

EcoHealth in Action in Southeast Asia: Results and experiences from six transdisciplinary research teams and two EcoHealth Resource Centres

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Africa 2013
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International Development Research Centre
Centre de recherches pour le développement international

Conférence internationale **Africa 2013** sur l' Ecosanté

CSRS
Centre Suisse de Recherches
Scientifiques en Côte d'Ivoire



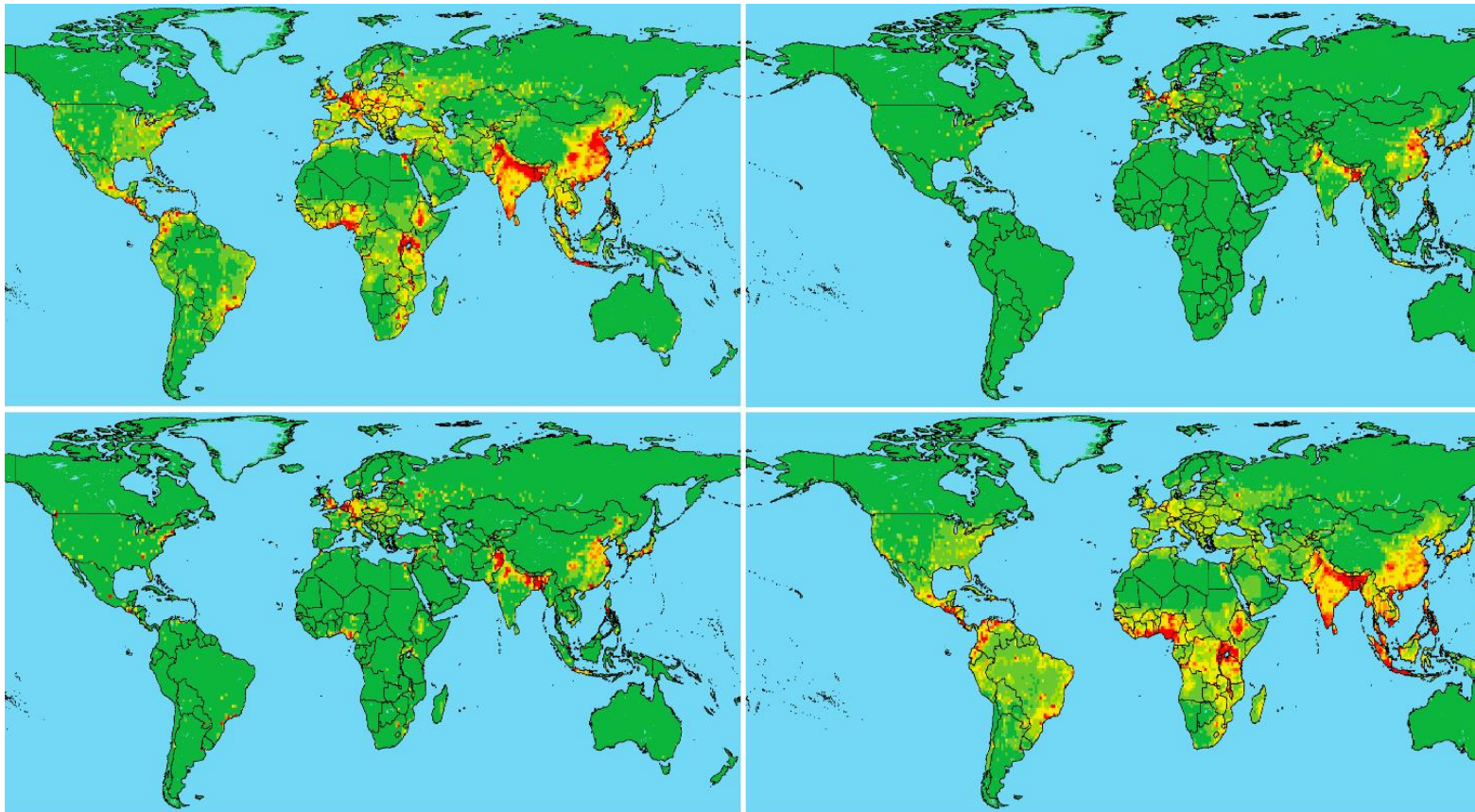
Outline of talk



- Context of SE Asia
- EcoZD project and approach
- Challenges
- Solutions
- Research by country team
- EcoHealth Resource Centres: Need for sustainable local training resource
- Measuring *impact*



SE Asia Context: Emergence of Zoonoses



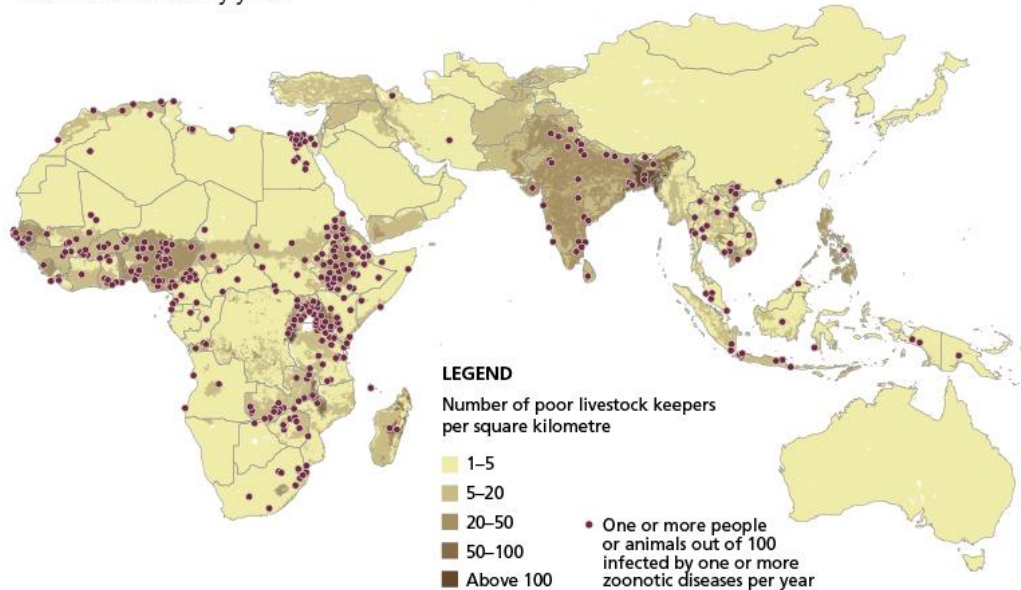
Jones et al Nature 2008

SE Asia Context: Burden of Zoonoses



Greatest Burden of Zoonoses Falls on One Billion Poor Livestock Keepers

An ILRI study shows that zoonotic diseases are major obstacles in pathways out of poverty for one billion poor livestock keepers. The diseases mapped cause 2.3 billion human illnesses and 1.7 million human deaths a year. In poor countries, the diseases also infect more than one in seven livestock every year.



Map by ILRI, from original published in an ILRI report to DFID: *Mapping of Poverty and Likely Zoonoses Hotspots*, 2012.

<http://cgspace.cgiar.org/handle/10568/21161>

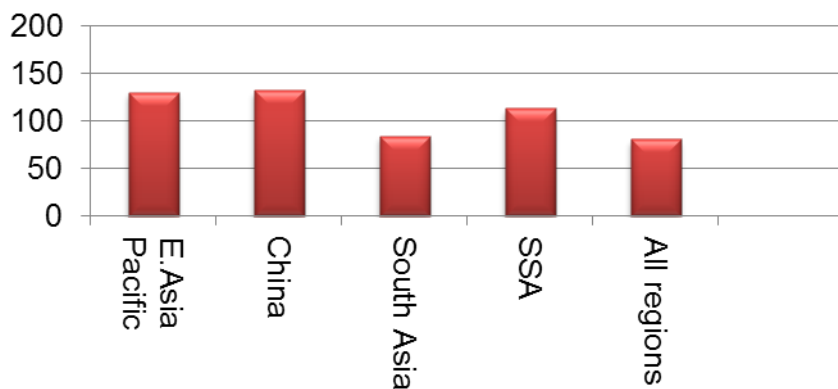


SE Asia Context: % growth in demand for livestock products : 2000 - 2030

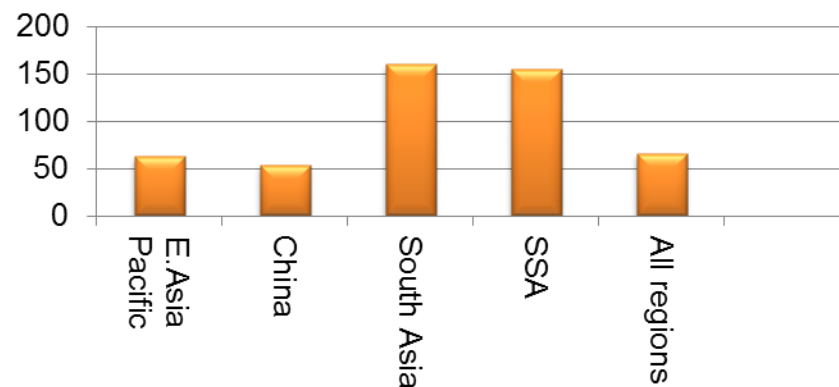


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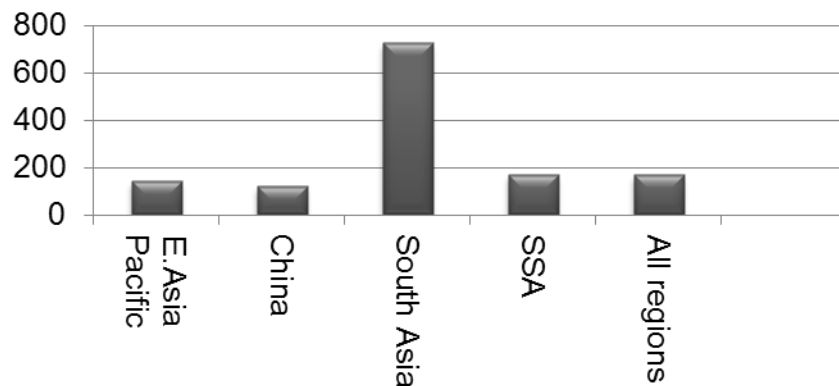
Beef



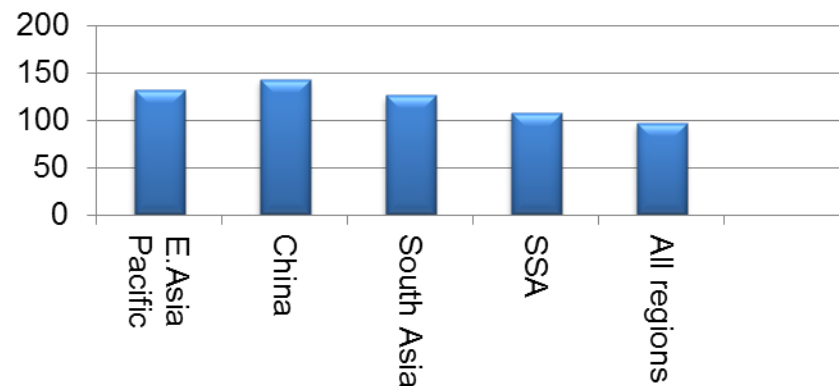
Pork



Poultry



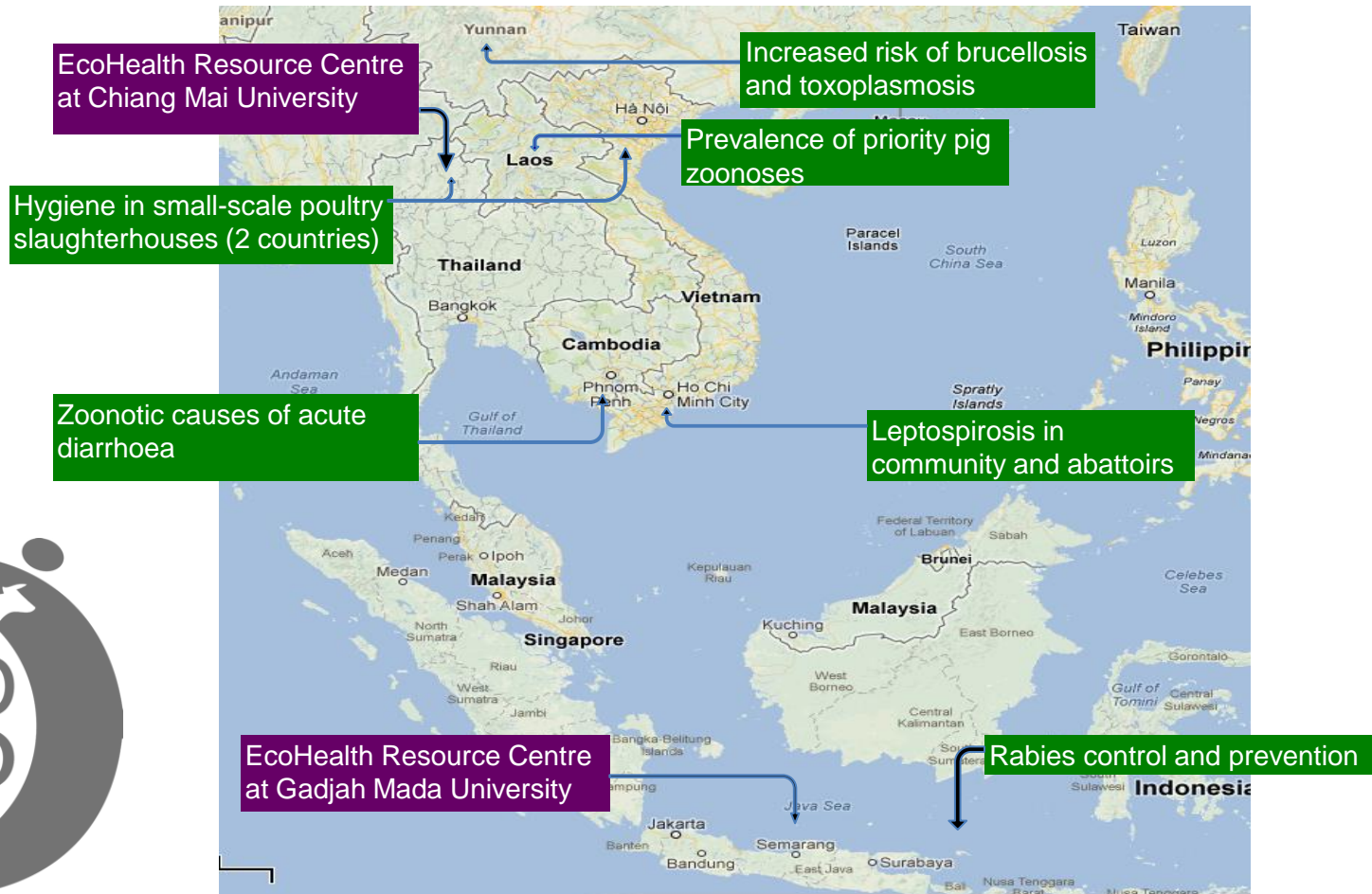
Milk



Ecosystem Approaches to the Better Management of Zoonotic Emerging Infectious Diseases in SE Asia



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Step-by-Step



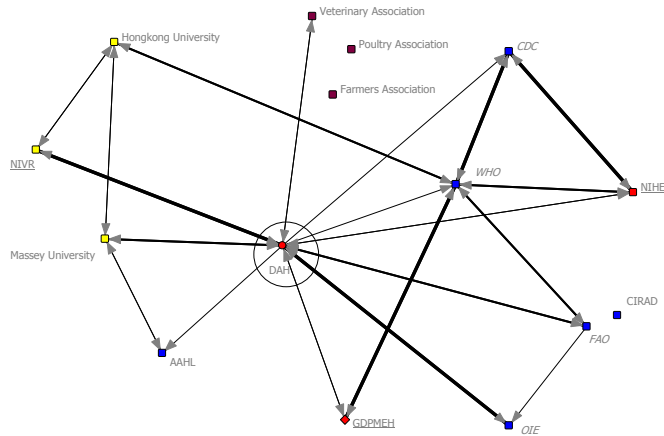
- Identifying individuals/institutions
- Choosing/conceptualise a research topic (priority zoonoses, EH approach, all team members could contribute)
- Training needs: EcoHealth training; proposal write-shop; data analysis; M&E; PRA (2D)
- Research contracts, work-plans & budgets
- Field Work
- Data analysis
- Dissemination to communities
- Policy Engagement
- Peer-reviewed journals



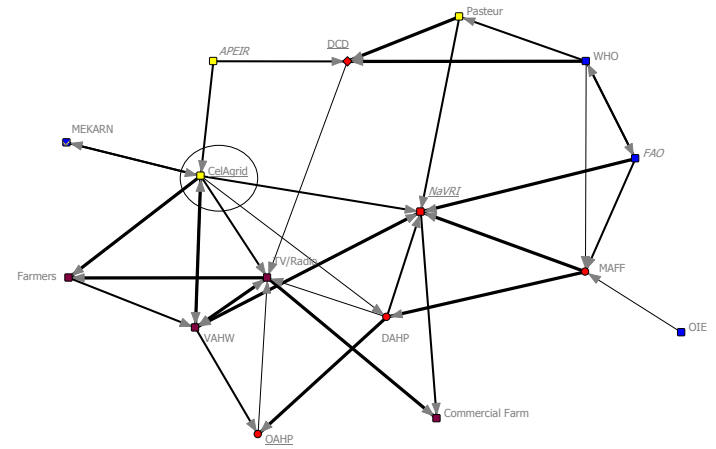
Scoping Study



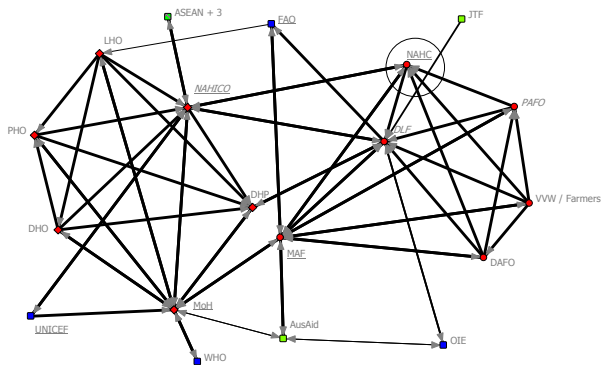
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Info flows: DAH, VietNam



Info flows: CelAgrid, Cambodia



Info flows: NAHC, LaoPDR

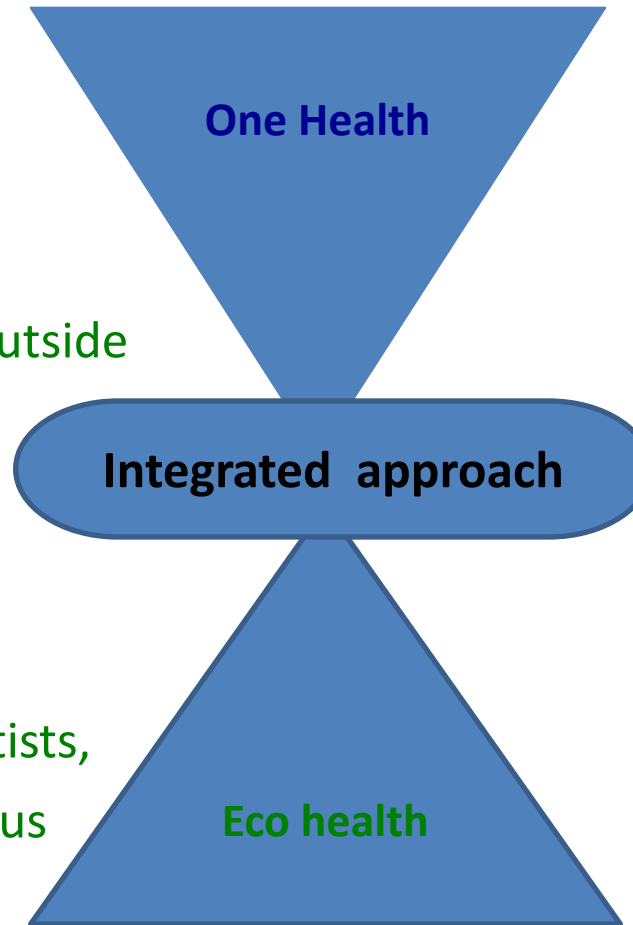
Grace et al; EcoHealth journal 2010



Similar Vision

Eco Health

Complexity focus
System thinking
Academic
Pioneered by IDRC & outside
Traditional 'health'
'Bottom Up'
Vets, Medics,
epidemiologists,
ecologists, social scientists,
philosophers, indigenous
perspectives, etc.



One Health

Schwabe's One Medicine
Strategy/operational
UN/WB
'Top down'

Communicable Diseases
More quantitative

Veterinarians, medics, some
wildlife & social science

Adapted from Karen Morison, University of Guelph



The 'Högertrafikomläggningen' period



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Högertrafikomläggningen, the day where traffic in Sweden switched from the left to the right side of the road 1967



Challenges & Solutions



Challenges

- Accepting novel 'EcoHealth' paradigm and fostering trans-disciplinary collaboration (some countries rigid mechanism including financial mechanisms)
- Limited capacity within disciplines eg proposal writing, epidemiology, dissemination (journal articles, policy, IEC)
- Competition with other projects/initiatives/'paradigm (One Health)
- Sustainability of EcoHealth (One Health) approach

Solutions

5 year project cycle assisted, *learning by doing* approach gives first-hand experience using country priorities not donor ones
Plans for all countries to disseminate approach and findings to research community, policy makers and communities

Mentoring by ILRI researchers & technical experts provided real-time support according to needs; EcoHealth(One Health) Resource Centres for regional training and advocacy

Teams/members were encouraged to be part of other initiatives; some team members drafted & submitted multi-country proposal

Ownership by teams: they chose the priority and conducted the research

Further funding cycle(s) sought: 10+ years to institutionalise



Zoonotic diarrhoea in rural communities

- Coordination by NGO (CelAgrid)
- Use of participatory tools (MoH)
- Combined fieldwork



Yunnan - China



Brucellosis

- Emerging disease in southern China (versus highly endemic in North)
- Coordination by YAGAS
- Novel use of participatory tools
- Combined dissemination at national level



Toxoplasmosis



Indonesia



Rabies in Bali

- Ecological focus:
 - Behaviour
 - Demography
 - Fecundity
 - Socio-cultural
- Village Cadre training
- Education & awareness



Priority Pig Zoonoses

- 5 zoonoses: HEV JEV Erysipelas; Taenia/cysticercosis; trichinellosis
- 3 non-zoonoses: FMD PRRS CSF
- Development of existing MoH/MAF partnership
- Serum bank: Brucellosis; coxiella



Joint Thai-Vietnamese team



Small-scale Poultry slaughterhouse hygiene

- Engage community
- Discuss cost-benefits
- Policy engagement at central level (DLD)



Viet Nam

Leptospirosis – pigs and people

- First joint MoH/DAH activity with joint fieldwork
- Participatory tools applied
- Behaviour change in the researchers!

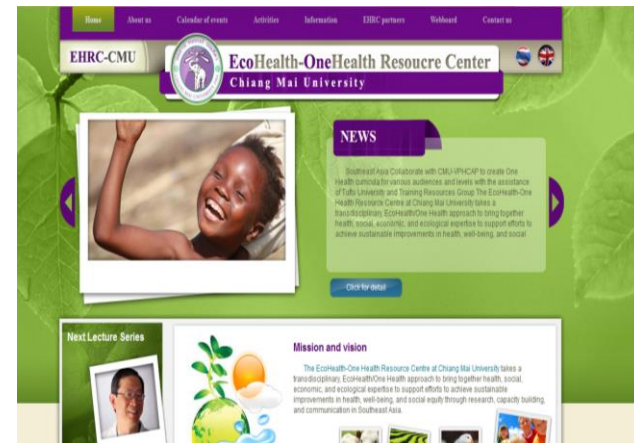


EcoHealth Resource Centres



Chiang Mai & Gadjah Mada Universities

- Academic environment
 - Aim : under- & post- grad
- Multi-faculty training
- Trainers for external courses
- Multi-faculty research
- Needs capacity building /ToT approach
- EH manuals
- Future OH/EH resource for the SE Asia region



Measuring Learning by Doing



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Combine participatory self-assessment of Outcome Mapping & assessment of research project management for adoption of EcoHealth principles (EcoHealth Uptake)

Outcome Mapping

- Construct team's intentional outreach & outcomes
- Spur organizational learning via reflection on team's outreach experiences
- Record, analyze, & transform team's learning for practice/policy engagement

EcoHealth Uptake

- Identify management factors for successful team adoption of EcoHealth
- Harness team's adoption of management factors for EcoHealth capacity & institution building
- Observe & record adoption process

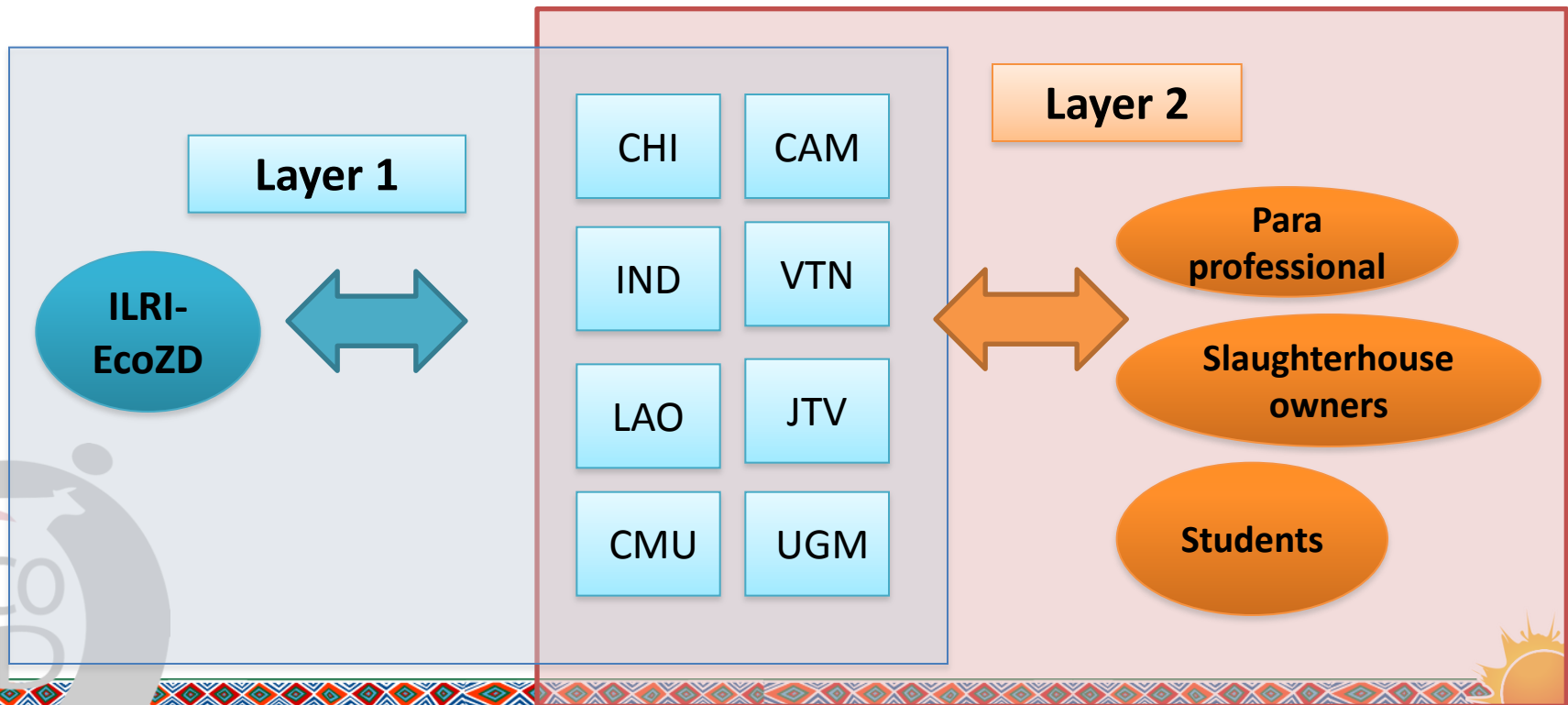


The Process of Measuring Outcomes

A Two-layer process following Outcome Mapping methodology

Layer 1 measures knowledge, attitude, practices (KAP) changes of country teams

Layer 2 measures KAP changes of targeted stakeholders



Assessing Outcomes



Layer 1 & Layer 2 Progress Indicators

Key themes of Progress Indicators:

Layer 1: EcoZD – Teams

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

Layer 2: Teams – Boundary Partners

- BPs' improved understanding/ specific knowledge.
- BPs' changes in practices.
- BPs' communication of particular knowledge/ practices to communities.





Factors for Successful Uptake of EcoHealth by a Research Team

Managing knowledge exchange

for transdisciplinary collaboration/learning & participatory decision-making

Managing use of social science

findings + for systems thinking via synthetic interpretation of research team's learning from outreach/engagement

Managing research administration

time & resource allocation for experimenting with EcoHealth innovations

Managing organizational culture & host institute norms

for institutionalizing integrative approach - re-tooling structures & habits to integrate EcoHealth principles

Managing expectations

with for potential impacts - matching research project objectives intentional outcomes to mitigate costs and capture benefits + added value of EcoHealth



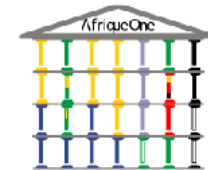
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IDRC  **CRDI** **wellcome**trust



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ECOEALTH