Perspectives on One-Health / EcoHealth

Jeffrey Gilbert MD DVM
EcoZD* coordinator

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

- One Health
- EcoHealth
- OneHealth versus EcoHealth
- Personal reflections from China 2003-05
- ILRI project: Ecosystem Approaches to the Better Management of Zoonotic Emerging Infectious Diseases in SE Asia (EcoZD)
Health – who is responsible

Animal Health

DVMs

Human Health

MDs
Animal Health

Human Health

Zoonoses; food safety; VPH
Emerging Disease Threats: SARS... INFLUENZA...

Interaction (2)

Animal Health

Human Health

Zoonoses; food safety; VPH
Emerging Disease Threats

Neglected Tropical Diseases (rabies, leptospirosis, brucellosis ...)

Animal Health

Human Health

Zoonoses; **food safety**; VPH
Interaction (4)

Animal Health

Human Health

Ecosystem
• We must appreciate that we are in an interconnected world
• Note the ‘overlap’ of AnH/HuH – represents less ‘space’ compared to that in individual animal and human health domains
• For broader consideration of health I believe DVMs better placed – with a ‘head start’ from undergraduate level
• Definition of ‘health’
• One Health & Ecosystem Health (EcoHealth): neither have ‘strict’ standardised definitions; various interpretations & language issues
• 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/)
• Ecosystem approaches to public health issues acknowledge the complex, systemic nature of public health and environmental issues, and the inadequacy of conventional methodologies for dealing with them. David Walter-Toews, University of Guelph

• 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.
Inter-connectivity of EcoHealth

Figure 2. Human well-being in Yubdo-Lagabato, Ethiopia, is closely linked to the condition of agroecological system (adapted from ILRI 2001).
Inter-connectivity of EcoHealth

From Wilcox & Colwell, EcoHealth journal 2005
• Definitions open to debate: range from quite rigid to very flexible; issues of branding
• **One-Health** – biomedical focus: human + animal + wildlife;
• **One-Health**: focus on communicable diseases
• **One-Health**: operational / strategy
• **EcoHealth**: environment & socio-economic aspects – pioneered outside ‘traditional’ health
• **EcoHealth**: communicable & non-communicable diseases (dioxin; heavy metal toxicity)
• **Eco-Health**: academic / research / complexity
Eco Health
Complexity focus
System thinking
Pioneered by IDRC

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

One Health
Schwabe’s One Medicine
One world/One Medicine
More quantitative
Veterinarians, medics, some ecologists
Currently institutionalized
Rather ‘Top down’

Integrated approach

Adapted from Karen Morison, University of Guelph
EcoHealth Resources

in_focus
Health
AN ECOSYSTEM APPROACH
by Jean Lebel
Foreword by Pierre Dansereau

THE ISSUE
CASE STUDIES
LESSONS AND RECOMMENDATIONS
Personal Reflections: China 2003-05
A trans-disciplinary research approach (6 countries) has many advantages over a series of individual research projects according to discipline, but there are significant hurdles to be overcome in order to affirm an 'added value'.

**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 to APEIR
- Ownership by teams: they chose the priority and conducted the research
- Further funding cycle(s) essential: 10+ years to institutionalise
Personal Reflections: Högertrafikomläggningen

Högertrafikomläggningen, the day where traffic in Sweden switched from the left to the right side of the road 1967
For more information about the EcoZD project, please visit:

www.ilri.org/ecozd
http://ecozd.wikispaces.com/

www.ilriasia.wordpress.com/tag/ecozd

Email: J.Gilbert@cgiar.org for OH-EH resources