EcoZD and other EH/OH initiatives in SE Asia – lessons & perspectives

F. Unger

ComAcross Kick-Off Workshop
30.04.2014
Presentation outline

Setting up the scene – what we talking about

Selected regional EH/OH programs

• ILRI EcoZD – lessons learned
  • Background
  • EcoHealth Resource Center
  • Outcome Mapping

• Comparison of selected OH/EH initiatives in the region

• Lessons learned and reflections
EcoHealth & One Health
Setting up the scene – what we talking about

- Different traditions/background
- Many similarities
- Integrated approach (scope different)
- Developed in response to failures of mainly “silo based” responses to current challenges
  - Emerging Diseases Threats (HPAI)
  - 75% of emerging/re-emerging diseases are zoonotic
  - Globalisation & international trade
  - Intensification, urbanisation
• 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

• 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 (Zinsstag)

More quantitative
Vets, medicals, some ecologist

Currently institutionalized (FAO, OIE)
Classical Eco Health example

Malaria control and use of DDT in Mexico

Pool of specialist from epidemiology, computer science, entomology, social sciences, government and Academia background.

Participatory (Bottom up approach from community level)
Transdiciplinary (several expertise)
Equity (role of woman and man, behavior related to Malaria risks differed between gender, e.g. due to differences in mosquito exposure)
OneHealth/EcoHealth in SE Asia

• One-Health
  – Various initiatives emerged in late 2000\textsuperscript{th} in a response to HPAI
  International Ministerial Conference on Avian and Pandemic Influenza, New Delhi, Dec 2007, FAO, OIE, and WHO – to develop a joint strategic \textit{One World, One Health} framework
  – IMCAPI, 2008 & 2010
  – Stone Mountain, 2010

• Eco-Health
  – Introduced by IDRC to SE Asia mid of the 2000
  – Initial approach through exiting informal researcher network
  – IDRC funded various projects: APAIR, EcoEID, FBLI, BECA and EcoZD
Ecosystem Approaches to the Better Management of Zoonotic Emerging Infectious Diseases in Southeast Asia (EcoZD)
Overview

- **General objective:**
  Increase the EcoHealth capacity in SE Asia targeting the risks and impacts of Zoonotic Emerging Infectious Diseases (ZEIDs) and how feasible options can be best implemented

- **Project life time:** 2008 – 2013 (papers & post EcoZD evaluation ongoing)

- ‘**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 countries (case studies)

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

- **Networking** with other OH, EH initiatives
EcoZD Research teams

• Building novel trans-disciplinary collaborations between institutes and researchers ("Eco Health" research teams). **New for most of the teams!**

• Research topics were identified and developed in a sometimes "painful" and time consuming but strong consultative process based on country research team priorities

• Identification of "country champ’s" in each research teams
  ✓ China, South Vietnam, Thailand …
Thailand/Viet Nam:
The Model of Hygienic Small Scale Poultry Slaughter House for Asian Partnership Countries’ (Vietnam and Thailand) Various institutions, Livestock Services, MoH, Universities

Cambodia:
Prevention and Control of Zoonotic Causes of Acute Bloody Diarrhoea in rural Cambodia through an Eco Health Approach Centre for Livestock Development, Department of Animal Health and Production, CDC, Ministry of Health

Vietnam:
Zoonoses priority ranking at Provinces in Southern Vietnam (Lepto in pigs and humans), 3 Institutes (PH and livestock)
ILRI EcoZD – country teams & case studies

**China**
Prevention and Control of Zoonoses (Brucellosis and Toxopasmosis) through an EH approach, Yunnan Province (focus on ethnic minorities)
- 4 Institutions/Universities involved

**Indonesia**
Study on Rabies Control in Bali (dog ecology and behavior) - An Ecohealth Approach.
MoA, MoH, NGO’s, University

**Laos:**
A participatory EcoHealth study of smallholder pig system in lowland and upland of Lao PDR’ (zoonoses & production diseases), 3 institutions (e.g. DLF/MAF, PH) & 1 University
Specific experiences from EcoZD

• **Start up issues**
  
  – Allocation of time of partners
  – Level of counterparts (junior/senior)
  – “Lost in translation”
    • e.g. EH (Bahasa Indonesia)
    • English skills varied widely between countries but also between team members
  – Identification of EH mentors/champions, considerable mentoring required to ensure an EH approach
Specific experiences from EcoZD

Start up issues cont.

– Identification of a common research interest (e.g. 4 different institutions involved in China)
– Social science vs. biometric science background, focus of teams was on the latter
  • Social science involvement remained a constant challenge
– Qualitative vs. quantitative research
– Two-dimensional capacity-building requirement
  • Technical (proposal writing/implementation/methodological)
  • EHRC concept
Specific experiences from EcoZD

Issues throughout the project

- Continuous aspiration of EH, how to keep track
- Keep all team members engaged
- New ideas emerged – e.g. EHRC and EH manual
- Technical capacity building (analysis/papers) and how to share credits (papers)
  - analyze and synthesize quantitative and qualitative results
  - Interdisciplinary data base
- Policy engagement
- Sustainability

➢ Carte blanche’ vs flexible adaptive/consultative approach
➢ Continues “Learning by doing” experience
Challenges and solutions for selected EcoZD country teams

**Indonesia:** niche identified (dog ecology/behaviour and community awareness) despite various other initiatives on Rabies, complementing govt level support

**Viet Nam:** 3 research contracts and individual priorities, silo-syndrom but less than in China, difficulties deciding on priority, change approach/topic (HPAI to Lepto)

**Thai-Viet:** 2 countries, initially very biometric approach, commitments varied by team, continued EH mentoring to keep track

**Lao PDR** language, capacity, change approach/topic, pooling inputs/outputs with other project
Case study: Brucellosis and Toxoplasmosis in Yunnan

Issues:
- 4 institutions with different priorities, also located in different places (counties)
- strong silo thinking... issues on common research interest (e.g. TB, Bruc, Toxo, HPAI)
- considerable language barriers

Solution:
- local EH expert to provide technical assistance
- sufficient time to address challenges and build trust
- Team exited about new approaches/tools (e.g. FGD)

Comment:
- finally one of the best teams
- Incentive: invited by FAO to Beijing to present results
- Extended networking (e.g. EHRC and PE)
The problem:
Brucellosis & Toxoplasmosis is in Yunnan
Eco Health (One Health) Resource Centre

EcoHealth Resource center at Universitas Gadja Mada (since Jan 2011)

EcoHealth-OneHealth Resource center at Chiang Mai University (since Oct 2010)
EcoHealth (OneHealth) Resource Centre

Idea:

Establishment of two Eco Health Resource Centres
- 2 key universities in the region with strong regional connections and building up on existing linkages

Objective:

Capacity building on Eco Health
EcoHealth/(OneHealth) hub for the region
**Key activities**

- Research
  - Leptospirosis
  - Toxoplasmosis
- Capacity development
  - EH lectures and EH manual
  - KKN (student service activity)
- Communication
  - Student exchange with CMU
  - Conferences
  - Website, radio
EHRC - CMU: Structure of the organization

EcoHealth-One Health Resource Centre
Chiang Mai University

Advisory Committee
Executive Committee
Working Group

Veterinary Medicine
Nursing
Associated Medical Science
Medicine
Social Sciences
Economic
Pharmacy
**Capacity building:**
- EH lectures
- EH training courses
- EH course (undergraduates)
- EH manual
Through research (e.g.)

• “Kitchen of the world” project
• VPHCAP MSC student support (including an EH component in the thesis)
Communication

• 1st regional EH symposium
• Exchange UGM and CMU
• Networking (national, regional, international)
• Policy brief
**Eco Health – One Health Resource Centre**

**CMU - Challenges**

- **Continuing getting out the message and motivation**
  - Motivate a few capable individuals to get their interest and get them actively involved
  - Demonstrate that efficacy can be enhanced by cooperating with professionals from other academic specialties
  - Peer reviewed publications - share credits
  - Time allocations

- **Sustainability**
  - Continue operations in the absence of direct external funding by linking the center to other initiatives
Outcome Mapping (OM)

• An participatory planning, M&E tool.

• Outcomes = changes in KAP & behavior of targeted stakeholders

• Placing learning and people at the centre of development

Source: www.outcomemapping.ca
The Process of Developing

A Two-layer process

Layer 1: Relationship between EcoZD project & 8 teams to influence teams’ changes in knowledge, attitude, and practices (KAP).

Layer 2: Relationship between teams & their Boundary Partners (BPs) to support BPs’ changes in KAP.*

* Training/mentoring required
Key themes of progress indicators:

**Layer 1**: ILRI – Country Teams

- Understanding and applying EcoHealth principles.
- Communicating research findings.
- Networking & policy engagement.

**Layer 2**: Country Teams – Targeted Stakeholders

- Improved understanding/specific knowledge.
- Changes in practices.
- Communication of particular knowledge/practices to communities.

*Teams usually visited twice to monitor changes
** Self assessments.
Selected EH/OH initiatives in South East Asia (since 2006)
EH/OH initiatives in SE Asia

- 6 EH/OH activities in SE Asia implemented in the last decade investigated from secondary data and checked for:
  - EH/OH focus
  - Action research component/funded
  - Capacity building/curricula
  - Sustainability
  - Networking
  - Impact assessment
  - Scaling out demonstrated
  - Publications
Summary on initiatives focus and selected characteristics

<table>
<thead>
<tr>
<th>Focus on &amp; characteristics/initiatives</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity building (general)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Curricula</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Action research funded</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>EH</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>OH</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong networking</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Focus on &amp; characteristics/initiatives</td>
<td>.</td>
<td>..</td>
<td>...</td>
<td>....</td>
<td>.....</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---</td>
<td>----</td>
<td>-----</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>External funded/co-funded</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>M &amp; E tool</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Impact assessment</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scaling out</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer reviewed publication</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
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, but quality varying.
So far only limited number of peer reviewed papers.
High number of “locally” published papers.
Several networks established.
• Impact assessments on the OH/EH approach
  – What has really changed and how
  – How can we document these changes
  – How sustainable are these changes
  – Demonstration of the value added (e.g. research trials)

• Various initiatives need to operate more coordinated
EH/OH initiatives – lessons learned

- More “competitive” Ecohealth and OneHealth research
- Decrease donor dependency
  - increase co-funding proportion or self
  - collaboration between existing initiatives, joint proposal or grants, attracting several donors
  - Could be also a donor demand, current CGIAR reform a good example
- Move from projects to programs
- Stronger policy engagement
FINAL REFLECTIONS - EcoZD project

- Project design and implementation level
- Available capacity including coordination
- Capability to implement EH/OH varies between teams and countries
- Private sector involvement at design phase
- Scaling out
- Demonstration of strong evidence of added value
- Share of credits for publications in a multidisciplinary team
Research: “learning by doing“ EH case studies

M&E using OM: useful tool to measure soft changes

Training: various levels and modules to be offered (short courses – degree)
from grass root level practitioners to policy makers
from basic project design & reporting to system thinking

Mentoring Continues mentoring required, varying on team
(needs sufficient time & man power)

Policy translation: ongoing efforts needed (policy briefs,

Dissemination and policy translation (national/regional)
regular roundtable discussions fora
Old habits versus new habits

FGD in the commercial dairy cattle farm and the village, Yiliang, April 2012
• INDOHUN
• THOHUN
• VOHUN
• MYOHUN

Modified from Hung Nguyen, 2013
Special thanks to the former EcoZD team and its partners
In particular: Jeff Gilbert, Delia Grace, Tongkorn Meeyam

better lives through livestock

ilri.org