Field Building Leadership Initiative: Advancing Ecohealth in Southeast Asia - the First Year Journey

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ABSTRACT  The Ecosystem approach to health, or Ecohealth is a useful tool to address health and environmental issues in developing countries, particularly in South East Asia (SEA), where agricultural intensification processes have profound implications for ecosystems and health. The Field Building Leadership Initiative (FBLI) Advancing Ecohealth in SEA program aims to build the field of Ecohealth by integrating research, training, policy and networking to focus on solving human health problems associated with agricultural intensification in SEA countries. This paper aims at updating the one-year journey of the program from October 2011 until October 2012 and providing insights into the plan for the coming years. A number of activities of the project’s research component, capacity building, and knowledge translation have been completed in line with the proposal. Outcomes and outputs of the one-year implementation are also presented.

KEYWORDS: Ecohealth, FBLI, interdisciplinary, human health, agricultural intensification

INTRODUCTION
The Ecosystem approach to health promoted by the International Development Research Center (IDRC) has only recently been introduced in South East Asia. Ecohealth is the transdisciplinary and systematic study of dynamic relationships and interactions among animals, ecosystems and human health. It provides both a theoretical framework for understanding the changing “landscape of health” and a practical approach for identifying solutions to manage interlinked ecosystem and health problems. Charron named six principles of an Ecosystem approach to health: system thinking, transdisciplinary research, participation, sustainability and gender and social equity (1). This approach is a useful tool to address health and environmental issues in developing countries, in particular in SEA where agricultural intensification processes have profound implications for ecosystems and health. However, using the Ecohealth approach to comprehensively tackle complex issues requires individual, institutional, and country capacity in understanding and applying this approach within the context of the region (2).

As a hotspot for (re)emerging infectious diseases (EIDs), the SEA region has hosted a number of Ecohealth projects such as APEIR (Asian Partnership on Emerging Infectious Diseases Research), EcoZD (Ecosystem Approaches to the Better Management of Zoonotic Emerging Infectious Diseases in SEA), EcoEID (Ecohealth emerging infectious diseases research in SEA), and BECA (Building Capacity in Ecohealth for SEA). This
development in the region shows the dynamic landscape of research and application of Ecohealth in various fields such as emerging and zoonotic diseases, agriculture and health, education and training. However, no Ecohealth project has yet integrated a solid link among research, training, policy and ecohealth leadership. The Field Building Leadership Initiative in South East Asia (FBLI in SEA) is a new 5-year (2012 to 2017) project funded by the IDRC. Its objectives are to conduct transdisciplinary Ecohealth research, strengthen Ecohealth training, influence policy related Ecohealth issues, and share knowledge among institutions and organizations at national and regional levels. This paper aims to introduce the FBLI and report its one-year journey, as well as discuss some lessons learned from the activities implemented.

**MATERIALS AND METHODS**

A literature review was performed. The literature used consisted of academic papers, books on the Ecohealth approach and the FBLI first year project report. Rather, in-person or Skype meetings between members of the projects provided opportunity to gain information. The FBLI first year report served as the most important tool for data and information gathering. The objective of this paper is to provide an update on the past year of the project; the target audience includes the community of Ecohealth practitioners, researchers, local stakeholders, and partners of the FBLI family. This work limits itself to discussing the one-year time frame of the project from October 2011 to October 2012.

**Background - Field Building Leadership Initiative in South East Asia**

The FBLI in SEA is a research project, co-implemented by seven institutions/universities in Thailand, Indonesia, Vietnam and China. The initiative uses a diverse range of methods and activities, including the “site-based research” concept, which is supported by national and regional networking events. The FBLI implements three interlinked components: (i) research – serving as the backbone of the initiative for other components and employing ecohealth approaches to address ecosystem and health issues related to agricultural intensification, (ii) capacity building - strengthening Ecohealth capacity and leadership through university degree training, training of trainers (ToT) activities, and future leaders training and development, and (iii) knowledge translation - promoting dialogue between the research and policy communities, and building capacity to translate research evidence to inform and influence policy decisions. Figure 1.A captures the relationship among the components.

**Figure 1.A: Inter-linkage among three components.**

**Figure 1.B: The capacity building component.**

A Regional Core Group (RCG) – comprised of representatives from a consortium of seven partner institutions from the region with experience in Ecohealth implements the program in close collaboration with national partners, other regional and global Ecohealth networks, and the IDRC.

The FBLI anticipates outcomes and impacts in five key areas, namely, development of a sustainable dynamic Ecohealth field, implementation of research findings and
practical solutions, provision of a robust critical mass of training materials, and establishment of strong linkages among policy makers and researchers in the field. It features four interlinked components that correspond to our program objectives. The operational structure of the program is broad, encompassing regional and local level involvement. The RCG partnership includes seven institutions: the Health System Research Institute (HSRI), the Ministry of Public Health, Thailand, the Center for Public Health and Ecosystem Research (CENPHER), Hanoi School of Public Health (HSPH), the Center for Excellence for Vectors and Vector-Borne Diseases, the Faculty of Science, Mahidol University, the Institute for Health and Development Studies, Kunming Medical University, China, the Kunming Institute of Botany, China, the Faculty of Public Health, Universitas Indonesia, and Veterinarians without Borders, Canada. In the project, the RCG and the Coordinating Unit (CU) are located at the CENPHER, HSPH and closely intertwined. The former consists of representatives from the seven aforementioned institutions collaborating in information and research data exchange as well as development of the regional network, while the latter is set up to support the consistent collaboration and overarching goals of the whole project.

RESULTS
First year implementation activities (October 2011 to October 2012)
Research team building and research topic re-definition
The highlight of results from the research component was the identification of research issues by all research teams during the research inception workshop in Kunming in October 2012, which provided an opportunity for all teams to share their personal experiences and revisit their research plans, leading to the reshaping of research questions and topics. The research topics presented by the four countries included: (i) China: Using ecosystem approach to reduce pesticide use and its health and environment impacts in Yuanmou County, Yunnan Province, (ii) Indonesia: Ecohealth and Diary Production: Connecting Issues and Finding Interventions for Small-scale Farming in a Southeast Asian Context, (iii) Thailand: Study on potential impacts and proposed best practices in agricultural development: A case study of rubber plantation expansion and increased risk of vector-borne disease in eastern Thailand, and (iv) Vietnam: Using Ecohealth Approach for Better Management of Livestock and Human Waste in Ha Nam province.

In these four countries, research plans were discussed among research teams and other stakeholders through formal and informal meetings. Challenges arose among team members due to differences in backgrounds, and study sites and topics went through multiple revisions and required several field meetings, reflecting one of the biggest challenges in Ecohealth research.

Box 1: Changing the study site of the Vietnam research team
“Using Ecohealth Approach for Better Management of Livestock and Human Waste in Ha Nam province, Vietnam” is the research project of the team at the Center for Public Health and Ecosystem Research (CENPHER), Hanoi School of Public Health (HSPH). Ha Nam province has been, for a duration of time, a research site for the team as it also served as the study site for a previous project, on human waste and sanitation conducted by the National Centres of Competency in Research (NCCR) North-South (3), (4).

Initially, at the time of finalizing the FBLI proposal, the Vietnam team had chosen another location, Chi Linh district, in Hai Duong province – the location of the field laboratory of the HSPH. However, after a number of field investigations, the team decided to change the location to Ha Nam province because the results of the previously conducted NCCR project could support their work with FBLI. Additionally, due to the similarity of the two research projects, it was determined that the projects could complement each other. The team could also benefit from the relationship with the local stakeholders.
Capacity building through training

The capacity building component is centered around development of the Ecohealth Trainer Manual and efforts to mainstream Ecohealth as a module or short course at the institutional level. To prepare for the debut of the Ecohealth Trainer Manual, a number of workshops were carried out with the participation of members from different country teams. From October 2011 to July 2012, lecturers/trainers attended various workshops in Thailand, including the Writeshop in Bangkok and the ToT Workshop in Pattaya, to work on content development for the training manual. This component is also marked by the various courses/modules on Ecohealth delivered under the degree training and future leadership sub-component.

At Mahidol University, Thailand and Universitas Indonesia, the Ecohealth approach is either integrated into other courses as a module or taught as a separate course. Concurrent with the launching of Ecohealth courses/modules was the initiation of the operation of the website and e-platform for sharing materials on Ecohealth. The website (www.ecohealthnetwork.org) is administrated by Mahidol University. ‘Future leader’ was the training module developed and led by the Universitas Indonesia. Some literature about leadership was reviewed and upon this review, the leadership module draft was developed and presented at the RCG meeting in Thailand. In the development of this module, which is distributed in both English and Bahasa Indonesian, the Faculty of Public Health, Universitas Indonesia, collaborated with the Lembaga Psikologi Terapan (LPT UI).

Box 2: The FBLI Ecohealth Trainer Manual and Regional Ecohealth/One Health in SEA

The manual was developed by a group of researchers working in the field of Ecohealth, including FBLI team members, and led by Veterinarians without Borders/Vétérinaires Sans Frontières (VWB/VSF), one of the seven partner institutions in the project. The manual is ‘part of a global initiative to build capacity in ecosystem approaches to health’ and has a ‘focus on how to teach Ecohealth, providing teachers and trainers with starting point from which to explore, improvise, adapt, and develop diverse educational Ecohealth teaching experiences for and with their participants’.

The manual has been reviewed by different users to ensure that it adequately addresses user needs.

Cooperation with APEIR and Knowledge translation

The APEIR Coordinating Office was in charge of the Knowledge Translation component of the project and, is credited with having synthesized the first five APEIR research projects, which will include a policy brief for each project and results’ dissemination through a series of workshops at national and regional levels. The research findings from the FBLI will be synthesized and disseminated by APEIR in collaboration with other partner institutions in the project.

DISCUSSION

Participatory and transdisciplinary approach in the FBLI-initial lessons learn

From the outset, the project has stated that ‘field building can be viewed as the ongoing process of empowering individuals, institutions, and countries with stakeholders who have diverse knowledge systems.’ A combination of short-term and long-term strategies – directed at different actors and levels – is required for delivering a sustainable field of Ecohealth research in the region. In this on-going process, a participatory process which ‘helps identify barriers to change, clarifies information and knowledge gaps’ is necessary. The result of the participation process in this case is the behavior change of the researchers, which is reflected in the re-visititation of their research topic and methodologies. It is said in the first technical report “the research teams will have to conduct a deeper exploration of the issues at the community level by re-visiting the study sites and spending more time with the community to identify their needs for research”.

It should be noted that the FBLI proposal to the IDRC used a number of Outcome
Mapping (OM) related concepts like boundary partners, progress markers, and the identification of ‘what you expect to see, what you would like to see, or what you would love to see’ as the outcomes(6). Key boundary partners were identified as young researchers, students, university lectures and leaders, mid-career professionals, senior researchers, local line agencies, communities, mid-level decision makers and research funders. These boundary partners were identified as those with whom ‘the initiative interacts and influences directly’. It was concluded that changes were seen at the researcher level at the research inception workshop.

Other kinds of participatory approach in the project can be seen through the series of workshops that were organized to achieve the launching the Ecohealth Trainer Manual. In two FBLI workshops, the Writeshop - Review of Ecohealth Trainer Manual (29-31 March 2012, Bangkok, Thailand), and the TOT Ecohealth Workshop for lectures/trainers (30 June to 4 July 2012, Pattaya, Thailand), organized by the VWB/VSF, it is interesting to note that the aims were to encourage the participation of different types of stakeholders. The former aimed at a review of the draft manual from the perspective of potential users (future trainers), students and others involved in the field of Ecohealth research and education, and the latter ‘provided a forum for future Ecohealth trainers/lectures to collaborate as teams to prepare to teach Ecohealth courses’. Here we can see that different stakeholder participation add to the knowledge generated by the research and enhanced the action that can result from, or be integrated into, the research.

CONCLUSION AND WAYS FORWARD

The FBLI project has completed a quarter of its route map. There have been achievements as well as challenges. Year 1 has reflected some characteristics of the practice of the ecosystem approach to health, e.g. the implementation of the interdisciplinary as well as the participatory approaches. As noted through the various workshops, participants valued the collaborative and interactive format as a way of learning from each other and building relationships; this should be maintained in coming up workshops. At times, the diversity in the team members’ background became a challenge. For some teams, this was the first time applying a real Ecohealth approach. Many of the teams realized the difficulty of applying the transdisciplinary approach, as it required not only negotiations to reach a consensus among scientists, but also the engagement of non-scientists (community and local leaders). Therefore, the strong leadership and coordination of the country project team leaders and commitments of team members are an essential factor for timely project implementation.

In this first year period, some of the unexpected outcomes included the collaboration among the FBLI partner institutions and others. Additionally, the Ecohealth approach has gained attentions from researchers working in other fields such as the One-Health group.

In the future, the teaching of Ecohealth in academic institutions will be fostered. The curriculum on Ecohealth is expected to be officially processed through Mahidol University and will be officially opened to the public by 2013. Both coursework and non-coursework research plans will be included with priority given to the former. The translation and distribution of the Ecohealth Trainer Manual into different local language has also been prioritized. This should help widen the distribution of the issue to the local Ecohealth community. In the next three years, it is expected that the project will result in more outputs and outcomes in all components. It is also suggested that monitoring and evaluation activities should be carried out in order to track and report the outputs and unexpected outcomes of the project periodically.

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REFERENCES


