

# Practical application of One Health principles to field-based multidisciplinary undergraduate training

*“Learning by doing” OneHealth (OH) / EcoHealth (EH) case studies*

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# Shared experiences from case studies (2008 to date)

## *Postgraduate level doing research*

- **ILRI EcoZD (2007- 2013 ++)**
  - 6 countries in SE Asia (“learning by doing” case studies)
  - Zoonoses and EcoHealth
- **Com Across (2015-2017)**
  - 3 countries (Laos, Cambodia, Thailand)
  - Capacity building on One Health/EcoHealth (KU) & case studies (Laos)
- **Pig risk ILRI Vietnam (2012-2017)**
  - Food safety risks along small holder pig value chains

# Presentation outline

- Challenges towards practical implementation of integrated research
- Case study example
- OH/EH theory versus field work
- Take home messages
- Are we on the right track?

# Challenges towards implementation of OH/EH research

## a. Setting up the OH/EH research team

- Initial contacts made with MOA & MOH due to focus on zoonoses. **Most of actors, partners had doubts on the added value of EH** at the start of the project.
- MOA (**Vets**) & **young** researchers usually **more assessable**
- **Easier** for teams with **previous EH experience** (e.g. Indonesia)
- **More difficult** for teams from countries with more **top-down institutional environment** (e.g. China and South Vietnam)

# Challenges towards implementation of OH/EH research

## b. Identification of a common research topic for case studies

- Often a painful and time consuming process
- Entirely left with teams, only focus on zoonoses was demanded
- Most critical in South Vietnam and China, classical silo thinking team members

Approach: Various consultations and mentoring, sufficient time allocation required

Indonesia: Call for proposal, submitted proposals were evaluated by an independent expert group



# Challenges towards implementation of OH/EH research

## *C. Recognition of the added value of other “non medical expertise” (e.g. social science or socio economic)*

- Teams were led by Vest or Vets with mainly biometric background
- Strong demand for biological sampling (only)
- To work with social scientist was new for most of them

Easier: Indonesia and Thailand, as interdisciplinary collaboration existed already

e.g. CMU Vet Fac (Thailand); or UGM-KKN, CIVAS (Indonesia)

Young research team members more open

More challenging: China, Laos and South Vietnam

Approach: Training (participatory tools, FGD, PE), recognition of the added value when doing it

Involvement of Social scientists



# Other challenges

- Various definitions of Eco Health and One Health
- Lost in translation “equity” or “EcoHealth”
- Limited understanding of EcoHealth (system thinking, equity ect.)
- OH/EH incorporation in the case studies – **reality check**
  - often more VPH with some OH/EH flavor
- Publications
- Policy engagement



# Theory versus field work

## **Case study teams**

- Initial focus on EH case study “learning by doing” approach
- Strong demand for training on EH/OH emerged

Response:

**EcoHealth/One Health Resource Center (EHRC) established**

- At EHRC we started with lecture series on OH/EH
- Teams demanded for supporting field research

**Combination of capacity building and aligned case studies promising approach**





# What worked well & what could we have done better

## What worked well:

- Incorporation of a OH/EH in an ongoing study program
  - VPHCAP, CMU, 5<sup>th</sup> and 6<sup>th</sup> batch students involved
  - Elective course (UGM, Indonesia) & student community service (KKN)
- Short courses on EcoHealth (1-2 weeks)

## What could we have done better:

- Start up training on OH/EH for field teams doing case studies
- Involvement of **social science** - gender perspective
- More flexibility in given research topic:
  - For EcoZD we were limited to focus on zoonotic EID
  - Not attractive for some researchers (e.g. MD or social science)





# EcoHealth case study 1: Yunnan/China



**Ecosystem approaches to the better management of zoonotic emerging infectious diseases in the South East Asia Region**





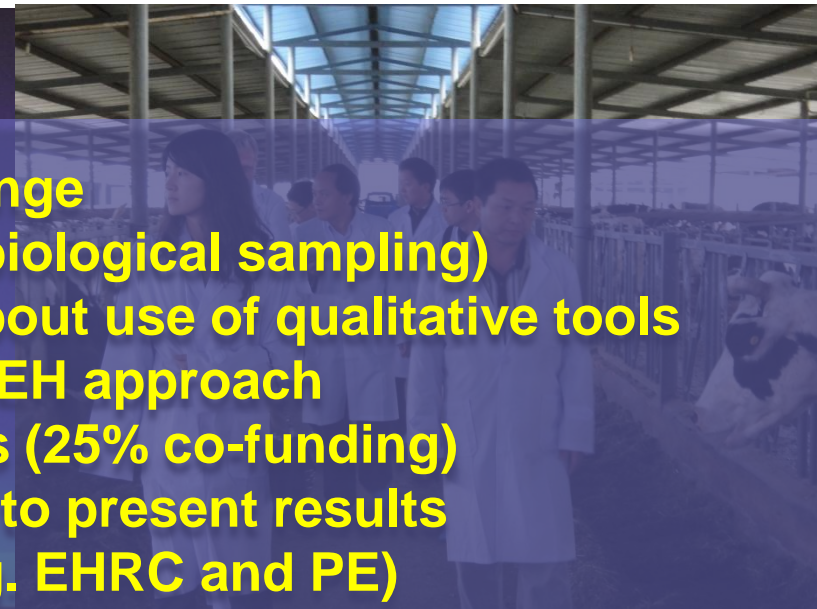
FGD in the commercial dairy cattle farm and the village, Yiliang, April 2012

## 布氏杆菌病国家防控体系

### 1、国内动物疫病监测计划

2010年度，将布氏杆菌病纳入国内动物疫病国家监测计划，该计划

- Identification of research topic a challenge
- Initially very biometric team (focus on biological sampling)
- Team initial sceptical but then exited about use of qualitative tools
- Younger team members more open for EH approach
- Crucial: buying in from local authorities (25% co-funding)
- Incentive: Invited by FAO to Beijing to present results
- Extended networking (e.g. EHRC and PE)



# Take home messages

- **Flexible adaptive/consultative approach** needed
- We allowed **teams to make key research decisions** and supported implementation
- **Allocate sufficient time** to allow change of team operations
- **Two-dimensional capacity-building** requirement
  - Technical (proposal/implementation/methodological)
  - EHRC concept
- ***Learning by doing* aligned with training** on One Health/Eco Health

# Are we on the right track

- How to make it more attractive for non vets
  - Incentives for other groups e.g. social scientist or MD's
- Focus on VPH ?
- Whom to target ?
  - Undergraduate
  - Post graduates/professionals
- Majority of One Health activities in SE Asia are donor funded



- INDOHUN
- THOHUN
- VOHUN
- MYOHUN



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