

# Inter-sectoral collaboration for One Health implementation in Vietnam: training, research and EIDs control polices

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ISOHR, Guangzhou, 23 November 2014



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LIVESTOCK RESEARCH  
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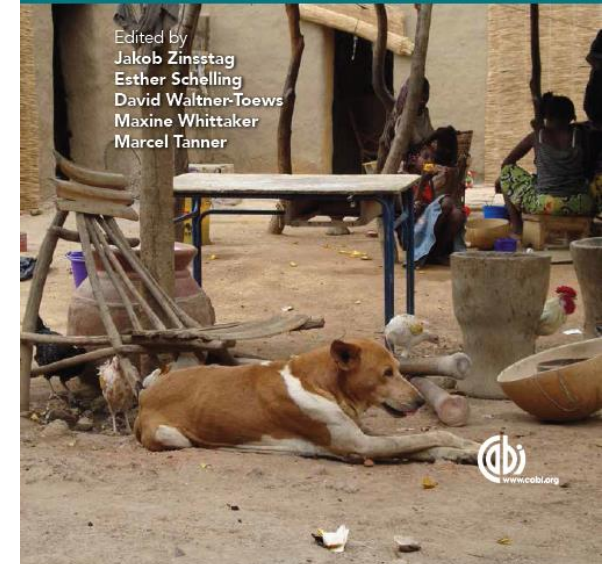
# CENPHER

TRUNG TÂM Y TẾ CÔNG CỘNG VÀ HỆ SINH THÁI  
CENTER FOR PUBLIC HEALTH AND ECOSYSTEM RESEARCH

## One Health

The Theory and Practice  
of Integrated Health  
Approaches

Edited by  
Jakob Zinsstag  
Esther Schelling  
David Waltner-Toews  
Maxine Whittaker  
Marcel Tanner



## Swiss TPH



Swiss Tropical and Public Health Institute  
Schweizerisches Tropen- und Public Health-Institut  
Institut Tropical et de Santé Publique Suisse

Associated Institute of the University of Basel



# Outline

1. One Health and Ecohealth in Vietnam
2. Training and Research
3. Inter-sectoral One Health development
4. Challenges and way forwards

# Ecohealth

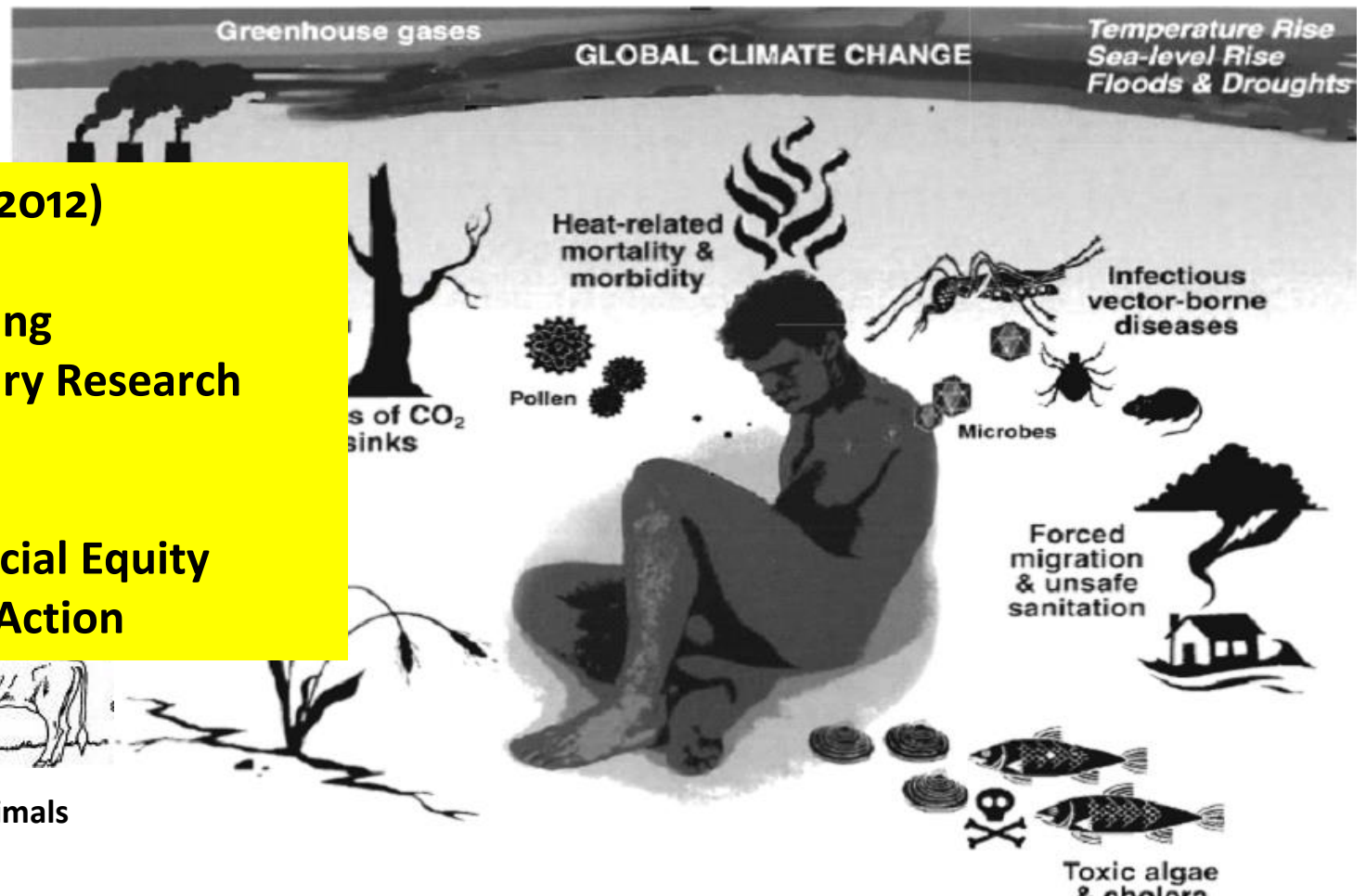
Ecohealth framework assumes human, livestock, wildlife, and environmental health are integrally related

## 6 principles (IDRC, 2012)

1. Systems Thinking
2. Transdisciplinary Research
3. Participation
4. Sustainability
5. Gender and Social Equity
6. Knowledge to Action



Sick animals



# One Health



The collaborative efforts of multiple disciplines working locally, nationally and globally to attain optimal health for people, animal and our environment

(FAO, OIE, WHO, WB...)

<http://www.cdc.gov/onehealth>

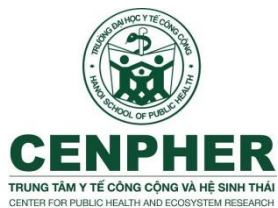
## From theoretical to operational definition:

“One Health” can be defined as the ***added value*** in terms of ***lives*** of animals and humans ***saved, financial savings and improved ecosystem services*** from a ***closer cooperation of human and animal health*** as compared to single sector approaches (Zinsstag et al., 2012)

# Mapping of One Health issues, stakeholders and projects in Vietnam

**More than 40 national and regional One Health stakeholders** at the central level, including Government of Viet Nam agencies, civic organizations and associations and universities who are active in Vietnam potentially involve in OH

- “ **26 internationally funded projects** related to One Health have been identified
- “ In which **32 national agencies** working at the national and regional levels and **20 international agencies** are **implementing projects**
- “ **11 donors** providing funding support to One Health



# One Health training in Vietnam

**One Health:** Vietnam One Health University Network (VOHUN)

- Elective module

**Ecohealth:** Ecohealth Field Building Leadership Initiative (FBLI)

- Short course
- Leadership
- Degree training

**Professional training**

- Risk assessment: food safety, EIDs
- FETP: Field Epidemiology Training Program
- AVET : Applied Veterinary Epidemiology Training ...



# VOHUN (Vietnam One Health University Network)



Bac Giang Agriculture and Forestry University

Thai Nguyen University:  
 " College of Medicine  
 " College of Agriculture & Forestry

Hanoi (Network Secretariat):  
 " Hanoi School of Public Health  
 " Hanoi Medical University  
 " Hanoi University of Agriculture

Hai Phong Medical University

Hue University:  
 " College of Medicine and Pharmacy  
 " College of Agriculture and Forestry

Thai Binh University of Medicine

Dak Lak:  
 Tay Nguyen University, Faculty of Medicine and Pharmacy

Nam Dinh University of Nursing

Hochiminh City:  
 " HCMC Medicine and Pharmacy University;  
 " HCMC University of Agriculture & Forestry

Vinh Medical University

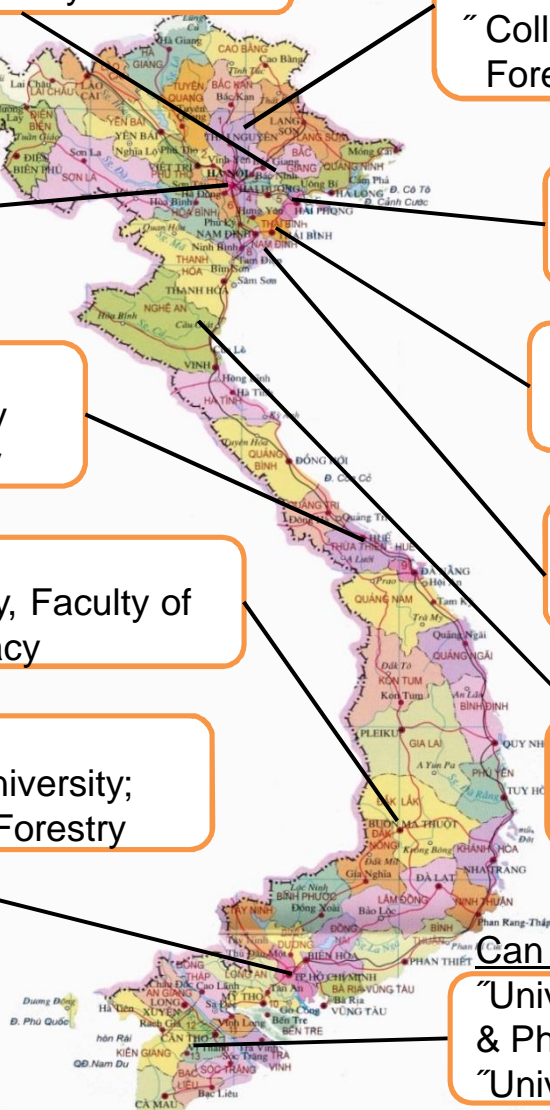
**17 UNIVERSITIES/SCHOOLS**

Can Tho  
 "University of Medicine & Pharmacy  
 "University of agriculture

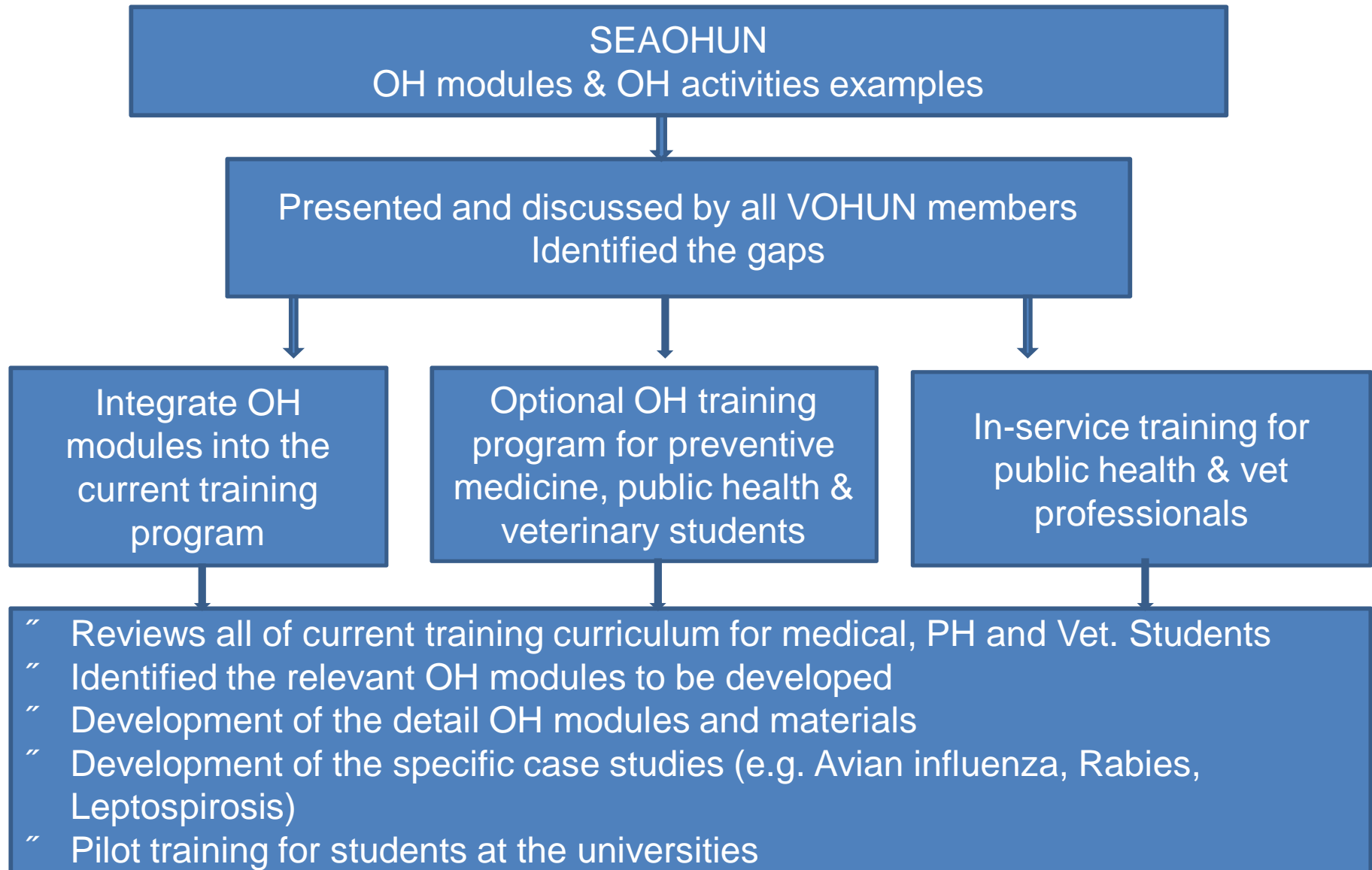


**Emerging Pandemic Threats Program**

PREDICT • RESPOND • PREVENT • IDENTIFY



# OH training module development



# OH training module development

## OH core competency modules

1. Collaboration and Partnership
2. Communication and Informatics
3. Culture, Beliefs, Values and Ethics
4. Leadership
5. Management
6. Policy, Advocacy and Regulation
7. Systems Thinking

## OH technical modules

1. One Health Concepts and Knowledge
2. Fundamentals of Infectious Disease
3. Infectious Disease Management
4. Epidemiology and Risk Analysis
5. Public Health
6. Ecosystem Health
7. Behavior Development
8. One Health Economics



# Elective OH & Ecohealth Module for Preventive Medicine & Public Health Students

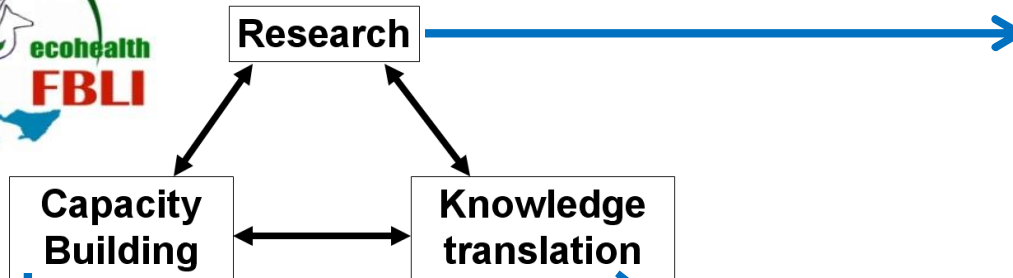
- “ Object: preventive medicine & public health students
- “ Subject: elective module
- “ Duration: 60 hours (3 credits)
- “ Starting time: 2014-2015

**Objectives:** At the end of module students could:

- “ Present basic concepts of One Health & Ecohealth
- “ Analysis issues related to human health, animal health and environmental health in the ecosystem context
- “ Present the relationship between One Health / Ecohealth and Preventive Medicine and Public Health
- “ Identify the specific problems related to a One Health problem.
- “ Recommend an interdisciplinary solutions to solve the specific health problems (human, animal and environment).

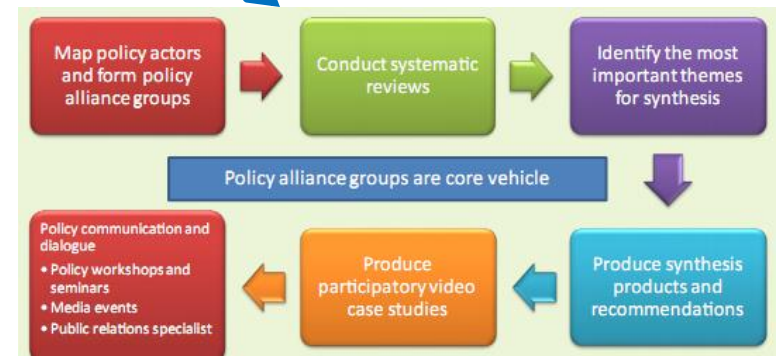
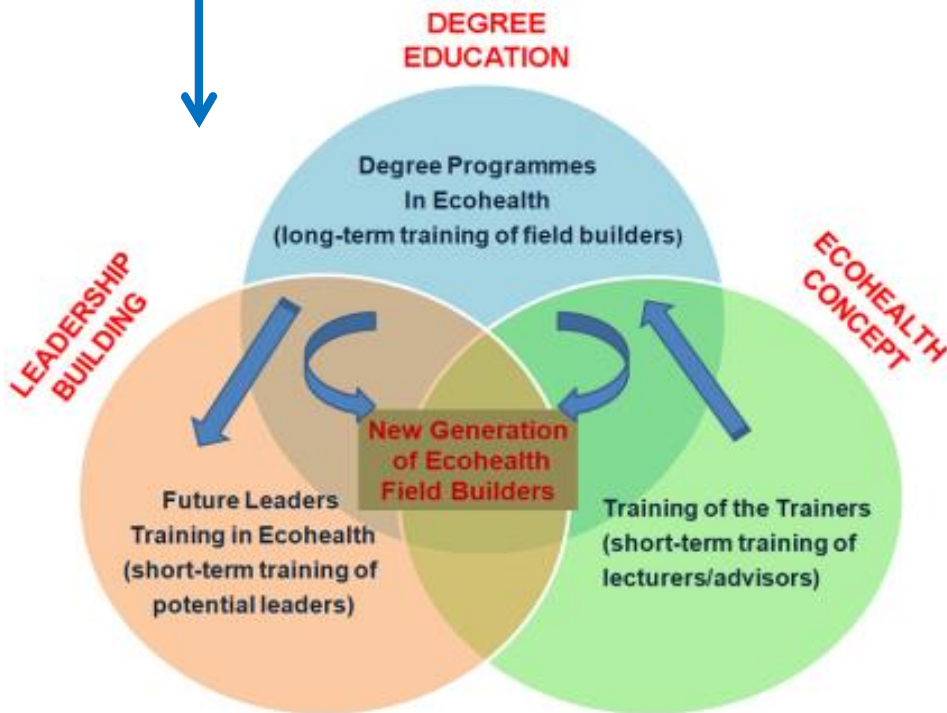


# EcoHealth Field Building Leadership Initiative in SE Asia (FBLI)



“Site based- concept”

- ÉYuanmou (CN)
- ÉHanam (VN)
- ÉChachoengsao (TH)
- ÉPangalengen , West Java (ID)



# DEGREE EDUCATION



MAHIDOL UNIVERSITY  
*Since 1888*

Degree Programmes  
In Eco-Health

(2-3-year training of field builders)

LEADERSHIP  
BUILDING

Future Leadership  
Training in Eco-Health  
(4-day training of  
potential leaders)

New Generation  
of Eco-Health  
Field Builders

ECOHEALTH  
CONCEPT

Certificate Training or  
Training of the Trainers  
(1-week training of  
lecturers/advisors/etc.)



VETERINARIANS  
WITHOUT BORDERS  
VÉTÉRINAIRES  
SANS FRONTIÈRES

# Multi-Disciplinary Responsible Units

Mahidol University (Thailand)



MAHIDOL UNIVERSITY

*Since 1888*

1. Faculty of Graduate Studies
2. Faculty of Environmental and Resource Studies
3. Faculty of Public Health
4. Faculty of Science
5. Faculty of Social Science and Humanities
6. Faculty of Tropical Medicine
7. Faculty of Veterinary Science

# Curriculum Structure

## For Ph.D. candidates holding a Bachelor's degree

Required courses, not less than	12	credits
Elective courses, not less than	12	credits
Dissertation	48	credits
<b>Total</b>	<b>72</b>	<b>credits</b>

## For Ph.D. candidates holding a Master's degree or Master students holding a Bachelor's degree

Required courses, not less than	11	credits
Elective courses, not less than	3	credits
Dissertation	36	credits
<b>Total</b>	<b>50</b>	<b>credits</b>



# Required Courses

SCID 505 Systems Ecology and Disease Emergence	3 (3-0)
SCID 5XX Methodologies in Eco-health Research	3 (0-6)
PHEP602 Principles of Epidemiology	3 (3-0)
SCID 6XX Eco-health Seminar I - III	3 credits

# Elective Courses

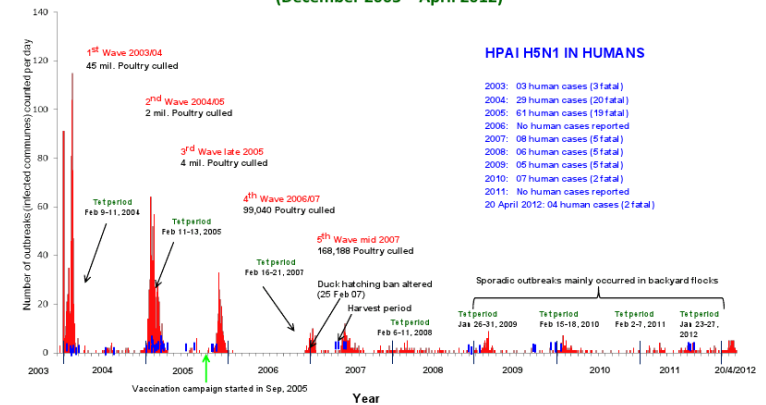
ENIE 501 Basic Principles of Environmental Science	3 (3-0)
ENIE 534 Energy and Resource Efficiency	3(3-0-6)
ENIE 531 Environmental Planning and Assessment	3(3-0-6)
GRID 612 Cell and Molecular Biology	3 (3-0)
GRID 617 Bioinformatics	2 (1-2)
PHEP603 Epidemiological Studies in Infectious diseases	3 (3-0)
PHMI1602 Ecology and Epidemiology of Infectious Diseases	3 (3-0)
PHMI1621 Global Infectious Diseases Prevention and Control	3 (3-0)
SCBI 505 Population and Community Ecology	3 (2-3-5)
SCBI 518 Environmental Aquatic Toxicology	3 (2-3-5)
SCBI 524 Environmental Biology and Management	3 (3-0-6)
SCBI 530 Conservation Biology	3 (3-0-6)
SCBI 532 Basic Principles of Sociobiology	3 (3-0-6)
SCBI 539 Techniques in Ecology and Conservation	2 (0-6-3)
SCBI 540 Behavioral Ecology	3 (2-3-5)
SCBI 546 Population and Ecological Genetics	3 (3-0-6)
SCBI 577 Host-Microbe Interactions	3 (3-0-6)
SCBI 578 Techniques in Animal Cell and Tissue Culture	2 (0-6-3)
SCBI 579 Research Techniques in Biological Sciences	2 (0-6-3)

# One Health Research

- AI, AMR, zoonoses...
- Still very disciplinary



**A TIMELINE OF HPAI H5N1 IN VIETNAM**  
(December 2003 – April 2012)



Data sources: DAH & WHO, 2012  
Prepared by Nguyen Van Lang, Epi.Dv, DAH

- Limited research & need more One Health case studies on the ground
- More inter/trans-disciplinary

# 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: Connecting Issues and Finding Interventions for Small-Scale Farming in a Southeast Asian Context



É Yuanmou (CN)


É Hanam (VN)

É Chachoengsao (TH)

É Pangalengen , West Java (ID)

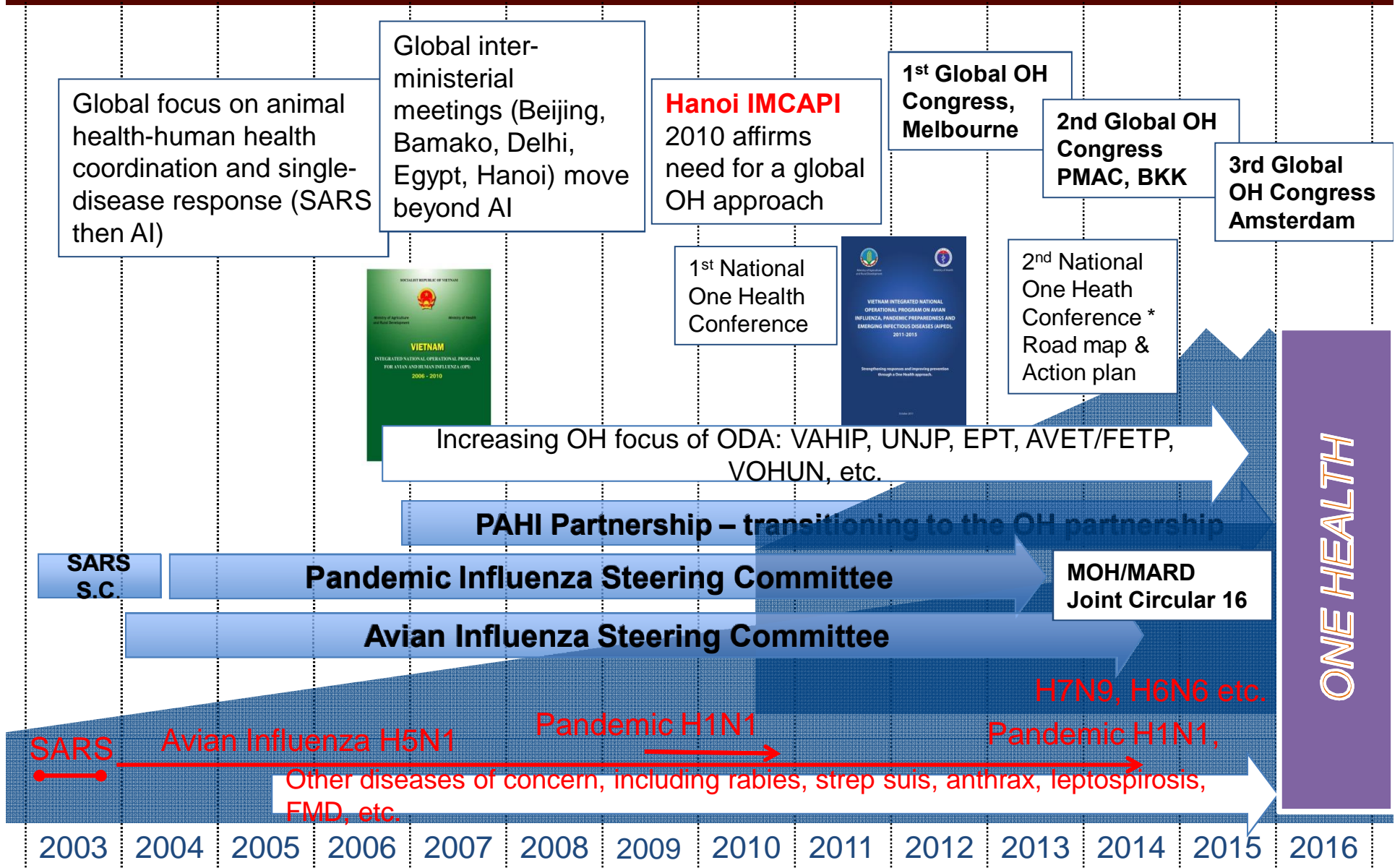
“Site based- concept”



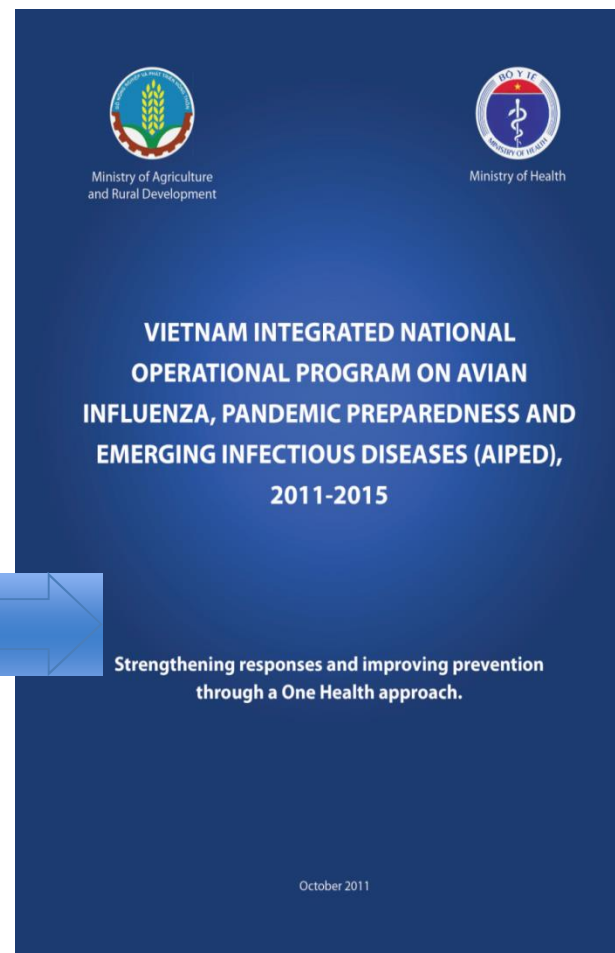
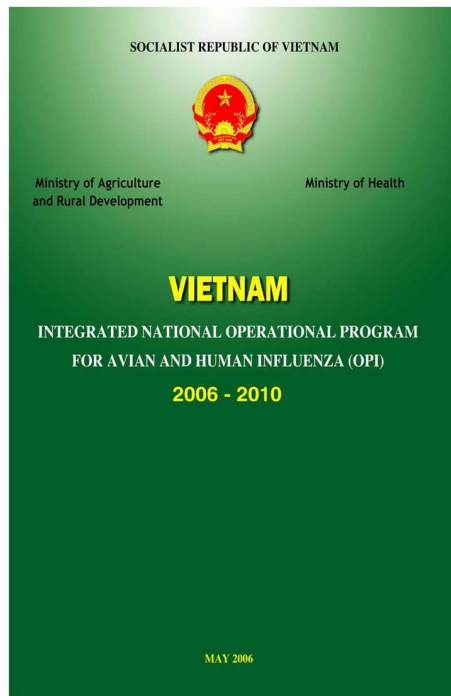


Inter-sectoral collaboration  
And  
EID control policies

# Moving to a One Health approach in Viet Nam



# Building on Avian Influenza efforts for a One Health approach to EIDs



- “ Focus on HPAI, human cases of Influenza A (H5N1), maintaining preparedness for a potential (influenza) pandemic & broaden to other diseases
- “ AIPED made a clear commitment to moving to a One Health approach in Vietnam, building on and sustaining the national response to avian influenza
- “ **AIPED identified 15 key elements for consideration in the adoption of a One Health approach during the period 2011-2015**
- “ Mainstreaming & linking to related areas for long-term sustainability

# Moving towards a One Health approach

MARD-MOH joint inter-ministerial circular (16) on coordinated prevention and control of zoonotic diseases (May 2013)

Establishment of new DAH division on veterinary public health as well as the Emergency Operations Center located in GDPM office

OH is in the national strategies

Emerging Pandemic Threats activities, VAHIP, SEA-EU-NET and associated donor commitment

Recognition of the need to include wildlife in animal health efforts and zoonotic risks

One Health Communication Network for journalists



# MARD-MOH joint inter-ministerial circular 16 on coordinated prevention and control of zoonotic diseases (May 2013)

## Jointly identified 5 priority diseases

- Avian influenza A (H5N1).
- Rabies
- Streptococcus suis
- Anthrax
- Leptospirosis

**BỘ Y TẾ - BỘ NÔNG NGHIỆP  
VÀ PHÁT TRIỂN NÔNG THÔN**  
Số: 16/2013/TTLT-BYT-BNN&PTNT

**CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM**  
Độc lập - Tự do - Hạnh phúc  
Hà Nội, ngày 27 tháng 5 năm 2013

**THÔNG TƯ LIÊN TỊCH**  
Hướng dẫn phối hợp phòng, chống bệnh lây truyền  
từ động vật sang người

## Mode of operation

- Joint surveillance
- Outbreak investigation
- Communication on prevention and control
- Training and research

# Challenges of One Health/ Ecohealth

- “ Institutional challenges: acceptance, policy engagement
- “ Capacity building: One Health workforce
- “ Incentives: how to share credits, added values of One Health
- “ Deeper coordination between sectors on human and animal (and wildlife) health and the environmental agencies
- “ Improving the translation of evidence and research into policy

# Summary and conclusion

## *One Health in Vietnam*

- Great attention and support from different level
- Training in good way, but limited research
- Inter-sectoral collaboration and policies: good enabling environment

## *Challenges and ways forward*

- Capacity building: One Health workforce
- Deeper coordination of sectors: further (re)-organization
- Resources



**National  
One Health  
partnership**