



FIELD BUILDING LEADERSHIP INITIATIVE (FBLI) ADVANCING ECOHEALTH IN SOUTH EAST ASIA

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INTRODUCTION

This issue captured second half of the third year of the Ecohealth Field Building Leadership Initiative (FBLI). Overall, data collections and analyzes as well as community surveys in all research teams have come to an end. Outputs as peer-review papers from those studies are expected in the next phase. Interventions have been carried out to some extends. Some changes from stakeholders' behavior have been recorded at this stage. Capacity building component nearly completes with the finalization of plans for translation of the ecohealth training manual and recruiting resource persons. Degree training also waits for the last finishing touches to launch. Knowledge translation, after all delays, has started with the first step of successful recruitment of the new KT coordinator and activities conducted at national level.

RESEARCH

Using Ecohealth approach to reduce pesticide use and its health and environment impact in Yuanmou County, Yunnan Province of China



"street theater" was used to provide health education on pesticides at six project villages in Yuanmou. FBLI Research in China



你能抵挡农药的危害吗?



元谋农民经常佩戴口罩进行防护的为9.8%，经常佩戴橡胶手套进行防护的为3.6%，喷洒农药时23%穿长筒雨鞋。

Poster used to promote safe use of pesticides. FBLI Research in China

The occupational exposure to pesticides by farmers and agricultural workers and their protection measures were surveyed and analyzed. A paper has been accepted by a Chinese journal and will be published soon. Besides, a laboratory test was performed to qualitatively analyze pesticide residues in 120 urine samples collected from adults and children and nine soil samples and nine water samples from villages where we conducted the surveys. The method called "street theater" was used to provide health education on pesticides at six project villages in Yuanmou. A calendar and several posters about pesticide were designed and produced.

Study on Potential Impact and Proposed Best Practice in Agricultural Development: A case study of Rubber Plantation Expansion and Increased Risk of Vector-Borne Diseases in Eastern Thailand.

A total of 24 serosamples were collected from laborers working in rubber plantations. The collection of another 16 serosamples is still in

progress. All 24 collected serosamples were screened for dengue and chikungunya viruses at the Center of Excellence for Vectors and Vector-Borne Diseases, Mahidol University. No positive sample for chikungunya virus was detected but there was one positive sample for dengue virus. However, more serosamples will be screened. In the meantime, a total of 114 dog blood samples collected from 109 rubber plantations were screened for dengue and chikungunya viruses. No positive sample with dengue or chikungunya viruses was detected. All water and soil samples collected from rubber plantations in Chachoengsao Province were screened for chemical residues (lead, cadmium, manganese, nickel) at the Department of Social and Environmental Medicine, Faculty of Tropical Medicine, Mahidol University. The interpretation of results is still in progress. Dog blood samples collected from rubber plantations in Chachoengsao Province were screened for chemical residues (lead, cadmium, manganese, nickel) at the Department of Social and Environmental Medicine, Faculty of Tropical Medicine, Mahidol University. The interpretation of results is still in progress.

Using an Ecohealth Approach for Better Management of Animal and Human Waste in Hanam province, Vietnam

A total of 150 biogas wastewater samples were collected from biogas digester outlets and drains to measure the amount of four pathogens namely E. coli, G. lambila, C. parvum, and Salmonella and two chemical parameters (BOD5 and COD). Results show that 34%, 31% and 57% of samples were positive with G. lambila, C. parvum and Salmonella respectively. The results also indicate that all these samples exceeded government standards for E. coli and BOD5 indicators. These results were used for quantitative microbiological risk assessments (QMRA) and for intervention designs. As part of the intervention phase in Vietnam, field assessments of 228 people in Hoang Tay commune were conducted to study the perception and practices of the community members on environmental protection, biogas

operation and maintenance process, sanitation, animal and human health. The assessments help villagers, commune leaders and researchers gain knowledge that can be used for intervention designs to improve research sites. A pilot program with two types of intervention – at the farm level and community level – is being conducted in Hoang Tay commune and will be expanded to other localities. The first invention using poster to promote village regulation called “Huong Uoc” was appraised by the local authority, citing it as the most effective way to promote good health and sanitation among the local residents. Although “Huong Uoc” is popular traditional document in most villages in Vietnam, it is not well-known among young generation. This tool of communication also contributes to encourage locals to learn more about this document. Besides “Huong Uoc”, a number of hand-outs, such as calendar, booklet, and flyer, with guidance in using biogas and in animal health check-up, are distributing to households.



Poster promoted *Huong Uoc* - village regulation. FBRI Research in Vietnam



Poster showing proper steps in boigas process hanging at farmers' house FBLI research in Vietnam

CAPACITY BUILDING

Training of Trainer: The plan for translation of the Ecohealth ToT book has been finalized among all teams and with Veterinary without Borders. The Vietnam team decided to compile an Ecohealth book in Vietnamese which based on different sources of which the main one is the ToT book. The other three teams of Thailand, Indonesia, and China. Four chapters will be translated into Thai, nine chapters will be translated in Indonesia, and ten will be in Chinese. All agreements on translation plan between country teams and VWB were signed. The plan for resource person for research was sent to all teams and will be followed up by both VWB and the FBLI-CU from June 2015. Both activities of translation and research mentors are scheduled to fulfill in May 2016 at the latest.

Degree Program: Communication with different participating faculties related to the implementation of degree program was carried out in order to review and select key courses for the Degree Program. The Degree Program was officially approved by the University Council on 20 August 2014. The development and revision of the Degree Program are in progress.

Future Leader Training: After the successful organization of Future Leader Trainings in all four countries, the Seed Funding activity was followed to provide young scholars with opportunities to apply Ecohealth in their own research. Seven

proposals from Thai applicants were selected and announced for financial support through the FBLI Seed Funding for leadership project on ecosystem approach to health. Contracts will be signed before December 2015. In Vietnam, five proposals were selected including four intervention using communication tools and one evaluation using Outcome Harvesting method. In Indonesia, the seed funding has finished and full report and pictures and videos are being finalized. At the same time, two students who carried out the research within the project passed their thesis exams and submitted their theses to UI while the 2 manuscripts are in finishing touches for journal submission.

THE COORDINATING UNIT AND KNOWLEDGE TRANSLATION

The second RCG meeting was held in Da Nang city in December 2015 where RCG members and IDRC program officer got updated from teams and components. The FBLI future, challenges and lessons learnt were also discussed. M&E activity is still in progress. With some adjustments, the team hopes to bring a full report featuring the case study in Vietnam this September. In line with these adjustments, a case study using Outcome Harvesting as the tool to evaluate the intervention of research in Vietnam will be served as an example to replicate in other country.

Communication outputs also received significant attention. The policy brief as the outcome of the mid-term research workshop were produced and presented at the public health conference in India in December 2014 and Connecting Organizations for Regional Diseases (CORDS) Meeting in Albania in May 2015 by RCG members.

From July 2015, the CU took up the role of coordinating of regional KT component. The regional fund is managed by VPHA. The new KT coordinator was recruited and started her work since the beginning of July. National KT fund was allocated to country teams. Some activities have been started in Indonesia and Vietnam. In Vietnam, the KT has started with some activities with the project Economic Development,

Ecosystem Changes, and Emerging Infectious Diseases Risks Evaluation. Members of the FBLI Vietnam have collaborated with the above-mentioned in setting up a national policy working group, including policy makers from Ministry of Health, Ministry of Agriculture Rural Development, Ministry of Natural Resources and other institutes. The planned KT of the FBLI as well as the preliminary results of the health risks related to biogas waste-water in Ha Nam, Vietnam was also introduced in several meetings with the ECOMORE project.



Participants exchange and discuss on potential papers at the mid-term research workshop in Da Nang Vietnam December 2014

OUTPUTS

- LIU Yan-fang, FANG Jing, ZHU Min, et al. Investigation of organophosphate and carbamate pesticide residues in vegetables in a county of Yunnan Province [J]. Chinese Journal of Food Hygiene;2015.
- WANG Yi-yang, FANG Jing, ZHU Min, et al. Influence of Different Agricultural Production Mode on the Behaviors of Pesticide Using: Example of a County in Yunnan Province [J]. Journal of Environmental & Occupational Medicine; 2015.
- Liao Sheng-ling, Fang Jing, Wu Xi-nan, Zhumin, Wangyiyang. The Influence of Plantation Production Mode on the Behaviors of Pesticide Using [J]. Journal of Kunming Medical University , 2015.
- Hung Nguyen-Viet, Siobhan Doria, Dinh Xuan Tung, Hein Mallee, Bruce A Wilcox and Delia Grace. 2015. Ecohealth research in Southeast Asia: past, present and the way forward. Infectious Diseases of Poverty 2015, 4:5 <http://www.idpjournals.com/content/4/1/5/abstract>

NEXT EVENTS

- The 4th Food Safety and Zoonoses Symposium for Asia Pacific will be held in Chiang Mai in August 2015. It aims to operate collaboration for transferring knowledge, experiences, problems and taking appropriate action on food safety and zoonoses in the region. The event is hosted by the Veterinary Public Health Center for Asia Pacific, University of Chiang Mai, Thailand.
- The 9th European Congress on Tropical Medicine and International Health will be organized by the Swiss Tropical and Public Health (Swiss TPH), in Basel, Switzerland. It brings together over 1500 of the most distinguished scientists and experts in the field of tropical medicine and international health. It is the premier European congress in this field.

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