



**មជ្ឈមណ្ឌលអភិវឌ្ឍន៍កសិកម្ម និង កសិកម្ម**  
**Centre for Livestock & Agriculture Development**  
 No. 88, Street 88, Sangkat Chreav Chhn, Khor Khleav Svay, Phnom Penh, Cambodia  
 Tel: (855) 23 88 88 88  
 Fax: (855) 23 88 88 88  
 Email: info@colastia.org.kh  
 Website: www.colastia.org.kh

Center for Livestock and Agricultural Development, Cambodia



Asian Partnership on Avian Influenza Research (APAIR)



International Development Research Centre, Canada (IDRC)

**CHARACTERISTIC AND DYNAMICS OF BACKYARD POULTRY RAISING SYSTEMS IN FIVE ASIAN COUNTRIES IN RELATION TO THE REDUCTION AND MANAGEMENT OF AVIAN INFLUENZA RISK**

**Backyarders Inception Workshop Report**



Prepared by D.X.Tung  
 APAIR Regional Coordinating Office  
**Phnom Penh, Cambodia, September 6-9, 2007**

**Report**  
**Backyarders Inception Workshop, Phnom Penh, Cambodia**  
**September 6-9, 2007**

**1. Introduction**

The Backyard Chicken Group Inception workshop was hosted by the Centre for Livestock and Agriculture Development in Cambodia and held at the Himawari Hotel, Phnom Penh, Cambodia from 7-8 September 2007.

The workshop was organized according to the approved research proposal with the aims to provide a forum for the key national team members to allow them to present their field research methodologies (site selection criteria, methods and tools for getting field information) in order to harmonize methodologies among the national teams. In addition, the workshop was intended to provide an opportunity for researchers to learn new knowledge of the Ecohealth approach, Q methods, and other field investigation methods with their application to the backyard chicken research project as well as to share their experiences.

The workshop was attended by 18 participants from five APAIR member countries (Cambodia, China, Indonesia, Thailand, and Vietnam). In addition, two speakers from Thailand jointed to brief Q Methods and main data collection methods to the workshop participants.

The workshop report is structured into the following sections: section 2 summarizes workshop content. All appendices are attached in the final section, in which full workshop agenda, training materials provided by two key speakers, and a list of participants can be found in Annex 1, 2, 3, 4 and 5 respectively.

**I. Field visit (6 September 2007)**

Six chicken farms were visited by the workshop participants. These model farms demonstrated fencing systems and earth worms for chickens in 2 villages in Kandal province, where CelAgrid has engaged its development activities since 2004.

**II. Inception workshop (7-9 September 2007)**

The Backyard Chicken Group Inception workshop was hosted by the Centre for Livestock and Agriculture Development, Cambodia. The workshop was attended by 16 participants from five member countries (Cambodia, China, Indonesia, Thailand, and Vietnam).

The following section summarizes the main contents agreed upon during the workshop:

### ***1. National team composition was clarified***

Currently, the teams are composed of veterinary/livestock/social scientists and human health scientists with a lot of fieldwork. Gender issues in the team were raised. Roles of each national team members were also clarified.

### ***2. Key presentations during the workshop***

Three key presentations entitled “Ecohealth approaches”, “Q. Method”, and “Data Collection Tools” were delivered, the first by Dr. Borin from the Centre for Livestock and Agriculture Development, Cambodia; the other two by presenters from Thailand; Dr. Suttini Wattanakul, Sirindhorn Public Health College, Ubon Ratchathani, and Dr. Kanokwan Manorom, Ubon Ratchathani University.

Dr. Borin highlighted general principles of the Ecohealth approach. The other two presentations introduced key contents of the Q method and a general overview of the three key data collection methods by the Thai team.

The participants agreed that key methods such as household survey based questionnaires, case study, and Observation would be applied by all teams. Q methods will be applied in Thailand as a supportive tool to explore characteristics and dynamics of backyard poultry systems before and after AI. This method is an optional approach for other countries.

### ***3. Site selection criteria agreed***

Each country team was asked to provide a brief overview of site selection. Common agreement on site selection criteria was achieved by all teams. The criteria include:

- Outbreak/non-outbreak area
- Low/high land area
- Accessibility to markets.

Some teams like the ones from Cambodia, Thailand, and Vietnam have already selected provinces for the study.

### ***4. Questionnaire harmonization process***

- Country questionnaire presentation:

Generally, all teams have prepared questionnaires at different levels of detail. Some are too detailed, while some are still broad.

- Questionnaire harmonization:

(i) Guiding questions developed:

A conception framework with a set of guiding questions was jointly developed by team members and then the workshop participants added or deleted questions based on the questionnaire prepared by the team from Vietnam.

(ii) A common draft questionnaire designed:

The participants agreed that a questionnaire would be improved by each country's team in two weeks and sent back to the project leader (Dr. Kreingkrai Choprakarn) by the end of Sep. 2007 for finalizing before sending to the project's advisor and thereafter to the field surveys.

### ***5. Work plan agreed***

The final work plan with milestones for planned activities was agreed upon by the workshop participants.

**Table: Progress made to date as against indicators set out for the projects of five national teams in the Backyard chicken study**


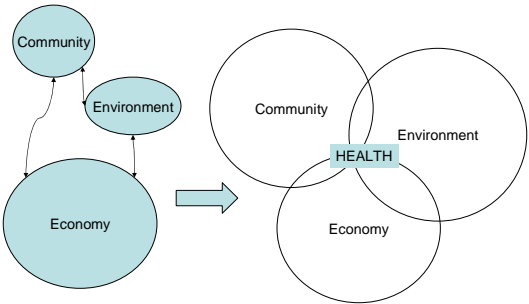
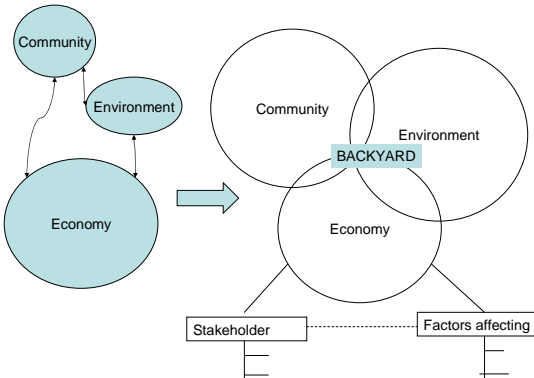
| N o. | Indicators  | Mile stone      | Targets/Planned |    |    |    |    | Progress to date reported |    |    |    |    |
|------|---|-----------------|-----------------|----|----|----|----|---------------------------|----|----|----|----|
|      |   |                 | CN              | ID | KH | TH | VN | CN                        | ID | KH | TH | VN |
| 1    | Questionnaire improved<br>Q sample development        | Sept 23         |                 |    |    |    |    |                           |    |    |    |    |
| 2    | Finalize Questionnaire                                | Oct 31          |                 |    |    |    |    |                           |    |    |    |    |
| 3    | No. of villages visited                               | Nov 15          |                 |    |    |    |    |                           |    |    |    |    |
| 4    | Site selection  | Nov. 30         |                 |    |    |    |    |                           |    |    |    |    |
| 5    | Sample size   | Nov 30          |                 |    |    |    |    |                           |    |    |    |    |
| 6    | Training of field enumerators organized               | Nov 20          |                 |    |    |    |    |                           |    |    |    |    |
| 7    | No. FGDs conducted<br>Collecting data using Q sorting | Dec 07 – Jun 08 |                 |    |    |    |    |                           |    |    |    |    |
| 8    | No. poultry farms interviewed                         | Dec 07-Jun 08   |                 |    |    |    |    |                           |    |    |    |    |
| 9    | No. poultry traders/<br>interviewed                   | Dec 07 – Jun 08 |                 |    |    |    |    |                           |    |    |    |    |
| 10   | No. key informants interviewed at different levels    | Dec 07 – Jun 08 |                 |    |    |    |    |                           |    |    |    |    |
| 11   | Data entry for Questionnaire, FG and Q study          | Jul 30, 08      |                 |    |    |    |    |                           |    |    |    |    |
| 12   | Data analyzed for Questionnaire, FG and Q study       | Sept 30, 08     |                 |    |    |    |    |                           |    |    |    |    |
| 13   | Report drafted  | Oct 30, 08      |                 |    |    |    |    |                           |    |    |    |    |

## Annex 1: Workshop Agenda

| <p style="text-align: center;"><b>CHARACTERISTIC AND DYNAMICS OF BACKYARD POULTRY RAISING SYSTEMS IN FIVE ASIAN COUNTRIES IN RELATION TO THE REDUCTION AND MANAGEMENT OF AVIAN INFLUENZA RISK</b></p> <p style="text-align: center;"><b>Backyarders inception workshop, Phnom Penh Cambodia</b></p> <p style="text-align: center;"><b>September 6-9, 2007</b></p>  |  |  |
|--|--|--|
| <b>September 6, 2007</b>   |  |  |
| <p><b>08:30-12:00 Field Trip – arranged by Khieu Borin</b></p> <p>The field trip will be organized in 2-3 villages in Kandal province. CelAgrid has engaged its development activities in these villages in 2004 in 6 villages organizing and strengthening them into community organizations. The inputs for these communities are livestock, bio-digesters, forages and vegetable seeds and training and these have been provided by Heifer International – Cambodia, Sida/MEKARN, NZAID and USAID/AED.</p> <p>Lunch will be organized in Phnom Penh after return from the field trip.</p> |  |  |
| <b>September 7 , 2007</b>  |  |  |
| <b>08:00</b>   | registration   | Noun Tyna  |
| <b>08:30</b>   | <ul style="list-style-type: none"> <li>- General overview of the project of the 5 countries</li> <li>- Main objectives of the Inception workshop and expected outputs</li> </ul> | Kreingkrai Choprakarn  |
| <b>09:45 – 10:00</b>   | coffee break   |  |
| <b>10:00</b>   | Introduction to ‘ecohealth’ approach Adaptive Methodology for Ecosystem Sustainability and Health  | Country team – inputs of participants in workshop in Bangkok |
| <b>12:00 – 13:00</b>   | Lunch break  |  |
| <b>13:00</b>   | Review of Research methods – Q method  | Thai Team  |
| <b>15:00 – 15:30</b>   | coffee break   |  |
| <b>15:30</b>   | Open discussion On review of Research methods – Q method   | All backyarders  |
| <b>September 8, 2007</b>   |  |  |

|                          |   |  |
|--------------------------|---|--|
| 08:00                    | <ul style="list-style-type: none"> <li>- Site selection – group 1</li> <li>- Key questions – group 2</li> </ul> | <ul style="list-style-type: none"> <li>- Group 1: one representative from each country</li> <li>- Group 2: one representative from each country</li> </ul> |
| 10:30 – 11:00            | coffee break  |  |
| 11:00                    | Group presentation  | Representative from each group   |
| 12:00 – 13:00            | Lunch break   |  |
| 13:00                    | Detailed plans including sites selection, by country after the workshop   | Country team discussion  |
| 15:00 – 15:30            |   |  |
| 15:30                    | Detailed plans including sites selection, by country after the workshop   | Country team discussion  |
| <b>September 9, 2007</b> |   |  |
| 08:00 – 9:45             | Presentation by each country of detailed plans  | Country teams  |
| 09:30 – 10:00            | coffee break  |  |
| 10:00 – 12:00            | Summary   | Kreingkrai Choprakarn  |
| 12:00 – 13:00            | lunch break   |  |
| 14:00                    | Boat trip on Mekong and group dinner  |  |

## Annex 2: Ecohealth Approaches

|  |  |
|--|--|
| <p style="text-align: center;"><b>An Ecosystem Approach to Health – Part I</b></p> <p style="text-align: center;">Dr. David Waltner-Toews<br/>Veterinarians without Borders/ Vétérinaires sans Frontières – Canada<br/>Presentation to “Backyard Chicken” Inception Workshop Sept 6-9, 2007, Phnom Penh, Cambodia</p>                           | <p style="text-align: center;"><b>Basic Principles as Outlined by IDRC</b></p> <ul style="list-style-type: none"> <li>• The health of the economy, the environment, and the community all affect each other.</li> <li>• All of these interacting aspects can be thought of as an ecosystem, a social-ecological or eco-social system.</li> <li>• EcoHealth is a shorthand way of talking about this overall set of interactions.</li> </ul>  |
|    |   |
| <p style="text-align: center;"><b>The EcoHealth Approach involves</b></p> <ul style="list-style-type: none"> <li>• researchers and other specialists</li> <li>• community members, including ordinary citizens, peasants, fisherfolk, miners, and city-dwellers and</li> <li>• decision-makers, which includes both governmental decision-makers and various other knowledgeable people and leaders in the community.</li> </ul> | <p style="text-align: center;"><b>IDRC’s Three Pillars of EcoHealth</b></p> <ul style="list-style-type: none"> <li>• <b>Transdisciplinarity</b> - No single discipline or social group has all the answers to solving complex health problems. This requires the full participation of each of the three groups mentioned above and validates their complete inclusion.</li> <li>• <b>Participation</b> aims to achieve consensus and cooperation, not only within the community, scientific, and decision-making groups but also among them.</li> <li>• <b>Equity</b> involves analyzing the respective roles of men and women, and of various social groups. The gender dimension recognizes that men and women have different responsibilities and different degrees of influence on decisions: it is therefore important to take gender into account when dealing with access to resources. For their part, various castes, ethnic groups, and social classes often live in completely separate worlds: this isolation has its own repercussions on health and access to resources.</li> </ul> |

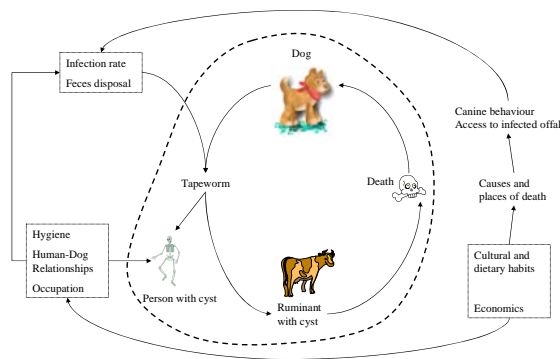


## Why or When Do we Need an EcoHealth Approach?

- Not all problems need an ecohealth approach – fixing a car, testing vaccine efficacy in the lab, treating a sick person or animal
- Situations where economic, social, health and environmental interact require an ecohealth approach to be sustainable
- For instance – community and regional responses to infectious diseases, water quality, nutrition.

## An Example from Nepal: Hydatid Disease

### Hydatid Disease in Kathmandu: what's the problem?



### HOST



AGENT


ENVIRONMENT

### Reducing the problem to fit the models: An Epidemiological Risk Factor Model Of Hydatid Disease in Kathmandu



## What did we learn from conventional studies?


- Estimate infection rates in dogs & people
- Identify risk factors
- Suggested certain possible solutions & controls (controlling risk factors)
- Provide information for public education program (television)

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| <p style="text-align: center;"><b>Proposed solutions</b></p> <ul style="list-style-type: none"> <li>• Build new slaughterhouses</li> <li>• Animal Safety &amp; Inspection Act &amp; regulations</li> <li>• Ensure garbage collection &amp; clean the streets</li> <li>• Recycling programs</li> <li>• WHO says – treat house dogs and kill street dogs</li> </ul>  | <p style="text-align: center;"><b>But nothing change – why?</b></p>  |
| <p style="text-align: center;"><b>Systemic Issues</b></p> <ul style="list-style-type: none"> <li>▪ Dogs are a source of disease, but also community police and companions</li> <li>▪ Butchers are providing a service, but also carrying on family, caste and cultural traditions</li> <li>▪ Young women are carrying fuel and cleaning streets, and are also being used and perhaps abused to promote someone else's goals (ie they are not in school). <ul style="list-style-type: none"> <li>– Cow dung is urban fuel but also an important source of fertilizer in the countryside</li> <li>– Straw &amp; wood are ecological necessities in the countryside and also important sources of fuel in the city</li> <li>– Garbage collection is the responsibility of multiple jurisdictions, and all are under-funded</li> <li>– National government is in perpetual flux (how to pass a national act?)</li> </ul> </li> </ul> | <p style="text-align: center;"><b>An Ecosystem Approach to Health – Part II</b></p> <p style="text-align: center;">Dr. David Waltner-Toews<br/> Veterinarians without Borders/ Vétérinaires sans Frontières – Canada<br/> Presentation to "Backyard Chicken" Inception Workshop Sept 6-9, 2007, Phnom Penh, Cambodia</p>   |
| <p style="text-align: center;"><b>An Adaptive Methodology for Ecosystem Sustainability and Health (AMESH)</b></p> <ul style="list-style-type: none"> <li>• Eco-social systems organize themselves through a variety of positive and negative feedback loops; these connections are both within levels and across scales (holonocracy).</li> <li>• Over time, healthy or resilient systems change and adapt to both internal and external pressures. While larger patterns can be seen the details are often uncertain.</li> <li>• Some variables - and some stakeholders - have a more powerful influence than others.</li> </ul>  | <p style="text-align: center;"><b>Implications</b></p> <ul style="list-style-type: none"> <li>• Because of the feedback loops, there are always tradeoffs, and there is no single "problem" no a single "solution" - this implies that outcomes need to be negotiated among stakeholders.</li> <li>• Because of systemic connections and inter-dependence, a transdisciplinary approach is required to understand the system overall.</li> <li>• Because of the uncertainty, it is better to aim for adapting to a range of possible outcomes than to rel on prediction and control.</li> <li>• These complex systems can best be understood using a wide variety of perspectives (across disciplines, cultures).</li> </ul> |

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| <p style="text-align: center;"><b>Parts of AMESH</b></p> <ul style="list-style-type: none"> <li>• Presenting Situation: Entry point and initial description: Why are you here?</li> <li>• Analysis of the relationships among stakeholders, issues and governance</li> <li>• Multiple systems descriptions and narratives</li> <li>• Full systems analysis and synthesis</li> <li>• Ongoing collaborative learning and action</li> </ul>  | <p style="text-align: center;"><b>Presenting Situation: Entry point and initial description - Why are you here?</b></p> <ul style="list-style-type: none"> <li>• Guiding Questions <ul style="list-style-type: none"> <li>– How did the current situation come about? Interactions among social, economic, and political developments?</li> <li>– Who have been the agents of change? At what scale?</li> </ul> </li> <li>• Tools <ul style="list-style-type: none"> <li>– Historical records, literature reviews (both scientific and lay), secondary data, interviews with key informants</li> </ul> </li> </ul>   |
| <p style="text-align: center;"><b>Analysis of the relationships among stakeholders, issues and governance: Stakeholders</b></p> <ul style="list-style-type: none"> <li>• Guiding Questions <ul style="list-style-type: none"> <li>– Who are the stakeholders? How do we identify the stakeholders?</li> <li>– What are the relationships among an between stakeholder groups (coalitions, conflicts)?</li> <li>– Who is making the key decisions?</li> <li>– Who benefits from the system as it is? Who loses? Who is excluded?</li> <li>– How does gender affect people's roles and opportunities to participate?</li> <li>– What are the roles of researchers? How are they viewed by the community? What kind of power do the researchers have?</li> </ul> </li> </ul> | <p style="text-align: center;"><b>Analysis of the relationships among stakeholders, issues and governance: Issues &amp; Policies</b></p> <ul style="list-style-type: none"> <li>• Guiding Questions <ul style="list-style-type: none"> <li>– What are the critical issues, and how to the relate to each other?</li> <li>– At what spatial and temporal scales do these occur?</li> <li>– For which stakeholder groups are these issues critical?</li> <li>– Is there a shared vision for the fuure?</li> <li>– What are the important rules and policies that influence the various issues?</li> <li>– Do these enable or hinder the development of solutions?</li> <li>– Who creates those rules and policies? Are they local, national, international?</li> </ul> </li> </ul>           |
| <p style="text-align: center;"><b>Multiple systems descriptions and narratives</b></p> <ul style="list-style-type: none"> <li>• Guiding Questions <ul style="list-style-type: none"> <li>– What stories do the different groups tell about how the current situation came to be? These include stories by virologists and economists as well as farmers.</li> <li>– What is the main purpose of the system from each stakeholder group's perspective?</li> </ul> </li> <li>• Tools: Published reports, focus groups, interviews, maps, drawings, stories, rich pictures, rough influence diagrams, ethnographic studies</li> </ul>  | <p style="text-align: center;"><b>Full systems analysis and synthesis</b></p> <ul style="list-style-type: none"> <li>• Guiding Questions <ul style="list-style-type: none"> <li>– What are the key ecological and social processes that define the system?</li> <li>– What are the important spatial and temporal scales of observation?</li> <li>– What are some possible scenarios for the future, what are the conditions under which they might occur, and what are the trade-offs?</li> <li>– What are some feasible and desirable management actions?</li> </ul> </li> <li>• Tools Basic scholarly studies, statistical analyses, subsystem models (economic, nutrient flows, diffusion of disease or products), network diagrams, influence diagrams, resilience models.</li> </ul> |

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| <p style="text-align: center;"><b>Collaborative action and learning - Seeking Solutions</b></p> <ul style="list-style-type: none"> <li>• Guiding Questions <ul style="list-style-type: none"> <li>– What kind of a story do stakeholders want their grandchildren to tell about them?</li> <li>– How can stakeholders make this story come true (How can they achieve their goals)?</li> <li>– What kinds of institutional arrangements are necessary?</li> <li>– What are the barriers, and how might these be overcome?</li> </ul> </li> <li>• Tools - Political and economic studies, focus groups, participatory methods,</li> </ul> | <p style="text-align: center;"><b>Implementation, Monitoring, Evaluation</b></p> <ul style="list-style-type: none"> <li>• What are the steps required for implementation, and who is responsible?</li> <li>• How can people be motivated to adopt suggested changes?</li> <li>• How can this be sustained?</li> <li>• What are the relevant indicators of performance? Who will measure them, Who will use them?</li> <li>• How will the system “learn”?</li> </ul> |
|--|---|

**Annex 3: Q Methods**

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|--|---|
|  <p style="text-align: center;"><b>Q study</b></p> <p style="text-align: center;">Suttini Wattanakul<br/>Sirindhorn Public health college,<br/>Ubonratchathani<br/>Thailand</p>  | <p style="text-align: center;"><b>Outline of presentation</b></p> <ul style="list-style-type: none"> <li>• What is the Q methods?<br/>( Background)</li> <li>• How to conduct a Q study?<br/>( Q methods process)</li> <li>• A case study of MMR</li> <li>• Why conduct a Q study in backyard chicken project?</li> </ul> |
| <p style="text-align: center;"><b>What is the Q methods?</b></p> <ul style="list-style-type: none"> <li>• The Q methods is a set of techniques which provide a basis for the study of 'subjectivity'.</li> <li>• Subjectivity, in this context, simply means the communication of an individual's views based on personal opinions.</li> </ul> | <p style="text-align: center;"><b>Q methods process</b></p> <ul style="list-style-type: none"> <li>• The selection of the set of statements or 'Q set' or 'Q sample'</li> <li>• The sample of participants or 'P set'</li> <li>• The Q sorting process</li> <li>• The analysis</li> </ul>                                 |

## The Q sample

The Q sample consists of representative statements which contribute to a wide range of viewpoints about research topic.



## Participants 'P set'

The sampling of person or respondent populations, which is called a 'P set' or 'P sample' in Q methodology, is likely to be similar to qualitative research, and generally uses a purposive selection procedures. The size of the P set varies between studies. It has been suggested that the sample size should not exceed 60, and often the sizes are much smaller.

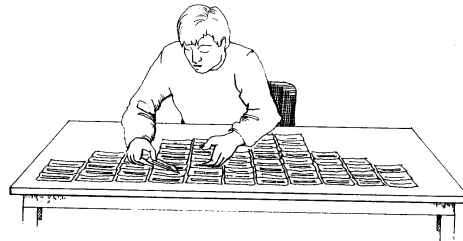


## Q sorting process

- Using '*condition of instruction*'
- Participants were asked to begin by sorting the shuffled pack of statement cards into three rough piles, '*agree*', '*disagree*' and '*not sure*'.
- Then, using a '*sorting grid*'

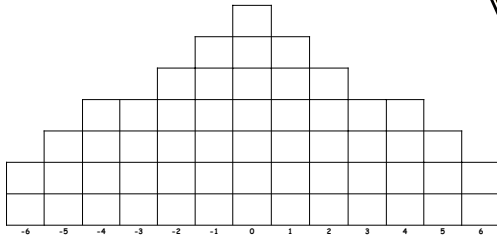


## Q-Technique Procedure: Q Sorting



Most disagree







Most agree



## Additional information

- A brief interview
- A short questionnaire



|   |   |
|---|---|
| <p><b>Data analysis</b></p> <ul style="list-style-type: none"> <li>• Q factor analysis</li> <li>• The analysis of the Q data is supported by a software package, PQ Method version 2.06</li> <li>• The interpretation of factors</li> </ul>  | <p><b>An example of MMR study</b></p> <p>Parents' preferences for information about MMR</p>    |
| <p><b>Aim</b></p> <p>To examine the preferences of parents for information about MMR in order to support the development of evidence-based information for shared decision making.</p>    | <p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>• To explore parents' preferences for information about MMR.</li> <li>• To examine the similarities and differences between the accounts which emerge from the analysis process.</li> </ul>   |
| <p><b>Methods</b></p> <ul style="list-style-type: none"> <li>• Development of Q sample</li> <li>• Recruitment of participants</li> <li>• Q sorting process</li> <li>• Analysis of data</li> </ul>    | <p><b>Sources for collecting views and opinions about MMR</b></p> <ul style="list-style-type: none"> <li>• Qualitative studies</li> <li>• The question and answer section from the NHS website</li> <li>• A 'chat room' about MMR</li> <li>• A completed report of parental decision making studies using qualitative interview methods</li> <li>• An ongoing PhD study of the risk conceptualisation and decision making in the MMR</li> </ul>  |

## The Q sample

- From 137 statements
- The first Q sample of 51 statements
- Piloting with 5 participants
- A completed Q sample including 55 statements



## The balance of information about MMR vaccination and diseases

- **Statement 44** : "I want to know the pros and cons of my child taking the MMR". (+5 )
- **Statement 8** : "I need to know all the information available about the risks of MMR vaccination". (+6 )
- **Statement 5** : "I need to know what effect measles, mumps and rubella will have on my child". (+4 )
- **Statement 3** : "I want to be able to compare the risks of the MMR vaccination with the risks of the diseases". (+5 )



## Participants 'P set'

Parents were eligible for inclusion in the study if they either

- (A) had children who had been given 1st or 2nd dose MMR in the last three months, or
- (B) whose children had not had MMR at the time they would normally receive at ages 12-15 month or 3-5 years in the last three months.



## Q sorting process

- Using 'condition of instruction'
- Participants were asked to begin by sorting the shuffled pack of statement cards into three rough piles, 'agree', 'disagree' and 'not sure'.
- Then, using a 'sorting grid'



## Additional information

- A brief interview
- A short questionnaire



## Data analysis

- Q factor analysis
- The analysis of the Q data was supported by a software package, PQ Method version 2.06
- The interpretation of factors



## Results

The three-factor solution was applied in the analysis process.



## Factor matrix from the three-factor solution

| Q sort      | Factor 1       | Factor2        | Factor 3       |
|-------------|----------------|----------------|----------------|
| S1          | 0.6579         | 0.4321         | -0.0126        |
| S2          | 0.1997         | <b>0.7341X</b> | -0.0718        |
| S3          | <b>0.7675X</b> | -0.0450        | 0.1729         |
| S4          | 0.6211         | <b>0.4994</b>  | -0.0087        |
| S5          | 0.2119         | <b>0.6951X</b> | 0.2704         |
| S6          | <b>0.6109X</b> | 0.1019         | 0.1665         |
| S7          | <b>0.5375</b>  | <b>0.5418</b>  | 0.2520         |
| S8          | <b>0.7667X</b> | 0.1789         | 0.1694         |
| S9 not MMR  | 0.1020         | -0.2393        | <b>0.6954X</b> |
| S10         | <b>0.5050</b>  | 0.0042         | 0.4418         |
| S11         | <b>0.7457X</b> | 0.2287         | 0.1776         |
| S12 not MMR | <b>0.7329X</b> | -0.1254        | 0.3386         |
| S13         | <b>0.7477X</b> | 0.1960         | 0.2405         |
| S14         | <b>0.7223X</b> | 0.2837         | 0.0526         |
| S16         | 0.2179         | <b>0.7420X</b> | 0.1482         |
| S17         | 0.2951         | <b>0.4802</b>  | <b>0.4814</b>  |
| S18         | 0.0098         | <b>0.6853X</b> | 0.2818         |
| S19         | 0.1233         | 0.2925         | <b>0.7434X</b> |
| S20         | <b>0.6094X</b> | 0.3107         | -0.0265        |

### Factor 1

Informed decision making parent



- Parents who want to be informed about decision making. Therefore the most important emphasis was on the balance of information about vaccination, including risks and benefits of the MMR, as well as the effects of measles, mumps and rubella.
- Their preference for an unbiased information source was a third party rather than the NHS, government or the media.
- They believe that it is a personal choice whether or not to have the MMR. Their preferences for the presentation of information was of less importance to them compared to other aspects.

### Factor 2

Individual and social responsibility



- Feeling a sense of responsibility for the public, as well as their own children, and a trust of information provided by NHS and their health professionals were strong themes in factor 2.
- Distrust of information provided by the media was shown up strongly.
- Preferences for information concerned not only the vaccine itself, but also the background of the diseases—measles, mumps and rubella.
- Preferences regarding presentation of information were quite similar to factor 1 in that they wanted information available before hand in order to have plenty of time to read. Presenting information using magazines, TV or videos was of less importance to them.

### Factor 3

Individual and social responsibility and a single vaccine




- This factor revealed very strong opinions about individual and social responsibility and information about the single vaccine.
- Individual responsibility in Factor 3 differed from Factor 2, which revealed that not only do parents have responsibility for whether or not to have MMR, but also the responsibility to live with the consequence if MMR caused any harm.
- This factor clearly reflected 'a choice' especially for a single vaccine.

### Consensus between the three factors

- Opinions about information sources were similar in all factors. Parents did not trust information from the media. Parents disagreed that information from the NHS is really just emotional blackmail.
- Timing of information delivery for all factors revealed that parents want to be able to take information away with them so that they have time to read and think.



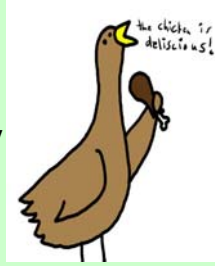
|   |  |
|---|--|
| <p><b>Why conduct a Q study?</b></p> <ul style="list-style-type: none"> <li>• Q methodology has been used in a wide variety of settings.</li> <li>• Q methodology can be used to answer research questions concerned with subjective opinions or attitudes, values and beliefs.</li> </ul>  | <p>Thank you for your attention.</p>   |
| <p><b><u>Computer Programs</u></b></p> <ul style="list-style-type: none"> <li>• QMethod (computer freeware):<br/><a href="http://www.rz.unibw-muenchen.de/~p41bsmk/qmethod/">http://www.rz.unibw-muenchen.de/~p41bsmk/qmethod/</a></li> <li>• PCQ (computer software):<br/><a href="http://www.pcqsoft.com/">http://www.pcqsoft.com/</a></li> </ul>       | <p><b><u>Journals</u></b></p> <ul style="list-style-type: none"> <li>• <i>Operant Subjectivity</i></li> <li>• <i>Q-Methodology and Theory</i></li> <li>• <i>Journal of Human Subjectivity</i></li> </ul> |
| <p><b><u>Annual Conference</u></b></p> <ul style="list-style-type: none"> <li>• 2006—22nd annual meeting, International Society for the Scientific Study of Subjectivity, Sep 28-Oct 1, Norwegian Scientific and Technical University, Trondheim</li> <li>• 2007—Washington, DC</li> <li>• 2008—Indianapolis</li> <li>• 2009—Sydney, Australia</li> </ul> |  |

**Annex 4: Field investigation methods**

## Backyard Poultry Project: Methods

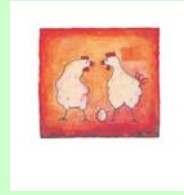
Presented by

Dr. Kanokwan Manorom  
Ubun Ratchathani University  
Thailand



## Combining methods and triangulation

- Each key method has its own strengths and weaknesses
- Able to benefit from the advantages of sample surveys and statistical methods (quantification, representative ness and attribution) and the advantages of the qualitative and participatory approaches



## Triangulation Approach

| Method criteria  | Survey | Case Studies | Observation |
|--|--------|--------------|-------------|
| Coverage (scale of applicability)  | High   | Low          | Low         |
| Representative-ness  | High   | Low          | low         |
| Ability to capture qualitative information   | Low    | High         | High        |
| Ability to capture diversity of perceptions  | Low    | High         | High        |
| Potential to contribute to building capacity of stakeholders with respect to AI analysis | Low    | High         | High        |
| Ability to capture the multidimensionality of AI   | Low    | High         | High        |



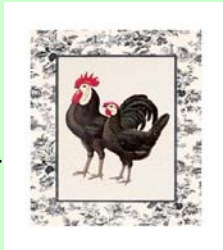
## FOUR Methods Used

1. Quantitative research method: Household survey using structured questionnaires
2. Field observation
3. Case studies: In-depth interview with participatory backyard mapping exercise
4. Q methods (to be presented by Dr. Suttini)



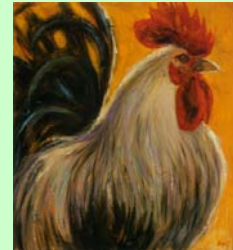
## 1. Quantitative research method

- Household survey
- Using structured questionnaires
- Greater the sample sizes, the smaller the risk of the error



## Household survey

- Usually a random sample from farmers raising chicken
- Comparing impacted and unimpacted AI areas before and after AI



## Key messages to be asked? In the Questionnaire

- Socio-economic conditions of HH
- Poultry raising system
- KAP
  - Diseases
  - AI



## 2. Field Observation

- Activities related to backyard poultry
  - Feeds
  - Housing
  - Free range/ mixture
  - Backyard space
  - others



### 3. Case studies

In-depth interview with participatory backyard mapping exercise

Case Studies or Small Groups:



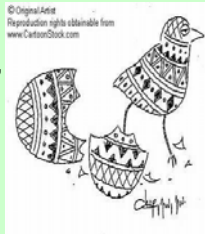
### Objective of Case studies

- Visually display poultry production system and movement of stakeholders and others on and off the farm.
- Provide an opportunity for open-ended discussion where issues not easily covered in the questionnaire can be elaborated upon.



Materials: Colourful pens and flip charts  
Ask the interviewee to map the following:

- Their home, they yard boundary, the poultry area, the poultry housing (if any), scratch areas, etc.
- Draw a square to represent all places outside the yard where poultry is sold and describe the choices involved in deciding where to sell.



Ask the interviewee to map the following:

- Draw a circle for all suppliers of:
  - Feed
  - Medicines
  - Extension
  - Vets
  - Etc



### How to do?

- Vary the size of the circles according to the importance of the stakeholder
- Mark arrows showing which of the above come onto the farm for any reason, and explain when and why this happens



### How to do?

- Keep notes while the discussion is taking place (ideally the exercise should be done by two people, a facilitator and a note taker).
- That evening, take the map and notes and write up the results.

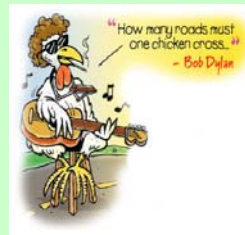


### How to do? (con't)

- Save in Word to facilitate word searching. Use word searches to help organise and quantify. Create a matrix to summarize the results.



### THANK YOU



## Annex 5: Workshop Participants

**CHARACTERISTIC AND DYNAMICS OF BACKYARD POULTRY RAISING SYSTEMS IN FIVE ASIAN COUNTRIES  
IN RELATION TO THE REDUCTION AND  
MANAGEMENT OF AVIAN INFLUENZA RISK  
Himawari Hotel, Phnom Penh, Cambodia  
7-9, September 2007**

| N° | Name  | Institution   | Country   | Email Address               |
|----|---|---|-----------|-----------------------------|
| 1  | Dr. Khieu Borin                                       | CelAgrid  | Cambodia  | khieu_borin@celagrid.org    |
| 2  | Mr. Pok Samkol  | CelAgrid  | Cambodia  | psamkol@celgrid.org         |
| 3  | Ms. Seng Sokerya                                      | CelAgrid  | Cambodia  | ssokerya@celagrid.org       |
| 4  | Ms. Noun Tyna   | CelAgrid  | Cambodia  | tyna_noun@celagrid.org      |
| 5  | Dr. Rongmei FEI                                       | College of Veterinary<br>Medicine, Nanjing<br>Agricultural University         | China     | feirongmei@njau.edu.cn      |
| 6  | Dr. Guanghua LIN                                      | College of Economics and<br>Management, Nanjing<br>Agricultural<br>University | China     | linguanguhua@njau.edu.cn    |
| 7  | Prof. Shudong ZHOU                                    | College of Economics and<br>Management, Nanjing<br>Agricultural<br>University | China     | sdzhou@njau.edu.com         |
| 8  | Dr. Agus Wiyona                                       | Ministry of Agriculture   | Indonesia | agusrini@indo.net.id        |
| 9  | Dr. Agus Setiyono                                     | Faculty of Veterinary<br>Medicine of Bogor<br>Agricultural University         | Indonesia | aguseitiyo@yahoo.com        |
| 10 | Dr. Rini Damayanti                                    | Indonesian Research Centre<br>for Veterinary Science                          | Indonesia | agusrini@indo.net.id        |
| 11 | Dr. Kreingkrai<br>Choprakarn                          | Ubonratchathani University  | Thailand  | kreingkrai@rocketmail.com   |
| 12 | Dr. Somchai<br>Swasdipan                              | Ubonratchathani University  | Thailand  | swasdipan@yahoo.co.th       |
| 13 | Dr. Kanokwan<br>Manorom                               | Ubonratchathani University  | Thailand  | k_manarom@yahoo.com         |
| 14 | Dr. Suttini<br>Wattanakul                             | Sirindhorn Public Health<br>Research  | Thailand  | s_wattanakal@rocketmail.com |
| 15 | Dr. Dinh Xuan Tung                                    | APAIR Regional<br>Coordinating Office   | Vienam    | xuantung168@yahoo.com       |
| 16 | Dr. Vu Chi Cuong                                      | NIAH  | Vietnam   | vccoung@yahoo.com           |
| 17 | Dr. Nguyen Quy<br>Khiem                               | NIAH  | Vietnam   | nguyenquykiem@yahoo.com     |
| 18 | Dr. Tran Thi Mai<br>Phoung<br>mthimaiphuong@gmail.com | NIAH  | Vietnam   | mthimaiphuong@gmail.com     |