

(Abroad • Domestic) Official trip report form (Student)

2015/07/17 (Year/Month/Day)

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| Name | NGUYEN THANH LAM |
| Laboratory | Microbiology |
| Year (Grade) | 2015 (D1) |
| Destination | Vietnam |
| Period of trip | 1 week (from June 28 th to July 05 th 2015) |
| Purpose of trip | Negotiation for surveillance of avian influenza viruses in South in Vietnam and pre-sampling. |

Summary of activities (about 800 words, provide photos, tables and figures that clearly show the activities during the period)

In 2014, intensive surveillance on avian influenza viruses were conducted by Regional Representation for Asian and the Pacific of World Organization for Animal Health (OIE-Tokyo), Laboratory of Microbiology, Graduate School of Veterinary Medicine, Hokkaido University and Department of Animal Health of Vietnam (DAH) to identify prevalence of avian influenza viruses in two types of live birds markets (LBMs) with and without intervention. The 2014 surveillance were conducted in Hue city, central in Vietnam. A total of 3,045 environment samples and tracheal, cloacal swabs from apparently healthy poultry were collected at 3 live bird markets (LBMs) with intervention and 6 LBMs without intervention. Results from 2014 surveillance showed 178 influenza A viruses were isolated in both types of LBMs and AI prevalence in LBMs with intervention (6.15%) was likely similar to those of LBMs without intervention (5.60%) in the study area.

1. In the Department of Animal Health of Vietnam, Hanoi

On first day of business trip (June 29th, 2015), we had meeting with key persons who have involved in this project including Dr. Tien, Dr. Long who are principle authorities of Department of Animal Health, Mr. Dang – staff of National Centre for Veterinary Diagnostics, Dr Ken Inui – specialist of FAO in Viet Nam. To begin with the meeting, Mr. Huy represented results of the surveillance in 2014 in Hue. After clarifying all results, we received kind evaluation, advice from attendants, briefly as below:

- Results from 2014 surveillance in Hue could provide more interesting information based on real situation. Investigator should further find out achievements and remaining problems
- Re-consideration on difference of AI prevalence between poultry samples and environment samples
- Consideration on study design in term of epidemiological aspects
- Focus on environmental samples and collection time that could supports difference of AI prevalence of two types of markets
- Pursue interests in AI control in LBMs by biosecurity intervention



- Identification for new study site in South Vietnam as supplemental data for whole study in Vietnam additional with Hue city

Both sides agreed project proposal from Hokkaido University that further surveillance should be maintained in Hue city to identify potential transmission factors contributes to the real situation. Furthermore, additional study site in South Vietnam, Vinh Long is selected as supplemental data for the whole surveillance in Vietnam.

2. In Regional Animal Health Office VII, Can Tho city

Our business trip in South Vietnam started with meeting in Regional Animal Health Organization VII (RAHO VII) on July 30th. We have agreed for surveillance in the South Vietnam in Vinh Long province. RAHO VII will be principle unit coordinating this project on behalf of DAH in the South Vietnam. Also, RAHO VII will conduct screening test of AI by RT-PCR M gene detection. Shipment will be carried out directly from RAHO 7 to Japan site, Laboratory of Microbiology, Graduate School of Veterinary Medicine, Hokkaido University.



Figure 1. Meeting with DAH in Hanoi



Figure 2. Meeting with DAH, Sub-DAH and RAHO 7 in Vinh Long province

3. In Vinh Long province, South Vietnam

According to recommendation from DAH, Vinh Long is a priority study site in South Vietnam due to its potentials for our study. Live bird markers in Vinh Long could fulfill our study aims with two types of LBMs (intervention and without intervention). Vinh Long is considered as hotspot of avian influenza in South Vietnam due to large poultry population. Most recently, high pathogenic avian influenza H5N1 outbreaks were recorded in Vinh Long in May 2015. Vinh Long locates in central of Mekong delta, near RAHO VII which brings good condition for transportation and sample preservation. In addition, we have recognized kind collaboration from local authorities and staff's techniques.

On July 30th, we had meeting in the office of Vinh Long Sub-DAH with directorial board members and staffs (Dr. Tung, director; Dr. Thuy, vice director of Sub-DAH, Dr. Quy, director of RAHO 7; Dr. Tien, DAH). In this meeting, we shared the information of aims and details of our project. For local site, Sub-DAH's director kindly offered us the whole picture about poultry husbandry, real situation of avian influenza in Vinh Long, infrastructure of LBMs and their biosecurity situation.

4. Study site selection and pre-sampling

On July 1st, director of Vinh Long sub-DAH kindly lead a group to support us for study-site visit and pre-sampling. We visited preventative two types of markets with intervention (Cai Nhum in Mang Thit province) and without intervention (Tan Ngai and Phuong I markets in Vinh Long city). Short visit in LBMs in Vinh Long provides us a better understanding on real situation in Vinh Long, which is critical for our study design.

Pre-sampling were conducted in early morning at the same day, a total 30 swab samples from apparently poultry (10 chickens, 15 ducks, 5 muscovy ducks) were collected. Screening test of H5N1 RT-PCR detection carried out by RAHO 7 showed that H5N1 were detected in pool sample in chickens and muscovy ducks.



Figure 3. A preventative LBM with intervention
(Cai Nhum market in Mang Thit province)



Figure 4. A preventative LBM without intervention
(Truong An market in Vinh Long city)

5. Summary

After business trip to Vietnam, we have achieved significances summarized as follow:

- Report to Vietnam site, Department of Animal Health about progress and results from 2014 surveillance in central Vietnam, Hue city.
- Receive important evaluation and revision from Vietnam site about results of 2014 surveillance
- Receive permission for scientific publication upon 2014 surveillance in Hue city from DAH
- Both (DAH and Hokkaido University) fully agreed AI surveillance plan in 2015 in Vietnam. Tentative sampling schedule will be August in South Vietnam and December in Hue city
- Vinh Long province is selected as candidate for study site in South Vietnam to fit aims of the project
- RAHO 7 plays important role in technical supports and screening AI prevalence

We finished successfully our trip to Vietnam in one week with significant achievements which provide smooth pathway for our project in 2015 and especially this trip helps tighten cooperation between Hokkaido University and Vietnamese authorities in national and local organization.

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| Approval of supervisor | Institution • Official title • Name : Laboratory of Microbiology, Graduate School of Veterinary Medicine, Prof. Yoshihiro Sakoda <div style="text-align: right;">印</div> |
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※1 Send the electronic file to the Leading School section, International Affairs Office, also submit the original print out with seal of supervisor to the Leading School section, International Affairs Office.

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