

**Yes, we can move research results into
policy!**

Lessons learned from ecohealth research

Dominique Charron, DVM PhD
Program Leader, Ecosystems and Human Health, IDRC

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A faint, light blue world map is centered in the background of the slide, showing the outlines of continents and oceans.

Ecohealth, Global Health, One Health

We are seeking lasting change in order to
protect and improve health and
sustainability for all

An ecosystem approach to health

An iterative process of inquiry that uses:

- Systems approach: linkages between social, economic, ecological systems
- Transdisciplinarity – integrating across science, society and traditions
- Participation – community, agencies, decision-makers

And aims for:

- Environmental and social sustainability
- Social and gender equity
- Evidence-based action and change

Chagas Disease Prevention and Control, Guatemala

Agent: *Trypanosoma cruzi*

Burden - 10 million cases in LA

In Central America:

- Deforestation removing natural habitat for vector *Triatoma dimidiata*
- Adobe house walls harbour the vector
- Insecticide spraying ineffective due to re-infestation
- Local people do not recognize or prioritize a Chagas problem



Chagas Disease Prevention and Control, Guatemala

Innovation based on local knowledge plus science, context specificity, sustainability, and cost-effectiveness

Package of interventions, including hygiene, livestock management, income strategies, community health education



Work of C Monroy, et al, Laboratory of Applied Entomology, University San Carlos, Guatemala (IDRC, BMGF, and other donors)

RESULTS:

- lasts for at least 5 years, fraction of cost of spraying
- No house re-infestation by *T. dimidiata*
- Change in vector feeding preference to chickens (dead-end host)



POLICY CHANGE: YES, but why?

- Existing programs (national and regional Chagas control)
- Strong science, civil society buy-in, local program support
- Cost-effectiveness data
- Excellent communication and advocacy

Malaria Control & Intermittent Rice Irrigation, Peru

Source : Proyecto Vigía (MINSA Peru-USAID)

Since 2002, more malaria in irrigated rice cultivation areas

2002-07 : Pilot testing of intermittent irrigation



New Policy: Rice grown within 500 m of villages must use intermittent rice irrigation

Implementation failures, community resistance. WHY?

Malaria Control & Intermittent Rice Irrigation, Peru

- Fear of losing access to water, when needed
- Agrochemical marketing
- Ineffective agricultural extension and lack of Ministry initiative
- Public health policy forced onto agriculture sector , rather than jointly developed



Research led by Peru Min. Health (environmental health), National Agriculture Research Institute, and others with IDRC, Gates Foundation & USAID

Malaria Control & Intermittent Rice Irrigation, Peru

APPROACH - participatory field trials with farmer organizations, local extension, vector control, public health and ministry

RESULTS:

- Optimized to 3 x 8-day dry periods during season
- 87% reduction in mosquito larvae
- reduction in water and pesticide use, increase in yields
- Savings 170-240 USD per ha

POLICY CHANGE? Existing regional policy refined, implemented; nationalized

Other Examples

Reforming the meat sector in Nepal:

- Hydatid disease, caste, urban ecosystem health in Kathmandu

Control Measures and socio-economic impacts of Avian Influenza in the Backyard sector

- Asian Partnership for Emerging Infectious Disease Research

Land-use change and health in the Himalaya

- International Centre for Integrated Mountain Development

Research to Policy Challenges

Research is arguably a minor factor in policy process

Timeline of research is often longer than that of policy

Nature of institutions? Democratic and responsible?
Corruption? Mandate and priorities?

Decision-making process: how important is evidence? Trust in national research vs international research? Other influences, including investors, donors?

Research to policy: what works?

Link local “system of action” to formal “framework of action”

Be locally relevant: Involve stakeholders in design and direction of research

Pay attention to policy priorities and sensitivities – synergize with programs on the ground

Be opportunistic

Communicate in policy relevant terms

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