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# TRAINING WORKSHOPS FOR USAID AVIAN INFLUENZA COMMODITIES: ETHIOPIA, GHANA, MALI, UGANDA

**RAISE SPS DIAGNOSTIC REPORT # 28**

**SEPTEMBER 2007**

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Prepared for USAID under RAISE Task Order 14, “Assistance for Trade Capacity Building in Relation to the Application of Sanitary and Phytosanitary (SPS) Measures”, (Subcontract #4105-99S-006), under, USAID/DAI Prime Contract # PCE-I-00-99-00002-00, “Rural and Agricultural Incomes with a Sustainable Environment (RAISE),” by

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Funded by USAID’s Bureau of Economic Growth, Agriculture and Trade (EGAT) and implemented by Development Alternatives Inc. (DAI), the RAISE SPS Project (“Assistance for Trade Capacity Building in Relation to the Application of Sanitary and Phytosanitary Measures”) is Task Order 14 under the RAISE (“Rural and Agricultural Incomes with a Sustainable Environment”) Indefinite Quantity Contract with DAI as Prime Contractor (Michigan State University, Abt Associates, Winrock International, and Fintrac Inc. are subcontractors). RAISE SPS assists farmers, processors, exporters, retailers and other participants in agribusiness supply chains enhance their competitiveness through achievement of international market standards. Concurrently, RAISE SPS assists regulatory, scientific, technical, and donor institutions better understand the effect of SPS issues and private sector-driven standards on economic growth and poverty reduction. USAID Missions and Bureaus can seek assistance from RAISE SPS by contacting Jim Yazman, USAID/EGAT Cognizant Technical Officer, at [jyazman@usaid.gov](mailto:jyazman@usaid.gov).

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# 1. INTRODUCTION

From January to August, 2007, RAISE SPS conducted six trainings in four African countries to train over 100 animal and public health professionals on the use of avian influenza commodities provided by USAID. Each training was adapted to the needs of the host country based on information provided by USAID and other in-country partners. Trainers also collaborated with organizations already active in the host countries, such as FAO, WHO, national ministries, local governments, and the USDA, among others. This report includes summaries of each of the trainings, organized by country, as well as participant lists and a synopsis of pre- and post-training evaluation forms completed by the participants.



# 2. USAID AVIAN INFLUENZA COMMODITIES TRAININGS, ADDIS ABABA, ETHIOPIA

June 25-29, 2007 — Report by Dr. Corrie Brown

This two-day AI Commodities course represented only the first of three training components presented during the week of 25-29 June and jointly organized by the U.S. Agency for International Development (Africa Bureau, Washington and the Ethiopia Mission) and the U.S. Department of Agriculture's Animal and Plant Health Inspection Service's HPAI International Coordination Group (Washington and Cairo offices). Together, these groups planned and organized the training and identified the participants. Dr. Yirgalem Gebremeskel, the Livestock Program Specialist and Dr. Getachew Abebe, FAO Technical consultant, were instrumental in identifying the 20 participants from the Ministry of Agriculture and Rural Development and the Ministry of Health. There were two Ethiopian observers and eight international observers (see list of participants at the end).

The course was held at the International Livestock Research Institute (ILRI), at its spacious campus on the outskirts of Addis Ababa. All trainers and most of the participants stayed in hostel accommodation on campus, which allowed great opportunities for networking and interacting.

The course began on Monday, June 25, with welcomes by USAID and USDA.

Dr. Gary Mullins gave an overview of the course, complete with goals, vision, background, and plans for future endeavors, particularly USAID's new STOP Pandemic and Avian Influenza project. Gary facilitated introductions and descriptions of professional experiences.

Because of the varying expertise in the group, we spent time reviewing key concepts regarding the influenza viruses - how they occur in various species, sources of pandemics, clinical and pathologic features of highly pathogenic avian influenza, and then a focus on the current H5N1 problems. In addition, a short presentation on globalization forces and their impact on international health was given, emphasizing the importance of preparing for not just avian influenza, but building an integrated system that is prepared to respond to any emerging animal or public health threat.

Module 1, on personal protective equipment, progressed without problems, although we again experienced that the "one size fits all" PPE suits did not actually work that way, with one participant being too tall and yet another so small that the PPE obstructed her free movement.

Initially the participants were very quiet and not altogether responsive so there was some concern that there was a language problem. However, we did the matching game which got people moving around the room and seemed to break the ice. Thereafter, the interaction between trainer and participants became a cordial yet still professional interchange. The trainees then worked in pairs to put on and remove PPE in proper sequence. We had a group photo when all had their PPEs on. For the fit test, as in Uganda, about one-third to one-half the class could not taste the Bitrex solution.

For Module 2, Decontamination, we had taken photos in the local grocery store of disinfectants available in Ethiopia, and inserted these into appropriate places in the powerpoint presentation. For an activity, participants were asked to identify most contaminated areas in the photo (handout #10) and what they would use for decontamination. To help explain the phases of decontamination, we had one side of the room explain the first phase to the other side, then reversed for the second phase, in a mockup of how they would instruct workers. We encouraged questions, and the discussion was lively. At the end of the module, we did another participatory activity—the class was divided into three and asked to report back on the following topics: patterns in trafficking of live birds; what would be the immediate response if a rapid test was positive at a chicken house; key measures to protect human health should H5N1 be reported in a community.

Before finishing on day 1, Nathan showed a powerpoint of the global spread of H5N1 using the interactive webtool, Google Earth. This was very well received and helped participants (as well as trainers) understand the importance of poultry trade in the spread of the disease.

On Day 2, first we reviewed key concepts from Day 1. Then there was a brief presentation on testing methods. We had no live chickens, so rather than doing a mock tracheal/cloacal swabbing with testing, we postponed this activity until Friday, when we would be working with live chickens at the laboratory in Sabbata. Instead, we reviewed passive vs. active surveillance. Projecting a map of the country, we asked each region to report on their surveillance program for avian influenza. In partnership with the FAO, Ethiopia has instituted an active HPAI surveillance program in, but some problems include: difficulty in getting to remote areas to sample birds (lack of transportation), late reporting of sick birds, and, scavenging of sick or dead birds so there is nothing to sample. It was also learned during the training that funding for the FAO HPAI program had been exhausted and that the program was in the process of being closed out by August 2007. As a result, active surveillance had not been conducted out in some regions for the past two months (April/May). It was not disclosed how or if these surveillance activities would continue after closure of the FAO collaborative program.

The 4<sup>th</sup> module, *IATA Requirements for Shipping Dangerous Goods*, was taken by all participants. Corrie gave a powerpoint overview covering all the key points. Then after lunch, we reviewed the key points, creating a color-coded table on the white board at the front of the room, asking participants to help fill in the blanks. We covered the documentation portion of IATA requirements. We then divided the class into two groups, giving each group a Category A specimen for packaging. Group 1 was given a tube labeled “peste des petits ruminants virus in cell culture”. Group 2 was given a small plastic bag with a wad of paper in it, labeled “lungs from birds suspected of having H5N1.” This activity worked very well, obligating participants to review the materials and to understand them well enough to be able to pack their own specimens. When they were finished with this exercise, we gave the IATA certification test. Unfortunately, two people did not pass the test. Based on our interactions during the IATA training period, and all the aids we had—color-coded tables, exercises, open-book test—we think it was probably a lack of understanding of the test questions or answers, basically a language issue.



Days 3 and 4 of the course were delivered by the USDA, specifically John Schulte and John Roberts, who taught about the Incident Command System (ICS).

On Friday, training Day 5, we traveled to the National Animal Health Diagnostic and Investigation Center (NAHDIC), in Sebeta, about an hour's drive outside Addis Ababa. This day was dedicated to practical exercises.

First, we (Corrie) gave an overview of how to perform a necropsy on a chicken, and reviewed procedures for taking tracheal and cloacal swabs, as well as use of the rapid test kits provided in the AI Commodities kit. The remainder of the morning was devoted to the following practical exercise: Corrie presented a map of Ethiopia and described a scenario which included HPAI diagnosed in city A, suspected in city B, and dead birds in city C, indicating that the virus might be spreading eastward along a highway from Sudan into Ethiopia. The class was divided into five groups and each group was asked to provide “technical background” to an ICS group on one of the following topics: diagnostic tests for AI; tracebacks and traceforwards; vaccine production; movement control and quarantine; or, protecting public health. The groups were encouraged to present accurate scientific information in a format that could be understood by lay personnel. The exercise proved to be a success in integrating technical information with emergency management concepts.

On the afternoon of Day 5, we worked in the necropsy laboratory at NAHDIC, performing the rapid tests, bleeding chickens, and doing the necropsies. We used full PPE until all the rapid tests were determined to be negative; thereafter, the participants were allowed to perform the necropsies without mask or goggles.

Overall, judging from the trainees' enthusiastic participation and questions, the course was a substantial success. I would highlight the following as the course's most—and least—successful aspects:

1. We had good regional participation—there were people in the course from almost all areas of Ethiopia. As the Ethiopian government is decentralized, this was most appropriate.
2. Accommodating everyone at ILRI helped participants and trainers to continue to interact beyond the normal course hours.
3. Corrie modified both the decontamination powerpoint and the IATA powerpoint, with good effect and results.
4. The GoogleEarth review done by Nathan was thought-provoking and captivated the participants.

5. For the IATA training, we gave participants mock materials and packaging as an exercise which made the exercise more interactive and challenging, and therefore less dull!
6. The exercise on Day 5, that brought together technical expertise with emergency management, worked very well.

Two people did not pass the IATA test. Based on our interactions during the IATA training period, and all the aids we had—color-coded tables, exercises, open-book test—we think it was probably a lack of understanding of the test questions or answers, basically a language issue.

## **LESSONS LEARNED**

1. Ethiopia is a country with 77M people and 31M chickens, almost all of which are produced in backyard systems. The commercial sector is only 1 percent of the country's chicken production. Ethiopia's is very much a cattle culture, and attention to chickens has been slow to grow.
2. Initial efforts at surveillance for H5N1 have been robust. The regional laboratories are eager to proceed with more testing and were eager to learn preparations for a rapid response. This course was a welcome addition to their preparedness training and participants were very appreciative.
3. Combining the USAID AI Commodities course with two days of ICS was useful. The ICS trainers were new to the developing world, but they tried hard to find relevant situations for illustrations. The last day of the course successfully brought together the technical and operations training (from USAID), with the emergency management training (done by USDA), to make a uniform product.

## AVIAN INFLUENZA COMMODITIES TRAINING

### Participant List

Addis Ababa, Ethiopia

June 25-29, 2007

**Participants in red are IATA certified.**

Name	Title	Organization	Address	Work telephone	Mobile phone	Email Address
Abraham Ali	Dr.	EHNRI (MoH)	Addis Ababa	871-500	[REDACTED]	[REDACTED]
Dawit Degu	Senior Medical Technician	BGR HB	Assossa (B.G.)	0577750212	[REDACTED]	[REDACTED]
Alemu Erabo	Lab Technician	SNNR	Awassa (Hossana)	0465552675	[REDACTED]	
Hailu Wondimu	Lab Head	Oromia Agri	Assela	0223311324	[REDACTED]	[REDACTED]
Darsema Gulima	Lab Head	Amhara	Bahirdar	0582200017	[REDACTED]	[REDACTED]
Adugna Tadesse	Head Bedele Lab	Oromis	Bedele	0474450169	[REDACTED]	
Dessie Aman	Lab Technician	Nekemte Regional Lab	Nekemte		[REDACTED]	
Bekele Birru	Dr.	Oromia Hirne		0255510875	[REDACTED]	
Tsega Alemayehu	Dr. AUA		Addis Ababa	0116461124	[REDACTED]	
Daniel Mulugeta	SNN	PR	Awassa	0462201317	[REDACTED]	
Tadelle Dissie	Dr. ILRI		Addis Ababa		[REDACTED]	t.dessie@cgiar.org
Bethlehem Tesfaye	Dr.	NVI Debr	ezeit		[REDACTED]	
Senait Belete	Dr. NUI		Debrezeit		[REDACTED]	<a href="mailto:Beletesenait@co.uk">Beletesenait@co.uk</a>

Name	Title	Organization	Address	Work telephone	Mobile phone	Email Address
Zerihun Abegaz	Dr. KRUH		Kombolcha		[REDACTED]	[REDACTED]
Tefera Alemu	Dr. Ben/Shah	ngul	Assossa	0577750990		
Getachew Abebe	Prof.	FAO Addi	a Ababa		[REDACTED]	Getachew.Abebe@fao.org
Zewdu Dagne	Dr.	M. Vet Lab	Mizan	0473351113	[REDACTED]	
Amenu Asha	Dr.	Sodo Vet Lab	Sodo	0465512593	[REDACTED]	
Abeba Demisse	Dr.	Dire Dawa Animal Lab	Dire Dawa	0915750596		
Ayelech Muluneh	Lan Technian	NAHDIC Sebeta		380856	[REDACTED]	
Tesfaye Rufael	Dr.. NAHDIC		Sebeta	0113380894	[REDACTED]	[REDACTED]
Nesredin Futwi	Mr.	Tigray Regional Lab	Mekele (Tigray)	0914701141	[REDACTED]	
Abera Asege	Mr. Molt.	Communicable Disease	Assossa 057	7750862		

## **OBSERVERS (ETHIOPIAN)**

- Dr. Yirgalem Gebremeskel, USAID/Ethiopia Livestock Program Specialist, Addis Ababa
- Dr. Getachew Abebe, FAO, Addis Ababa.

## **OBSERVERS (INTERNATIONAL)**

- Dr. Tracy McCracken, Livestock Program Specialist, USAID/Office of Agriculture (Washington)
- Dr. Linda L.Logan, Attache, North and Eastern Africa and the Middle East, USDA/APHIS International Services, Cairo
- Dr. Mahmoud Orabi, Animal and Plant Health Officer, USDA/APHIS International Services, Cairo
- Dr. Andrew Clark, Animal Disease Control Specialist, USDA/APHIS International Services, Cairo
- Mr. John Coakley, Zoologist, USDA/APHIS International Services (retired)
- Dr. Morella De Rosa, Africa Desk Officer, USDA/APHIS/ HPAI International Coordination Group
- Mr. Kristofer Dodge, Program Coordinator, USDA/APHIS/ HPAI International Coordination Group
- Mr. John Roberts, ICS Trainer, US Forest Service (retired)
- Mr. John Schulte, ICS Trainer, US Forest Service (retired)

## TRAINING EVALUATION (FOR TRAINEES)

Ethiopia Training, June 24 – 29, 2007

***PLEASE NOTE: ALL RESPONSE APPEAR IN THIS SUMMARY SHEET EXACTLY AS THEY WERE WRITTEN ON THE EVALUATION FORM. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.***

1. Were your expectations of this training met?

Not at all 1 2 3 4 5 In every way 4.6

Comments (what was particularly good or bad?): My expectation about this training is ever aspect was good particular in AI capide diagnosis, PPE utilization and in ICS introduction; the presentation you gave for (the way) is I personally highly appreciate, all you are lovely friends; the information on avian influenza virus, the strategy planned to control the disease spread in Ethiopia and necropsy; good hard to sue PPE, and planning of ICS. No bad things; the way giving training including practical; methods of giving training; it was good because to serve extent we increased our skill in AI & how to handle it; I found it even beyond my expectations. Very nice, clear and knowledgeable training; fully excellent; as I expect & soon have got the chance to be trained; -both training of 1<sup>st</sup> days and 3+4 on ICS is very interesting of no bad but pament of is so small; practical. What is to be done is that the same subject in its comprehensive form deliver to politicians; everything was good. But I have been expecting as every trainee practices the rapid test by him/herself; it was good; I met both training met good.

2. Was the quality of the training:

Not acceptable 1 2 3 4 5 Excellent 4.58 + 1 blank

Comments (what was particularly good or bad?): The quality of this training was it more practical and demonstrative; the coordination is particularly good; the document and material you provided to us besides the explanation; presentations. Answering questions make participatory of the training; practical training; especially the training on ICS was new and very implementable; - it was interesting & given on time—before a; 1. its practical aspect 2. exercising it 3. the idea itself; everything was good in terms of quality; I can say it was very general;

3. Were the exercises and group work:

Not acceptable 1 2 3 4 5 Excellent 4.65

Comments (what was particularly good or bad?): The exercises and group work was also very nice because we discussed in every presentation; the group work is particularly help me to know more; because in the group participants forwarded their thinkings, presenters also rereflected what discussed in the group; working in groups is useful; the exercises are all important and applicable; - we have got good lessons from you; good because easily understood in group discussion; generally excellent, I am

comfortable with it; most part good, but not comfortable due to space problems; all the group works were interesting and make me to have relatively beter knowledge.

4. What activities did you like the most? I like more, group work discussion, PPE, avian necropsy practices; the way you present the lecture; the training on necropsy, incident command system lecture; I liked how to organize the ICS and PPEs uses; ICS, PPE; the method you try to clearing thing for trainee; the theoretical lessons given; the group discussions & presentation and necropsy; practical training; - do research related to animal health; practical activities; concept; the post-mortem (necropsy), bleeding and dislocation of birds; - the way you explain – group work; incident command system; ICS, PPE; The ICS was the most interesting and gave me a good knowledge. I would like to practice it when I be back; practice on chicken necropsy- on Sebeta laboratory; the exercises and group work.

5. Where you able to understand everything the trainer said?

Yes 15 No 3 Blank 2

Comments: All presentation was good, mostly I understand; if there is a problem if it is exactly my weakness I have to English language for more confidently learn; trainers, tried to speak slowly, in order to be captured by the trainees; the pronunciation of some trainers is a little difficult for me; the pronunciation of some of yours not clear; lecture and as well as hard zappres were rely understandable; all trainers are did excellent training it is very useful for our future activities; in my opinion 100%, I can't say I know everything, because me cover a lot of materials unthin short period of time; of course!!; most of the sessions were clearly covered except few, due to pronouncing few words; I have a little bit confusion;

6. On a scale of 1 to 5, how confident do you feel about using PPEs correctly?

Not confident 1 2 3 4 5 Very confident 4.75

In my region the weather is too hot. So how?

7. On a scale of 1 to 5, how confident do you feel about training others to use PPEs correctly?

Not confident 1 2 3 4 5 Very confident 4.75

8. On a scale of 1 to 5, how confident do you feel about using decontamination equipment?

Not confident 1 2 3 4 5 Very confident 4.6

9. On a scale of 1 to 5, how confident do you feel about training others to use decontamination equipment?

Not confident 1 2 3 4 5 Very confident 4.45

10. On a scale of 1 to 5, how confident would you feel about using Incident Command System (ICS) principles in outbreak avian influenza?

Not confident 1 2 3 4 5 Very confident 3.94 + 2 blank

11. On a scale of 1 to 5, how relevant do you feel Incident Command System (ICS) is for Ethiopia?

Not confident 1 2 3 4 5 Very confident 4.32 + 1 blank

12. On a scale of 1 to 5, how confident do you feel about taking samples?

Not confident 1 2 3 4 5 Very confident 4.90 + 1 blank

13. On a scale of 1 to 5, how confident do you feel about training others to take samples?

Not confident 1 2 3 4 5 Very confident 4.6

If you circled 1, 2 or 3 for any question, please explain why: I circled no.3 on question no.11 the presentatroc the experties explanation is really very ertell tip but the only problem I fear to implement it in our country (Ethiopia); I circled 3 on question no.10 because, there should be creation of awareness for people from different sectors. To apply the principle a pilot exercise should be designed; the situation in Ethiopia will probably be caught by the red tape intervention of the policy system; P.P.E.- is not the much comfortable;.

5. Were the handouts provided during this training:

- a. Relevant to your work? Yes 15 No 1 Blank 1
- b. Informative? Yes 16 No 0 Blank 1
- c. Easily understood? Yes 16 No 0 Blank 1

14. On a scale of 1 to 5, how informative were the exercises on Friday?

Not acceptable 1 2 3 4 5 Excellent 4.83 + 2 blank

What did you like the most? Exercise more and more; the practical aspect and the differential diagnosis; I liked, the presentations, specially. The surveillance group also others were good –also autopsy; everything that was given information for the practical work, necropsy training was v. good; how open the birds was clear & simple technique; necropsy being conducted by the participants; all- they are interrelated; -how to take sample—how to kill the bird &; its practical aspect and as well as concept; the lecture of Dr. Coril Brown; -the way you explain –group work; participatory examination (necropsy); avian necropsy; I liked the tests we have performed; taking sample.

15. How could the content and/or facilitation of this training be improved? For me it is very interesting & was a good coordination; we should get all the materials (diagnostic kit, decontaminants, etc) for each person; this training is good, it must be continued in future, not only on HPAI also for other diseases such as RVF- - - ; you must have know the interest of the trainees, the advisors of an Ethiopian should be selected; accessibilité of all materials for training; you should know the background of each trainee such as where they came (distance), what they like to be included in the training like dormfare, food, and others in view of Ethiopian interest; talk little and pent more on practical aspects; everything is complete but there was time constraints for further discussion (especially on the ICS training); as to my judgment it is OK; -needs additional day to cover these building materials; through revision and redesigning for the future through participatory approach; -improve giving perdiem; the training was profitable to the ILRI compound and crise to trainers. Infact knowledge on HSN disease is good.

16. Were the handouts provided during this training:

- |                           |             |         |
|---------------------------|-------------|---------|
| d. Relevant to your work? | Yes 19 No 0 | Blank 1 |
| e. Informative?           | Yes 19 No 0 | Blank 1 |
| f. Easily understood?     | Yes 20 No 0 | Blank 0 |

17. Will you use these handouts when performing your activity? Yes 17 No 0 Blank 3

If yes, how do you anticipate using these materials? If no, why not? I think I use very much; I surely use this material & is useful very much; I will try. to translate to working language, even 1) will pho-copy and give to my staff; I can follow the order; by teaching during work or giving training when financial support is there; when I and my colics participate in HPAI, I will train them & we will use; as guidance and reference; it was very useful to perform activities if AI occurred in Ethiopia and even can be translate the information in Oromifa & Amaharic languages; -as reference material –if some thing which I am not understood I use it; -for reference when use use work; many informations will be adapted to our condition. It gives me clue; they are very easy to understand and also transfers knowledge. So, they can be used in various aspects as guidance and also teaching others; the materials we have other more we have at hand will be very helpful when we practice it regarding TOT; it depends upon my heads; I am human technician. Some of the materials are important but not all.

18. Other Comments: I think this kind of training must be continued for other professionals. God bless you thank you; GOD BLESS YOU ALL OF YOU!; the training must given to poletical and high officals of our country specially on ICS; the training is v. good, but the way of paying the perdiem is very unacceptable (poor); this is very good thank you; -your perdiem absolutely disappociting –I repeated, I am very angry, sad, I have wt the word to pay asout my disappointing; the way of your paying perdiem was not good. Even it doesn't consider the days we passed on journey; I have developed my knowledge in a very good situation. I learn to treat any training &/or workshop participants; it is very useful if this kind training will be given for other pertinent bodies like disaster prevention preparedness commission; - thanks for your experience sharing; →please continue the training with interval for the trainey are fole know; please do the same thing to politician and then we profit from it; such training to stakeholders, including decision makers should be continued and given in a wider way; the perdeim you paid is not fair.

You paid the same money as for more come the nearest place; the per-diem is not good/fair, but I am satisfied with your training. Per-diem!; the training was very good but the payment of per-diem is totally poor or bad not acceptable; don't make it the 1<sup>st</sup> & the last but try to get the follow up and evaluate it is it practical or not?; per-diem is not enough and unexpected: I feel sad.

# 3. USAID AVIAN INFLUENZA COMMODITIES TRAININGS, GHANA: ACCRA, TAMALE, KUMASI, AND SUNYANI

May 31 to June 12, 2007

Report by Dr. Andrea Miles and Ms. Alexandra Hiniker

**Summary:** A series of four training-of-trainers on USAID avian influenza commodities was held between May 31 and June 12, 2007. The first three were funded by RAISE SPS, and the fourth was funded by STOP AI. Training included background information on avian influenza, personal protection, sample collection and disinfection as well as hands-on training on how to don and doff personal protective equipment safely and how to use rapid antigen avian influenza test kits for avian or human sample analysis. Training was conducted in Accra, Tamale, Kumasi and Sunyani. The Sunyani training was funded by STOP AI, but built upon all of the activities in the first three trainings of trainers and is therefore included in the overall report. Attendees included 48 participants from the Veterinary Service, 28 personnel from the Ghana Health Service and local hospitals, 6 from Customs Control, two from the National Disaster Management Office (NADMO) and one from the Wildlife Division. Participants ranked the quality of the training at 4.76 out of 5, with 1 being “not acceptable” and 5 being “excellent”.

## Lessons Learned:

- A separate training is really needed for Health Services as the current modules are really geared toward the veterinary service and health professionals are interested in a different set of topics, details on sample collection from humans and case management being two of the most obvious differences.
- The decontamination module needs to be modified to include locally available disinfectants before future cascade trainings are conducted.

## Summary of Important Comments Voiced by Participants:

### *Training*

- Although most participants had previous training on avian influenza, this was the first training any participants had on how to don and doff personal protective equipment and how to use the rapid test kits.
- Two people from Customs Control, NADMO and the Ghana Health Service should be included in each future training-of-trainers (TOT) Customs Control and NADMO would like to have cascade training on

recognition of avian influenza, personal protective equipment and decontamination. However, it is also important to build bridges between these organizations so including representatives at each training is also important.

- At each training there were at least 5 participants who expressed interest in assisting with cascade training, they will be used as the core for trainers throughout the country.
- Training is also needed for farmers, focusing on biosecurity and recognition of clinical symptoms that require reporting to veterinary services.
- Many participants wanted further training in humane methods of depopulation of large numbers of birds.

### *Resources*

- Participants were concerned about the lack of resources available to them to use the information presented as they did not think they had access to PPE, decontamination or Lab kits.
- Participants also noted the lack of cars, motor bikes and petrol to allow them to respond to calls from people with sick birds and rumors of bird die-offs.
- Each of the 10 regions has at least one GPS unit and their normal surveillance data record (at least in some regions) requires this information.

## ACCRA GHANA

(May 31-June 1, 2007)

### Number of Trainees: 16

USAID's Avian Influenza Commodities training seminar was successfully completed in Accra, Ghana, on June 1, 2007. In attendance were 16 officials from Veterinary Service, Customs Control, the Wildlife Division and the Ghana Health Service.

Dr. Andrea Miles, a poultry expert, conducted the trainings, and Ms. Alexandra Hiniker facilitated. The PPE module was completed on the first day and the decontamination module was covered. On the second day, Dr. Miles reviewed the decontamination equipment use with the participants and the sample testing and shipping modules were completed. The participants also discussed plans for carrying out future trainings. One public health official, one technician from the VS Lab in Central Region and three other technicians participated in the IATA training.

The training was conducted in English, the training manual and PowerPoint slides were distributed as handouts in English, participants also received electronic copies of all of the documents on a CD.

On average participants ranked the quality of the training at 4.67 out of 5, with 1 being "not acceptable" and 5 being "excellent". When asked if the training met their expectations, participants responded with an average of 4.75 out of 5, with 1 being "not acceptable" and 5 being "in every way." The training evaluation forms are summarized and included at the end of this report.

At least 5 participants noted at the beginning that they would be training others in the future on this material. Although most participants had previous training on avian influenza, this was the first training any participants had on how to don and doff personal protective equipment and how to use the rapid test kits. The training was very well received and there were many good questions asked. Many participants were very interested in learning more about humane methods of depopulation. Customs officials would like to have cascade training for others from customs on recognition of avian influenza, personal protective equipment and decontamination.





2. Have you used PPEs before?

10 No

3 Yes => In what setting(s)? Outbreak of Pasteurella and Newcastle disease in commercial poultry in Kumasi; farm; collecting samples from healthy birds and spraying vehicle tires.

On a scale of 1 to 5, how confident are you in using PPEs? 1.16

Not confident 1 2 3 4 5 Very confident

3. Have you trained others to use PPEs?

12 No

1 Yes => About how many trainings have you given? 10

When was the last time you gave a training? One month ago.

4. Have you used decontamination equipment before?

10 No

2 Yes => In what setting(s)? Outbreak of pasteurilosis and Newcastle disease in Commercial poultry in Kumasi; farm.

On a scale of 1 to 5, how confident are you in using decontamination equipment? 1

Not confident 1 2 3 4 5 Very confident

5. Have you trained others to use decontamination equipment?

12 No

1 Yes => About how many trainings have you given? 10;

When was the last time you gave a training? One month ago.

6. Have you taken laboratory samples before?

8 No

5 Yes => In what setting(s)? From local and wild birds in a village setting; on a farm where birds were dying.

On a scale of 1 to 5, how confident are you in taking samples?

Not confident 1 2 3 4 5 Very confident 1.38

7. Have you trained others to take samples?

11 No

2 Yes => About how many trainings have you given? \_\_\_\_\_

When was the last time you gave a training? \_\_\_\_\_

8. Language – fluency in

Understanding spoken English

Difficult 1 2 3 4 5 No problem at all 4.93

Speaking English

Difficult 1 2 3 4 5 No problem at all 4.93

Reading English

Difficult 1 2 3 4 5 No problem at all 4.93

### **Expectations:**

1. What do you want from this training?

How to use PPE correctly, how to decontaminate, how to dispose of birds; to learn how to use PPEs, to learn how to use decontamination equipment, to learn how to take lab samples and to train others in all of the above; how to use PPE, how to carry out decontamination, taking samples for testing; to know the importance of PPE; to be able to use the PPE in the best way; to know the right way to use the PPE, decontamination and lab sampling; knowledge on decontamination and use of PPE; how to use PPE effectively, how to collect samples and how to mail samples, how to train others on usage of PPE and sample collection; equip myself better; to be well equipped as a trainer to train others; at the end of training, I should be able to know how to put on the PPE and to become more acquainted with knowledge of HPAI, and also know lab sample taking and shipment; how to use the PPE kit effectively, how to take samples for lab investigation, and how to transport samples (packaging); I

wan to be well-versed in all that matters with reference to the course content; to be equipped on how to use PPE kits and decontamination equipment so as to impart the knowledge gained to others.

2. How do you expect to use what you learn in this training?

To train other agriculture personnel, to decontaminate equipment on a farm should there be an outbreak; to train other colleagues; to train others; to be able to train other veterinary staff in the region; to be able to protect myself from infection; to train the staff back in Cape Coast as well as the farmers (poultry) in other communities; to train other wildlife staff and hunters; to train others in the Veterinary Services Department to wear PPE correctly; to train others; to be able to be full prepared to assist in combating in case there is an outbreak in my region, and to be able to train others, too; help in controlling the disease, and to train others; to impart the stuff to others when I return to base; imparting the knowledge gained to others.

3. Are there any special topics you want the training to cover?

How to perform autopsies on dead birds and signs that confirm AI; no; nil; use of PPE, decontamination; provision of logistics (field boots, etc., vehicles) for effective work; yes, how to quickly spot and stop infected birds from entering the country from other countries; not as yet; decontamination and disposal; no.

## ACCRA TRAINING EVALUATION

(For Trainees)

**PLEASE NOTE: ALL RESPONSES APPEAR IN THIS SUMMARY SHEET EXACTLY AS THEY WERE WRITTEN ON THE EVALUATION FORM. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.**

### Immediately Post-Training:

Type of training (mark all that apply):  
 PPE kit  
 Decontamination kit  
 Lab sampling kit

Date of training: May 31-June 1, 2007

Location: Accra, Ghana (Paloma Hotel)

6. Were your expectations of this training met?

Not at all 1 2 3 4 5 In every way 4.67 + 2 blanks

Comments (what was particularly good or bad?): The delivery of the lecture was excellent; the PPE kit (on and off) and decontamination; good in every way, especially the lab sampling kit trials; somehow; the presentation using a power point made workshop very good, I hope trainings of this sort would be organized from time to time to upgrade our knowledge; decontamination; why, when, and how to use the PPE and proper sampling and shipping; the presentation and course content were very good; participatory; particularly good was way to put on PPE and undressing; the presentation was very good; it was very educative, understanding and practically knowledgeable; the presentations; I can now teach colleagues on proper use of PPE; good presentation and demonstrations; the presenter was very articulate in her presentation.

7. Was the quality of the training:

Not acceptable 1 2 3 4 5 Excellent 4.75 + 1 blank

Comments (what was particularly good or bad?): Presentation; excellent; the resource person were very friendly and accommodating; the quality was up to standards; examples and powerpoint slide; the meals were bad; good delivery from the resource persons, it was detailed and they were ready to answer all questions; very clear pictorials and pictures; excellent delivery; the lectures were quite lively; very good demonstration and hands-on experience; really excellent due to its practical contents and everything was physically done and well; content of the training manual is very good and easy to understand; very explanatory and understandable; given time off for questions to be asked for verifications.

8. Were the exercises and group work:

Not acceptable 1 2 3 4 5 Excellent 4.63 + 1 blank

Comments (what was particularly good or bad?): Everybody had a chance to try or participate in the group exercises; what was good was that all participants, professionals, and others had the opportunity to try their hands; the exercises gave each participant the opportunity to try his hands on the equipment, the group work also gave each participant to participate in discussion; most participants never tried their hands at the equipment used in the testing; test; we all tried our hands on the kit (lab kit); very participatory; participation of all; the group was very lively; using the test kits; because we understood it very well and everybody participated and results were good; it enabled participants to share ideas and experiences.

9. What activities did you like the most? The lecturing and group discussions; sample testing and packaging; the practical aspect; the trying of the PPE – trying to put on overalls; the practical aspect and demonstrations; the presentation through slides; trying on the PPE; participatory nature of the workshop, trying to put on the PPE; the putting on of the PPE; putting on the PPE; the exercises on PPE and test sampling kit; discussions and group work.

10. Was the training  given in English with no translator

given in another language.

Language: \_\_\_\_\_

Was there a translator?  Yes  No

11. Were you able to understand everything the trainer said?

17 Yes 0 No

Comments: The delivery is excellent and straight to the point; no comments here; no, because as a customs officer, some of the lab/scientific terminologies were a bit strange to me; very good presentation; simple language was used; no comments; she was the best trainer ever seen; English language is the official acceptable language to be used in teaching and use are highly educated in responsible positions; very well explained; communication level very perfect.

12. On a scale of 1 to 5, how confident do you feel about using PPEs correctly? 4.71

Not confident 1 2 3 4 5 Very confident

13. On a scale of 1 to 5, how confident do you feel about training others to use PPEs correctly? 4.88

Not confident 1 2 3 4 5 Very confident

14. On a scale of 1 to 5, how confident do you feel about using decontamination equipment? 4.65

Not confident 1 2 3 4 5 Very confident

15. On a scale of 1 to 5, how confident do you feel about training others to use decontamination equipment? 4.71

Not confident      1 2 3 4 5 Very confident

16. On a scale of 1 to 5, how confident do you feel about taking samples? 4.18

Not confident      1 2 3 4 5 Very confident

17. On a scale of 1 to 5, how confident do you feel about training others to take samples? 4.13 + 1 blank

Not confident      1 2 3 4 5 Very confident

If you circled 1, 2 or 3 for any question, please explain why: Since I am not a trained lab technical, I need a longer period to master the procedures [customs officer]; my reason is that as a non-scientist with limited ideas about vet/human medications, I would need a further training before my confidence level can be increased [customs officer]; determine if human or animal sample, know whether dealing with swab, cloacae, etc., transport medium, field lab, or OIE.

18. How could the content and/or facilitation of this training be improved? By extending the number of days to at least one week or a month [customs officer]; it's okay for the time being; I feel that the next time around, we could have a field trip to a safe farm, where possible demonstrations would be performed; special attention should be given to the non-vet/scientist to boost their confidence level; I hope the participants are allowed to participate in the discussion [this person also gave a 5 for exercises and group work and commented that they liked how the training was participatory, so this comment is not clear]; more time; increase time to allow more discussion/participation; the content and facilitation was very excellent; use of real or dummy birds could have been better; facilitate trainers to conduct more laboratory tests and sampling taken from field to lab; being a nurse, I have to go through the exercise very often to get used to taking of samples; more days should be allocated for the training.

19. Were the handouts provided during this training:

- |                           |        |      |         |
|---------------------------|--------|------|---------|
| a. Relevant to your work? | Yes 15 | No 1 | Blank 1 |
| b. Informative?           | Yes 16 | No 0 | Blank 1 |
| c. Easily understood?     | Yes 16 | No 0 | Blank 1 |

20. Will you use these handouts when performing your activity? 1 \_\_\_\_\_ 7 Yes 0 No  
If yes, how do you anticipate using these materials? If no, why not?

The handouts would enable me to be exact in my delivery to others; as reference material; the handouts would be an easy reference point for me while I try to train others; the handout will be used as a reference point in case of doubt; using the materials will make every training easier; it would help in preparing training presentations; the handouts are self explanatory and will make my presentation very simple and easy; make more copies and go through systematically with the trainees; training materials as well as demonstration tools; to reproduce more to be given to future trainees; try to simplify then further for better understanding depending on educational level; because of its pictures and easily understandable words written; will adapt most of the slides; powerpoint presentations facilitate knowledge and also encourage participants to be very interactive; well organized and easy to follow step by step, making it easy to understand; make adding copies as reproduce to handouts.

21. Other Comments:

The programmer provides a wealth of information and as such should be done periodically; very appreciative; I sincerely appreciate the entire exercise and very much hope to use the training to achieve the control of the spread of Avian flu; on the whole it has been an eye-opener, and beneficial to me. It's a laudable program and I might be encouraged with the advice given; the constant training of staff will make them efficient in their work; the food served was poor—rice was served all the time; generally satisfying, facilitate trainers to conduct further training when return to their stations (USAID); since this is a training of trainers program, I would request that funds be made available for further trainings at the district levels; in general the training will help to prevent further spread of any outbreak that may occur; the size of the participation (about 15) people is very ideal for adult learning and better interaction; the trainer and its assistance are very understanding, easily answered all questions, dedicated to its work; it was a useful workshop; arranging variety of meals to be served should be prearranged; participants should be allowed to choose from where to lodge.

## USAID AVIAN INFLUENZA COMMODITIES TRAINING

### Participant List

Accra, Ghana

May 31-June 1, 2007

First Name, Surname	Title	Organization	Address	Work Tel.	Mobile Tel.	Fax No.	Email Address
Augustus Ayitey	DR	Vet services	P.O.Box 507, Cape Coast		[REDACTED]		
Saviour Denuene	DR	Vet services	Box 165, Ho		[REDACTED]		[REDACTED]
F. E. K. Okyere	DR Vet	services	Box 586, Takoradi	031-22565	[REDACTED]		
Ben Aniwa	DR	Vet services	P.O.Box 97, HO	091-26714	[REDACTED]	091 25958	[REDACTED]
Duah Osafo J.	DR	Vet services	P.O.Box 265, Koforidua	081-20678	[REDACTED]		
Sherry Johnson	DR	vet services	Box 47, Cape Coast	042 32292	[REDACTED]		[REDACTED]
Linda Appiah	DR	vet services	Box 47, Cape Coast	042 32292	[REDACTED]		
Robert Andam	Coll	CEPS	CEPS, Ho		[REDACTED]		
Emmanuel Gaaglo	Techn	Vet services	Box 97, Ho		[REDACTED]		
Helenmary Bainsan		GHS	Reg. Health Adm. Box 184, Hearsa		[REDACTED]		
Richard D. Suur Ire	DR Forestr	y Commission Wild life	Box M239, Accra		[REDACTED]		[REDACTED]
Alhaji salifu Ibn Alhassan	CC	CEPS	Box 304, Koforidua	081 23020	[REDACTED]		

## USAID AVIAN INFLUENZA COMMODITIES TRAINING

### Participant List

Accra, Ghana

May 31-June 1, 2007

First Name, Surname	Title	Organization	Address	Work Tel.	Mobile Tel.	Fax No.	Email Address
M. K. Antwi	DR	Vet services	Box 507, Cape Coast	081 20678	[REDACTED]		
J. B. Torto		A.C.T.O / Vet services	Box 265		[REDACTED]		
K. M. Aryee	DR	V. S. D.	Box 7, H/ Asoku		[REDACTED]		[REDACTED]
Thomas Azurago	MR	G. H .S		021 689843	[REDACTED]		[REDACTED]
Dramani E. Kwesi	DR	G. H. S. / D. S. D	Box 300, Korle Bu	021 661046	[REDACTED]		

## TAMALE, GHANA

(June 4-June 5, 2007)

### Number of Trainees: 19

USAID's Avian Influenza Commodities training seminar was successfully completed in Tamale, Ghana, on June 5, 2007. In attendance were 19 officials from 13 from the Veterinary Service, 3 from the Health Service and 2 from Customs Control.

Dr. Andrea Miles, a poultry expert, conducted the trainings, and Ms. Alexandra Hiniker facilitated. The PPE module was completed on the first day and the decontamination module was covered. On the second day, Dr. Miles reviewed the decontamination equipment use with the participants and the sample testing and shipping modules were completed. The participants also discussed plans for carrying out future trainings. Eight of the participants were certified to ship HPAI samples internationally by air freight.

The training was conducted in English, the training manual and PowerPoint slides were distributed as handouts in English, and participants received electronic copies of all of the documents on a CD.

On average participants ranked the quality of the training at 4.67 out of 5, with 1 being "not acceptable" and 5 being "excellent". When asked if the training met their expectations, participants responded with an average of 4.75 out of 5, with 1 being "not acceptable" and 5 being "in every way." The training evaluation forms are summarized and included at the end of this report.

Training was very well received by participants who were active in discussions. The biggest concerns voiced by these participants were the lack of equipment available to them, including PPE and test kits. They felt that they should have these materials available now. They said that they have suitable air-conditioned storage and that the Regional Veterinary Officers could be responsible for reasonable usage of materials. One of the participants shared his photos of their active surveillance of a local wet (live) bird market.

In the photo we noted that one person was wearing a GPS unit. They told us that many of these units are available in Ghana (each of the 10 Regions has at least one) and that GIS location data was part of information required for their normal surveillance data record.



## TAMALE TRAINING EVALUATION

(For Trainees)

**PLEASE NOTE: ALL RESPONSES APPEAR IN THIS SUMMARY SHEET EXACTLY AS THEY WERE WRITTEN ON THE EVALUATION FORM. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.**

### Pre-Training:

Type of training (mark all that apply):  PPE kit

Decontamination kit

Lab sampling kit

Date of training: June 4-5, 2007

Location: Tamale, Ghana (Gariba Lodge)

### Background and Previous Experience:

1. Profession: Veterinary Surgeon (7)

Customs Officer (2)

Disease control officer (1)

Medical Laboratory Technologist (1)

Lab technician (3)

Veterinary technician (1)

CEPS (1)

Teaching hospital matron (1)

2. Have you used PPEs before?

11 No

5 Yes => In what setting(s)? Laboratory; when I am collecting samples; sample collection for bird flue virus; laboratory coats, field overalls.

2 Blank

On a scale of 1 to 5, how confident are you in using PPEs?

Not confident 1 2 3 4 5 Very confident 3.29 + 11 blanks

3. Have you trained others to use PPEs?

16 No

2 Yes => About how many trainings have you given? Several times;

When was the last time you gave a training? 2004;

4. Have you used decontamination equipment before?

13 No

5 Yes => In what setting(s)? Laboratory; sprayers; ASF, anthrax, rabies; in bacterial infectious outbreaks (anthrax); for personal clothing after field work then vet instruments.

On a scale of 1 to 5, how confident are you in using decontamination equipment?

Not confident 1 2 3 4 5 Very confident 3.43 + 11 blanks

5. Have you trained others to use decontamination equipment?

15 No

3 Yes => About how many trainings have you given? Several times; 6; 4.

When was the last time you gave a training? 2006; April 2007; 1999.

6. Have you taken laboratory samples before?

8 No

10 Yes => In what setting(s)? Laboratory; samples in ice chest; post mortem cases for Newcastle CBPP, ASF, HS on farms and slaughterhouses; post mortem cases for Newcastle, Anthrax spore, African swine fever; ASF, anthrax, rabies; anthrax, ASF, etc.; blood samples from live animals, blood smear and organ samples from dead animals.

On a scale of 1 to 5, how confident are you in taking samples?

Not confident 1 2 3 4 5 Very confident 4 + 6 blanks

7. Have you trained others to take samples?

11 No

7 Yes => About how many trainings have you given? Always; 4; 1; routinely in field duty.

When was the last time you gave a training? May 2007; 2006; November 2006; six months ago;

9. Language – fluency in

Understanding spoken English

Difficult 1 2 3 4 5 No problem at all 4.94

Speaking English

Difficult 1 2 3 4 5 No problem at all 4.94

Reading English

Difficult 1 2 3 4 5 No problem at all 5

## Expectations:

### 3. What do you want from this training?

Know about avian influenza in birds and humans, learn how to take and transport samples and to be able to train others to do so; learn and experience; to know more about PPE and decontamination; since I am always called upon to collect samples, I hope this training will help me to protect myself and other colleagues; training on the proper use of PPE; to be able to gain insight in the most effective way and beset decontaminants to help poultry farmers and others protect themselves; to know the proper use of PPE and decontamination kit to be able to train others who were not present here; to be able to understand the use of PPEs, develop the skill of using it and also train others to use it, I also expect to be able to take lab samples and also acquire the skills of training others to do the same; I expect the workshop to sensitive in identifying causes, preventative measures to adopt, and application of skills/knowledge acquired; to have knowledge on the use of PPE kits, know more about avian influenza, and the roles I have to play to check its spread; to know the decontamination equipment and how to use it, how to prevent infection of avian flu in humans, how to detect the avian flu in humans and treat and prevent the spread of it; after the workshop, I can also train my technical officers and give out what I have learned from here; I want to know more about the symptoms, to use it to prevent birds infected with the disease from being imported into the country; to be better equipped in the use of PPE kit, decontamination, and lab sampling kits; my expectation is that I will be better prepared and equipped to be able to use PPE in the event of an outbreak without regret or fear; professional training in all aspects of this workshop; more information about avian influenza, types and modes of infection; use of PPE, types of samples and sample collection, decontamination; to be able to use PPE well, to be able to apply disinfectants effectively and efficiently, and to collect, package, and submit samples properly.

### 4. How do you expect to use what you learn in this training?

Organize in-service training and on-site training where necessary; to sensitize farmers; to train veterinary staff and poultry farmers; to use it to protect myself, colleagues, and farmers from infection; train other stakeholders (AI Task Force) and MOFA (Vet.) staff in the proper use of PPE and decontamination techniques; teach all on the seriousness of using decontaminants and protecting themselves from infection; to protect myself from infection and be able to control spread of any disease outbreak, likewise those I will train; I expect to use the knowledge in this training to bring on board others who have not benefited to appreciate so we all grow towards improving the system; by organizing training sessions at all sub-stations under my command, and provide them with all resource materials; I'll educate my fellow officers about the danger posed by avian influenza and what is expected of them to check its spread; to organize a meeting for TG nurses in charge of the hospital and brief them, to organize a workshop to create awareness among nurses and staff in the health facilities; if there should be any outbreaks of avian influenza, what has been learned should be put to good use; I expect to know more about avian influenza e.g. the symptoms, how to prevent its spread and control it; to train other field officers; I expect to retrain others who were not able to be part of this workshop in my area of operation; to train my staff and others; to train other laboratory technicians, student vets, farmers, and the general public; apply knowledge in the field for the control and prevention of livestock and poultry diseases, and to train other veterinary personnel in the region.

3. Are there any special topics you want the training to cover?

No; how to take laboratory samples; biosecurity; I want to know all about AI; compensation strategies; no; no; all topics are relevant in this particular situation; how to prevent the avian influenza virus from spreading, how to avoid the avian flu, and how to handle problem areas; no; how to handle a suspected case of avian flu in a human being, how to handle poultry products to avoid decontamination, and how to diagnosis avian flu in humans (signs and symptoms; no; meaning of avian influenza, how contamination takes place, symptoms and control, signs in the human being who has been contaminated, personal protective services to be used; any topic that may deem relevant in the control and prevention of AI; any other information specifically on avian influenza; biosecurity on farms and homes where poultry are being kept; yes, more training of diagnostic methods and equipment; biosecurity for rural livestock and poultry production systems.

## TAMALE TRAINING EVALUATION

(For Trainees)

***PLEASE NOTE: ALL RESPONSES APPEAR IN THIS SUMMARY SHEET EXACTLY AS THEY WERE WRITTEN ON THE EVALUATION FORM. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.***

### Immediately Post-Training

Type of training (mark all that apply):  PPE kit  
 Decontamination kit  
 Lab sampling kit

Date of training: June 4-5, 2007

Location: Tamale, Ghana (Gariba Lodge)

22. Were your expectations of this training met?

Not at all 1 2 3 4 5 In every way 4.89

Comments (what was particularly good or bad?): I enjoyed every aspect of the training; PPE training was good; biosecurity measures, PPE procedures, and the field AI diagnostic kits; every aspect of training was good; illustrations, demonstrations, and presentations; it was good to be reminded of how important our safety should be to us and what to do to control bird flu; PPE, decontamination, and lab sampling were all well met; objectives as pertains in handout were met and expectations as to some of the tests were equally met; the teaching-learning process was very interactive and practical; how the virus can spread and how to contain it was clearly shown, how to take samples from suspected humans and signs and symptoms of the flu; I now know about PPE, decontamination, and laboratory sampling; as a customs officer, the training equipped me with the symptoms of avian influenza; quality and presentation by resource person was very good, training manuals were adequate; I was particularly impressed and appreciated the safety precautionary measures in dealing with AI outbreaks; everything learned was good but with special emphasis on sampling and testing of samples; all modules of training: various times and places of PPE uses, methods of diagnoses; in terms of content and delivery of material, also the practicals were well demonstrated.

23. Was the quality of the training:

Not acceptable 1 2 3 4 5 Excellent 4.88 + 1 blank

Comments (what was particularly good or bad?): Demonstration of the decontamination kit was good; PPE training; facilitator was excellent in presentation and the quality of handouts and power point presentation; every aspect was good; course content and logical framework/sequence of presentations; there was very good practical lessons which help us focus and remember bird flu's importance; PPE and lab sampling, decontamination had no practicals; methodology used for training was very good as there was a lot of interaction between facilitators and participants and also practical sessions were wonderful; the provision of visualized teaching aids; very interactive and a lot of questions were asked and answers provided; everyone felt relaxed, good interpersonal relationship, facilitator was knowledgeable – was in control, very honest; it has made us to be very prepared in case there is an outbreak of avian flu; there were frank discussions and freedom for everyone to express his or herself and to share experiences; very good; every aspect of the training was very good and hard to find anything bad; the training was done in a demonstrative manner, making it very easy to understand; every part; practicals, powerpoint presentation.

24. Were the exercises and group work:

Not acceptable 1 2 3 4 5 Excellent 4.67

Comments (what was particularly good or bad?): We learned from one another; the group work enabled us to share ideas and experiences; all aspects; participatory; we got first-hand to try on how to use all the PPE and test kits needed to help in training and control; everything about group work was good; it increased the level of exposure to practical work; the results were up to expectation; using the PPE kit – and practically putting it on, times spent to test each participant and the nebulizer to make sure the respirator was in place [Bitrex fit test kit]; it has made us to share videos and to know more; we practiced what the training gave us e.g. using the PPE kit and lab sampling kit; very good; the group work offered practical experience and experience for a better understanding of training; the exercises were good but the exercise about testing samples could not be done by everybody; trials, wearing of PPEs, group trial of the diagnostic techniques.

25. What activities did you like the most? Demonstrations; PPE training; avian influenza diagnostic kit demonstration; the PPE kits; experiencing how to use field test kit and proper way to wear PPE; I liked the match game and the case study exercises; practical sessions – as it is said that the lessons are learned by actually doing; on and doffing of PPE kit; the process of putting on and removing PPE; PPE; the usage of PPE; all the training activities; the use of PPE for practical demonstrations and the field diagnostic training; the sampling technique; all the activities were most liked; practical demonstration by trainer and chance for trainees to try hands on.

26. Was the training  given in English with no translator

given in another language.

Language: \_\_\_\_\_

Was there a translator?  Yes  No

27. Were you able to understand everything the trainer said?

17 Yes 1 No

Comments: Tonation was very good; the trainer was excellent; the whole training was rewarding and beneficial; used very simple terms; it was clear and interactive; speed was acceptable and expression and demonstrations clear; trainer was down to earth with explanations and was very articulate; satisfied; but to a greater extent [this was the customs official who answered no]; she took her time to speak and explain further if anyone had any questions, very lively trainer; there was a little bit of idea and a little push has made us to understand more; the trainer was soft-spoken, audible, and straightforward, apparently, she is very experienced and knowledgeable on avian influenza disease; a lot of needed things were said, and that has enhanced my avian flu diagnostic skills; every bit of the training was well comprehended; we need the test kits and we need funding to undertake surveillance as soon as possible; language was clear, time taken to explain every part with practical demonstrations;.

28. On a scale of 1 to 5, how confident do you feel about using PPEs correctly? 4.56

Not confident 1 2 3 4 5 Very confident

29. On a scale of 1 to 5, how confident do you feel about training others to use PPEs correctly? 4.56

Not confident 1 2 3 4 5 Very confident

30. On a scale of 1 to 5, how confident do you feel about using decontamination equipment? 4.53 + 1 blank

Not confident 1 2 3 4 5 Very confident

31. On a scale of 1 to 5, how confident do you feel about training others to use decontamination equipment? 4.28

Not confident 1 2 3 4 5 Very confident

32. On a scale of 1 to 5, how confident do you feel about taking samples? 4.22

Not confident 1 2 3 4 5 Very confident

33. On a scale of 1 to 5, how confident do you feel about training others to take samples? 4.06

Not confident 1 2 3 4 5 Very confident

If you circled 1, 2 or 3 for any question, please explain why: To have confidence in the training; because the patient was not available for the sample to be taken in the conference hall; because these examples were not physically carried out on either humans or birds, it was presumed that samples had already been taken; I need to know more about the chemicals in use; as accustoms officer, I don't actually need to know more about sample taking; the decontaminants e.g. Virkon etc. are not available for us to use,

though I have the knowledge I have not used it practically; for the meantime it's ok, however visit to live market will do.

34. How could the content and/or facilitation of this training be improved? Try to get samples for the tests during trainings; frequently trained; maybe next time there should be a field trip to a farm for demonstration of the sample collection; showing of video clips of actual outbreaks and the way it was handled; adding the practical aspect of decontamination; there is the need to move from the classroom to selected farms (of poultry); it will be used in training and reference material; if more light could be thrown on isolation of suspected humans within the community; the training was very excellent; the training if possible should be extended to all customs officers, especially those at the border not forgetting the limited monetary resources; video clips of actual avian flu outbreak situations (control measures); further refresher trainings to keep one abreast and to provide PPE and test kits; make sure the training materials are immediately available for trainees to start using on completion of training; duration extended to enable some field and lab practicals.

35. Were the handouts provided during this training:

- a. Relevant to your work? Yes 18 No 0 Blank 0
- b. Informative? Yes 18 No 0 Blank 0
- c. Easily understood? Yes 18 No 0 Blank 0

36. Will you use these handouts when performing your activity? 18 Yes 0 No

If yes, how do you anticipate using these materials? If no, why not?

I anticipate using it to train others; through pictures and power point presentations; one can always read with understanding so easy to use; for training other staff in my outfit; there are pictures that demonstrate written words so it makes it easy to explain things to people who cannot read; I will reproduce them for the trainees to guide them during the training; will be used as reference materials as well as materials which will facilitate my training of others; I will recompose them in chapters and adapt to my work schedules and those of my colleagues; I will make copies to those I train and explain the activities to them; after the training, I will photocopy to share with people I intend to train; I am going to make sure I read them thoroughly so I can apply them; to serve as a reference and training materials; as a reference but not for constant use; they are simple to understand and I can use them to explain to people; when there is any suspected case of avian influenza; reference for training others, checklist for items needed, procedures for sampling and testing.

37. Other Comments:

Notice of the training was transmitted to me on the day of the training, would be grateful if notice is sent earlier next time, however, the training has been generally useful, we will need test kits for human diagnosis; the training was very good; field veterinary officers should be given AI diagnostic kits to carry out active surveillance on Avian Influenza; there should of this time of training, the directorate should be talked to so that we can also train others when we go back to our stations; such programs should be organized very often, thank you USAID for this support; I am very happy to have been part of this training because I see there is no room for relaxing because there lives and businesses are at stake which

can easily be lost if I don't do my part well, thank you; every other thing about the training was ok e.g. housing, feeding, and time; knowledge not used goes stale, there is therefore the need for support of regions to quickly use the knowledge acquired; initial assistance in training others may be required by resource persons; the workshop has been very useful and very educative; it was very excellent; I'm taking this opportunity to thank the trainer and facilitator for giving me this opportunity to learn about the avian influenza, to organizers I say more grease to your elbows; I am now confident and feel fully equipped with knowledge to use both PPE and test kits on AI; the training has been very exciting and we need more of such trainings when necessary.

## USAID AVIAN INFLUENZA COMMODITIES TRAINING

### Participant List

Tamale, Ghana

June 4-5, 2007

First Name, Surname	Title	Organization	Address	Work Tel.	Mobile Tel.	Fax No.	Email Address
Raymond Carbonu	Asst. Collector	CEPS	Box 108, Tamale	071 22799	[REDACTED]		[REDACTED]
Paul Polkuu		MOFA – Veterinary Officer	Box 31, Jirapa	024 6322678	[REDACTED]		
Richard Agordekpe	Asst Coll	CEPS	Box 210, Bolgatanga	-	[REDACTED]		
E. A. Mark Hansen	Dr MOF	A	Box 14, Wa	0756 22139	[REDACTED]	0756-22139	[REDACTED]
Peter Bilobi Jentina	Prin. Coll	CEPS	Box 222, Wa	0756 22195	[REDACTED]		
Yahara Adam	Dr	Veterinary Services	Box 97, Pougri	071 91080	[REDACTED]		[REDACTED]
Simon Gariba	T. O.	Veterinary Services	Box 32, Bolgatanga	-	[REDACTED]		
Gifty M. Youri	Miss	MOFA	Box 14, Wa	0756 22139	[REDACTED]	0756 22139	[REDACTED]
E. K. Adetor	DR	MOFA	Box 17, Tumu		[REDACTED]		
Kakari Agyeman	Dr	MOFA	P /Tamale Veterinary Services		[REDACTED]		[REDACTED]

## USAID AVIAN INFLUENZA COMMODITIES TRAINING

### Participant List

Tamale, Ghana

June 4-5, 2007

First Name, Surname	Title	Organization	Address	Work Tel.	Mobile Tel.	Fax No.	Email Address
Rev Dr E. A. Harunah	Rev Dr	MOFA	Box 97, Tamale	071 91080	[REDACTED]		
Sigli I. Yakubu	MR	MOFA	Box 97, Tamale		[REDACTED]		
Dr T. A. Anyorikeya		MOFA	Box 32, Bolgatanga	072 22438	[REDACTED]	072 22265	
E. T. Adda	MR	MOFA	Box 14, N' GO	024 6279807	[REDACTED]		
Dr Fenteng Danso	DR	MOFA	Box 43, Bawku		[REDACTED]		[REDACTED]
J. D. Laarie	MR	GHS	PHL, Tamale	071 23436	[REDACTED]		
Mrs. Elizabeth Danso	MRS	GHS- Teaching Hospital	Box 16, Tamale	071 22454/58	[REDACTED]		
Edward A. Acorachie	MR	GHS, Tamale	Box 99, Tamale	071 22710 071 22912	[REDACTED]		[REDACTED]

## KUMASI, GHANA

(June 7-June 8, 2007)

### Number of Trainees: 21

USAID's Avian Influenza Commodities training seminar was successfully completed in Kumasi, Georgia, on June 5, 2007. In attendance were 21 officials, 14 were from Veterinary Service, 2 from Customs Control and 5 from Health Service.

Dr. Andrea Miles, a poultry expert, conducted the trainings, and Ms. Alexandra Hiniker facilitated. The PPE module was completed on the first day and the decontamination module was covered. On the second day, Dr. Miles reviewed the decontamination equipment use with the participants and the sample testing and shipping modules were completed. The participants also discussed plans for carrying out future trainings. Five participants were trained in IATA procedures for shipping HPAI samples to an OIE or WHO Reference Laboratory.

The training was conducted in English, PowerPoint slides were distributed as handouts in English, and participants received electronic copies of all of the documents (including the training manual) on a CD. There were not enough copies of the training manual for all participants, so those from Sunyani were asked to stop by to pick up a copy there.

On average participants ranked the quality of the training at 4.85 out of 5, with 1 being "not acceptable" and 5 being "excellent". When asked if the training met their expectations, participants responded with an average of 4.71 out of 5, with 1 being "not acceptable" and 5 being "in every way." The training evaluation forms are summarized and included at the end of this report.

Participants in this training had very lively discussions; many of them were from Sunyani, where an outbreak had recently occurred. They had worn PPE when they realized that HPAI was in their area, but they had not been careful about the way they removed it and were glad to have this training. Their concerns were first for further training for other veterinarians, health care officials, customs control, emergency response, police and especially farmers in their region. One participant from this training has agreed to be the facilitator in the next training which will be held in Sunyani, others will come to that training to listen again so that they will be better prepared for cascade training. The Dormaa District along the borders with the Ivory Coast (in the southern part of Ghana) has one of the largest poultry production Districts in the Country, this district is reported to have 189 poultry farms and raises 1.59 million layers. The Dormaa District needs to be targeted for further training. The second concern was for resources. Veterinarians in this part of the country do not have vehicles supplied to them, they have to use their own cars and pay for gasoline. They also need to have test kits, PPE and decontamination equipment made available to them locally. They do have air conditioned storage in the Veterinary Laboratory in Kumasi; however the electric power is not consistent and often must be run off of a generator that must be re-fueled daily.



## KUMASI TRAINING EVALUATION

(For Trainees)

***PLEASE NOTE: ALL RESPONSES APPEAR IN THIS SUMMARY SHEET EXACTLY AS THEY WERE WRITTEN ON THE EVALUATION FORM. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.***

### Pre-Training:

Type of training (mark all that apply):  PPE kit

Decontamination kit

Lab sampling kit

Date of training: June 7-8, 2007

Location: Kumasi, Ghana (Hotel Georgia)

### Background and Previous Experience:

1. Profession: Veterinary Surgeon (11)

Customs Officer (2)

Disease control officer (1)

Department of Animal Health (2)

Lab technician (1)

Nurse (1)

Blank (1)

[Two human health professional arrived late and did not complete the pre-training evaluation, but did complete the post evaluation.]

2. Have you used PPEs before?

8 No

11 Yes => In what setting(s)? During the recent outbreak in Sunyani; spraying of fungicides in cocoa production; sampling during active surveillance in commercial farms, west markets, etc.; when active surveillance team visited my district for random sampling last year; active surveillance; for active surveillance and control of AI in Sunyani; yes, in the ward where I work; outbreak situation (Sunyani) and active surveillance; during sampling of birds in active AI surveillance.

3 Blank

On a scale of 1 to 5, how confident are you in using PPEs?

Not confident 1 2 3 4 5 Very confident 2.86 + 3 blanks

3. Have you trained others to use PPEs?

17 No

1 Yes => About how many trainings have you given? Several times.

When was the last time you gave a training? 2004; demonstrated their use in May 2007.

1 Blank

4. Have you used decontamination equipment before?

13 No

6 Yes => In what setting(s)? During the recent outbreak in Sunyani; in the ward in which I work; in outbreaks on poultry farms; after depopulation of infected poultry house for new stock.

On a scale of 1 to 5, how confident are you in using decontamination equipment?

Not confident 1 2 3 4 5 Very confident 2.17 + 7 blanks

5. Have you trained others to use decontamination equipment?

16 No

2 Yes => About how many trainings have you given? S

When was the last time you gave a training? April; 8 months ago.

1 Blank

6. Have you taken laboratory samples before?

10 No

9 Yes => In what setting(s)? During the recent outbreak in Sunyani; commercial farms, wet markets, village communities; tracheal and cloacal; field investigation office in terms of outbreaks; field investigation like ASF outbreak investigations; disease outbreaks, routine surveillance – both poultry and livestock; outbreak situation and active surveillance; cloacal and tracheal samples from birds; for sampling of birds during active surveillance – AI, tracheal swabs.

On a scale of 1 to 5, how confident are you in taking samples?

Not confident 1 2 3 4 5 Very confident 3.55 + 8 blanks

7. Have you trained others to take samples?

15 No

1 Blank

8 Yes => About how many trainings have you given? 15;

When was the last time you gave a training? Two months ago;

10. Language – fluency in

Understanding spoken English

Difficult 1 2 3 4 5 No problem at all 4.84

Speaking English

Difficult 1 2 3 4 5 No problem at all 4.78 + 1 blank

Reading English

Difficult 1 2 3 4 5 No problem at all 4.78 + 1 blank

## Expectations:

### 5. What do you want from this training?

More knowledge in the identification, management and control of HPAI outbreak and the effective use of PPE during periods of outbreak; to know how to manage avian influenza, how the various hospitals and clinics are prepared to receive a client with the disease; good grasp of techniques of using PPE kit, decontamination kit, and lab sampling kit; I want to be well informed about the detection, protection, and effects of the avian influenza; to sharpen my skills in bird flu detection, sample collection, and submission and personal protection; taking samples and shipping samples for lab examination, to prevent AI and control it in Ghana; after the training I should be able to put on PPE and hand PPE equipment, and learn how to decontaminate equipment properly; to be well equipped in my knowledge on how to approach the situation in case of the outbreak in my district; to know more about the topics to be discussed; new techniques in the use of PPEs and the decontamination equipment (if any); I hope that after this training I will be well equipped about the subject so that I can also train others; to be able to use PPE confidently, to be able to carry out decontamination, and to be able to take lab samples; to be in a better position to handle any outbreak of avian influenza; this training is expected to equip me with the knowledge and confidence to use PPEs and to decontaminate equipment and also be able to train others; proper order of removing the PPE; I want to know more about avian influenza and be able to train others; expecting to be perfect in the use of PPEs and decontamination; expecting to acquire knowledge in handling birds and know how to detect avian flu in birds; to learn to use PPEs other than clothing, especially decontamination equipment.

### 6. How do you expect to use what you learn in this training?

To use it to train others who did not have the opportunity to be at this training in the event of an outbreak; I expect to use it to help and prevent the outbreak and also how to help when a patient comes with avian flu; techniques learned I will pass on to stakeholders in livestock industry and the public through training; I expect to sensitize the general populace about the dangers of the avian influenza; to enhance bird flu activities in the field and laboratory, and to build capacity at my workplace; to teach others in prevention and detection of AI, and also how to handle cases of AI; to use it in preventing and controlling avian influenza in cases of outbreak in my district, to be able to train farmers and MOFA staff in my district; to train other staff and to participate in all activities of disease outbreaks; it will enable me to train more people, it would help me to collect samples with confidence and deal with any situation in case there is an outbreak; active disease surveillance of AI and control of the disease require adequate knowledge of the use of PPEs and decontamination equipment and the training will come in handy; I hope to train my colleagues in the ward or hospital on the subject, the PPE kit and decontamination kit; to be able to teach others, to be able to demonstrate and effectively carry out decontamination; to supervise staff (veterinary) in handling -- prevention, control, and monitoring avian influenza situation; I expect to use what I learn in this training to train my subordinates and the public on the use of PPEs and decontamination of equipment; to train my staff in the laboratory on the proper use of PPE; I expect to be able to train others, and educate people and be prepared to give my best whenever I am called upon to do so; to train other subordinates and farmers; to help check existence of flu in birds at the border and entry points; to protect myself, to teach other members of staff how to use PPE, to train farmers on how to use PPE.

3. Are there any special topics you want the training to cover?

No; use of PPE in mining and pollution areas; nil; most effective method of humanely killing during bird flu outbreak; to diagnose AI in the laboratories in Ghana and Sunyani, being in an outbreak area; yes, first aid to those officials in contact with the disease in outbreak areas or zones; methods of destruction, the method of compensation; no, general coverage of the use of the equipment will do; my special emphasis is going to be on the PPE kit and the decontamination kit; use of vaccines on AI, methods of destruction of birds; repopulation of farms after an outbreak of avian flu has been contained; no; everything is important to me; no; in cases of other domestic creatures and pets like dogs, rabbits, cats, grasscutters, etc.; at the time of training, the latest deaths through bird flu in humans.

## KUMASI TRAINING EVALUATION

(For Trainees)

**PLEASE NOTE: ALL RESPONSES APPEAR IN THIS SUMMARY SHEET EXACTLY AS THEY WERE WRITTEN ON THE EVALUATION FORM. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.**

### Immediately Post-Training:

Type of training (mark all that apply):  PPE kit  
 Decontamination kit  
 Lab sampling kit

Date of training: June 7-8, 2007

Location: Kumasi Ghana (Georgia Hotel)

1. Were your expectations of this training met?  
Not at all 1 2 3 4 5 In every way 4.71

Comments (what was particularly good or bad?): The trainer being a practicing vet provided most of us to interact at a professional level during the training; the practical aspect of using the PPE was very good; practical presentation of materials; especially the introduction to the test kits; the knowledge about AI, the rapid test kit and storing transport media as well as the collected samples; facilitation of training was excellent on all the three components; all aspects good, even excellent; the use of PPE and decontamination; training was excellent; everything was good; decontamination, testing and exercises, proper use of PPE and proper disposal of PPE, lab sampling; more information on update of human deaths needed; all treated subjects were good; as a lab personnel my skills in sample collection and transportation have been sharpened; to let me understand signs, samples to the lab for diagnosis; the demonstration of using the PPE kit was very good; the use of PPE and its disposal to avoid self contamination; the orderly way to put on and put off the PPE, the decontamination process and the FluDetect (Synbiotics); there should have been more kits for the practical.

2. Was the quality of the training:  
Not acceptable 1 2 3 4 5 Excellent 4.85

Comments (what was particularly good or bad?): Trainer was absolutely good more especially with her practical examples of instances she encounters as a practicing vet; very interactive with all participants getting involved; the practical presentations; presentations were very clear and self explanatory; the

presentations were very good; the delivery was excellent; there was equal contribution from both facilitators and participants; presentation and interaction; presentation; participatory training was excellent; the use of Power Point and interactive pictures; explanation of facilitator and resource person well expressed; facilitation and presentation good; all were good; very high since training covered most important aspects of disease outbreak control; personal involvement of participants was very good; the items for the training and practical aspects was provided; the level of knowledge of the resource persons was very high; was good in all aspects.

3. Were the exercises and group work:

Not acceptable 1 2 3 4 5 Excellent 4.62

Comments (what was particularly good or bad?): Gave chance for interaction with other colleagues from other professions and elsewhere; some were too simple for the selected participants; participatory nature of participants; they test retentive memory of trainees; participants had a hands on practice of the kits; smaller groups (number per group) could have been better; diagnosis of AI by field rapid test; all the group works was great; some opportunity to interact with other participants; very participatory and practical, it was result oriented; the proof testing of the respirators; very good all; hands on experiences enhanced the training, more time should be spent on exercises; we all enjoyed what took place; there was unity of working and good group interaction; the group work and exercises were good as we shared ideas and knowledge with each other; resource persons enabled participants to grasp and understand every level of training; it was exciting getting the answers right.

4. What activities did you like the most? The orderly and proper use of PPE and decontamination procedures; the practical session on the diagnostic kits; involvement of everybody; the practical session/activity session; every aspect of the training; the use of the PPEs and handling of the transport media; contributions from participants; PPE; module 1; disinfection; PPE kit, lab/sampling kit and decontamination kit; the practical experience of putting on and off the PPE and lab testing for virus; I enjoyed all the activities; Symbiotic FluDetect use; all; lab testing using rapid method for AI; taking samples and also diagnosis of the AI virus; the activities I like most were the group work and the match game; almost all the activities were exciting; orderly way of putting on and putting off the PPE; preventing self contamination.

5. Was the training  given in English with no translator  
 given in another language.

Language: \_\_\_\_\_

Was there a translator?  Yes  No

6. Were you able to understand everything the trainer said?

21 Yes ) No

Comments: Trainer was simple and professionally down to earth with her explanations; very clear; the presentations was excellent; questions were answered and explanations offered on grey areas; trainer was down to earth with explanations; clear and understandable; good job!; the trainer was fluent and professional; the trainer was good and perfect; the trainer was very accurate; excellent presentation;

trainer was too good in explaining and also had enough time answers and questions; the trainer had time to explain the procedures in order with kits; the language was clear.

7. On a scale of 1 to 5, how confident do you feel about using PPEs correctly? 4.81

Not confident 1 2 3 4 5 Very confident

8. On a scale of 1 to 5, how confident do you feel about training others to use PPEs correctly? 4.76

Not confident 1 2 3 4 5 Very confident

9. On a scale of 1 to 5, how confident do you feel about using decontamination equipment? 4.62

Not confident 1 2 3 4 5 Very confident

10. On a scale of 1 to 5, how confident do you feel about training others to use decontamination equipment? 4.52

Not confident 1 2 3 4 5 Very confident

11. On a scale of 1 to 5, how confident do you feel about taking samples? 4.24

Not confident 1 2 3 4 5 Very confident

12. On a scale of 1 to 5, how confident do you feel about training others to take samples? 4.19

Not confident 1 2 3 4 5 Very confident

If you circled 1 , 2 or 3 for any question, please explain why: (11/12) I was a bit confused; (11/12) practical demonstration of sample taking including blood sample from chicken; (11/12) the facilities that were available may not be available to me; (9-12) my work is remotely connected to poultry, lab tech, and therefore not very much at ease with equipment and processes at the lab; I need an additional session of training to boost my confidence in taking samples since this is my first time.

13. How could the content and/or facilitation of this training be improved?

It is just about OK! A medical person should be included to assist with human aspect of the training; be improved by introduction of local examples; there should be practical sample taking sessions; add field trip; duration of program could be extended for a few more days; Increase the font size of some of the slides, material could be in color; more reagents should be provide for individuals to participate in rapid diagnosis on the field practically; its okay; expand the days and time; real live bird for sample taking; allowing more time for hands on exercises; to have a few days to some farm, taking of samples and also sending the samples to the lab for examination; the facilitation was superb and I say excellent work done by the facilitators; the trainer was good; it was good.

14. Were the handouts provided during this training:
- a. Relevant to your work? Yes 21 No 0 Blank 0
  - b. Informative? Yes 21 No 0 Blank 0
  - c. Easily understood? Yes 21 No 0 Blank 0

15. Will you use these handouts when performing your activity? 21 Yes 0 No  
If yes, how do you anticipate using these materials? If no, why not?

By making more copies for those that may need it most; constantly referring to them; especially the slide notes portion provided; I feel it is OK to be used; as reference materials to revive what was taught; I further suggest each seminar to be organized on a monthly basis; photocopy and use as reference material; as a reference; read and also make a hand out from it; the handout will help a lot even when you don't have a projector; with the backing of the promised CD I will apply Power Point; group discussions through the media; in the presence of slides I will give handout after training only; during training as reference guide and as occasional reference notes; the materials will be useful in the dissemination of knowledge; for refreshing and diagram of all that is in the handout; I will photocopy the handouts and use it in training; the handouts will guide me in training other people; will use the CD to assist me in developing a Powerpoint; reproducing it.

16. Other Comments:

Very grateful to you and all those who made this program possible, thank you; some pictures (slides) in the handout should be colored to let them stand out clearly; the facilitator was excellent and experienced; the workshop was very insightful; very useful workshop; the training was appropriate, timely and will help practitioners to assist in the control of AI and other outbreaks of disease; my expectations were fully met, on the use of the rapid Flu Test Kit, if possible every participant should have a chance of individually practicing instead of group work, thank you for an excellent job done; the training should be repeated every six months; I am extremely satisfied with the program and pray it should be extended to cover private poultry farmers to equip them to protect their farms against avian influenza. Provide more logistics to the vet department to enhance easy work; example transportation, disinfection, protective clothing, meals: add banku and okra soup to menu; try to include ice breakers during training; the veterinarian should be well resourced to be in better position to deal with any situation especially mobility and other equipment, other persons in the poultry chain (example: egg sellers, live bird sellers) must be brought on board; persons without veterinary background should not control resources or decision making at the front line level; hope the USAID will conduct follow up programs, secondly USAID will ensure that equipment will get to the front-line staff (vet and lab personnel), if possible vehicle be provided for surveillance; I hope this training will come again and again; training is very excellent; there should be support in order to perform better in Ghana; very grateful; the pictures in the handout were not clear, they were much clearer with the projector.

## USAID AVIAN INFLUENZA COMMODITIES TRAINING

### Participant List

Kumasi, Ghana

June 7-8, 2007

First Name, Surname	Title	Organization	Address	Work Tel.	Mobile Tel.	Fax No.	Email Address
Kofi kwansah-Filson	DR	Veterinary Services	Box 184, Obuasi	0582 40454	[REDACTED]		[REDACTED]
Stephen G. Bonnah	DR	MOFA - VSD	Box 53, Ejisu	051 20171	[REDACTED]		
John Tsitsiwu	DR	VSD	Box 1252, Kumasi	051 41387	[REDACTED]		
Raphael Folitse	DR	VSD	Box 1252, Kumasi	051 41387	[REDACTED]		[REDACTED]
G. Y. Dorsaah	MR	VSD	Box 165, Sunyani	061 23504	[REDACTED]		
Musah Adisaba	MR	VSD	Sunyani	061 23504	[REDACTED]		
Thomas Addai	DR	VSD	Box 1252, Kumasi	051 24141	[REDACTED]		
Mahama Alhassan	DR	Veterinary Services	VET Berecum		[REDACTED]		
Charles Ghanney	(P.A.H.O)	MOFA-VSD	Box 165, Sunyani	061 23514	[REDACTED]		[REDACTED]
Stephen Ockling	DR	VSD	Box 122, Techiman	061 91607	[REDACTED]		[REDACTED]
Jane Addae Kyereme	DCO Reg	ional Hospital Sunyani	Box 27, Sunyani	061 28460	[REDACTED]		

## USAID AVIAN INFLUENZA COMMODITIES TRAINING

### Participant List

Kumasi, Ghana

June 7-8, 2007

First Name, Surname	Title	Organization	Address	Work Tel.	Mobile Tel.	Fax No.	Email Address
Joyce Badu	DCO Reg	ional Hospital Sunyani	Box 807, Sunyani	061 28461	[REDACTED]		
Juliana Buina	Nurse Reg	ional Hospital Sunyani	Box 27, Sunyani	061 28461	[REDACTED]		
Akwasi Twumasi	DR	GHS – Ashanti Region	Box 1908, Kumasi	051 23744	[REDACTED]		[REDACTED]
Innocentia Efua Nkrumah	AS	Veterinary Services	Box 65, Nkawie		[REDACTED]		[REDACTED]
A. A. Kontor	Dr	RVO – Veterinary Services	Sunyani	061 23287	[REDACTED]		
Dickson Dei	Dr	MVO – Vet Services	Kumasi	051 41387	[REDACTED]		[REDACTED]
Delle Scholastica	CAHO	Vet Services	D/Ahenkro	064 822155 024 6786404	[REDACTED]		
Wuaku Eyram	COLL	CEPS	Box 224, Sunyani	061 23175	[REDACTED]		
K. Amissah-Koomson		CEPS	Box 4109, Kumasi	051 24356	[REDACTED]		
Kofi Sroda		Biomedical Scientist GHS-Ashanti	Box 1908, Kumasi	051 22152	[REDACTED]		[REDACTED]

## SUNYANI GHANA

(June 11-12, 2007)

### Number of Trainees: 22

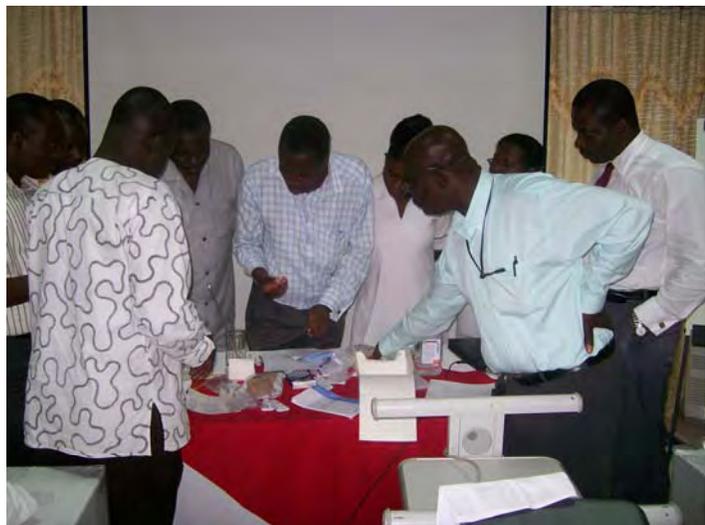
USAID's Avian Influenza Commodities training seminar was successfully completed in Sunyani, Ghana, on June 12, 2007. In attendance were 10 officials from Veterinary Service, 10 from the Health Service and two from the National Disaster Management Office (NADMO).

Dr. Andrea Miles, a poultry expert, conducted the trainings, and Dr. Mahama Alhassan, a Veterinarian from a district south of Sunyani who had participated in the Kumasi training did an excellent job as facilitator. The PPE module was completed on the first day. The Health Service participants had a meeting scheduled for the afternoon of the second day of training, so we moved the lab test kit training to the first day and ran training until 6:00 pm. On the second day April Johnson, DVM, PhD from the CDC gave a 1.5 hour presentation on human health aspects of avian influenza, including background, affects, surveillance, sample collection and treatment options. After this the Health Services participants left and training continued for other participants, some details, excluded for sake of time, from the first two modules were covered as well as decontamination.

The training was conducted in English; the PowerPoint slides were distributed as handouts in English. Participants also received electronic copies of all of the documents (including the training manual and Dr. Johnson's presentation) on a CD. Some of the participants from the Kumasi training picked up their training manuals, so there were not enough manuals for everyone. Priority was given to veterinarians for manuals, but 5 copies were given to the Ghana Health Service and one copy was provided to the National Disaster Management Office. Additional manuals should be sent to Ghana for distribution.

On average participants ranked the quality of the training at 4.83 out of 5, with 1 being "not acceptable" and 5 being "excellent". When asked if the training met their expectations, participants responded with an average of 4.72 out of 5, with 1 being "not acceptable" and 5 being "in every way." The training evaluation forms are summarized and included at the end of this report.

Most of the veterinarians, some of the Health Service personnel and both of the NADMO participants noted at the beginning that they would be training others in the future on this material. Although most participants had previous training on avian influenza, this was the first training any participants had on how to don and doff personal protective equipment and how to use the rapid test kits. The training was very well received and there were many good questions asked. Many participants were very interested in learning more about humane methods of depopulation.



Participants here were also interested in providing training to farmers, especially in the Dormaa District where there is a large concentration of poultry. Many participants requested PPE, decontamination, and lab kits so that they could immediately begin cascade training.

## SUNYANI TRAINING EVALUATION

(For Trainees)

***PLEASE NOTE: ALL RESPONSES APPEAR IN THIS SUMMARY SHEET EXACTLY AS THEY WERE WRITTEN ON THE EVALUATION FORM. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.***

### **Pre-Training:**

Type of training (mark all that apply):  PPE kit  
 Decontamination kit  
 Lab sampling kit

Date of training: June 11-12, 2007      Location: Sunyani, Ghana (Eusbett Hotel, Ltd.)

### **Background and Previous Experience:**

1. Profession:    Animal Health Officer: 2  
                      Veterinary Technician: 8  
                      Health Professional: 1  
                      Disease control officer (GHS): 3  
                      Medical officer/doctor: 3  
                      Pharmacist: 1  
                      Biomedical Sciences: 1  
                      Social Worker: 1  
                      Nurse: 1

2. Have you used PPEs before?

16 No

4 Yes => In what setting(s)? Outbreak response training; in operating theatre; manufacture and dispensing of medication; handling body fluids and collection of oropharyngeal swabs in a suspected case of AI in human; during a surgical procedure

1 Blank

On a scale of 1 to 5, how confident are you in using PPEs?

Not confident 1 2 3 4 5 Very confident Blank = 13, ave. = 2.57

3. Have you trained others to use PPEs?

18 No

3 Yes => About how many trainings have you given? 6, can't remember, 3

When was the last time you gave a training? 1998, can't remember, 2005

0 Blank

4. Have you used decontamination equipment before?

16 No

5 Yes => In what setting(s)? Ward and patient; on the wards in the hospital and operating rooms; hospital; can't remember; during decontamination of used surgical tools

On a scale of 1 to 5, how confident are you in using decontamination equipment?

Not confident 1 2 3 4 5 Very confident Blank = 15, ave. = 2.60

5. Have you trained others to use decontamination equipment?

18 No

3 Yes => About how many trainings have you given?

When was the last time you gave a training?

0 Blank

6. Have you taken laboratory samples before?

14 No

7 Yes => In what setting(s)? Training for outbreak response; stool specimen for DFP, serum for measles, skin swab for oncha; on patients in need of laboratory investigation; blood: diagnosis of trypanosomiasis in cattle; suspected case of AI in human; samples from YF, MPS, HIV/AIDS, surgical, etc.;

On a scale of 1 to 5, how confident are you in taking samples?

Not confident 1 2 3 4 5 Very confident Blank = 14, ave. = 3.33

7. Have you trained others to take samples?

18 No

3 Yes => About how many trainings have you given? Several , several

When was the last time you gave a training? 2005; 2006 ; 2001

11. Language – fluency in

Understanding spoken English

Difficult 1 2 3 4 5 No problem at all 5.00

Speaking English

Difficult 1 2 3 4 5 No problem at all 4.95

Reading English

Difficult 1 2 3 4 5 No problem at all 5.00

## Expectations

### 7. What do you want from this training?

To acquire and knowledge on AI and practical ways of prevention and control; to update my knowledge on avian influenza prevention and control among human population; how to put on and remove PPE, prevent and control of avian influenza; update knowledge on avian influenza, acure the skill of putting on and removing PPE in an avian flu setting; know how to best use the PPE; adequate knowledge in controlling avian influenza and to train farmers on these effective control methods; knowledge and skills on the commodities, distribution system, chemoprophylaxis available, and other methods for preventing human infections; to be able to use PPE and also train public to use PPE after the training; I expect to interact with participants from different fields and to get more knowledge at the end of the workshop; I expect that by the end of this workshop we should be able to come out with a workable document that will help me to disseminate and train my district coordinators; 1) educate poultry farmers on the disease outbreak, 2) report to MOFA officer if there are dead birds, 3) how to protect the farm that the disease affected; Additional knowledge on AI, preventative measures and how to use the PPE; to be able to update knowledge on AI and also collect samples in suspected AI cases; I want to gain knowledge on how to reduce the fears and panic from the public and poultry farmers about avian influenza disease; at the end of this workshop I expect that I acquire more knowledge about this deadly disease so that I introduce it to my community; a) simple knowledge on what AI really is all about, b) how can one make out a bird with signs of AI, c) the best and simplest way of preventing the spread of AI; knowledge on AI and ways of prevention to impart poultry farmers; to acquire additional knowledge in human influenza, PPE decontamination and taking samples; to learn more about avian influenza transmission and prevention; using the PPE properly and to be able to impart same to others; prevention and controlling AI;

### 8. How do you expect to use what you learn in this training?

Hope to use it to allay the fears farmer and the public in general; to use as a basis to train all subordinate staff and the general public; to impart it to others by training, protecting the public by educating them; to lead a response team in control of AI, to train colleagues in using PPE; to practice and impart it to others; by organizing farmers and public forum and educating them on what I have learned; help train other health care professionals; to use to train others; I will also organize trainings for my counterpart and farmers on what I have learnt here; by organizing workshops in the region; 1) to apply the measures accurately for disinfection, 2) to tell the inhabitants not to scare about the disease; to impart knowledge to my fellow workers, farmers and the general public by giving talks on radio and organizations; a) impart knowledge on others, b) collect oropharyngeal specimens easily, c) how to remove PPE; I expect to be able to train my field officers in my District and also educate poultry farmers on how to prevent the disease from entering their farms and even when it happens to infect their farms what they should do immediately; a) by sharing information learnt among other Task Force Members on AI, b) by teaching (especially poultry farmers about AI, c) the simple things everybody must know about AI; hope to use it to allay the fears of public; to build capacity in my municipality; to train others in my establishment; organizing similar training for other health workers; to impart knowledge to farmers and other stakeholders during monitoring;

3. Are there any special topics you want the training to cover?

Training the poultry farmers on the way to apply preventative regulation in AI; yes, mode of spread and prevention and control; prevention and control of avian influenza; training methods in extending/spreading the PPE in simple terms to ordinary farmers; yes, how to take samples from infected birds, specific specimens required from infected birds; chemoprophylaxis; taken samples of avian influenza; topics like symptoms of human influenza and the curative aspect; 1) emphasize on human aspects, 2) minor laboratory techniques to take samples; yes, I want topic to dwell on vaccination in AI disease; no; to know health aspect of the disease; a) who the poultry industry can be sustained in the face of the AI threat, b) What become the future of the poultry farms affected; how to apply preventative measures; 1) the search for vaccine, 2) how the laboratory investigation is done; how to prevent spread of disease; the signs and symptoms of the disease in humans and the treatment regimen; human infection on influenza

## SUNYANI TRAINING EVALUATION

(For Trainees)

**PLEASE NOTE: ALL RESPONSES APPEAR IN THIS SUMMARY SHEET EXACTLY AS THEY WERE WRITTEN ON THE EVALUATION FORM. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.**

### Immediately Post-Training

Type of training (mark all that apply):  
 PPE kit  
 Decontamination kit  
 Lab sampling kit

Date of training: June 11-12, 2007

Location: Sunyani Ghana (Eusbett Hotel Ltd.)

**NOTE: MOST OF THE HEALTH CARE WORKERS LEFT AT 10:00 AM ON THE SECOND DAY AFTER A SPECIAL SECTION ON AVIAN INFLUENZA AND PUBLIC HEALTH PRESENTED BY DR. APRIL JOHNSON FROM THE CDC, THUS MOST OF THESE 13 EVALUATIONS WERE BY VETERINARY TECHNICIANS, A FEW VETERINARIANS AND A COUPLE OF PUBLIC HEALTH WORKERS. THE FACILITATOR FOR THIS SESSION WAS A GHANAIAN VETERINARIAN WHO HAD ATTENDED THE SESSION IN KUMASSI.**

1. Were your expectations of this training met?

Not at all 1 2 3 4 5 In every way 4.72, 2 blanks

Comments (what was particularly good or bad?): The handout helped me in the training; yes; putting on PPE kits was good and supply of certificates to participants, non-supply of decontamination and lab sampling kit to participants; all aspects were well explained and relevant; good training environment, nice facilitators and trainers applied participatory approach; good facilitating and aids and knowledge imparted; the particularly good aspect was the simple and practical way in which the topics were presented; the presentation, the practical demonstration and participation; demonstrations and training were practical; demonstrating; yes, because I learnt a lot from the workshop.

2. Was the quality of the training:

Not acceptable 1 2 3 4 5 Excellent 4.83, 1 blank

Comments (what was particularly good or bad?): There was every available material needed for training; facilities was good, nothing went wrong; the training on the use of PPE was excellent; visual aid in addition to the discussions; visuals and lecturing; the facilitator looked quite relaxed and well composed; the team participation and resource persons.

3. Were the exercises and group work:

Not acceptable 1 2 3 4 5 Excellent 4.5, 1 blank

Comments (what was particularly good or bad?): We were able to conduct the group work successfully; contribution among group members; group work enhances participation by everyone; participatory; almost everyone in the group contributed positively; the interest of participants.

4. What activities did you like the most? Demonstration on the proper use of PPE; decontamination; practicals on putting on the PPE kit; on the use of PPE; all the activities; combination of several training methods (lectures and audio-visuals); I like wearing the PPE and the raid lab diagnostic test exercise sessions; wearing of PPE and decontamination; 1) putting on PPE, 2) sample collection; the PPE, putting on and removal; practical demonstrations of how to put on the PPE; how the PPE kit was demonstrated; decontamination.

5. Was the training  given in English with no translator

given in another language.

Language: \_\_\_\_\_

Was there a translator?  Yes  No

6. Were you able to understand everything the trainer said?

8 Yes 6 No

Comments: The trainer took her time and explained every bit on the handout to participants; trainer took time to explain and requested for questions and contributions from participants; (no) on the topic of avian influenza and public health; Dr. April Johnson needs to slow down a bit when lecturing (because of her accent); some of the presentations were quite detailed and some of the presentations the tonation was not all the clear to me; took time and sociable; (no) not quite with the trainer on the human infection of the influenza; resource persons were very knowledgeable; (no) Dr. April was not audible enough, she spoke too fast; I like Dr. April's presentation.

7. On a scale of 1 to 5, how confident do you feel about using PPEs correctly? 4.77

Not confident 1 2 3 4 5 Very confident

8. On a scale of 1 to 5, how confident do you feel about training others to use PPEs correctly? 4.83, 1 blank

Not confident      1 2 3 4 5 Very confident

9. On a scale of 1 to 5, how confident do you feel about using decontamination equipment? 4.23

Not confident      1 2 3 4 5 Very confident

10. On a scale of 1 to 5, how confident do you feel about training others to use decontamination equipment? 4.02

Not confident      1 2 3 4 5 Very confident

11. On a scale of 1 to 5, how confident do you feel about taking samples? 4.23

Not confident      1 2 3 4 5 Very confident

12. On a scale of 1 to 5, how confident do you feel about training others to take samples? 4.23

Not confident      1 2 3 4 5 Very confident

If you circled 1 , 2 or 3 for any question, please explain why: Because I think I acquired the knowledge and can boast of it; the wearing of the respirator always scares me because I can not keep it on for long hours; because I am now well informed; whereas I can teach others to put on and off the PPE and collect samples I cannot be confident with the human infection; (9-12) no practical experience.

13. How could the content and/or facilitation of this training be improved?

It could be improved by using more days for the training; the provision of kits is very important since it will help us to get practical knowledge about the use of the kits; contents of the training was voluminous but training time was short; I think the duration of the course context can be extended to one week; just right; I have no problem with the contents and facilitation; the content of this training can be improved by increasing the number of days; more practicals; I think the training could have extended a day longer; kits must be provided next training; time frame is very short and needed to be extended for about 3 days.

14. Were the handouts provided during this training:

- a. Relevant to your work? Yes 13 No 0      Blank 0
- b. Informative?                      Yes 10 No 0      Blank 3
- c. Easily understood?              Yes 10 No 0      Blank 3

15. Will you use these handouts when performing your activity? 21 Yes 0 No  
If yes, how do you anticipate using these materials? If no, why not?

The handouts will help in explaining myself better to the trainees. I have to see it completely; reference will be made from handouts when I am in doubt; by using them to organize similar workshops for my District coordinators; as training guide; for the purposes of reference in case I forget some of the steps or procedures; reviewing, watch the CD; enable me to give pictorial explanation to my audience; training has been timely since avian influenza has affected poultry birds in our country in the Brong-Ahafo Region; I will study the handouts again so that can remember what I forgot during the course.

16. Other Comments:

I am looking forward to having more of such training; I am impressed how the facilitators managed to complete the volume of this handout for only 2 days; the workshop was educative but participants should have been given packages in the form of sufficient equipment and kits to enable us to train more people in the field; I suggest that similar workshops is organized for staff of the National Disaster Management Organization in the Brong-Ahafo Region; more such trainings should be organized training equipment like the LCD projector needs to be provided in each district to enhance training; training kits should be readily made available to trainees to start practicing in the field; I would like to appeal to the USAID if they can assist the MOFA wit motor bikes for distribution to veterinary personnel to ease field activities being carried out efficiently; on the whole it has been a wonderful educational encounter with real experts in avian influenza disease; frequent workshops should be organized, mobile phones should be provided to vets for easy communications.

## USAID AVIAN INFLUENZA COMMODITIES TRAINING

### Participant List

Sunyani, Ghana

June 11-12, 2007

First Name, Surname	Title	Organization	Address	Work Tel.	Mobile Tel.	Fax No.	Email Address
Duut Bedina		GHS / DDHS	Tano South	0632 - 22121	[REDACTED]		
Akodam K. Karbo		DD-PH/ GHS	RHD Box 145, Sunyani	061-24404	[REDACTED]		[REDACTED]
George Bonsu	Dr.	DD-PH/ GHS	RHD Box 145, Sunyani	-	[REDACTED]		[REDACTED]
David Menka Menka	Reg	ional Division Manager (GHS)	RHD Box 145, Sunyani	061 - 24400	[REDACTED]		[REDACTED]
Addai O. Isaac		ACTO – MOFA	Box 109, SAMPA	-	[REDACTED]		
John K. Owusu		ACTO - MOFA	Box 122, TECHIMAN	0653 - 22024	[REDACTED]		
Grace Yeboah - Asuama		PNO (PN) – GHS	Regional Hospital Box 27, Sunyani	061 – 28460 EXT: 206	[REDACTED]		[REDACTED]
Samuel Addo		MDCo – GHS	MHD Box 311, Sunyani	061 - 23536	[REDACTED]		[REDACTED]
Peter Apiu Wewugu		MOFA	Box 55, DROBO Brong Ahafo Region	-	[REDACTED]		[REDACTED]
Margaret Haruna		MOFA	BOX 160, BEREKUM Brong Ahafo Region	0642 - 212169	[REDACTED]		
Vivian Owusu-Ansah		GHS	RHD Box 145 Sunyani	061 - 24400	[REDACTED]		[REDACTED]
Richard Bannerman		GHS	Regional Hospital Box 27, Sunyani	061 - 28460	[REDACTED] 3		[REDACTED]
J. R. Amanor		MOFA	Box 25, ATEBUBU	0567 – 22008, 22033	[REDACTED]		
Bayuo Andrew		MOFA	Box 20	-	[REDACTED]		

First Name, Surname	Title	Organization	Address	Work Tel.	Mobile Tel.	Fax No.	Email Address
David A. Opare	Dr.	Health	Box 311	-	[REDACTED]		[REDACTED]
Akoto Dickson		MOFA	Box 86	-	[REDACTED]		
Boamah Thompson		MOFA	Box 16, KENYASI	-	[REDACTED]		
Perpetual Akrobettoe		MOFA	Box 85, Nkoranza	-	[REDACTED]		
J. B. Nyarko		NADMO	Box 104, Sunyani	061 - 27271	[REDACTED]		
Solomon Fofie	Dr.	GHS	Box 27, Sunyani	061 -24958	[REDACTED]		[REDACTED]
Boakye Yiadom Danquah		AHO – MOFA	Box 138, Bechem	0632 - 22338	[REDACTED]		
Kwabena Darko		NADMO	Techiman	-	-		



# 4. USAID/MALI AVIAN INFLUENZA COMMODITIES TRAINING, KATIBOUGOU, MALI

June 12 – June 13, 2007

Report by Ms. Alexandra Hiniker

USAID's Avian Influenza Commodities training seminar was successfully completed in Katibougou, Mali, on June 13, 2007. In attendance were 21 officials from Veterinary Services, Health Services, private poultry associations, and USAID.

Dr. Philippe Marchot and Ms. Alexandra Hiniker from DAI conducted the training, and Dr. Mahamar Haidara from Veterinary Services facilitated. Mr. Bougouzanga Coulibaly, the Economics Affairs and Finance Advisor for the Governor of Koulikouro, and Dr. Yacouba Samake, the Secretary General of the Ministry of Fishing and Livestock, gave remarks at the opening ceremony, which was also attended by Dr. Mamadou Kane, the Director of the National Veterinary Services. Certificates were handed out by Ms. Jean Harmon of USAID.

On the first day, the participants were given an overview of highly pathogenic avian influenza (HPAI), including its transmission, clinical signs and an update of countries infected with the virus. The safe and correct use of PPEs was also covered, with an emphasis on respirators and a demonstration of how to use the Bitrex fit test kit. On the second day, the sampling, testing and shipping modules were completed. Ten participants were trained in IATA standards.

The training was conducted in French, and the PowerPoint slides were distributed as handouts in French. Participants also received electronic copies of all of the PowerPoint slides and the training manual in French on a CD. Hard copies of the training manual in French were delivered to the DNSV, who distributed them to participants.

On average, participants ranked the quality of the training at 4.12 out of 5, with 1 being "not acceptable" and 5 being "excellent". When asked if the training met their expectations, participants responded with an average of 4.92 out of 5, with 1 being "not acceptable" and 5 being "in every way." The training evaluation forms are summarized and included at the end of this report.



Several participants noted that they would like to train others in the future on this material. This was the first training most participants had on how to don and doff personal protective equipment and how to use the rapid test kits.

In a debriefing with Dr. Kane, Dr. Toure, and Dr. Sissoko, the Director expressed his satisfaction with the trainings, and requested further assistance organizing cascade trainings. The DNSV would also like to conduct another regional training in Tomboctou, with participants from Gao and Kidal.



1 Yes => About how many trainings have you given?

When was the last time you gave a training?

2. Have you used decontamination equipment before?

19 No

1 Yes => In what setting(s)?

On a scale of 1 to 5, how confident are you in using decontamination equipment? 4.3 + 10 blanks

Not confident      1 2 3 4 5 Very confident

5. Have you trained others to use decontamination equipment?

18 No

0 Yes => About how many trainings have you given?

When was the last time you gave a training?

2 Blank

3. Have you taken laboratory samples before?

10 No

9 Yes => In what setting(s)? A training in Dakar; cholera; during my training and professional career; during outbreaks of diseases; suspicion of avian influenza, with many chickens; suspicion of PPCB; Newcastles, gumboro, salmonella, CRD, parasites, etc.; taking samples for analysis; following a suspected case of Newcastles disease in Kayes;

1 Blank

On a scale of 1 to 5, how confident are you in taking samples? 4.13 + 5 blanks

Not confident      1 2 3 4 5 Very confident

4. Have you trained others to take samples?

13 No

7 Yes => About how many trainings have you given? Many times; 2; 1;

When was the last time you gave a training? October 2006; four months ago; 2006; 2003; 2005; October 2006; 2006;

12. Language – fluency in

Understanding spoken English

Difficult 1 2 3 4 5 No problem at all 2.23 + 2 blanks

Speaking English

Difficult 1 2 3 4 5 No problem at all 2.29 + 3 blanks

Reading English

Difficult 1 2 3 4 5 No problem at all 2.41 + 3 blanks

**Expectations**

17. What do you want from this training? To learn about PPE, to know how to use them, and when; to learn more about using PPE; I would like to understand everything that happens from putting on the PPEs to sending the samples to the lab; learn about PPE and using other personal protect equipment; to know how to better use the materials; to know how to correctly use PPE and take samples; master the use of PPE, the decontamination kit, and taking samples; to be sufficiently trained in the subjects to be addressed; how to wear PPE, how to take samples and send them to the local lab; to properly use and wear the equipment provided; how to use the PPE and decontamination kits; to learn more about using the PPE and decontamination kit, and the best way to take samples; to improve my knowledge; to master using the PPE, and to get more knowledge about the disease; our expectations of this training are to improve our technical and professional knowledge; the expectations from this training are to improve my knowledge and that of my colleagues so that we can take the necessary steps to properly analyze situations; to learn and be informed; to have a precise knowledge concerning the use of PPE, decontamination procedures, how to take and send samples to the Central Vet Lab; master all of the topics;

18. How do you expect to use what you learn in this training? When fighting epidemics and when faced with a suspected case of avian influenza; to train the agents in my district, especially at the level of the 5 control posts in the district; I will apply the lessons from the training to my farm or to another service if there is a need to do so; by providing a report at the end of the mission, to do a report on the level of service; by following the structures of the veterinary service to show others how to use the materials; by taking many samples using the PPE; teaching others; transmit the lessons learned to others; share information with sector leaders; to correctly apply the materials if necessary; to sensitize others and to inform others who didn't have a chance to participate; to share this information with other professionals; to organize at the level of the vet services a training workshop for the heads of the vet sectors who will in turn train the heads of the posts and their employees; do more basic trainings; at the post where I serve; in my functions as a lab technical, especially for taking samples and performing diagnostics in the lab; train the agents on the ground;

5. Are there any special topics you want the training to cover? Collaboration between veterinarians and health agents on the ground when fighting avian influenza; knowledge of the proposed plan would be good and useful for the prevention or control of avian influenza; avian influenza epidemiology; future courses planned for this program and the possibilities for cascade trainings; no; not really; the management of the equipment and how long it can be kept; sensitization; culling birds: how to do it in the case of an outbreak; yes; how to train sector leaders and peoples at veterinary posts in the regions;

## TRAINING EVALUATION

(For Trainees)

**PLEASE NOTE: ALL RESPONSES THAT APPEAR IN THIS SUMMARY SHEET ARE TRANSLATED FROM FRENCH. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.**

### Immediately Post-Training

Type of training (mark all that apply):  PPE kit  
 Decontamination kit  
 Lab sampling kit

Date of training: May 31-June 1, 2007                      Location: Accra, Ghana (Paloma Hotel)

38. Were your expectations of this training met?  
Not at all 1 2 3 4 5 In every way 4.92 + 5 blanks

Comments (what was particularly good or bad?): What was especially good was the experts' explanation, the animated debates, and the practice using the different materials from the training; yes, the teaching was flawless; the training was good overall and the modules were easy to understand, especially with the practical examples; all good; the explanation on how to use the kits was interesting; today all of my expectations were met.

39. Was the quality of the training:  
Not acceptable 1 2 3 4 5 Excellent 4.12 + 6 blanks

Comments (what was particularly good or bad?): The trainer (f) was at a raised level so the participants learned a lot about avian influenza; very good; the exercises and group work were great; all good; good, thank you for sharing the course and giving us time to learn from the two experts; all of the materials should be up to date in order for us to have the best knowledge about fighting avian influenza.

40. Were the exercises and group work:

Not acceptable 1 2 3 4 5 Excellent 4.31 + 5 blanks

Comments (what was particularly good or bad?): Every group participated in the activities and debates; excellent; PPE, decontamination, and especially the practice testing samples using the test kits; good; the exchanges between the different participants about actual practices in the field, in other words the real-life situations; there were some very helpful exchanges between the different representatives (vets, health, labs, poultry producers, etc.).

41. What activities did you like the most? Using the test kits and discussing how to bring samples from the field to the local lab; everything; to never have avian influenza in Mali; how to take and ship samples; all of the activities were interesting.

42. Was the training given in English with no translator

given in another language. Language: French

Was there a translator? \_\_\_ Yes  No

43. Were you able to understand everything the trainer said?

16 Yes 1 No

Comments: The trainers complemented each others and did their best; despite the language problems, the trainers were able to clearly transmit the information and content of the modules to the participants; the trainers were very good, especially with the practical and oral aspects; I paid attention because all of the themes were pertinent.

44. On a scale of 1 to 5, how confident do you feel about using PPEs correctly? 4.29 + 1 blank

Not confident 1 2 3 4 5 Very confident

45. On a scale of 1 to 5, how confident do you feel about training others to use PPEs correctly? 4.82

Not confident 1 2 3 4 5 Very confident

46. On a scale of 1 to 5, how confident do you feel about using decontamination equipment? 4.41

Not confident 1 2 3 4 5 Very confident

47. On a scale of 1 to 5, how confident do you feel about training others to use decontamination equipment? 4.47

Not confident 1 2 3 4 5 Very confident

48. On a scale of 1 to 5, how confident do you feel about taking samples? 4.75 + 1 blank  
Not confident 1 2 3 4 5 Very confident

49. On a scale of 1 to 5, how confident do you feel about training others to take samples? 4.59  
Not confident 1 2 3 4 5 Very confident

If you circled 1, 2 or 3 for any question, please explain why: I liked learning how to wear the suite and perform decontamination; I would like to thank the facilitators for the training; because by correctly and strictly following the explanations of the trainings, one can't help but correctly do the activities and explain it to others; I am used to training and I understood all of the training topics, so I will carefully follow everything in practice.

50. How could the content and/or facilitation of this training be improved? Plan for measures to sanction the chatting and people leaving incessantly to talk on their phones; by having the participants read the modules from time to time; continue the trainings; from here on out, we need to increase the number of days for the training and make sure the equipment has not expired so that the participants can understand how to correctly interpret the results.

51. Were the handouts provided during this training:

- a. Relevant to your work? Yes 15 No 0 Blank 1
- b. Informative? Yes 16 No 0 Blank 1
- c. Easily understood? Yes 16 No 0 Blank 2

52. Will you use these handouts when performing your activity? 16 Yes 1 No  
If yes, how do you anticipate using these materials? If no, why not?

To help my colleagues better understand how to use the kits; to train other experts; when discussing with people who have never seen avian influenza and those who know the dangers and risks who can help; being a veterinary services agent, I plan to use this knowledge and share it with other veterinary service agents.

53. Other Comments:

I would like to thank the trainers for helping with the fight against avian influenza; thank you; I would like to thank USAID for organization this training and for everything they have done to fight avian influenza in Mali.

## GRIPPE AVIAIRE : USAID FORMATION DES FORMATTEURS RUDAL

Katibougou, Mali

12/06/2007 – 13/06/2007

Prénom et Nom	Titre	Organisation	Adresse	Tel. bureau	Cellulaire	Email Address
Dr. Doumbia Rokia Maguiraga	Director	DRSV – DB	DRSV – Bamako	221-3981	[REDACTED]	[REDACTED]
Dr. Mahmoudou Diall	Epidemiologist PA	CE	PACE Mali	224-0561	[REDACTED]	[REDACTED]
Dr. Sidibe Maimouna Sanogo	Chief of Section	DNSV	DNSV – Bamako	222-6193	[REDACTED]	[REDACTED]
Mme. Diawara Foulematou Traore	Technical Agent for Livestock	LCV Bamako	Agent Technique LCV Bamako	619-0244	[REDACTED]	[REDACTED]
Dr. Mahamadou S.M. Sylla	Regional Director	DRSV – Mopti	DRSV – Mopti	242-0110	[REDACTED]	[REDACTED]
Dr. Mahamar Haidara	Facilitator/Vet	DNSV		672-4811	[REDACTED]	[REDACTED]
Dr. Mamadou Coulibaly	Doctor	DRS – Segou	DRS – Segou	232-0059	[REDACTED]	[REDACTED]
Abass Diarra	Sup. Technician for Livestock	LCV LCV		224-3344	[REDACTED]	[REDACTED]
Abdoul Kader Camara	Chemist/Technician	LNS	LNS	222-4770	[REDACTED]	[REDACTED]
Dramane Traore	Aviculturist FIFAM		Medina-Coma	991-9679	[REDACTED]	[REDACTED]
Dr. Dolo Yaya	President	ATAVI	BP : E793	224-1520	[REDACTED]	[REDACTED]
Dr. Abdoul Karim Dembele	Director	DRSV – Kayes	DRSV – Kayes	252-1126	[REDACTED]	[REDACTED]

## GRIPPE AVIAIRE : USAID FORMATION DES FORMATTEURS

Katibougou, Mali

12/06/2007 – 13/06/2007

Dr. Binafou Dembele	Director	DRSV – Sikasso	DRSV – Sikasso	262-0203	[REDACTED]	[REDACTED]
Mamadou Augustin Dembele	Primary Contact for AI	USAID	USAID B. p -24	222-3602	[REDACTED]	<a href="mailto:mdembele@usaid.gov">mdembele@usaid.gov</a>
Yacouba Santara	Assistant Project Coordinator	USAID	USAID B. p -24	222-3602	[REDACTED]	<a href="mailto:ysantara@usaid.gov">ysantara@usaid.gov</a>
Dr. Idrissa Sissoko	Chief of the Training and Communications Division	DNSV DNSV		222-6193	[REDACTED]	[REDACTED]
Adama Togo	Head of Faune Promotion	DNCN	DNCN – DCFH	222-3695	[REDACTED]	[REDACTED]
Dr. Mamadou S. Djire	Regional Director	DRSV	DRSV – Koulikouro	226-2646 637-	[REDACTED]	[REDACTED]
Dr. Alphonse Teme	Directeur National Adjoint	DNSV	BP 220 Bamako	222-5229	[REDACTED]	[REDACTED]
Dr. Mamoutou Diabate	Doctor in Charge of Nutrition	DRS – Mopti	Medecin Charge de Nutrition	242-0470 601-	[REDACTED]	[REDACTED]
Dr. Abdel Kader Cisse	Regional Director	DRSV – Segou	DRSV – Segou	232-0113	[REDACTED]	[REDACTED]
Dr. Karim Dembele	SIS Doctor	DRS – Sikasso	DRS – Sikasso	262-0338	[REDACTED]	[REDACTED]



# 5. USAID AVIAN INFLUENZA COMMODITIES TRAININGS, KAMPALA, UGANDA

June 20-21, 2007

Report by Dr. Corrie Brown

There were 20 participants – 16 from the federal government (4 public health and 12 animal health), three from the university, and one from private industry. Thirteen of the twenty were M.D.'s or D.V.M.'s. The remaining 7 were laboratory technicians. With the exception of the private sector representative, Dr. Peter Mubiru from Ugachick, the largest poultry producer in Uganda, all of the participants had been nominated by the National AI Task Force chairmen from the Ministry of Agriculture or Ministry of Health. Drs. Atimmedi and Enyel, both wildlife vets, were nominated by the Uganda Wildlife Authority. Kampala and nearby Entebbe were heavily represented; we only had three participants who traveled from other locations in Uganda. All of the participants knew someone else in the course prior to the beginning. There was considerable networking throughout the two days.

Dr. Linda L. Logan, USDA/APHIS/International Services Attache for North and East Africa, and the Middle and East, was an observer at the workshop on Day 2.

The course was held at the Grand Imperial Hotel, in downtown Kampala. DAI's natural resource management project, PRIME West provided considerable in-country support. Ms. Tasha Jubilee, contracted from PRIMEWest as the Local Coordinator for this training, was extremely helpful in ensuring that all materials such as nametags, flipcharts, writing materials, etc., were provided in a timely and professional way.

The course began on Wednesday, June 20, 8 a.m., with a welcome by Mr. Loren Hostetter, Agricultural Development Officer, USAID/Uganda. Then Dr. Gary Mullins gave an overview of the course, complete with goals, vision, background, and plans for future endeavors.

Gary facilitated introductions and descriptions of professional experiences. Because of the varying expertise in the group, we decided to spend some time reviewing key concepts regarding the influenza viruses – how they occur in various species, sources of pandemics, clinical and pathologic features of highly pathogenic avian influenza, and then a focus on the current H5N1 problems. In addition, a short presentation on globalization forces and the impact on international health was given, emphasizing the importance of preparing for not just avian influenza, but building an integrated system that is prepared to respond to any emerging animal or public health threat.

Module 1, on personal protective equipment (PPE), was lively. We did the matching game which got people moving around the room. Then they worked in pairs to put on and remove PPE in proper sequence. All were very engaged. Notably, we had one participant who was about 6' 3" tall and could

not fit into the PPE. This individual acted as a supervisor during the exercise. We took a group photo when all had their PPEs on.

The fit test did not progress as smoothly as planned. Very few participants in this course could detect the bitrex solution, so we had to ask for several volunteers before we found a suitable subject for demonstration. It would be interesting to see what happens in other countries in this region. Could the reason be genetic? Or, is it possible that the diet in Uganda, where they consume a number of bitter fruits, makes it hard for them to detect the solution?

The participants confirmed what we had warned them about: the PPE, with hood and goggles, can be quite uncomfortable and there will be a clear temptation for team members to remove their protective garments.



Module 2, Decontamination, progressed without problems. At Gary's suggestion, I had taken photos of common detergents and disinfectants at the local grocery store and inserted them into the powerpoints where we were talking about what alternative products to use.

In addition, the day before the course, we had visited both a large commercial poultry operation (Ugachick) and as well as having stopped at a local bird market. I had photos of both which made for a great backdrop on discussions of biosecurity at these two very different compartments of the poultry industry in Uganda. A veterinarian from Ugachick, Dr. Peter Mubiru, was in the course and he explained biosecurity programs in operation there. Commercial production in Uganda is about 6M birds per year. In contrast, community, or backyard, poultry production is about 32M birds per year. The discussion about trafficking and marketing of live birds was excellent, and participants had numerous suggestions regarding how to develop a national plan for monitoring and surveillance.

We finished Module 2 at about 4:30 p.m. and had a reception planned for 6 p.m. We were worried that we would lose all our participants prior to the reception if we dismissed them at 4:30, so we asked the participants if they would like to hear a review of H5N1 diagnosis and control in Afghanistan. The Ugandans responded so positively to hearing about AI and how it could be controlled in a country that has less resources than they have. It provided for an excellent discussion on passive surveillance and the importance of early recognition. We were able to come back to these points several times the next day.

We also had quite a lively discussion on the challenges facing Uganda in light of its large informal poultry subsector, and possible means to limit the introduction and subsequent spread of HPAI. Not surprisingly, many of the sanitary issues hinged on a lack of designated, properly designed and regulated market facilities for sale, slaughter and inspection of poultry.

For Module 3, Rapid Testing, we enlisted the support of two senior laboratory technicians from Entebbe. During Day 1, they had told us that they perform these tests often and they volunteered to help with the demonstration. They also expressed that it would be best to have a live chicken for the demonstration and offered to buy one at the market on their way to the class the next day. So, we began Module 3 with a powerpoint about testing capacities for AI, and a review of how the Synbiotics test works. Then the two senior technicians, Mr. Kidega and Mr. Esau, donned their personal protective equipment for sampling the chicken. They did this at the front of the room, with all the participants reviewing the correct order of putting on the PPE. Everyone in the class had a chance to practice swabbing both trachea and cloaca and run the tests.



The 4<sup>th</sup> module, IATA Requirements for Shipping Dangerous Goods, was taken by all participants. We gave an overview, with key points and diagrams put onto flip charts that were then were pasted around the room. Then the 20 participants were divided into 4 groups and asked to report back (TEACH) the group about the following topics: packaging for Category A samples; packaging for Category B samples; correct labeling of boxes; responsibility regarding response to a spill. This system helped to motivate the participants to read through the materials and absorb it so that when we reviewed at the end, they were prepared with answers. The IATA test was given and everyone passed. When doing this again, one may want to direct the groups a little more specifically about how to teach their portion to the rest of the class and also be sure to emphasize some of the other topics that were not covered with such thoroughness – dry ice regulations, documentation, etc.

Nathan disseminated the remaining commodities in a manner that generated consensus and team work.

Prior to leaving the country, we stopped at the National Animal Health and Diagnostics Laboratory, and visited with the Director, Dr. Rose Ademon, who was a course participant. To put it politely, the laboratory is resource-poor. The lab is receiving some assistance with refurbishment from the Japanese Government (JICA). The lab staff present asked for advice on a Zoonoses Laboratory that they are planning to create from an old stand-alone animal housing facility.

Overall, the course was evaluated as a success. The following highlight, in my view, the the most successful and least successful aspects of this training:

- The initial review of influenzas and a session on globalization and emerging diseases were both very well received. These helped to set the stage for the importance of the activities specifically surrounding AI but also to emphasize continued integration of disease control efforts and preparedness for future events.
- Selection of participants was excellent – we had the right complement of people to generate excellent discussions.
- The hotel facility and the support from PRIME West were superb.
- The IATA training is still a little dull. It might be helpful to reinforce some concepts from the Saf-T-Pak training CD but mine had expired and wouldn't work. Having participants actually fill in the paperwork and put labels on boxes (Velcro perhaps?) might be a way to emphasize the importance of these portions.

#### **Lessons Learned:**

Uganda is a country with 27M people and 32M backyard birds. The live bird trafficking and marketing is extensive. The capacity to respond is limited. Testing capability is also constrained. Should H5N1 enter Uganda, control will be extremely challenging.

1. One question asked by the participants that gave rise to reflection was: “How many individuals should Uganda train in order to adequately address the problem of HPAI, and at what levels?” The response given was that this is an issue that should be addressed in the country’s Avian Influenza Preparedness Plan.

Simple changes in the AI Commodity kit could improve its effectiveness. For example;

- Gary suggested that the instructions for donning and removing the PPE could be laminated. Not only would this increase its durability, especially under field conditions, but it would also allow it to stand up or be placed between a car window and its insulation for easy reference;
- Teams should be instructed to work in teams of two’s or three’s, where one individual assists the other(s) in putting on and taking off the PPE in the proper and safe sequence;
- Similarly, teams should always be instructed to assign one individual as the Team Leader and who, among other responsibilities, ensures that all the pieces of equipment issued are accounted for at the end of the decontamination session, thus minimizing the chance for potentially infected materials to “go missing”;
- The instructions on mixing Virkon to the correct strength should be included in metric, not imperial measures;
- Squares of plastic sheeting of different colors, say red for “dirty” and green for “clean”, could easily be included in the commodities kit so decontamination team members could readily identify where to put on new or take off used PPE.

Also, different participants clearly had different needs: some indicated needing more PPE, others more Rapid Test Kits. It is therefore a recommendation to USAID or which ever organization is supplying the commodities, that the components of the commodity kit be easily separable.

## TRAINING EVALUATION

(For Trainees)

**PLEASE NOTE: ALL RESPONSE APPEAR IN THIS SUMMARY SHEET EXACTLY AS THEY WERE WRITTEN ON THE EVALUATION FORM. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.**

### Pre-Training

Type of training (mark all that apply):  PPE kit

Decontamination kit

Lab sampling kit

Date of training: June 20-June 21,2007 Location: Kampala, Uganda (Grand Imperial Hotel)

### Background and Previous Experience

1. Profession: Veterinarian: 4

- Tropical Veterinary Science: 1

- Wildlife: 1

Laboratory Technician: 6

Veterinarian Scientist: 1

- Public Health: 1

Veterinary Surgeon:

**VII. Genetics and Breeding: 1**

Technologist (SLT): 1

Veterinary Pathologist: 1

Virologist/Epidemiologist: 1

Medical Doctor: 1

Medical Officer (in research and Public Health Worker): 1

2. Have you used PPEs before?

4 No

16 Yes => In what setting(s)? During sample collection in laboratory for analysis; laboratory work; training; laboratory settings; During simulation exercise; local training; in sample analysis in other diseases; in laboratory and during training session to district staff; While being trained and also training others; In investigation of suspicious contagious disease outbreak in Uganda; Hospital, Animal research institute when collecting samples and analyzing samples; Wildlife field; Poultry farm, Poultry processing plant, Hatchery, and Microbiology Lab;

On a scale of 1 to 5, how confident are you in using PPEs? 4

Not confident 1 2 3 4 5 Very confident

3. Have you trained others to use PPEs?

8 No

12 Yes => About how many trainings have you given? Numerous; 5; one; 2;

When was the last time you gave a training? Always in the laboratory to other laboratory workers; Jan 2007; 03/07; Sept. 06; Nov; 2 months ago; 8 months back; Dec 2006;

**VII.** Have you used decontamination equipment before?

9 No

11 Yes => In what setting(s)? When entering a fish processing plant along Gayaza road; Anthrax threat; During simulation and training; Locally at district level; to some degree not really towards Avian Flu; On training exercises and while training others; Decontamination of swabs and tissues (after analysis) using autoclaving in animal research institute; Wildlife field conditions; In the Microbiology Lab;

On a scale of 1 to 5, how confident are you in using decontamination equipment? 3.17

Not confident 1 2 3 4 5 Very confident

5. Have you trained others to use decontamination equipment?

13 No

2 Blank

5 Yes => About how many trainings have you given? 5; 2

When was the last time you gave a training? Jan 2007; 2005; Sept. 06; 2 months ago;

6. Have you taken laboratory samples before?

1 No

19 Yes => In what setting(s)? When picking Animal Blood samples for laboratory evaluation and post-mortem tissue samples; for laboratory analysis in specimen submitted to the laboratory; Field conditions; training; H5N1 suspected cases; Routine surveillance both active and purposive and vet clinics; From reported dead wildbirds and during trainings; Laboratory training; In disease investigation from animals; From the field and in the laboratory; Lymph node samples/biopsy; On suspected dead wild migratory birds and domestic poultry; hospital, animal research institute; Clinic; Wildlife field conditions; Poultry farm, hatchery, Dairy farm (blood and other tissues); Case Investigation of suspected patients; Taker of blood in hospital.

On a scale of 1 to 5, how confident are you in taking samples? 4.37

Not confident      1 2 3 4 5 Very confident

7. Have you trained others to take samples?

4 No

**VII. Blank**

15 Yes => About how many trainings have you given? A number of times and quite frequently at my work place/profession; numerous; many (10); 5; few; 3; 1; several; 4; 2;

When was the last time you gave a training? March 2007; always in the laboratory; May 2007; 03/06/07; 2003; Feb 07; Jan 2007; 1 ½ months back; Nov. 2006; 2 months back; June 2007;

13. Language – fluency in

Understanding spoken English 4.95

Difficult 1 2 3 4 5 No problem at all

Speaking English 4.95

Difficult 1 2 3 4 5 No problem at all

Reading English 4.95

Difficult 1 2 3 4 5 No problem at all

**Expectations**

19. What do you want from this training?

To have a kind of refresher course on Avian Influenza as a disease of public health concern, yet field too, plus being equipped with the most recent developments on how it is/can be handled/controlled/prevented; learn how to effectively and safely handle suspected cases of HPAI so as to combat/contain the disease in time; to learn how to handle zoonotic disease outbreaks as close to reality and practically as possible; Technique & experience in training colleagues in use of PPEs, taking laboratory samples and effectively carrying out decontamination; updated PPE usage realigned to real situations in Africa in case of outbreaks; ability to use PPE kits, ability to use decontamination kits, better collection sample ESP for HPAI; Widen my scope of AI Epidemiology understanding, surveillance and proper use of PPE; Thorough knowledge the use of PPE decontamination and sampling; I would want to learn or be refreshed on the use of PPE and learn more about the decontamination kit and any new skills; Getting equipped with the skills in the prevention and counter of Avian Influenza; To equip us with more materials for protection, and also offer more courses; Current updates, global prevention measures; To learn how to use the different kits, learn more about the Avian Influenza Virus; To get exposure on the method of handling Avian Influenza outbreak; To acquire a very good understanding of AI, get knowledge of how to handle an outbreak of the same, what equipment required and also how to confirm its diagnosis and what samples; Shipment and IATA Regulations;

20. How do you expect to use what you learn in this training?

To be able to teach/train others, be able to participate on whatever task force is setup and called upon to come and help in disease surveillance/monitoring in my country and the world; Personal safety, safety for other staff and non-staff, to disseminate knowledge to public on dangers of HPAI; for handling disease outbreaks but especially zoonosis; Training field Veterinary staff; Ensure that target birds and personnel are updated on PPE and laboratory safety; Train others(Vets, Technicians, etc.), be in a better state of preparedness in the event of HPAI outbreak; Apply it all the time while attending to AI surveillances and train others too; To protect farmers, people, and most of all my family; I will do my best to implement all that I learn in this training; I expect to use it when carrying out laboratory work and during disease surveillance; PPE, decontamination procedures and laboratory sampling, process of AI and other poultry diseases knowledge can be disseminated to others through similar training; To pass this knowledge gained to others; Training laboratory workers and other health workers, incorporating some information in National SOPs and Biosafety manual; To take appropriate sample, train others on how to collect samples, carry out decontamination and practice appropriate methods of decontamination and biosafety; TO fully participate in the control of the disease in Uganda and outside; Beef my knowledge on AI so I can educate the public in case of any

other outbreak to alleviate their fears so that local poultry production is not affected greatly; During Investigations of suspected cases in routing influenza programme of MOH;

**VII. Are there any special topics you want the training to cover?**

Disease control/prevention and surveillance not only in relation to Avian Influenza but also others similar to Avian Influenza; the way forward; Biosecurity and bioterrorism; experiences about similar preparedness on other zoonotic emerging and re-emerging diseases; Surveillance, diagnostics and SOP; Storage of samples and how long these samples can be kept away virus is still viable; a brief of other test carried out for Avian Influenza; Diagnosis of avian influenza in both birds and humans; IATA Transportation of Packaging; Any vaccine being produced against this disease?; I want the training to cover laboratory diagnosing AI; Yes, just one: in the face of an outbreak, what should be done to eliminate the infection as quickly as possible in the Ugandan setting; Processing of specimens for tests;

## TRAINING EVALUATION

(For Trainees)

***PLEASE NOTE: ALL RESPONSE APPEAR IN THIS SUMMARY SHEET EXACTLY AS THEY WERE WRITTEN ON THE EVALUATION FORM. NO COMMENTS WERE EDITED FOR CONTENT OR GRAMMAR.***

### Immediately Post-Training

Type of training (mark all that apply):  PPE kit

Decontamination kit

Lab sampling kit

Date of training: June 20-21, 2007

Location: Grand Imperial Hotel, Kampala, Uganda

54. Were your expectations of this training met?

Not at all 1 2 3 4 5 In every way 4.875

Comments (what was particularly good or bad?): Decontamination procedures and sample collection and shipment; Delivery of the lectures; The practical sessions; Has equipped me with knowledge to enter the fight of the scourge; Facilitation and simulations on PPE, decontamination kits were good; the use of PPE kits; Learnt a lot and exposed to practical diagnostic tools in Avian Influenza; Good new information obtained; The hands on practice and time given for tasks; Proper use of PPE and sampling kit (Lab).

55. Was the quality of the training:

Not acceptable 1 2 3 4 5 Excellent 4.75

Comments (what was particularly good or bad?): The training atmosphere was good, the trainees were not so many for one trainer; Trainers/facilitation were quite knowledgeable; method and delivery of the presentations; Trainer was exceptionally excellent with vast knowledge, skills, and right attitudes of disseminating information; Interactive, practical, and realistic plus explaining/sharing experiences; The presentations, the speed and assistance; The trainers were good, the demonstrations and the knowledge we shared; Class demonstration of PPE use and sampling procedure was particularly excellent.

56. Were the exercises and group work:  
Not acceptable 1 2 3 4 5 Excellent 4.69

Comments (what was particularly good or bad?): Gives chance of one to one interaction among groups; The interactive nature among participants was good; Matching words exercise; Participants were open, and shared freely plus experiences they had plus the facilitator; good discussions; They were really engaging; Groups made specific recommendations that will be considered in future trainings.

57. What activities did you like the most? PPE Demonstrations; I liked all equally; Epidemiology; the practical parts; discussions; labeling and shipping; sample collection; Practical hands on, diagnostic techniques especially the rapid tests; The group exercises and group work.

58. Was the training  given in English with no translator

given in another language. Language: \_\_\_\_\_

Was there a translator?  Yes  No

59. Were you able to understand everything the trainer said?  
16 Yes 0 No

Comments: Everything was put across in simple understandable way; the trainer was audible; Very elaborately and skillfully delivered; The training strategy and methods were elaborate enough to ease understanding of the methods; Eloquent and audible; Easy to understand; Trainer was articulate, knowledgeable and made participants to participate through by sharing their experiences.

60. On a scale of 1 to 5, how confident do you feel about using PPEs correctly? 4.94  
Not confident 1 2 3 4 5 Very confident

61. On a scale of 1 to 5, how confident do you feel about training others to use PPEs correctly? 4.88  
Not confident 1 2 3 4 5 Very confident

62. On a scale of 1 to 5, how confident do you feel about using decontamination equipment? 4.44  
Not confident 1 2 3 4 5 Very confident

63. On a scale of 1 to 5, how confident do you feel about training others to use decontamination equipment? 4.66 + 1 Blank  
Not confident 1 2 3 4 5 Very confident

64. On a scale of 1 to 5, how confident do you feel about taking samples? 4.86 + 1 Blank  
Not confident 1 2 3 4 5 Very confident

65. On a scale of 1 to 5, how confident do you feel about training others to take samples? 4.73 + 1 blank  
Not confident 1 2 3 4 5 Very confident

If you circled 1, 2 or 3 for any question, please explain why: For 10, it is probable to accidentally omit a step or two; Could have some field visits too.

66. How could the content and/or facilitation of this training be improved? Should simplify participants handouts to small portable binders that can easily be carried in the field; Content and facilitation so far was satisfactory; The content is fine, facilitators are experienced; Organize for long periods (not 2 days only); It would continue like this until other things come in later; They can be improved by simulating actual field outbreaks; More practicals, more training days; It requires input from various development partners; Maybe include more pictures/photos from different parts of the world; Requires more days of training (4) in a laboratory setting where each participant runs tests.

67. Were the handouts provided during this training:  
a. Relevant to your work? Yes 16 No 0 Blank 0  
b. Informative? Yes 16 No 0 Blank 0  
c. Easily understood? Yes 15 No 0 Blank 1

68. Will you use these handouts when performing your activity? 1 Yes 0 No  
If yes, how do you anticipate using these materials? If no, why not?

To carry them all the time when I need in the field; During field activities and during laboratory work; In guidance while working, in training; When an outbreak occurs, suspect case intervention; Use them during training and simulation exercises as well as in case of actual AI threat; Incorporate in National SOPS manuals, incorporate in National Laboratory Safety manual, training fellow staff and integrated disease Surveillance and Response Committee; Use in the laboratory and in the field as references just like the SOPs; Teaching others on how best to respond to a threat/outbreak, sample handling, etc.; I would make summaries out of them to give other colleagues then keep referring to them.

69. Other Comments:

More of this type of training be available to relatives that need to expand on the knowledge; I grateful to the USAID DAI trainers; The training was very useful to the person (me) and the entire country Uganda; Thank you very much; The workshop was successful, the only problem was refund of transport fees when one did not get a receipt; A successful workshop that was worth undertaking, but please keep up (Follow up needed), sustainability of this workshop should be evident with or without Avian Flu epidemic in Uganda; This training was timely and requires more input by USAID; Please we do request for more similar training and interactive workshops plus God Richly Bless You; Thank you to all organizers, helpers and participants; Further trainings should be organized to refresh and keep participants alert and PPEs, test kits should be provided so participants can train others.

## USAID AVIAN INFLUENZA COMMODITIES TRAINING

### Participant List

Kampala, Uganda

June 20 – 21, 2007

Participants in red are IATA certified (in Uganda, all participants were certified).

Name	Title	Organization	Address	Work telephone	Mobile phone	Email Address
Dr. Paul Ssajakambwe	Vet Doctor	MUK Pathology Department	P.O. Box 7062 Kampala	041-530483 078-2-4386	[REDACTED]	[REDACTED]
Susan Kerfua	Lab Technician	NARO	P.O. Box 96 Tororo		[REDACTED]	[REDACTED]
Mukiibi Miska G	Doctor	NARO	P.O. Box 96 Tororo		[REDACTED]	[REDACTED]
Ndumu Deo B.	Senior Vet Officer	Vet Epidemiology and Diagnostics	P.O. Box 513 Entebbe	041-320915	[REDACTED]	[REDACTED]
Enyel E.M.	Warden	UWA-MFLA	MFLA Box 455		[REDACTED]	[REDACTED]
Julius Okumi	Doctor	MUK	P.O. Box 7062 Kampala	041530483 071280	[REDACTED]	[REDACTED]
Dr. Rose Ademun	Doctor MAAIF		Box 513 Entebbe	041-320915 0772-504	[REDACTED]	[REDACTED]
Mubiru Peter	Vet Doctor	UGACHICK	P.O. Box 12337 K'la	0712377332 071237	[REDACTED]	[REDACTED]
Nanfuka Mary	Lab Technician	MAAIF	Box 513 Entebbe	041-320915 077282	[REDACTED]	[REDACTED]
Dr. K. Mugabi	SVO MAAIF		Box 512 Entebbe	0414320166 077244	[REDACTED]	[REDACTED]
Mr. Mugisha	SLT MAAIF		Box 513 Entebbe	041322295 077260	[REDACTED]	[REDACTED]
Mr. Kidegak	SLT	MAAIF	P.O. Box 102 Entebbe	077456	[REDACTED]	[REDACTED]
Atwine Kagirita	LT CP	HL (MOH)	7272 K'la	078290	[REDACTED]	[REDACTED]

## USAID AVIAN INFLUENZA COMMODITIES TRAINING

### Participant List

Kampala, Uganda

June 20 – 21, 2007

Lutwama J.J	SRO	UURI/NIC	49 Entebbe	041-320387	[REDACTED]	[REDACTED]
Dr. Patrick Atimnedi	VC UWA		Box 3530 KLA	0414355203 077	[REDACTED]	[REDACTED]
Bahail Million	Lab Tech	MAAIF	24 Entebbe		[REDACTED]	[REDACTED]
Esau Martin	Lab Tech	MAAIF	24 Entebbe		[REDACTED]	[REDACTED]
Josephine Bwogi	Research Officer	UVRI	49 Entebbe	0414320305 077	[REDACTED]	[REDACTED]
Dr. N.N. Antima	PVO/OR MAAIF		Box 24 Entebbe	071	[REDACTED]	[REDACTED]
Dr. Kankya C.	Doctor	Mauerere University	Bo 7062 Kila	077	[REDACTED]	[REDACTED]
Dr. Bakamui Umatto B.	Scientist NIC/UVRI		UVRI Entebbe	077	[REDACTED]	[REDACTED]