | LUNCH BREAK                                                                        |                            |
| 2:00pm  | Role-play Exercise                                                                 | Resource Persons, UCC-DRIC |
| 5:00pm  | CLOSING                                                                            |                            |

**DAY 3**

| TIME | ACTIVITIES | PRESENTER |
|------|------------|-----------|
|------|------------|-----------|

|                                                  |                                                      |                            |
|--------------------------------------------------|------------------------------------------------------|----------------------------|
| 8:00am                                           | Arrival of Stakeholders                              |                            |
| <b>Training on Survey Instruments using CAPI</b> |                                                      |                            |
| 8:30am                                           | Questionnaire (Poultry Producers)                    | Resource Persons, UCC-DRIC |
| 10:30am                                          | SNACK BREAK                                          |                            |
| 10:45am                                          | Questionnaire (Poultry Producers) – <i>Continued</i> | Resource Persons, UCC-DRIC |
| 1:00pm                                           | LUNCH                                                |                            |
| 1:40pm                                           | Questionnaire (Poultry Households)                   | Resource Persons, UCC-DRIC |
| 5:00pm                                           | CLOSING                                              |                            |

#### DAY 4

| TIME   | ACTIVITIES              | PRESENTER        |
|--------|-------------------------|------------------|
| 8:30am | Arrival of Stakeholders |                  |
| 9:00am | Pre-testing Exercise    | All Stakeholders |
| 1:00pm | LUNCH                   |                  |
| 1:45pm | Pre-testing Exercise    | All Stakeholders |
| 5:00pm | CLOSING                 |                  |

#### DAY 5

| TIME    | ACTIVITIES                                                                                                      | PRESENTER                     |
|---------|-----------------------------------------------------------------------------------------------------------------|-------------------------------|
| 8:30am  | Arrival of Stakeholders                                                                                         |                               |
| 9:00am  | Debriefing                                                                                                      | Resource Persons, UCC-DRIC    |
| 10:30am | SNACK BREAK                                                                                                     |                               |
| 10:45am | Debriefing – <i>Continued</i>                                                                                   | Resource Persons, UCC-DRIC    |
| 1:00pm  | LUNCH                                                                                                           |                               |
| 2:00pm  | Debriefing – <i>Continued</i>                                                                                   | Resource Persons, UCC-DRIC    |
| 3:30pm  | Preparation for Fieldwork<br>Duties/Responsibilities<br>Communication Channels<br>Signing of Relevant Documents | Mrs. M. Aning-Agyei, UCC-DRIC |
| 4:30pm  | Closing Remarks                                                                                                 | Representative, METSS         |
| 5:00pm  | CLOSING                                                                                                         |                               |

## INTRODUCTION

This guide is designed to serve as a reference material for all field staff, including supervisors, for the fieldwork component of the Ghana Poultry Project (GPP) Midterm Performance Evaluation. It provides the background to the GPP, evaluation purpose and questions, methodology and some ethical issues for the midterm performance evaluation. It includes explanations on the contents of the questionnaire to ensure clarity, resolve inconsistencies and guarantee quality data collection. The Guide also describes the role of each member of the Evaluation team and presents communication channels.

You are required to read this document closely and be thoroughly familiar with its contents, and apply them to the GPP fieldwork.

## PROJECT BACKGROUND

The Food for Progress (FFPr) Ghana Poultry Project (GPP) is a five-year (October 2015 - December 2020) initiative which is being funded by the United States Department for Agriculture (USDA) as part of its contribution to promoting the poultry sector in Ghana. The Project sets out to achieve its outcomes by impacting 500 commercial poultry firms, 10,000 poultry households, 10 animal input supply businesses, and 20 out-grower businesses (OBs) or aggregators linked to 175 poultry farms as well as facilitating access to financial services for 26,633 individuals.

The GPP's theory of change is that, if agriculture productivity in the poultry value chain is increased through capacity building of poultry producers, associations, traders, and poultry businesses to better respond to the poultry market demands; input markets are improved; strategic investments are promoted in the poultry industry; PPPs are increased and enhanced; and the quality of the poultry products are improved; then there will be improved efficiencies at key stages of the poultry value chain, improved profitability of egg production, expanded national and regional trade in poultry products and in sector-related inputs and service markets. These will result in both a sustainable and equitable increase in incomes for male and female producers in the poultry and related commodity sectors. The underlying assumptions are that (1) Government of Ghana (GoG) supports domestic poultry market to improve the enabling environment; (2) private sector engagement is responsive to market incentives and invests in necessary upgrades to drive economic growth; and (3) sustainable growth drives prosperity among poultry and interlinked value chain firms, notably smallholder producers of maize and soy.

The midterm evaluation is expected to report on 13 GPP Performance Indicators which are as follows:

1. Percentage of poultry producers who have signed agreements with input suppliers
2. Average poultry mortality rate
3. Percentage of poultry farmers who can identify at least four identified best poultry husbandry practices as a result of USDA-GPP assistance
4. Value of sales by project beneficiaries
5. Volume of commodities (metric tons) sold by project beneficiaries
6. Number of firms engaged in agricultural and food security-related production and services that have increased profits or become financially self-sufficient with USDA assistance

7. Number of firms that invest in branding or marketing initiatives as a result of USDA assistance
8. Percentage increase in the number of input suppliers available to GPP poultry producers
9. Number of firms that regularly use market information to inform decisions
10. Number of jobs attributed to USDA assistance
11. Number of firms that comply with national established vaccination protocols
12. Percentage of farmers surveyed who use three or more improved post-production practices
13. Gross profit per farm

Considering that the GPP has been running for three years out of the projected five-year duration, the USDA and the Monitoring, Evaluation and Technical Support Service (METSS) has contracted the Directorate of Research, Innovation and Consultancy of the University of Cape Coast (UCC-DRIC) to conduct a midterm assessment of the GPP to ascertain how the Project has progressed towards the attainment of its intended objectives and expected outcomes, as well as to guide the implementation of activities in the remaining years of the Project.

## **EVALUATION PURPOSE AND QUESTIONS**

### **Evaluation Purpose**

The purpose of the midterm evaluation of the GPP is to determine:

1. the results of key outcome and output indicators tracked by the Project; and
2. whether the Project is implemented as intended and whether progress is being made towards the attainment of the Project's goal and objectives.

### **Evaluation Questions**

To help realize the purpose of the midterm performance evaluation of the GPP, the following questions will be answered based on four (4) broad themes (Relevance, Effectiveness, Efficiency, and Sustainability) under the GPP:

#### *Relevance*

1. To what extent is the Project aligned with national policies and strategies for agriculture production?
2. How relevant is the Project to the stated and immediate needs of stakeholders?

#### *Effectiveness*

1. To what extent is the Project producing worthwhile results (outputs, outcomes) and/or meeting each of its objectives?
2. What, if any, unintended consequences can be attributed to the Project?

3. To what extent has GPP coordinated with the AMPLIFIES Project and other USDA/USAID-funded projects such as the Agricultural Development and Value Chain Enhancement (ADVANCE) program; Ministry of Food and Agriculture (MoFA), other donor projects; and the private sector to achieve the overall goal of increasing the competitiveness of the poultry value chain in Ghana?

#### *Efficiency*

1. To what extent is the relationship between inputs and outputs timely, cost-effective and to the expected standards?
2. Were inputs converted into outputs in a timely and cost-effective manner?

#### *Sustainability*

1. To what extent are the Project results likely to continue after the Project?
2. Is stakeholder buy-in likely to continue or be increased after the current contract period?

### **METHODOLOGY FOR GPP MIDTERM PERFORMANCE EVALUATION**

Mixed methods will be adopted in order to answer the key evaluation questions and provide results for the GPP Performance Indicators [or Project Monitoring Plan<sup>[1]</sup> (PMP)]. The midterm evaluation of the GPP will target the project staff (GPP Office); project implementers (ACDI/VOCA and TechnoServe); staff of the donor (USDA in Ghana and Washington); and project target beneficiaries [poultry related organizations (processors, input suppliers, financial institutions (FIs), business service advisors, end market linkages or buyers) and poultry producers (tier 1 - large scale farms: more than 50,000 birds, tier 2 - medium scale farms: more than 5,000 but less than 50,000 birds, tier 3 - small scale farms: more than 50 but up to 5,000 birds), and poultry households (with maximum of 50 birds)]. Other respondents include staff of partner government institutions such as the MoFA and its Veterinary Service Directorate (VSD) and Animal Production Directorate (APD), Environmental Protection Agency (EPA), Ministry of Trade and Industry (MoTI), Food and Drugs Authority (FDA), Ghana Standard Authority (GSA); research institutions [Kwame Nkrumah University of Science and Technology (KNUST), Sunyani Technical University, Animal Research Institute (ARI) and Water Research Institute (WRI)]; Non-Governmental Organization (NGO) [Business Sector Advocacy Challenge (BUSAC)]; and poultry related groups and associations in Ghana, particularly in Greater Accra, Ashanti, and Brong Ahafo Regions.

A total of 1,414 respondents will be engaged by the study. This comprises 402 poultry producers, 692 poultry households and 208 animal input suppliers [Community Animal Health Workers (CAHWs)], 37 end market actors, one (1) representative each from GPP Office, ACDI/VOCA, and TechnoServe, two (2) representatives from MoFA and its VSD (3) and APD (3); two (2) representatives each from the donor (USDA and Ghana) and research institutes; and 48 executive members of poultry related groups and associations in Ghana, particularly in Greater Accra, Ashanti, and Brong Ahafo Regions. Two (2) each of the FIs and Business Services Advisors per region will be selected for the GPP midterm evaluation. Questionnaire, In-depth

Interview (IDI) guide and Focus Group Discussion (FGD) guide will be used as instruments for collecting data for the evaluation.

Table 1 presents a summary of the sample distribution of each category of respondents and their data collection instruments.

Table 1: Summary of Sample Distribution across Categories of Respondents

| No. | Category of respondents                        | Sample       | Type of Instrument |
|-----|------------------------------------------------|--------------|--------------------|
| 1   | Poultry Producers                              | 402          | Questionnaire      |
| 2   | Household Poultry Producers                    | 692          | Questionnaire      |
| 3   | Animal input suppliers (Veterinarians & CAHWs) | 208          | Questionnaire      |
| 4   | GPP Office                                     | 1            | IDI guide          |
| 5   | ACDI/VOCA                                      | 1            | IDI guide          |
| 6   | TechnoServe                                    | 1            | IDI guide          |
| 7   | Ministry of Food and Agriculture               | 2            | IDI guide          |
| 8   | VSD (Regional levels)                          | 3            | IDI guide          |
| 9   | APD                                            | 3            | IDI guide          |
| 10  | USDA (US and Ghana)                            | 2            | IDI guide          |
| 11  | Associations and Groups                        | 48           | FGD guide          |
| 12  | Financial Institutions                         | 6            | IDI guide          |
| 13  | Business Advisory Service Providers            | 6            | IDI guide          |
| 14  | End Market Actors                              | 37           | Questionnaire      |
| 15  | Research Institutes                            | 2            | IDI guide          |
|     | <b>Total</b>                                   | <b>1,414</b> |                    |

Table 2 shows the sample sizes for the poultry producers across the three (3) study regions.

Table 2: Sample Sizes for Poultry Producers across Region

| Regions       | Tier 1    |           | Tier 2     |            | Tier 3       |            | Total        |            |
|---------------|-----------|-----------|------------|------------|--------------|------------|--------------|------------|
|               | Pop.      | Sample    | Pop.       | Sample     | Pop.         | Sample     | Pop.         | Sample     |
| Ashanti       | 14        | 14        | 106        | 53         | 474          | 95         | 594          | 162        |
| Brong Ahafo   | 12        | 12        | 86         | 43         | 630          | 126        | 728          | 181        |
| Greater Accra | 2         | 2         | 9          | 9          | 242          | 48         | 253          | 59         |
| <b>Total</b>  | <b>28</b> | <b>28</b> | <b>201</b> | <b>105</b> | <b>1,346</b> | <b>269</b> | <b>1,575</b> | <b>402</b> |

*NB: Target focal persons of the poultry firm [The person (owner or manager) who spends most time with the production of the birds]*

As shown in Table 3, a total of 208 Animal Health Service Providers were sampled for the study.

Table 3: Regional Distribution of Animal Health Service Providers across Affiliations for Veterinarians Only

| Region        | CAHWs      |           | Private VSPs |           | VSPs       |            | Total      |            |
|---------------|------------|-----------|--------------|-----------|------------|------------|------------|------------|
|               | Pop.       | Sample    | Pop.         | Sample    | Pop.       | Sample     | Pop.       | Sample     |
| ASHANTI       | 83         | 33        | 3            | 3         | 104        | 42         | 190        | 78         |
| BRONG AHAFO   | 79         | 32        | 1            | 1         | 70         | 28         | 150        | 61         |
| EASTERN       | 0          | 0         | 0            | 0         | 2          | 2          | 2          | 2          |
| GREATER ACCRA | 44         | 18        | 8            | 8         | 74         | 30         | 126        | 57         |
| NORTHERN      | 0          | 0         | 0            | 0         | 4          | 4          | 4          | 4          |
| UPPER WEST    | 0          | 0         | 0            | 0         | 2          | 2          | 2          | 2          |
| VOLTA         | 0          | 0         | 0            | 0         | 6          | 6          | 6          | 6          |
| <b>Total</b>  | <b>206</b> | <b>83</b> | <b>12</b>    | <b>12</b> | <b>262</b> | <b>114</b> | <b>480</b> | <b>208</b> |

A total sample of 692 was arrived at for Poultry Households, as shown in Table 4.

Table 4: Sampling of Poultry Households across Regions and Districts

| Region      | District             | Population | Sample |
|-------------|----------------------|------------|--------|
| Ashanti     | ATWIMA KWANWOMA      | 440        | 44     |
| Ashanti     | ATWIMA NWABIAGYA     | 478        | 48     |
| Ashanti     | EJISU/JAUBEN         | 531        | 53     |
| Ashanti     | EJURA SEKYEREDUMASE  | 613        | 61     |
| Ashanti     | KUMASI METROPOLITAN  | 218        | 22     |
| Ashanti     | KWABRE EAST          | 288        | 29     |
| Ashanti     | OFFINSO NORTH        | 533        | 53     |
| Ashanti     | OFFINSO SOUTH        | 543        | 54     |
| Brong Ahafo | BEREKUM              | 256        | 26     |
| Brong Ahafo | DORMAA AHENKRO       | 32         | 3      |
| Brong Ahafo | DORMAA CENTRAL       | 55         | 5      |
| Brong Ahafo | DORMAA EAST          | 262        | 26     |
| Brong Ahafo | DORMAA MUNICIPAL     | 290        | 29     |
| Brong Ahafo | DORMAA WEST          | 299        | 30     |
| Brong Ahafo | SUNYANI EAST         | 5          | 5      |
| Brong Ahafo | SUNYANI MUNICIPALITY | 18         | 18     |

|               |                           |              |            |
|---------------|---------------------------|--------------|------------|
| Brong Ahafo   | SUNYANI WEST              | 127          | 13         |
| Brong Ahafo   | TECHIMAN MUNICIPAL        | 233          | 23         |
| Brong Ahafo   | TECHIMAN NORTH            | 1            | 1          |
| Brong Ahafo   | WENCHI                    | 131          | 13         |
| Greater Accra | ACCRA METRO               | 47           | 5          |
| Greater Accra | ADA EAST                  | 86           | 9          |
| Greater Accra | ADA WEST                  | 178          | 18         |
| Greater Accra | ASHIAMAN MUNICIPAL        | 27           | 27         |
| Greater Accra | GA EAST MUNICIPAL         | 248          | 25         |
| Greater Accra | GA SOUTH MUNICIPAL        | 76           | 8          |
| Greater Accra | GA WEST MUNICIPAL         | 76           | 8          |
| Greater Accra | KPONE KATAMANSO MUNICIPAL | 89           | 9          |
| Greater Accra | LA DADE-KOTOPON MUNICIPAL | 8            | 8          |
| Greater Accra | TEMA METRO                | 6            | 6          |
| Greater Accra | TEMA MUNICIPAL            | 141          | 14         |
| <b>TOTAL</b>  |                           | <b>6,335</b> | <b>692</b> |

## Arrangement for Data Collection

The fieldwork for the midterm performance evaluation will cover a maximum period of 14 days. Considering that about 50 percent of the poultry farmers sampled for the GPP midterm evaluation also received technical support and training from the AMPLIFIES project (*whose midterm performance evaluation is underway*), the instruments (questionnaire) for data collection from such poultry farmers for both projects have been merged. In effect, GPP and AMPLIFIES field assistants assigned to collect data from such poultry farmers will work together to administer a merged questionnaire. This arrangement is aimed at eliminating potential respondents' fatigue in collecting data for both projects. The other project instruments have been designed exclusively for GPP beneficiaries.

## ETHICAL ISSUES

The Project has secured ethical clearance from the UCC Institutional Review Board. Ethical considerations under the Project shall include explaining the purpose of the survey to the respondent and requesting the respondent to sign a written informed-consent form before the instruments are administered. All field staff are to ensure confidentiality of the data collected, that data files are shared only among relevant persons, and that data will be used solely for the purpose for which they were collected. To adhere to ethical considerations, all field staff will be required to sign Code of Ethical Conduct, Conflict of Interest and Non-Disclosure agreement with the Consultant.

## ANTICIPATED CHALLENGES OR LIMITATIONS AND MITIGATION MEASURES

From our experience with the implementation of similar projects and in project sites same as the GPP, one of our anticipated challenges will be unreliable network or Internet connectivity. This is especially the case with the adoption of electronic data collection in which completed instruments have to be uploaded onto a system. To overcome this challenge, the CAPI software has been configured to allow data collection without Internet access for uploading at a later time when Internet access is available.

Related to this is the non-functioning of electronic gadgets such as tablets for the data collection as well as weak batteries to power the tablets. It is believed that spare batteries will be carried by all field staff to help resolve such cases. In the worst scenario, a paper version of the instrument will serve as a back up measure.

Some respondents may exhibit signs of fatigue following their involvement in a number of similar or different projects as respondents. Respondents have been informed well in advance to block time for the data collection when it is due. Alternative time arrangements should be made with respondents who for some reasons will not be available as scheduled.

There may be difficulty in obtaining data, particularly financial information, from the poultry farmers. In the event that poultry farmers do not keep good records, respondents must be given some time to think through their answers and recall the answers. The interviewer should break the relevant question down completely to the understanding of the respondent in order to aid recall of the issues with a good level of confidence. Respondents should adopt triangulation to cross validate and confirm the responses during the data collection period.

## ROLES AND RESPONSIBILITIES

The midterm evaluation will engage the services of three categories of field staff which are Field Assistants, Team Supervisors and Data Quality Control Monitors. All field staff play a key role in collecting quality and accurate data as well as ensuring the success of the midterm performance evaluation.

### Field Assistants

- Collect quantitative data (standard and quality data) from the sampled respondents on daily basis;
- Complete, at least, six (6) instruments per day;
- Export or submit, at least, six (6) completed survey instruments to Field Supervisor each day;
- Abide by the professional ethics for collecting survey data and dispense skilled roles as clearly specified in the Training Manual provided and discussed during the training program;
- Ensure that all equipment assigned to them are properly taken care of and returned in a functional condition at the end of the survey period prior to final payment;
- Liaise with field supervisor on daily achievements of data collection and quality; and
- Promptly alert and discuss with the field supervisor and/or DRIC-UCC staff on data collection challenges and unexpected situations when they arise to ensure that a group decision is reached on the steps to be taken.

### **Team Supervisors**

- Oversee all the activities of their team members;
- Arrange and account for logistics such as tablets, vehicles and imprest;
- Review completed questionnaire with Field Assistants on a daily basis after the surveys for the day are complete;
- Organize debriefing with team members after the surveys for the day are complete;
- Develop a positive spirit and cooperation among team members; and
- Regularly (at least once a week) update the Resource Persons from UCC-DRIC on fieldwork processes, experiences, progress and challenges.

### **Data Quality Control Monitors**

- Receive raw data on daily basis from Team Supervisors;
- Check the data for consistency, accuracy and completeness; and
- Export the verified data to a central database repository.

The research team will comprise Resource Persons from UCC-DRIC, Team Supervisors, Field Assistants and Data Quality Control Monitors. Officers from METSS will also support the monitoring of fieldwork activities.

## **COMMUNICATION CHANNELS**

Field staff should contact Resource Persons from UCC-DRIC on all issues concerning the fieldwork exercise. Contact number is **020-3915027**. Email address is [dric@ucc.edu.gh](mailto:dric@ucc.edu.gh).

---

## **CONCEPTS AND ISSUES IN QUESTIONNAIRE**

## Front Matters of Questionnaire (Questionnaire for Poultry Farmers)

The GPP and AMPLIFIES have merged the questionnaire for the poultry farmers. The questionnaire comprises seven (7) sections which have been organized by topics as follows:

1. Introduction and Informed Consent
  2. Respondent Identification
  3. Module A: Socioeconomic and Farm Characteristics
  4. Module B: AMPLIFIES Project (Exclusive)
  5. Module C: Ghana Poultry Project (Exclusive)
  6. Module D: AMPLIFIES and GPP
  7. Module E: Recommendations
- **Introduction and informed consent:** An interviewer must first introduce him or her self and the purpose of the study to the respondent by reading the consent form which should be signed (or thumb printed) by the respondent. Ensure that you complete the issues under Introduction and Informed Consent before starting the interview.
  - **GPS coordinates:** This will be taken by field staff (If using CAPI).
  - **Interviewer's code:** This is specific to an interviewer and will be made available to interviewers.
  - **Community code:** Will be supplied to interviewers.
  - **Settlement type:** Urban – A population of 5,000 and above; Rural – A population below 5,000. Will be supplied to interviewers.

## Specifics in Questionnaire (Module A: Socioeconomic and Farm Characteristics)

- **Sex of respondent:** The person (owner or manager) who spends most time with the production of the birds.
- **Age of respondents:** This should be recorded in completed number of years. It should be a minimum of 15.
- **Source of income:** Focus is on the **main** (*source that gives maximum income*) source of income to the poultry farmer. If poultry enterprise is not the main source of income of the poultry producer, probe what the farmer's main source of income is.
- **Duration of engagement in poultry production:** Record in months. For example, if the period of a poultry farmer's engagement in poultry is 3 years, convert to months, that is,  $3 \times 12 = 36$  months. You have to record 

|   |   |   |
|---|---|---|
| 0 | 3 | 6 |
|---|---|---|
- **Ownership system of poultry farm:**
  - o Sole-proprietorship (is a business owned and operated by one person);
  - o Limited Partnership (Some partners have limited liability, while others do not have limited liability);
  - o Limited Liability (All owners are liable for the company's debt only to the total capital invested. They do not take part in daily operations or management of the business); and
  - o Corporation (Large or a group of companies managed together as a single entity).

- **Production system:** Emphasis is on the **dominant** production system of operation.
  - Free range (The birds can roam freely outdoors for at least part of the day, rather than being confined in an enclosure for 24 hours each day);
  - Battery cage (primarily for egg-laying hens that are confined to a cage); and
  - Deep litter system (raising poultry on floors [cement], but covered repeatedly with litters such as straw, sawdust or wood shavings).
  - Semi-intensive (Birds are sheltered in two or more pens and natural vegetation where the birds can forage)
- **Average size of poultry farm:** Should be recorded in square feet. Emphasis is on where the birds are kept and not the whole plot of land. Compute the size of the poultry farm from the dimensions of a plot of land as measured in that community. For example, if a plot of land is measured as 80 x 80 feet, a poultry farm that covers half of the plot will be computed as 40 x 40 = 1,600 square feet.
- **Available structures on farm:** Tick all the structures that apply.
- **Operational structures on farm:** Tick all the structures that are operational (functional) on the farm.
- **Source of poultry feed:** Interviewers should rank the sources of feed from 1 to 3 (1=Highest; 2=Higher; and 3=High), if there are multiple sources.
  - **Self-mixing/Concentrates** - The farmer produces their own feed with the help of a hand shovel; he/she doesn't have feed processing equipment
  - **Commercial feed mills** - Feed prepared by large-scale commercial feed mills such as Agricare, GAPFA, Flour Mills of Ghana, etc.
  - **On-site feed mills/processing plant** - Poultry farmers have their own processing plant for producing feed

### Specifics in Questionnaire (Module B: AMPLIFIES - Exclusive)

- **Year of first training or technical assistance received from AMPLIFIES:** This is specific to AMPLIFIES and not any training/assistance from other sources.
- **New things learnt from AMPLIFIES assistance in 2018:** Multiple responses are allowed. These include the following:
  - **Feeding to genetics and age of birds manufacturing**
  - Poultry farmers have been trained and encouraged to request for specific nutritional requirement of genetics of Day-Old Chicks (DOCs) they procure from hatcheries.
  - Poultry farmers have also received training on tailoring feed formulation to the needs (nutritional requirements) of specific birds so as to reduce cost of production and increase profit.
    - **Use of good quality ingredients**
  - Some farmers used to prepare feeds with grains of poor quality as they felt that those of good quality were mainly for human consumption. The use of grains of poor quality negatively affected growth of birds.
  - Through AMPLIFIES intervention, poultry farmers have been adequately trained on sourcing quality ingredients for formulating feeds which in turn lead to optimal growth of birds and production of eggs.

- o **Farm record keeping**
- Farmers have also been given bookkeeping skills in the area of recording transactions, cost of production and all other poultry related expenses through the AMPLIFIES project.
- Farm Record Books have also been distributed to farmers to aid them in tracking their daily activities.
- o **Good storage practices**
- AMPLIFIES has taken poultry farmers through industry standards for storage of feed ingredients such as the use of Zerofly/PICS and hermetic bags, and the use of pallets.
- These techniques/technologies reduce the loss of ingredients and keep them fresh and free from contamination/insect infestations for long periods.
- o **Packaging of feed**
- Poultry famers with on-farm feed processing plants and feed millers have benefitted from proper packaging of feed and other branding workshops held by AMPLIFIES project.
- o **Use of feed nutritionist in formulating diets**
- The use of industry-specific nutritionists in formulating diets/feed of birds has been promoted amongst poultry farmers in order for them to properly prepare feed based on the nutritional requirement of their birds.
- o **Mycotoxin testing (e.g. Aflatoxin testing)**
- Poultry farmers through the AMPLIFIES Project know the need to test for aflatoxins caused by fungi to avoid giving contaminated feed to birds.
- Poultry farmers have been trained on proper post-harvesting and storage techniques to reduce contamination
- Several feed testing facilities have been supported with equipment and technical assistance to improve their feed testing capacity. These facilities have been able to expand their test portfolio and turnaround time through support of AMPLIFIES. Some of these testing facilities include Animal Science Department Lab in University, KNUST.
- *Please avoid the use of “Poison” in place of aflatoxin in your translation when interviewing farmers. You may simply ask if they test for “aflatoxin” in twi or any other local language. Most of the poultry farmers are conversant with the term “aflatoxin” regardless of their educational background.*
- o **Uniformity testing and analysis**
- Uniformity testing is conducted to know how well blended poultry feed is in order for the birds to absorb the necessary nutrients when they consume it.
- Poultry farmers who mix their feed with hand shovel have been taken through efficient ways of ensuring that feeds are properly mixed. An example of this technique is the number of times feed ingredients must be turned in order for it to be well blended or mixed.
- Feed mills or poultry farmers with their own vertical processing plant or mill are trained on the optimum feed mixing time and filling to at least 75% of the capacity of the vertical mixers.
- *This training is only given to beneficiaries/poultry farmers/feed millers who produce their own feed either through self-mixing or on-site feed mills/processing plants. It doesn't apply to beneficiaries who use commercial feed.*
- o **Testing for moisture**

- Determining the right moisture content of maize/grains is important for the formulation of good diets/feed of birds.
- Poultry farmers have been trained on checking for the right moisture content in maize/grains through the use of moisture meters. Some farmers have also been given moisture meters to enable them determine the moisture content of grains.
  - o **Farm sanitation**
- Poultry farmers have been trained on proper sanitation techniques to ensure that their warehouses are in the best of states to avoid contamination
- Farmers have also been trained on biosecurity measures such as complete cleaning, washing and disinfection of pens before chicks are placed, and use of footbaths at points of entry into the pens.
  - o **Management and maintenance of feed processing (e.g. Maintenance of lift of auger)**
- Farmers with on-farm feed mills have been trained on ways to manage and maintain their feed processing equipment in order to optimize their feed manufacturing processes.
- *This training is only given to beneficiaries/poultry farmers who have their own on-farm feed mills.*
- **Techniques/technologies in poultry business learned:** Multiple responses are allowed.
- **Current bird capacity:** This refers to the number of birds a poultry farmer is able to produce.
- **Poultry production cycle:** It could be continuous (all year round), seasonal (during festive and holidays) and custom special (during special occasions). Multiple responses are permitted. Also, record the number of production cycle of the farmer for the year 2018.
- **Type of feed used for birds:** It could be self-hand mixed feed, locally purchased commercial feed or improved formulated feed. Multiple responses are allowed.
- **Type of production system employed:** Record the type of system being adopted by the poultry producer.
- **Unintended results:** Ask for any unintended results (positive or negative) of the AMPLIFIES project that the farmer observed or that were reported to him/her by other poultry farmers.

### Specifics in Questionnaire (Module C: Ghana Poultry Project - Exclusive)

- **Agreement with value chain actors:** This can be formal (written and signed) or non-formal (usually verbal) agreement.
- **Source of market information:** Concentration is on the main source of information.
- **Channel of receiving market information:** Concentration is on the preferred (desired) source of information.
- **Vaccination protocol:** Tick all that apply.
  - o **Gumboro Intermediate** – Infectious Bursal Disease, also known as Gumboro, is a contagious viral infection that attacks poultry, but mainly chickens. The disease is caused by a virus that is shed in the droppings and transferred from house to





## GlobiVac® IBD Cu-1M

### Soft on Bursa and hard on protection

---

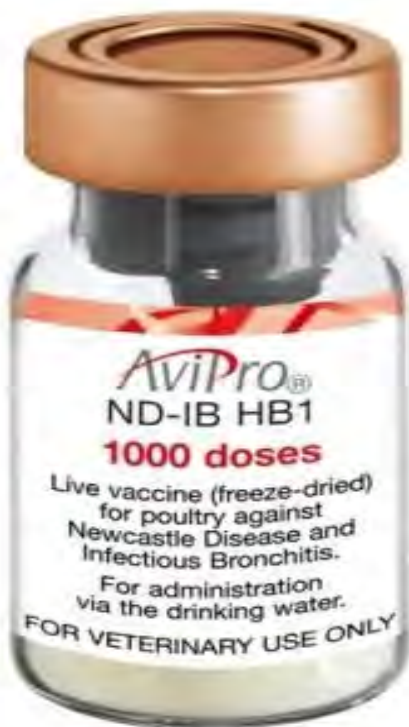
- Intermediate Gumboro Vaccine
- Breaks through higher levels of maternal antibodies
- Does not cause immuno-suppression
- Proven under the most adverse conditions
- Ideal routine prophylaxis for broilers, layers & breeders



Globivac® IBD Cu-1M (live vaccine) (Shown inside) (Bacterial Strain: Brouwer). For avian species (Broilers, Rural Poultry). The administration via this is simple, rapid, by eye or as dry spray attachment. Each dose contains 10<sup>7</sup>-10<sup>8</sup>, 1000 doses inside (in 10ml). Active ingredients: 10<sup>7</sup> live bacteria strains against Infectious Bursal Disease (IBD) (H+K/MS/01). Water, 200 mg/ml, 1000 doses, 1000 strains. (Brouwer de Leeuw bv) - the price, location and/or contact info is subject to change.



**NEW-VACIN (HB1)**  
 Vacina viva contra a Doença de Newcastle  
 Origem de Cães WP - Virus WBV - Isolado  
**USO VETERINÁRIO**  
 Contém 10 frascos de 1,00 ml cada  
**Biovet**  
 SAC



- o LaSota vaccine, Newcastle vaccine, etc. –

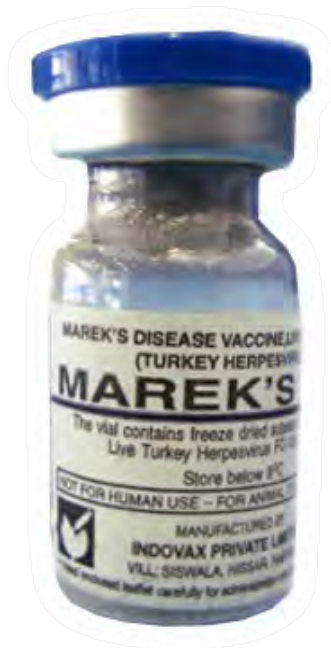


- o Fowl pox – Fowl Pox Vaccine is for vaccination of healthy chickens aged 8 weeks or older, but at least 4 weeks prior to start of lay. When used as indicated, it will aid in preventing the clinical signs caused by the virulent field strains of fowl pox

virus. Fowl Pox Vaccine is a chicken embryo propagated, freeze-dried, live virus vaccine for wing web administration in chickens.



- o **Merek's Vaccine -**



- **Post-production practices:** Ask for evidence or observe the practice for *Storage of eggs*; and *Slaughtering of birds for sale*. Tick all that apply.
- **Production year:** Calendar year.
- **Fiscal year:** From March to October within a year.
- **Total profit:** Calculate by subtracting *Total Cost* from *Total Revenue*.
- **Good Manufacturing Practice (GMP) based standards:** It is a system to ensure that products meet food safety, quality and legal requirements.
- **Total cost of poultry items:** Calculate by multiplying quantity (unit) with unit cost (GHS) per year.
- **Hazard Analysis and Critical Control Point (HACCP based standards:** HACCP can be part of GMP and is a systematic program to assure food safety.
- **Unintended benefits or challenges:** Benefits/Challenges that were not planned or meant for the implementation of the project.

### Specifics in Questionnaire (Module D: AMPLIFIES AND GPP)

- **Current employees in poultry farm:** This refers to the total workers in the poultry farm.
- **Employment of new worker:** Refers to the employment of new workers from 2016 to 2018. Categorize workers into male and female under permanent and casual workers.
- **Employment as a result of GPP and AMPLIFIES:** New employed workers because of GPP and AMPLIFIES.
- **Duration of new employee contract:** Take the first 10 in rank; but if more than 10 employees, record the average of the remaining employees.
- **Number of family workers engaged on poultry farm:** Record this at the individual level (E.g., Family worker 1, 2, 3, etc.) but include only adults (above 18 years).
- **Source of obtaining feed for poultry farm:** Multiple responses are allowed.

### Specifics in Questionnaire (Module E: Recommendations)

This section is as important as all the others. The enumerator must guide the respondent to clearly state his/her recommendations for improving this and other projects at increasing productivity of poultry products, feed, feed input and poultry business in general.

### Questionnaire for the Other Categories of Respondents

The structure and issues in the other sets of questionnaire have similarities with that of the poultry producers.

### Annex 5: Details of Field Staff and Region Allocation

| S/N | Name | Role            | Assigned Region | Phone Number | Email Address |
|-----|------|-----------------|-----------------|--------------|---------------|
| 1.  |      | Supervisor      | Ashanti         |              |               |
| 2.  |      | Field Assistant | Ashanti         |              |               |
| 3.  |      | Field Assistant | Ashanti         |              |               |
| 4.  |      | Field Assistant | Ashanti         |              |               |
| 5.  |      | Field Assistant | Ashanti         |              |               |
| 6.  |      | Field Assistant | Ashanti         |              |               |
| 7.  |      | Field Assistant | Ashanti         |              |               |
| 8.  |      | Field Assistant | Ashanti         |              |               |
| 9.  |      | Field Assistant | Ashanti         |              |               |
| 10. |      | Supervisor      | Brong Ahafo     |              |               |
| 11. |      | Field Assistant | Brong Ahafo     |              |               |
| 12. |      | Field Assistant | Brong Ahafo     |              |               |
| 13. |      | Field Assistant | Brong Ahafo     |              |               |
| 14. |      | Field Assistant | Brong Ahafo     |              |               |
| 15. |      | Field Assistant | Brong Ahafo     |              |               |
| 16. |      | Field Assistant | Brong Ahafo     |              |               |

|     |  |                    |                  |  |  |
|-----|--|--------------------|------------------|--|--|
| 17. |  | Supervisor         | Greater<br>Accra |  |  |
| 18. |  | Field<br>Assistant | Greater<br>Accra |  |  |
| 19. |  | Field<br>Assistant | Greater<br>Accra |  |  |
| 20. |  | Field<br>Assistant | Greater<br>Accra |  |  |
| 21. |  | Field<br>Assistant | Greater<br>Accra |  |  |

## **Annex 6: Summary Outcome (Response Rate) of Data Collection**

### **Table 3F: Distribution of Qualitative Data Collected**

| Category                            | Method | Sample    | Completed | Response Rate (%) |
|-------------------------------------|--------|-----------|-----------|-------------------|
| GPP Office                          | IDI    | 1         | 1         | 100.00            |
| ACDI/VOCA                           | IDI    | 1         | 1         | 100.00            |
| TechnoServe                         | IDI    | 1         | 1         | 100.00            |
| MoFA                                | IDI    | 2         | 2         | 100.00            |
| VSD (Regional levels)               | IDI    | 3         | 3         | 100.00            |
| APD                                 | IDI    | 3         | 3         | 100.00            |
| GSA                                 | IDI    | 3         | 2         | 66.67             |
| FDA                                 | IDI    | 3         | 3         | 100.00            |
| EPA                                 | IDI    | 3         | 2         | 66.67             |
| USDA (United States and Ghana)      | IDI    | 2         | 0         | 0.00              |
| FIs                                 | IDI    | 6         | 5         | 83.33             |
| Business Advisory Service Providers | IDI    | 6         | 6         | 100.00            |
| Research Institutes                 | IDI    | 2         | 2         | 100.00            |
| Associations and Groups             | FGD    | 48        | 40        | 83.33             |
| <b>TOTAL</b>                        |        | <b>84</b> | <b>71</b> | <b>84.52</b>      |

**Table 3G: Response Rate for Quantitative Data Collection**

| Category of Respondents        | Status    | Region        |              |              | TOTAL        |
|--------------------------------|-----------|---------------|--------------|--------------|--------------|
|                                |           | Greater Accra | Ashanti      | Brong Ahafo  |              |
| Poultry Producers              | Completed | 44            | 135          | 151          | 330          |
|                                | Sample    | 59            | 162          | 181          | 402          |
| <b>Response rate</b>           |           | <b>74.58</b>  | <b>83.33</b> | <b>83.43</b> | <b>82.09</b> |
| Poultry Households             | Completed | 135           | 325          | 162          | 622          |
|                                | Sample    | 136           | 364          | 192          | 692          |
| <b>Response rate</b>           |           | <b>99.26</b>  | <b>89.29</b> | <b>84.38</b> | <b>89.88</b> |
| VSPs from VSD (District Level) | Completed | 10            | 22           | 10           | 42           |
|                                | Sample    | 38            | 45           | 29           | 112          |
| <b>Response rate</b>           |           | <b>26.32</b>  | <b>48.89</b> | <b>34.48</b> | <b>37.50</b> |
| CAHWs                          | Completed | 10            | 12           | 11           | 33           |
|                                | Sample    | 17            | 33           | 32           | 82           |
| <b>Response rate</b>           |           | <b>58.82</b>  | <b>36.36</b> | <b>34.38</b> | <b>40.24</b> |
| End Market Actors              | Completed | 3             | 5            | 4            | 12           |
|                                | Sample    | 24            | 6            | 7            | 37           |

|                      |           |              |              |              |              |
|----------------------|-----------|--------------|--------------|--------------|--------------|
| <b>Response rate</b> |           | <b>12.50</b> | <b>83.33</b> | <b>57.14</b> | <b>32.43</b> |
| TOTAL                | Completed | 202          | 499          | 338          | 1039         |
|                      | Sample    | 274          | 610          | 441          | 1329         |
| <b>Response rate</b> |           | <b>73.72</b> | <b>81.80</b> | <b>76.64</b> | <b>78.18</b> |

**Table 3H: Response Rate across Categories of Respondents**

| No. | Category of respondents                                   | Sample       | Completed    | Response Rate (%) |
|-----|-----------------------------------------------------------|--------------|--------------|-------------------|
| 1.  | Poultry Producers                                         | 346          | 330          | 95.38             |
| 2.  | Poultry Households                                        | 692          | 622          | 89.88             |
| 3.  | Input Suppliers [Animal Health Service Providers (CAHWs)] | 85           | 33           | 38.82             |
| 4.  | VSD (District Level Providers)                            | 109          | 42           | 38.53             |
| 5.  | End Market Actors                                         | 37           | 12           | 32.43             |
| 6.  | GPP Office                                                | 1            | 1            | 100.00            |
| 7.  | ACDI/VOCA                                                 | 1            | 1            | 100.00            |
| 8.  | TechnoServe                                               | 1            | 1            | 100.00            |
| 9.  | MoFA                                                      | 2            | 2            | 100.00            |
| 10. | VSD (Regional Levels)                                     | 3            | 3            | 100.00            |
| 11. | APD                                                       | 3            | 3            | 100.00            |
| 12. | GSA                                                       | 3            | 2            | 66.67             |
| 13. | FDA                                                       | 3            | 3            | 100.00            |
| 14. | EPA                                                       | 3            | 2            | 66.67             |
| 15. | USDA (United States and Ghana)                            | 2            | 0            | 0.00              |
| 16. | FIs                                                       | 6            | 5            | 83.33             |
| 17. | Business Service Advisors                                 | 6            | 6            | 100.00            |
| 18. | Research Institutes                                       | 2            | 2            | 100.00            |
| 19. | Associations and Groups                                   | 48           | 40           | 83.33             |
|     | <b>Total</b>                                              | <b>1,409</b> | <b>1,110</b> | <b>78.78</b>      |

**Table 3I: Data Collection for Poultry Producers across Region**

| Regions       | Tier 1    |           | Tier 2     |           | Tier 3     |            | Total      |            |
|---------------|-----------|-----------|------------|-----------|------------|------------|------------|------------|
|               | Sample    | Completed | Sample     | Completed | Sample     | Completed  | Sample     | Completed  |
| Ashanti       | 14        | 8         | 53         | 34        | 95         | 93         | 162        | 135        |
| Brong Ahafo   | 12        | 2         | 43         | 15        | 126        | 134        | 181        | 151        |
| Greater Accra | 2         | 1         | 9          | 3         | 48         | 40         | 59         | 44         |
| <b>Total</b>  | <b>28</b> | <b>11</b> | <b>105</b> | <b>52</b> | <b>269</b> | <b>269</b> | <b>402</b> | <b>330</b> |

## Annex 7: Metadata in Codebook

### RESPONDENT IDENTIFICATION

## Region

**Reference code:** Region

**Type:** Primary variable

**Definition:** Region is the region in which the farm is being operated.

**Classification:** Three (3) regions were sampled for this survey. These included Greater Accra (3), Ashanti (6) and Brong Ahafo (7) regions. These are classified under the 10 former administrative regions of Ghana.

**Total number of categories:** 3

**Reason for asking this question:** This important information was obtained so that farms could be broken down into the regions of location. This would provide the regional distribution of the program.

## District

**Type:** Primary variable

**Definition:** District is the local administrative areas within the country. These includes district, metropolitan, municipal areas.

**Classification:**

|      |                            |      |                     |      |                      |
|------|----------------------------|------|---------------------|------|----------------------|
| 3.   | Greater Accra              | 6.   | Ashanti Region      | 7.   | Brong Ahafo Region   |
| 301. | GA SOUTH MUNICIPAL         | 605. | OBUASI MUNICIPAL    | 704. | DORMAA MUNICIPAL     |
| 303. | GA EAST MUNICIPAL          | 606. | ADANSI NORTH        | 705. | DORMAA EAST          |
| 304. | ACCRA METRO                | 611. | EJISU/JAUBEN        | 707. | TANO NORTH           |
| 305. | ADENTAN MUNICIPAL          | 613. | ATWIMA KWANWOMA     | 708. | SUNYANI MUNICIPALITY |
| 306. | LEDZOKUKU-KROWOR MUNICIPAL | 614. | KUMASI METROPOLITAN | 709. | SUNYANI WEST         |
| 307. | ASHIAMAN MUNICIPAL         | 615. | ATWIMA NWABIAGYA    | 710. | BEREKUM              |
| 308. | TEMA METRO                 | 617. | AHAFO ANO SOUTH     | 714. | WENCHI               |

|      |                                 |      |                        |      |                    |
|------|---------------------------------|------|------------------------|------|--------------------|
| 310. | ADA EAST                        | 618. | OFFINSO SOUTH          | 715. | TECHIMAN MUNICIPAL |
| 311. | GA CENTRAL                      | 619. | AFIGYAKWABRE           | 716. | NKORANZA           |
| 313. | LA-NKWANTANANG<br>MADINA        | 620. | KWABRE EAST            | 721. | KINTAMPO SOUTH     |
| 314. | KPONE<br>KATAMANSO<br>MUNICIPAL | 621. | SEKYERE SOUTH          | 722. | KINTAMPO NORTH     |
| 316. | ADA WEST                        | 623. | SEKYERE EAST           | 724. | DORMAA WEST        |
| 317. | DANGBE EAST                     | 625. | SEKYERE<br>CENTRAL     | 725. | TECHIMAN NORTH     |
| 319. | OSU KLOTTEY                     | 626. | EJURA<br>SEKYEREDUMASE | 728. | DORMAA<br>AHENKRO  |
|      |                                 | 627. | OFFINSO NORTH          | 729. | SUNYANI EAST       |
|      |                                 | 628. | ASOKORE<br>MAMPONG     |      |                    |
|      |                                 | 631. | MAMPONTENG             |      |                    |

**Total number of categories:** 47

## Settlement

**Reference code:** Settlement

**Type:** Primary variable

**Definition:** Settlement captures the location of the farm.

### Classification:

- 1 Rural
- 2 Urban

**Reason for asking:** Information on the settlement was asked so as to identify the rural and urban distribution of the projects.

## Project Benefited From

**Reference Code:**

**Type:** Primary variable

**Definition:** The type of project that the farmer has benefited from.

**Classification:**

- 1      AMPLIFIES
- 2      GPP
- 3      BOTH GPP and AMPLIFIES

**Reason for asking:** This information is needed, as there were two main projects that respondents may benefit from either or both projects. This is needed so as to distinguish between them and identify who was going to answer questions related to either or both of the projects.

**Community number**

**Reference code:** commno

**Type:** Primary variable

**Definition:** This gathers information on the community in which the farm is located.

**Status of the respondent**

**Reference code:** Status

**Type:** Primary variable

**Definition:** This collects information on the status of the respondent on the farm.

**Classification:**

- 1      Owner
- 2      Manager
- 3      Senior Employee

## MODULE A: SOCIOECONOMIC AND FARM CHARACTERISTICS

**Sex of respondent**

**Reference code:** SEX / AQ1

**Type:** Primary Variable

**Definition:** The classification of farmers or respondents as either male or female

**Classification:**

- 1      Male

2 Female

**Reason for asking:** this is very important as it helps to produce statistical breakdowns of the respondents by sex. It may be useful for gender equality measurement.

### **Completed number of years**

**Reference code:** AGE / AQ2

**Type:** Primary Variable

**Definition:** This is collected the information on the completed number of years of the respondent farmer as stated by the farmer. That is age in years of the farmer at his/her last birthday.

### **Level of formal Education**

**Reference code:** Education / AQ3

**Type:** Primary Variable

**Definition:** This is the information on the level of formal education of respondent. This is a pre-coded question for the respondent to choose from.

#### **Classification:**

- |   |                       |
|---|-----------------------|
| 1 | None                  |
| 2 | Informal education    |
| 3 | Basic                 |
| 4 | Certificate/Secondary |
| 5 | Diploma               |
| 6 | Bachelors             |
| 7 | Post-graduate         |

### **Agriculture training**

**Reference code:** AGRICTRAIN / AG4

**Type:** Primary Variable

**Definition:** Has the farmer benefited from any other agriculture or agriculture-related course(s) which is different from what was given by GPP or AMPLIFIES training intervention.

#### **Classification:**

- |   |     |
|---|-----|
| 1 | Yes |
| 2 | No  |

**Agriculture training type**

**Reference code:** AGRICTRAINTYPE / AG5

**Type:** Primary Variable

**Definition:** The type of non-GPP/AMPLIFIES agriculture training received by farmer

**Classification:**

- |   |          |
|---|----------|
| 1 | Formal   |
| 2 | Informal |

**Poultry main income source**

**Reference code:** AQ6

**Type:** Primary Variable

**Definition:** Is the poultry enterprise the main source of income to the farmer

**Classification:**

- |   |     |
|---|-----|
| 1 | Yes |
| 2 | No  |

**Main source of income**

**Reference code:** AQ7

**Type:** Primary Variable

**Definition:** The main source of income if poultry enterprise is not the main source of income.

**Classification:**

- |   |                                       |
|---|---------------------------------------|
| 1 | Formal government work                |
| 2 | Formal private work                   |
| 3 | Artisan (such as carpenter and mason) |
| 4 | Trading/commerce                      |
| 5 | Farming                               |
| 6 | Pension benefits                      |
| 7 | Remittances                           |
| 8 | Other informal services (specify)     |

**Length of poultry production**

**Reference code:** AQ8

**Type:** Primary Variable

**Definition:** How long in years has the farmer been in poultry production

### **Ownership system**

**Reference code:** AQ9

**Type:** Primary Variable

**Definition:** The type of ownership system operated by the poultry enterprise

**Classification:**

- 1 Sole-proprietorship
- 2 Limited Partnership
- 3 Limited Liability
- 4 Corporation

### **Dominant production system**

**Reference code:** AQ10

**Type:** Primary Variable

**Definition:** The dominant production system that is being practiced on the farm

**Classification:**

- 1 Free range
- 2 Battery cage
- 3 Deep litter system
- 4 Semi-intensive

### **Farm structure size**

**Reference code:** AQ11

**Type:** Primary Variable

**Definition:** Information on the average size of the farm structure in square feet

### **Available structures**

**Reference code:** AQ12

**Type:** Primary Variable

**Definition:** Indicating the structures that are available on the farm. Respondents are to tick all applicable choices among the list provided.

**Classification:**

- 1 Brooder house
- 2 Breeder farm
- 3 Hatchery
- 4 Feed mill
- 5 Processing plant
- 6 None

**Operational structures**

**Reference code:** AQ13

**Type:** Primary Variable

**Definition:** Selection of listed structures that are operational on the farm.

**Classification:**

- 1 Brooder house
- 2 Breeder farm
- 3 Hatchery
- 4 Feed mill
- 5 Processing plant
- 6 None

**Source of poultry feed**

**Reference code:** AQ14

**Type:** Primary Variable

**Definition:** The main source of poultry feed. Where there are multiple sources, the sources should be ranked from highest to lowest.

**Classification:**

- 1 Self-mixing/Concentrates
- 2 Commercial feed mills
- 3 On-site feed mills/processing plant
- 4 Other (specify)

**MODULE C: GHANA POULTRY PROJECT (EXCLUSIVE)**

---

## **Contract Agreement**

**Reference code:** CQ1

**Definition:** Information to capture whether the farmer has any contract agreement with any other value chain actors

**Classification:**

- 1 Yes
- 2 No

## **Formal or informal contract**

**Reference code:** CQ2

**Definition:** Number of formal or informal contract agreements farmer has with value chain actors

**Classification:**

- i Input suppliers (DOC)
- ii Input supplier (Feed/feed ingredients)
- iii Input supplier (Veterinary products)
- iv Input supplier (Other)
- v Buyers
- vi Live birds sellers
- vii Egg sellers
- viii Other 1 (specify)
- ix Other 2 (specify)

## **Broiler batches information**

**Reference code:** CQ3

**Definition:** Information on six (6) broiler batches based on Day Old Chicks (DOCs) bought, number of deaths of DOC (these are broilers that are 1-4 days old), number of deaths during brooding (that is broilers 5 to 10 day old) and number of deaths after brooding (that is broilers after 10 days old).

## **Cockerel batches information**

**Reference code: CQ4**

**Definition:** Information on six (6) cockerel batches based on Day Old Chicks (DOCs) bought, number of deaths of DOC (these are cockerels that are 1-4 days old), number of deaths during brooding (that is cockerels 5 to 8 day old) and number of deaths after brooding (that is cockerels after 8 days old).

**Layer batches information****Reference code: CQ5**

**Definition:** Information on six (6) layer batches based on Day Old Chicks (DOCs) bought, number of deaths of DOC (these are layers that are 1-4 days old), number of deaths during brooding (that is layers 5 to 8 day old) and number of deaths after brooding (that is layers after 8 days old).

**Practices to ensure healthy birds****Reference Code: CQ6**

**Definition:** This is to gather information on the practices that are undertaken on the farm to ensure birds are healthy and also perform at their best

**Classification:** There are thirty (30) choices that farmer respondents are to select from, selecting as many that are applicable.

**Input suppliers engage from 2016 to 2018****Reference code: CQ7**

**Definition:** Information on the number of input suppliers that farmer engaged with from 2016 to 2018 production years.

**Classification:** This is to be classified under inputs such as day old chicks, vaccines, drugs, feed/feed inputs, and others from 2016 to 2018.

**Poultry market information****Reference Code: CQ8**

**Definition:** Data on whether farmer has access to poultry market information

**Classification:**

- 1 Yes
- 2 No

## Market information type

**Reference Code:** CQ9

**Definition:** Classifying the type of market information that is used by the farmers and the frequency of usage.

### Classification:

#### Type of Market Information

- 1 Price information
- 2 Buyer information
- 3 Alternative channel
- 4 Consumer behavior
- 5 Other (specify)

#### Frequency of use

- 1 Daily
- 2 Weekly
- 3 Monthly
- 4 Quarterly
- 5 Semi-quarterly
- 6 Annually
- 7 Other (specify)

## Main source of market information

**Reference code:** CQ10

**Definition:** Information on the main source of market information

### Classification:

- 1 MOFA
- 2 Fellow farmers
- 3 Poultry farmer associations
- 4 NGOs
- 5 Research institutions
- 6 Buyer
- 7 Lead farm for outgrowers
- 8 IT institution
- 9 Other (specify)

## Market information communication

**Reference code:** CQ11

**Definition:** Variable capturing how market information is communicated to farmer

**Classification:**

- 1 Face-to-face
- 2 Mobile phones
- 3 Internet (email)
- 4 Newsletters/Newspapers
- 5 Seminars/meetings
- 6 TV station
- 7 Radio station
- 8 Other (specify)

### **Preferred channel of market information**

**Reference code:** CQ12

**Definition:** Classification of the channel farmer prefers to receive market information

**Classification:**

- 1 FM radio station
- 2 TV station
- 3 News paper
- 4 Internet
- 5 MoFA
- 6 Fellow farmers
- 7 Poultry farmer association
- 8 Personal contact
- 9 Others (specify)

### **Recommended Vaccination Protocol**

**Reference Code:** CQ13

**Definition:** Information on whether farm follows a recommended vaccination protocol for birds

**Classification:**

- 1 Yes
- 2 No

### **Specific Vaccination Protocol**

**Reference Code: CQ14**

**Definition:** Classification on the specific vaccination protocol that are followed on the farm.

**Classification:** This is classified under either commercial or breeder.

**Other Breeder Vaccination Protocol**

**Reference Code: CQ15**

**Definition:** Information on whether any other vaccination protocols for breeders are followed

**Classification:**

- 1 Yes
- 2 No

Only to be answered by those who say YES to CQ14 for breeder vaccination protocol

**Other Commercial Vaccination Protocol**

**Reference Code: CQ17**

**Definition:** Information on whether any other vaccination protocols for commercial birds are followed

**Classification:**

- 1 Yes
- 2 No

Only to be answered by those who say YES to CQ14 for commercial vaccination protocol

**Post-production practices**

**Reference Code: CQ19**

**Definition:** Classification on how farm carries out post-production practices

**Classification:** These are classified under the following categories with other sub-categories within these categories

- a Collection of eggs
- b Cleaning of eggs
- c Sorting/grading of eggs
- d Storage of eggs
- e Slaughtering of birds for sale

### **DOC records in 2018**

**Reference Code:** CQ20

**Definition:** Records on the day old chicks (DOCs) for all production batches in 2018

**Classification:** This information is classified under the number of chicks, unit price and number of birds that died from the stock

### **Miscellaneous items in 2017 and 2018**

**Reference Code:** CQ21

**Definition:** Information on quantity, unit cost and total cost of miscellaneous items in 2017 and 2018

**Classification:** This is classified under not limited to eight items

### **Investment in branding or marketing**

**Reference Code:** CQ22

**Definition:** Data on whether the farmer is investing in any form of branding or marketing

**Classification:**

- 1 Yes
- 2 No

### **Branding investment due to GPP**

**Reference Code:** CQ23

**Definition:** Information on whether investment in branding or marketing is due to GPP intervention, training, facilitation, grant, etc.

**Classification:**

- 1 Yes
- 2 No

To be answered by those who say YES to CQ22

### **Investment Type for Marketing**

**Reference Code:** CQ24

**Definition:** Classification on the kind of investment that farmer adopts to market of brand his/her product or farm.

**Classification:** These investment types are six (6) but not limited to six groups and are to attributed to GPP or some other projects. Multiple responses are allowed for this question

This is to be answered by farmers who answer YES to CQ22

### **Marketing campaigns as a strategy in selling**

**Reference Code:** CQ25

**Definition:** To obtain information on whether the farmer uses marketing campaigns or branding as a strategy in selling their poultry

**Classification:**

- 1      Yes
- 2      No

To be answered by those who answered YES to CQ22

### **Reasons not deploying marketing strategy**

**Reference Code:** CQ26

**Definition:** Farmer to provide reasons why marketing campaigns or branding are not being used as a strategy in selling their poultry

To be answered by those who say NO in CQ25

### **Marketing led to increase in sale**

**Reference Code:** CQ27

**Definition:** Information on whether marketing campaigns has resulted in an increase in sales for farm products

**Classification:**

- 1      Yes
- 2      No

### **Sales made in 2017 and 2018**

**Reference Code:** CQ28

**Definition:** Data on sales made in the 2017 and 2018 production years

**Classification:** Sales made for cockerel, broilers, spent layers and eggs (in crates)

### **Total revenue and cost**

**Reference Code:** CQ29

**Definition:** Information on Total Revenue and Total Cost for each of the production years from 2014 to 2018.

### **Experience unintended challenges**

**Reference Code:** CQ30

**Definition:** Information on whether farmer has experienced and unintended challenges as a result of the Ghana Poultry Project

**Classification:**

- 1 Yes
- 2 No

### **Describe unintended challenges**

**Reference Code:** CQ31

**Definition:** Farmer to describe any intended challenge faced due to partaking in the Ghana Poultry Project

### **Training improving competitiveness**

**Reference Code:** CQ32

**Definition:** Farmers indication of the coordinated trainings received by the manager and or employees that have improved the competitiveness of their poultry farm

**Classification:** These are a list of training that may improve production or post-production practices where are also supposed to indicate the year of the recent training, the training agent or agency and also indicating whether the training was useful or not.

### **Unintended Benefit**

**Reference Code:** CQ33

**Definition:** Information on some of the unintended benefits enjoyed due to the Ghana Poultry Project

**Classification:** A category of unintended benefits that were enjoyed due to the Ghana Poultry Project

### **Participant of non-GPP project**

**Reference Code:** CQ34

**Definition:** An indication of whether the farmer participated in any other project apart from that of Ghana Poultry Project indicating the level of contribution to the development of poultry business.

**Classification:** Selection out of a list of poultry related projects

### **Practice to maintain post-GPP**

**Reference Code:** CQ35

**Definition:** Information on which practices the farmer would continue after Ghana Poultry Project has come to an end

**Classification:**

- 1 Maintain profits
- 2 Cover cost of production
- 3 Cover cost of vaccination and deworming
- 4 Maintain the number of employees
- 5 Maintain the number of poultry birds
- 6 Other (specify)

### **Formalize all informal business relations**

**Reference Code:** CQ36

**Definition:** Whether the farmer intends to formalize all business relations

**Classification:**

- 1 Yes
- 2 No

### **Reason not to formalize business relations**

**Reference Code:** CQ37

**Definition:** Farmers reason for not having any intension to formalize any business relations

**Classification:**

- 1 Lack of trust
- 2 Lack of value on such agreement
- 3 Lack of education on farming business relation
- 4 Other (specify)

**Strategy of profit falls**

**Reference Code:** CQ38

**Definition:** To find out whether the farmer has any strategy to continue poultry business should profits fall providing how long in years poultry business will continue

**Stakeholders to spearhead poultry intervention**

**Reference Code:** CQ39

**Definition:** This is to provide information on whether the there are any stakeholders who can spearhead the continuity of the interventions in the poultry sector in Ghana after the Ghana Poultry Project has ended.

**Classification:**

- 1 Poultry Association
- 2 MoFA
- 3 Agriculture-related Ministries
- 4 Department and Agencies
- 5 ACIDI/VOCA and TechnoServe
- 6 Research Institutes
- 7 Private Sector

**Farm susceptible to shock**

**Reference Code:** CQ40

**Definition:** To know if the farm is susceptible to any shock

**Classification:**

- 1 Yes
- 2 No

### **Accommodate Shocks**

**Reference Code:** CQ41

**Definition:** To find out if farmer is able to accommodate any shock when they occur

**Classification:**

- 1 Yes
- 2 No

Shock with adverse effect

**Reference Code:** CQ42

**Definition:** Shocks that could have adverse effect on the continuity of the poultry business

**Classification:**

- 1 Environmental (Pollution Concerns)
- 2 Macroeconomic conditions
- 3 Disease outbreak

## **MODULE D: AMPLIFIES AND GPP**

### **Information on production and sale**

**Reference Code:** DQ1

**Definition:** Details on period of production, quantity produced, quantity sold, unit price and revenue between 2016 and 2018 inclusive.

### **Information on inputs and outputs**

**Reference Code:** DQ2

**Definition:** Details on quantity, unit price and unit costs in Ghana Cedis for period 2016 and 2018 inclusive

### **Number of employees**

**Reference Code:** DQ3

**Definition Code:** Number of employees the poultry business currently has

### **Employ new employees**

**Reference Code: DQ4**

**Definition:** Information on whether the farm has employed new workers since 2016 till present

**Classification:**

- |   |     |
|---|-----|
| 1 | Yes |
| 2 | No  |

**New workers information****Reference Code: DQ5**

**Definition:** Information on new employees

**Classification:** This is collected based on male and female permanent workers, male and female casual workers and new mentees

**Number of new employees due to GPP or AMPLIFIES****Reference Code: DQ6**

**Definition:** Information on number of new employees due GPP, AMPLIFIES or both

**Duration of each employee contract****Reference Code: DQ7**

**Definition:** Data on the contract duration in months of each new employee hired indicating the gender of each employee

**Family members engaged****Reference Code: DQ8**

**Definition:** Farmer to indicate whether any family member has been employed on the farm

**Classification:**

- |   |     |
|---|-----|
| 1 | Yes |
| 2 | No  |

**Number of family members on farm****Reference Code: DQ9**

**Definition:** The number of family members above 18 years that have been actively engaged on the farm by sex

### **Source of Poultry feed**

**Reference Code:** DQ10

**Definition:** The source of poultry feed for the poultry business

**Classification:**

- 1 Self-mixing/Concentrates
- 2 Commercial fee mills
- 3 On-site feed mills/Processing plant
- 4 Other (Specify)

## **MODULE E: RECOMMENDATIONS**

### **Projects would recommend**

**Reference Code:** EQ1

**Definition:** The projects that the farmer would recommend to other poultry farmers

**Classification:**

- 1 GPP
- 2 AMPLIFIES
- 3 Both GPP and AMPLIFIES
- 4 None

### **Recommendation for future Project**

**Reference Code:** EQ3

**Definition:** Recommendation to improve futures projects aimed at increasing productivity of poultry products on Ghana given experience with GPP

## Annex 8: Results

**Table 4A: Poultry Producers who have Contracts with Value Chain Actors**

| Value Chain Actors                      | Signed Contract Only | Informal Contract Only | Both Signed and Informal Contracts | Total         |
|-----------------------------------------|----------------------|------------------------|------------------------------------|---------------|
|                                         | %(n/N)               | %(n/N)                 | %(n/N)                             | %(n/N)        |
| Input Suppliers (DOCs)                  | 0.92 (3/326)         | 1.23 (4/326)           | 0.92 (3/326)                       | 3.07 (10/326) |
| Input Suppliers (Feed/Feed ingredients) | 0.31 (1/326)         | 1.23 (4/326)           | 0.31 (1/326)                       | 1.84 (6/326)  |
| Input Suppliers (Veterinary Products)   | 0.31 (1/326)         | 0.31 (1/326)           | 0.00 (0/326)                       | 0.61 (2/326)  |
| Buyers                                  | 0.61 (2/326)         | 0.31 (1/326)           | 0.31 (1/326)                       | 1.23 (4/326)  |
| Live Birds Sellers                      | 0.00 (0/326)         | 0.31 (1/326)           | 0.31 (1/326)                       | 0.61 (2/326)  |
| Eggs Sellers                            | 0.00 (0/326)         | 0.92 (3/326)           | 0.00 (0/326)                       | 0.92 (3/326)  |

**Table 4B: Best Husbandry Practices**

| Husbandry Practices                                        | N   | Percentage of Cases |
|------------------------------------------------------------|-----|---------------------|
| Clean water is used on the farm                            | 323 | 98.8                |
| Proper heat is provided in brooding pens                   | 323 | 98.5                |
| Early treatment of diseases                                | 323 | 98.1                |
| Maintain flock in a good state of wellbeing                | 323 | 97.8                |
| Recommended vaccination protocol for birds                 | 323 | 97.8                |
| Brooding pens are cleaned and disinfected                  | 323 | 97.5                |
| Routine cleaning is done on the farm                       | 323 | 97.2                |
| Practice suitable prevention medication program            | 323 | 96.9                |
| Identification of diseases in their early stage            | 323 | 96.6                |
| Clean and disinfect all sheds between flocks               | 323 | 95.7                |
| DOC should be the only birds introduced on the farm        | 323 | 95.0                |
| The micro-ingredients should not be too old                | 323 | 95.0                |
| Feed formulation must follow specified ingredients         | 323 | 93.2                |
| Control movement of staff and equipment around the farm    | 323 | 92.0                |
| Measurement of all ingredients must be accurate            | 323 | 92.0                |
| There should be records of all business activities         | 323 | 92.0                |
| Feed is not stored for too long                            | 323 | 90.4                |
| The producer keeps proper records                          | 323 | 86.7                |
| Dead birds are taken to veterinary lab for post-mortem     | 323 | 85.1                |
| All waste materials are dug and buried on the farm         | 323 | 83.6                |
| Anti-biotic treatment is given to birds                    | 323 | 82.4                |
| Usage of disinfectant foot baths at the entry              | 323 | 80.2                |
| Provision of shower facilities and clean clothing          | 323 | 66.9                |
| Provision of wash facilities for staff, essential visitors | 323 | 66.9                |
| There is proper bio-security                               | 323 | 65.3                |
| The farm is walled                                         | 323 | 51.7                |

**Table 4C: Number of Firms that Increased Profit**

| Issue                                                       | Number of Firms | Percent       |
|-------------------------------------------------------------|-----------------|---------------|
| No increase in profit                                       | 171             | 65.52         |
| Increased profit                                            | 90              | 34.48         |
| <b>Total</b>                                                | <b>261</b>      | <b>100</b>    |
|                                                             |                 |               |
| <b>Firms that increased profit across tiers and regions</b> |                 |               |
| <b>Tier</b>                                                 |                 |               |
| 1                                                           | 1               | 1.11          |
| 2                                                           | 13              | 14.44         |
| 3                                                           | 76              | 84.44         |
| <b>Total</b>                                                | <b>90</b>       | <b>100.00</b> |
| <b>Region</b>                                               |                 |               |
| Greater Accra                                               | 12              | 13.33         |
| Ashanti                                                     | 38              | 42.22         |
| Brong Ahafo                                                 | 40              | 44.44         |
| <b>Total</b>                                                | <b>90</b>       | <b>100.00</b> |

**Table 4D: Post Production Practices**

| Post Production Practices                   | No. | %    |
|---------------------------------------------|-----|------|
| <b>Collection</b>                           |     |      |
| Frequent collection of eggs                 | 293 | 90.7 |
| Separate clean eggs from dirty ones         | 270 | 83.6 |
| Collects eggs in an easy to clean container | 249 | 77.1 |
| Not stacking eggs too high                  | 115 | 35.6 |
| Other                                       | 7   | 2.2  |
|                                             |     |      |
| <b>Cleaning</b>                             |     |      |
| Inspect egg                                 | 260 | 80.5 |
| Dry cleaned eggs with a clean sponge        | 218 | 67.5 |
| Cooling eggs steadily before cleaning       | 141 | 43.7 |
| Don't leave water on the egg after cleaning | 98  | 30.3 |
| Clean eggs with warm water                  | 44  | 13.6 |
| Other                                       | 9   | 2.8  |
|                                             |     |      |
| <b>Sorting</b>                              |     |      |
| Remove broken eggs                          | 266 | 82.4 |
| Ensure hands are clean                      | 261 | 80.8 |
| Examine shell for cleanliness               | 258 | 79.9 |
| Examine texture and shape                   | 237 | 73.4 |
| Examine texture and shape                   | 237 | 73.4 |
| Wear appropriate clothing                   | 200 | 61.9 |
| Break out method                            | 40  | 12.4 |

|                                                                                |     |      |
|--------------------------------------------------------------------------------|-----|------|
| Candling                                                                       | 34  | 10.5 |
| Other                                                                          | 2   | 0.6  |
| None of above                                                                  | 1   | 0.3  |
|                                                                                |     |      |
| <b>Storage</b>                                                                 |     |      |
| Keep eggs in a well-ventilated place                                           | 265 | 82.0 |
| Keep eggs at room temperature                                                  | 248 | 76.8 |
| Keep eggs in a separate room                                                   | 232 | 71.8 |
| Keep eggs refrigerated                                                         | 19  | 5.9  |
| Other                                                                          | 5   | 1.5  |
|                                                                                |     |      |
| <b>Slaughtering</b>                                                            |     |      |
| Dirty operations are separated from clean operations                           | 265 | 82.0 |
| Sufficient space to operate hygienically                                       | 248 | 76.8 |
| Area protected from pest/insect/rodent                                         | 232 | 71.8 |
| Floors, walls, doors and other surfaces are made of washable material and easy | 19  | 5.9  |
| Refrigerated place to store processed poultry                                  | 5   | 1.5  |

**Table 4E: Descriptive Characteristics of Poultry Households**

| Characteristics                                  | Intervention Regions |       |         |       |             |       | Total |       |
|--------------------------------------------------|----------------------|-------|---------|-------|-------------|-------|-------|-------|
|                                                  | Greater Accra        |       | Ashanti |       | Brong Ahafo |       |       |       |
|                                                  | No.                  | %     | No.     | %     | No.         | %     | No.   | %     |
| Sex of respondent                                |                      |       |         |       |             |       |       |       |
| Male                                             | 67                   | 49.63 | 183     | 56.31 | 88          | 54.32 | 338   | 54.34 |
| Female                                           | 68                   | 50.37 | 142     | 43.69 | 74          | 45.68 | 284   | 45.66 |
| Level of formal education                        |                      |       |         |       |             |       |       |       |
| None                                             | 36                   | 26.67 | 69      | 21.23 | 22          | 13.58 | 127   | 20.42 |
| Informal education                               | 0                    | 0     | 23      | 7.08  | 16          | 9.88  | 39    | 6.27  |
| Basic                                            | 75                   | 55.56 | 161     | 49.54 | 72          | 44.44 | 308   | 49.52 |
| Secondary                                        | 19                   | 14.07 | 58      | 17.85 | 35          | 21.6  | 112   | 18.01 |
| Diploma                                          | 4                    | 2.96  | 10      | 3.08  | 7           | 4.32  | 21    | 3.38  |
| Bachelors                                        | 1                    | 0.74  | 4       | 1.23  | 8           | 4.94  | 13    | 2.09  |
| Post-graduate                                    | 0                    | 0     | 0       | 0     | 2           | 1.23  | 2     | 0.32  |
| Education in agriculture and agriculture-related |                      |       |         |       |             |       |       |       |
| Yes                                              | 6                    | 4.44  | 41      | 12.62 | 21          | 12.96 | 68    | 10.93 |

|                                                                 |                 |            |            |            |            |            |            |            |
|-----------------------------------------------------------------|-----------------|------------|------------|------------|------------|------------|------------|------------|
| No                                                              | 129             | 95.56      | 284        | 87.38      | 141        | 87.04      | 554        | 89.07      |
| <b>Type of education in agriculture and agriculture-related</b> |                 |            |            |            |            |            |            |            |
|                                                                 | <i>Formal</i>   | 0          |            | 0          | 14         |            |            | 34.15      |
|                                                                 | <i>Informal</i> | 6          |            | 100        | 27         |            |            | 65.85      |
| <b>Dominant production system</b>                               |                 |            |            |            |            |            |            |            |
| Free range                                                      | 120             | 88.89      | 281        | 86.46      | 155        | 95.68      | 556        | 89.39      |
| Battery cage                                                    | 2               | 1.48       | 5          | 1.54       | 0          | 0          | 7          | 1.13       |
| Deep litter system                                              | 0               | 0          | 1          | 0.31       | 1          | 0.62       | 2          | 0.32       |
| Intensive                                                       | 0               | 0          | 1          | 0.31       | 1          | 0.62       | 2          | 0.32       |
| Semi-intensive                                                  | 13              | 9.63       | 37         | 11.38      | 5          | 3.09       | 55         | 8.84       |
| <b>Total</b>                                                    | <b>135</b>      | <b>100</b> | <b>325</b> | <b>100</b> | <b>162</b> | <b>100</b> | <b>622</b> | <b>100</b> |

**Table 4F: Constraints Hampering Veterinary Service Delivery**

| Constraints                          | VSD    |       | CAHW   |       | Total  |       |
|--------------------------------------|--------|-------|--------|-------|--------|-------|
|                                      | (n=42) | %     | (n=33) | %     | (N=75) | %     |
| Financial challenges from the farmer | 17     | 40.48 | 14     | 42.42 | 31     | 41.33 |
| Lack of commitment from farmers      | 20     | 47.62 | 10     | 30.30 | 30     | 40.00 |
| Lack of trust from poultry producers | 7      | 16.67 | 6      | 18.18 | 13     | 17.33 |
| Inadequate logistics                 | 19     | 45.24 | 18     | 54.55 | 37     | 49.33 |

**Table 4G: Demand of Eggs and Chicken among End Market Actors**

| Demand among End Market Actors | Freq. | Percent |
|--------------------------------|-------|---------|
| Local Chicken                  | 5     | 41.67   |
| Foreign Chicken                | 1     | 8.33    |
| Both Local and Foreign Chicken | 3     | 25.00   |
| Eggs                           | 3     | 25.00   |
| Total                          | 12    | 100     |