

**Investigation and Evaluation  
of Communication  
on Transboundary Animal Diseases  
in Selected Countries  
in the Greater Mekong Subregion**

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This thesis is presented for the degree of Doctor of Philosophy of Murdoch University

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I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

.....

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*To Loredel, Nique, Nira and Nel*

## **ABSTRACT**

Communication has long been used in animal health; however, the emergence of zoonotic diseases such as Highly Pathogenic Avian Influenza (HPAI) has increased recognition of its value in assisting control of transboundary animal diseases (TADs). A number of studies have confirmed that there are gaps in communicating animal health issues, especially in Southeast Asia. This thesis aims to investigate and evaluate communication about TADs in selected Greater Mekong Subregion (GMS), specifically in Cambodia, Lao PDR and Vietnam.

The study is divided into phases and involves scholarly research, fieldwork, and analysis and evaluation. It uses quantitative and qualitative approaches in the investigation. Particularly the literature was reviewed; a survey, interviews, focus group discussions and transect walks were conducted in the investigation and evaluation. The first phase (literature review and knowledge, attitudes and practices survey) aims to provide a background to the study. The second phase comprises exploratory fieldwork, which aims to test the qualitative tools. The third phase aims to evaluate animal health communication campaigns for Foot and Mouth Disease (FMD) and HPAI, as well as the communication roles of village animal health workers (VAHWs).

The study shows that there are varying levels of awareness and knowledge of managing TADs such as FMD and HPAI among stakeholders. It finds that a number of factors affect animal health communication including motivation among study participants (such as farmers, traders, VAHWs and animal health officers); the nature of the disease; government/external funding; and communication strategies.

There is no template for successfully communicating in the area of animal health. However, the thesis argues that developing animal health communicative approaches, strategies and practices based on the perceptions and attitudes of grassroots stakeholders framed by an informed and continually updated contextualised understanding of their animal husbandry practices in selected GMS countries would assist in devising targeted and effective communication strategies in the region or in individual countries.

## TABLE OF CONTENTS

Abstract	iv
List of Figures	ix
List of Tables	x
Abbreviations	xi
Glossary	xiv
Publications/Awards/Presentations related to the Thesis	xvi
Acknowledgements	xviii
Chapter One: Introduction	1
1.1 Background	1
1.2 Communication in Animal Health	9
1.2.1 Agricultural Extension	9
1.2.2 Agricultural Communication	11
1.2.3 Communicating Animal Health Issues	16
1.3 Research Aims and Objectives	18
1.4 Overview of the Thesis	18
Chapter Two: Literature Review	21
2.1 Introduction	21
2.2 Communication, Development and Livestock	22
2.2.1 Agricultural Extension	25
2.2.2 Development Communication	28
2.2.3 Public Health Communication and Animal Health Communication	32
2.3 Investigating Communication	41
2.3.1 Quantitative Methodology	42
2.3.2 Qualitative Methodology	43
2.3.3 Evaluating Communication Campaigns	43
2.4 Conclusions	45
Chapter Three: Research Design	47
3.1 Introduction	47
3.2 Research Approach	47
3.2.1 Research Setting	49
3.2.2 Participants	52
3.2.3 The Development of the Study Methods	53
3.2.4 Data Processing and Analysis	55

3.3 Ethical Considerations	55
3.4 Disclosure and Consent	56
3.5 Compensation	56
3.6 Potential Benefits and Risks	57
3.7 Feedback	58
3.8 Research Limitations and Potential Biases	58
Chapter Four: Exploratory Survey of Selected Countries in the Greater Mekong Subregion	60
4.1 Introduction	60
4.2 Methodology	61
4.2.1 Measuring Instrument	61
4.2.2 Interviewers	62
4.2.3 Sampling and Sample	63
4.2.4 Potential Limitations and Biases	64
4.3 Results	65
4.3.1 Knowledge and Awareness of TADs and Their Control	66
4.3.2 Attitude towards TADs and their Control	71
4.3.3 Practices Relating to the Control of TADs	73
4.3.4 Communication Preferences	75
4.4 Discussions and Conclusions	76
Chapter Five: Revisiting the GMS: Finding the Right Questions	81
5.1 Introduction	81
5.2 Methodology	82
5.2.1 Instruments	82
5.3 Participants and Settings	85
5.4 Data Processing and Analysis	86
5.5 Potential Limitations and Biases	87
5.6 Results and Discussions	87
5.6.1 Evaluation of Qualitative Instruments and Approach	88
5.6.2 Outcome of the Field Study	89
Chapter Six: The Gatekeeper: The Role of the Village Animal Health Worker in Communicating Animal Health Issues	110
6.1 Introduction	110
6.2 Methodology	111
6.2.1 Guide Questions	112
6.2.2 Participants, Sampling and Setting	112
6.2.3 Potential Limitations and Biases	114

6.3. Results and Discussions	114
6.3.1 Volunteer Animal Health Work in Cambodia and Lao PDR	115
6.3.2 VAHWs' Communication and Self-Education Practices	123
6.3.3 VAHWs Role in Communication	128
6.3.4 Other Factors Affecting Communication at the Village-level	132
 Chapter Seven: Evaluation of Two Communication Campaigns for Transboundary Animal Diseases in Cambodia and Lao PDR	 138
7.1 Introduction	138
7.2 Methodology	141
7.3 Results and Discussions	141
7.3.1 General Evaluation of the Communication Campaigns	142
7.3.2 Animal Health Communication Services	143
7.3.3 Level of Animal Health Communication Resources	161
7.3.4 Current Issues in Communicating Animal Health Issues in Cambodia and Lao PDR	164
7.3.5 Improving Animal Health Communication Strategies	165
7.4 General Comments on Evaluation	167
 Chapter Eight: Animal Health Communication: Discussions and Conclusions	 168
8.1 Introduction	168
8.2 Animal Health Communication	169
8.2.1 Communicating TADs issues at the Village Level in Cambodia and Lao PDR	170
8.2.2 Evaluation of FMD and HPAI Communication in Cambodia and Lao PDR	174
8.3 Reflections on the Findings	180
8.4 Improving Animal Health Communication	182
8.4.1 Recommendations to Improve Communication about TADs	183
8.5 Conclusions	186
 Appendices	 190
Appendix One: Human Ethics Permit (Conditional and Outright Approval)	191
Appendix Two: Guide Questionnaire for Farmer-Traders in the KAP Survey	193
Appendix Three: Guide Questionnaire for VAHWs in the KAP Survey	203
Appendix Four: Guide Questionnaire for Key Informant Interview in the Exploratory Field Study	210
Appendix Five: Theme Guide for the Transect Walk in the Exploratory Field Study	211
Appendix Six: Guide Questions for the Farmers' FGD in the Exploratory Field Study	212
Appendix Seven: Guide Questions for the Traders' FGD in the Exploratory Field Study	214
Appendix Eight: Guide Questionnaire for Farmers and Traders in the Main Field Study	215
Appendix Nine: Oral consent guide	218



## LIST OF FIGURES

Figure 1.1 Conjectured status of FMD as of July 2010.....	6
Figure 2.2 The New P-Process Health Communication Planning Framework. ....	35
Figure 2.3 P-process as adapted by FAO. ....	36
Figure 3.4 Map of Cambodia with location of the survey area circled in red.....	50
Figure 3.5 Map of Lao PDR with location of the survey area circled in red. ....	51
Figure 3.6 Map of Vietnam with location of the survey area in the red circle.....	51
Figure 4.1 Cambodian study participants' awareness of TADs, clinical signs and government programmes.....	68
Figure 4.2 Laotian study participants' awareness of TADs, clinical signs and government programmes.....	69
Figure 4.3 Vietnamese study participants' awareness of TADs, clinical signs and government programmes.....	71
Figure 5.4 Farmers' trusted communication agents.....	105
Figure 5.5 Traders' trusted communication agents.....	106
Figure 6.6 General Information Seeking Pattern of Laotian VAHWs.....	124
Figure 6.7 General Information Seeking Pattern of Cambodian VAHWs.....	125
Figure 7.8 Probing about TAD awareness of KAP Study participants in Cambodia and Lao PDR.....	155
Figure 7.9 Cambodia's "Super Moen".....	158
Figure 7.10 Lao PDR's "Super Kai".....	159

## LIST OF TABLES

Table 2.1 Differences between Qualitative and Quantitative Approaches .....	42
Table 3.2 Research phases, focus and aims .....	49
Table 3.3 Study Participants.....	52
Table 4.1 Selected indicators of livestock system in selected GMS countries .....	63
Table 4.2 Respondents in each country .....	64
Table 5.3 Examples of how transcripts were coded in this field study.....	99
Table 6.4 Summary of Participants by Number and Gender of FGD Participants in Cambodia .....	113
Table 6.5 Summary of Participants by Number and Gender of FGD Participants in Lao PDR .....	114
Table 7.6 Summary of differences between the communication campaigns in Cambodia and Lao PDR. ....	165
Table 8.1 Proposed Animal Health Communication Approach.....	187

## **ABBREVIATIONS**

<b>AB-CRC</b>	Australian Biosecurity Centre for Research Cooperation for Emerging Infectious Diseases
<b>ACIAR</b>	Australian Centre for International Agricultural Research
<b>ADB</b>	Asian Development Bank
<b>AHC</b>	Animal Health Communication
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>AusAID</b>	Australian Agency for International Development
<b>AVSF</b>	<i>Agronome Veterinaire Sans Frontiere</i>
<b>BSE</b>	Bovine Spongiform Encephalopathy
<b>CAHW</b>	Commune Animal Health Worker
<b>CARE</b>	Cooperative for Assistance and Relief Everywhere, Inc.
<b>ComDev</b>	Communication for Development
<b>CPPE</b>	Comprehensive Participatory Planning and Evaluation
<b>CSF</b>	Classical Swine Fever; commonly known as Hog Cholera
<b>DAH</b>	Department of Animal Health
<b>DAPH</b>	Department of Animal Production and Health
<b>DevCom</b>	Development Communication
<b>DLF</b>	Department of Livestock and Fisheries
<b>ECTAD</b>	Emergency Centre for Transboundary Animal Disease
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FGD</b>	Focus Group Discussion
<b>FMD</b>	Foot and Mouth Disease
<b>GDP</b>	Gross Domestic Product
<b>GMS</b>	Greater Mekong Subregion
<b>HPAI</b>	Highly Pathogenic Avian Influenza; also known as bird flu or avian flu
<b>HS</b>	Haemorrhagic Septicaemia

<b>KAP</b>	Knowledge, Attitudes and Practices
<b>LMS</b>	Lower Mekong Subregion
<b>LMZ</b>	Lower Mekong Zone
<b>MLF</b>	Ministry of Livestock and Fisheries
<b>NaVRI</b>	National Veterinary Research Institute
<b>ND</b>	Newcastle disease
<b>NGO</b>	Non-Government Organization
<b>OIE</b>	World Organization for Animal Health or <i>Office International Des Epizooties</i>
<b>OWOH™</b>	One World, One Health™
<b>PCSD</b>	Participatory Communication Strategy Design
<b>PDR</b>	People's Democratic Republic
<b>PHC</b>	Public Health Communication
<b>PMT</b>	Protection Motivation Theory
<b>PR</b>	People's Republic
<b>PCSD</b>	Participatory Communication Strategy Design
<b>PRCA</b>	Participatory Rural Communication Appraisal
<b>PRRS</b>	Porcine Reproductive and Respiratory Syndrome
<b>PSC</b>	Project Steering Committee
<b>RCU</b>	Regional Cooperation Unit
<b>SARS</b>	Severe Acquired Respiratory Syndrome
<b>SEACFMD</b>	Southeast Asia and China Foot and Mouth Disease
<b>TADs</b>	Transboundary Animal Diseases
<b>UMS</b>	Upper Mekong Subregion
<b>UMZ</b>	Upper Mekong Zone
<b>UN</b>	United Nations
<b>UNICEF</b>	United Nations' Children's Fund
<b>US</b>	United States
<b>USA</b>	United States of America

<b>USAID</b>	United States Agency for International Development
<b>USDHHS</b>	US Department of Health and Human Services
<b>VAHW</b>	Village Animal Health Worker
<b>VVW</b>	Village Veterinary Worker
<b>WHO</b>	World Health Organization

## GLOSSARY

<b>Attitude</b>	Pertains to opinions of study participants regarding communication messages.
<b>Awareness</b>	The state of recognising a message or an idea from communication campaigns.
<b>Awareness Level</b>	The measure of a participant's correct answer to questions regarding transboundary animal diseases.
<b>Commune</b>	A group of about 34 villages or 126 households. Vietnam considers this as the smallest unit of the local government.
<b>Communication</b>	Refers to the process of engaging people or community to arrive at a mutual understanding.
<b>Communications</b>	Refers to the strategy implemented to communicate, this can be technological or alternative media.
<b>Endemic</b>	Naturally occurring in a particular place.
<b>Epidemic</b>	A disease that affects a great number of people.
<b>Epizootic</b>	A disease that can spread quickly.
<b>Gatekeeper</b>	A person who can influence the opinion in a community.
<b>Knowledge</b>	In the context of this research, was regarded as the application of information or things that the study participants were <i>aware</i> of.
<b>Knowledge Level</b>	The measure of participant's correct/expected application of his understanding.
<b>Outbreak</b>	The occurrence of one or more cases of a disease or an infection in an epidemiological unit.
<b>Social Network</b>	A person's circle of friends that may include friends, trading partners, village neighbours.
<b>Social Network Approach</b>	Training of one key gatekeeper to train other community

leaders or grassroots stakeholders on any certain advocacy issues.

## **PUBLICATIONS/AWARDS/PRESENTATIONS RELATED TO THE THESIS**

**Geoff Griffiths Award:** Awarded during Murdoch University's School of Biomedical and Veterinary Sciences Poster Day last 9 November 2007.

**Poster Presentation:** Australian Biosecurity Centre for Research Cooperation National Workshop held last 14-16 November 2007 in Melbourne, Australia.

**Oral Presentation:** Australian Biosecurity Centre for Research Cooperation National Workshop held last 21-23 June 2008 in Bangkok, Thailand.

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**Caro, D., III, Edwards, J., Surma, A., Fitch, C., & Morzaria, S.** (2010, 10-13 August).

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**Caro, D., III, Edwards, J., Surma, A., Fitch, C., & Morzaria, S.** (2010). Pragmatic Approach in Communicating Animal Health. In M. Brocx (ed), *Proceedings of the 12<sup>th</sup> Annual Postgraduate Symposium of the Royal Society of Western Australia.* Proceedings of a postgraduate

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