A decade of Ecohealth/Onehealth in SE Asia – an inventory on selected initiatives, experiences and lessons learned

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13 Feb 2014
Introduction to Eco Health (EH) and One Health (OH)

History in the region

Selected regional EH/OH programs, initiatives implemented in the past 10 years will be presented from secondary data sources but also direct involvement.

Initiatives will be checked for:

- EH/OH focus
- Action research component/funded
- Capacity building/curricula
- Sustainability
- Networking
- Impact assessment
- Scaling out demonstrated ...
• The Ecohealth approach focuses above all on the place of human beings within their environment. It recognizes that there are inextricable links between humans and their biophysical, social, and economic environments, and that these links are reflected in a population's state of health.

International Development Research Centre (IDRC)

• EcoHealth is an emerging field of study researching how changes in the earth’s ecosystems affect human health. It has many prospects. EcoHealth examines changes in the biological, physical, social and economic environments and relates these changes to human health.

Wikipedia.
• One Health is the collaborative effort of multiple disciplines working locally, nationally, and globally, to address critical challenges and attain optimal health for people, domestic animals, wildlife, and our environment.

One Health Commission (http://www.onehealthcommission.org/)

• The One Health concept is a worldwide strategy for expanding interdisciplinary collaborations and communications in all aspects of health care for humans and animals. One Health Initiative (http://onehealthinitiative.com/)

• One Health' is a cost-effective, sustainable, and practical approach to find solutions for problems which need holistic, multidisciplinary approaches, particularly in resource-constrained countries.

Eco Health – One Health

**Eco Health**
- Complexity focus
- System thinking
- Pioneered from IDRC

‘Bottom Up’
- Vets, Medicals, epidemiologists,
- ecologists, social scientists,
- philosophers, indigenous perspectives, etc.

**One Health**
- Schwabe’s One Medicine
- One world/One Medicine

Integrated approach

More quantitative
- Vets, medicals, some ecologist

Currently institutionalized
- (FAO, OIE)
Background:

• Eco-Health
  – Introduced by IDRC to the region mid of the 2000
  – Regional but informal researcher network

• One-Health
  – Various initiatives emerged in late 2000\textsuperscript{th} in a response to EID such as HPAI H5N1
  – International Ministerial Conference on Avian and Pandemic Influenza, New Delhi, Dec 2007, FAO, OIE, and WHO – to develop a joint strategic *One World, One Health* framework
  – IMCAPI, 2008 & 2010
  – Stone Mountain, 2010
Selected EH/OH initiatives in South East Asia (since 2006)
APEIR: Asia Partnership on EIDs Research

• Asia Partnership on Emerging Infectious Diseases Research (APEIR, former APAIR) initiated in 2006 in response to HPAI
• To promote regional HPAI H5N1 research collaboration.
• Since 2009 a wider focus including other EIDs.
• IDRC funded

Mission
To develop a strong regional partnership in Asia that generates multi-disciplinary collaborative research on emerging infectious diseases based on ecohealth/onehealth concept

Start with an informal researcher network
Multi-country teams for each study
APEIR: Asia Partnership on EIDs Research

- More than 20 institutions and > 100 researchers in 6 countries (Indonesia, Thailand, Cambodia, China, Vietnam and Lao)
- Multi country teams and country focal points
- Coordination office in Bangkok

- Started with 5 studies on HPAI led by specific working groups
- Additional support by international experts

In the past....

1. Migratory birds & AI network
2. Socio-economic impacts of AI
3. Backyard poultry systems & AI
4. Policy analysis
5. Effectiveness of AI control measures

Now and future

1. AMR
2. Wildlife

1. Poultry Production Clusters
2. Small-Scale Poultry Slaughter Houses
Ecosystem Approaches to the Better Management of Zoonotic Emerging Infectious Diseases in Southeast Asia (EcoZD)
Overview

- **General objective:**
  Increase the capacity of research and infectious disease control personnel in SE Asia to understand the risks and impacts of Zoonotic Emerging Infectious Diseases (ZEIDs) and how feasible options can best be implemented and adapted.

- **Project life time:** 2008 – 2013

- ‘*Learning by Doing*’ of EH approach; (also new for ILRI team)

- **Regional:** Cambodia, Lao PDR, Thailand, Viet Nam, Indonesia, PR China (Yunnan)
Key components

- **Appraisal & Consultative Process**
  - **Scoping Study:** Questionnaire survey of representatives from 10-15 key institutions (PH, Vet, Social Science)
  - **Outcome Mapping:** demonstrate behaviour changes of targeted groups

- Innovative **Eco Health research in** all 6 partner countries

- Establishment of two **Eco Health Resource Centres** at Chiang Mai University (CMU) and Universitas Gadjah Mada (UGM) in Indonesia
  - Training materials - **EH manual**

- **Networking** with other One Health, EcoHealth initiatives

- **Post project evaluation** of impact in progress
Specific experiences from EcoZD

• Start up issues
  – Social science versus biometric science
  – Qualitative versus quantitative
  – Two-dimensional capacity-building requirement
    • Technical (proposal writing/implementation/methodological)
    • EHRC concept
  – Identify a common research interest (e.g. 4 different institutions involved)

• Throughout the project
  – Continuous aspiration of EH, how to keep track
  – New ideas emerged – e.g. EH manual
  – Technical capacity building (analysis/papers) and how to share credits (papers)
  – Policy engagement
  – Sustainability
Field Building Leadership Initiative

Multidisciplinary teams
- Yuanmou (CN)
- Hana (VN)
- Chachoengsao (TH)
- Pangalengan. ID

Source: Hung Nguyen, 2013
Where is FBLI active?

- Reduce pesticide use and its health and environment impact in Yuanmou County, Yunnan Province, China
- Better Human and Animal Waste Management in Hanam Province, Vietnam (Eco-HAWAM)
- Rubber Plantation Expansion and Increased Risk of Vector-Borne Diseases in Eastern Thailand
- Dairy Production: Finding suitable Interventions for Small-Scale Farming in a Southeast Asian Context, Indonesia

Capacity building
https://vetswithoutborders.ca/get-involved/resources/fbli
FBLI Ecohealth Training Manual

Modified from Hung Nguyen, 2013
Ecohealth Emerging Infectious Diseases Research Initiative 2010-2014

- Global initiative funded by IDRC through the Global Health Research Initiative, and the Australian Agency for International Development.
- Overall goal: enhance preparedness and systemic response capacities to the threats from emerging infectious diseases (EIDs) and diseases with pandemic potential in SE Asia and beyond.

Focus on:
- capacity-building that supports innovative approaches to integrating research
- research capacity building
- evidence-based policy and practice.
Regional focus SE Asia: 7 countries
Cambodia, Indonesia, Lao PDR, Philippines, Thailand and Vietnam

Process:
• June 2010, a competitive Call for Research Proposals focusing on the dynamics between environmental change, development, and EIDs in Southeast (SE) Asia and China.
• Three proposals were selected for funding (36 months).
  – Research teams had to be multi-country, multi-disciplinary
• March 2012, Vientiane, formal launch of the Eco EID projects
EcoEID

3 research projects

4 - 5 countries/project

1. Innovative strategies for the sustainable control of Asian schistosomiasis and other helminth zoonoses
2. An eco-health assessment on poultry production clusters to improve small producers’ livelihood
3. Applying an eco-bio-social approach to emerging infectious diseases in Southeast Asian global outreach hot spots
BECA: Building EcoHealth Capacity in Asia 2010-2013

Goal: reduce the risk of EID outbreaks in Southeast Asia through increased capacity in preventing and responding to EIDs through the development and promotion of sustainable ecosystem approaches to health, thereby promoting healthy livelihoods and reducing poverty in the region.

Countries and objectives:
Cambodia
Indonesia
Thailand
Vietnam
Lao
China

1. Develop EH capacity in the region
2. Informing and influencing local and regional policy formulation
3. Promote regional networking and collaboration
4. Identify an approach to monitoring and evaluation
Tools

- Workshops, wide range of participants
- Meetings, more focused
- Blogs
- Academic presentations
- Policy briefs

M & E:

- OM & SWOT analysis
- Pre-Post workshop questionnaires
- Online discussions

Unintended M & E tools

- Informal discussions, coffee breaks, lunch dinners
- Help to identify EH related input/outputs from other EH projects
SEOHUN
South East Asian Onehealth University Network

• Established in 2011, initially with 10 universities from four countries, Indonesia, Malaysia, Thailand and Vietnam
• Each country has established a National Network – INDOHUN, MyOHUN, THOHUN, VOHUN
• Each country network consist of multiple faculties involved in educating professionals in the skills required to support the One Health approach

Objectives
• To build cadres of trained professionals to be OH leaders
• To improve the competencies of One Health professionals
• To build a One Health evidence base through research activity
• To promote and advance the One Health approach for control of emerging and re-emerging infectious and zoonotic diseases
Country level workshops to develop Nationally - relevant One Health Core Competencies

Regional workshop to share experiences and harmonize the national - level outputs into a set of regionally relevant core competencies

Country - level Faculty Development workshops to utilize the competencies to develop curriculum content, learning aims and objectives, case studies, research proposals and novel teaching and learning methodologies

Challenges

• Sustainability
• Coordination
• Strengthening
• Expansion
## Summary on initiatives focus and characteristics

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* planned
A decade of EH/OH – a success story

REFLECTIONS

- Eco Health and One Health well perceived, in particular among academia and in communities
- Most of initiatives focused on capacity building, others mainly on research or both
- Research results generated using an OH/EH approach in the field of EIDs or ZEIDs, quality varying
- Some peer reviewed papers (published or submitted)
- High number of “locally” published papers
- Several networks emerged
Challenges

• Project design and implementation level
• Available capacity including coordination
• Capability to implement/facilitate EH/OH varies between teams and countries
• Donor dependency
• Private sector involvement at design phase
• Scaling out
• Demonstration of strong evidence of added value
• Not reviewed versus peer reviewed publications
A decade of EH/OH – a success story

REFLECTIONS on what comes next

• Impact assessments on the OH/EH approach
  – What has really changed and how
  – How to document these changes
  – How sustainable are these changes
  – Recognition of the value added
    (e. g. research trials)

• Initiatives need to operate more coordinated

• Further implementation in policy
A decade of EH/OH – a success story
REFLECTIONS on what comes next

• Complementarity: EIDs vs. non EIDs including “neglected” diseases
• More “Competitive” Ecohealth and One Health research
• Enhanced collaboration between existing initiatives, joint proposal or grants, attracting several donors
• Decrease donor dependency
  – increase co-funding proportion or self funded
• Pooling resources
• Could be also a donor demand, current CGIAR reform a good example
• Move from projects to programs
A decade of EH/OH – a success story

FINAL REFLECTIONS

- **Research:** more practically oriented case studies of EH/OH are needed
- **Dissemination tools and channels:** To be further explored to demonstrate success and how it was achieved
- **Training:** various levels and modules to be offered (short courses – degree) to address a wide audience from grass root level practitioners to policy makers from project design to system thinking
- **Policy translation:** further sensitise policy makers to OH/EH through evidence based research results
- **EH/OH regional platform/forum**
  
  Regionally recognized and aligned to regional/national decision bodies (e.g. ASEAN)
Modified from Hung Nguyen, 2013
Old habits versus new habits

FGD in the commercial dairy cattle farm and the village, Yiliang, April 2012
A special thanks to the former EcoZD team and its partners
In particular:
Hung Nguyen, Jeff Gilbert and Delia Grace

better lives through livestock

ilri.org