

Day 2 (3 November 2011)


One Health: Moving from Concept to Action (W. Kalpravidh)

**One Health**  
Moving from **Concept** to **Action**



FAO Regional Office for Asia and the Pacific




INTRODUCTION





Global Framework for Progressive Control  
of Transboundary Animal Diseases  
(GF-TADs)



**GF-TADs GOAL**

Safeguard the livestock industry in both  
the developed and developing world  
from repeated shocks of infectious  
diseases

GF-TADs

- Joint OIE/FAO initiative combining the strengths of both the organizations to achieve common objectives
- Facilitate mechanism to empower Regional alliances in the fight against TADs
- Provide for capacity building and assist in establishing programmes for the specific control of certain TADs and EIDs based on Regional priorities
  - SE Asia – HPAI, FMD, CSF
  - South Asia – HPAI, FMD, PPR
  - SPC – HPAI, FMD, CSF (disease emergency preparedness)
- An evolving framework, a global partnership and a bottom up national/regional approach

Increasing awareness of issues and  
impacts


- Food security
  - diseases are a direct threat to livestock
  - source of cheap animal protein depleted in urban areas
- Poverty reduction
  - poor small holder farmers are still predominant in the region
- Human health risks (e.g. Food safety)
  - public health concerns
- Trade/ Economics
  - lost opportunity for local, regional and global trade
  - global livestock industry threatened




CONSISTENT WITH THE MDGs






Builds on HPAI lessons learned...

- > Disease and poverty
- > Disease and livelihoods
- > Role of wildlife
- > Disease ecology
- > Cross-sectoral collaboration
- > Communication
- > Political commitment






# One Health

The Concept

**STRATEGIC FRAMEWORK with key concepts**

**FAO-OIE-WHO Collaboration Concept Note on health risks at the human-animal interface**

Several events in the past 12 months – Meetings at country level, ICVS, UNSIC, APSC, PAVA, Melbourne



Several events in 2009-10

IMCAH Memo (2010)




Several planning meetings 2008

New Delhi (IMCAR) recommendation 2007

IMCAH Sharm el Sheikh (2008)

- **Goal**
  - Diminish and minimize the global impact of epidemics and pandemics due to EIDs of humans and animals
- **Broader vision**
  - Public health and food safety
  - Food security
  - Livelihoods
- **Focus**
  - High Impact rEIDs
  - At the animal-human-ecosystems interface

### Major thrusts/objectives


1. Preventive action and root cause analysis drive
2. Building more robust public and animal health systems (IHR 2005, OIE Standards)
3. Strengthening the national and international emergency response capabilities
4. Get on addressing the concerns of the poor:
  - developed to developing economies
  - potential to actual disease problems
  - focusing on locally important diseases
5. Promoting cross sectoral and multi-disciplinary approach
6. Conducting strategic research








# One Health

Putting into Action

### FAO's role in OH

- **FAO seeks to operationalise thinking that disease emergence needs to be addressed together with:**
  - Challenges of poverty
  - Natural resource management
  - Sustainable agriculture and farming systems
  - Rural development
  - Building generic One Health capacity
  - Blending insights gained from epidemiology, agro-ecology, socio-economics and communication

### FAO Goals AND Strategic Objectives

- **FAO Goals:**
  - o reduction of absolute number of people suffering from hunger
  - o elimination of poverty
  - o sustainable management and utilization of natural resources.
- **11 strategic objectives with each objective focused on an agricultural sector**
  - o increased sustainable livestock production
    - **reduced animal diseases and associated human health risks.**

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### Key points being raised and discussed in previous meetings related to "One Health" (trouble spots??)

- Different understanding of "One Health" (OH)
- Importance of OH is not recognized by all stakeholders and varying support for implementation at all levels
- Managing trans-sectoral collaboration and coordination is a challenge.
- Scientific evidence esp those related to emerging diseases is not available to support decision making and to implement OH,
  - if available, no capacity of the concerned authority to apply
- Countries request for guidance to operationalize OH

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### Delivering One Health

Started with "harmonizing" our understanding on its scope among ECTAD teams in Asia



- Transboundary Animal Diseases
- Zoonosis
- EIDs and re-EIDs
- Environmental health including wildlife health
- Livelihoods
- Food security and safety
- Multidisciplinary approach
- Prevention
- Ability to deal with unknown

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### Delivering One Health

Issues of concern	Major themes to focus
<ul style="list-style-type: none"> <li>• Recognition of OH importance for support</li> <li>• Challenge in managing trans-sectoral collaboration and coordination</li> <li>• Insufficient decision-making based on scientific evidence</li> <li>• Not enough capacity to apply OH</li> <li>• Countries request for guidance to operationalize OH</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Advocacy</b> <ul style="list-style-type: none"> <li>- Strengthening coordination and collaboration across sectors and disciplines                             <ul style="list-style-type: none"> <li>- country, regional and global</li> </ul> </li> </ul> </li> <li>• <b>Capacity building</b> <ul style="list-style-type: none"> <li>- Long-term approach</li> <li>- Immediate to produce scientific evidence for prevention purpose</li> </ul> </li> <li>• <b>Networking</b> - through people</li> </ul>

Pilot projects at country level

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### Themes

**One Health Approach: Multi-sectoral and multi-disciplinary approach**

Diagnostic laboratory support	Surveillance, early warning and outbreak response	Specific activities for risk determination and risk mitigation
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Networking - among countries and sectors/partners

Capacity building – HR and Institution

Planning and Coordination

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### Delivering One Health

**Advocacy**

- Encouraging OH dialogue among sectors at country and regional level:
  - Through FAO country teams and competent authorities at the country level
  - Expanding from HPAI work - involve not only animal health and health but also relevant wildlife and environment sectors
  - Joint activities among ASEAN, SAARC, OIE, WHO and FAO
    - UN country team is keen to facilitate
    - Joint event (s) at regional level

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### Delivering *One Health* Capacity Building

- Capacity building for epidemiology
  - Regional Field Epidemiology Training Program for Veterinarian (FETPV)
    - Thai Department of Livestock Development (DLD) is hosting in collaboration with Ministry of Public Health
    - Regional strategy for long-term purpose
    - Integrating other components related wildlife, socio-economic and communication
    - Benchmarking with other existing epidemiology training programs in the region - AVET
    - Expanding disciplines to cover wildlife and ecosystem
    - Expanding FETPV to country level – China, India
    - Need to link with Regional Epidemiology Network

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### Capacity Building in Laboratory Diagnosis

- Regional Framework for Capacity Building for HPAI Diagnosis and Networking
  - Infrastructure
  - Equipment
  - Personnel
  - Protocol (QA)
  - Sharing of information and samples
  - Management and Advocacy



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## One Health

Regional Level  
(action begins)

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### Epidemiology Networking: Regional Field Epidemiology Training Program for Veterinarian (FETPV)

**Program Output:**  
Several surveillance activities and outbreak responses to both zoonotic and non-zoonotic pathogens have been conducted

As of May 2011, a total of 11 veterinarians including nine Thai and two international veterinarians have graduated. Five international trainees from Myanmar, P.R. China, Indonesia and Vietnam and four Thai trainees are currently enrolled in the program.

In addition, 27 international and 28 Thai participants were trained during one-month FETPV prerequisite course.

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### Regional Field Epidemiology Training Program for Veterinarian (FETPV)



ECTAD

### Epidemiology Networking Epidemiology Consortium

- Networking
  - Meeting
  - Regular communication
- Pilot projects
  - FETPV
  - Rabies
- Advocacy
  - CVO
  - Web page




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### Delivering *One Health*

#### Regional Laboratory Networks

- Expanding scope from HPAI to cover other priority diseases
- Linking to other networks at global level such as OFFLU
- Strengthening the ability of country to deal with unknown
  - Referral system to World Reference Laboratory
  - Establishing a appropriate sample bank for necessary retrospective studies especially for wildlife
- Linking between animal and human health laboratory systems



### FAO / OIE / WHO Approach to Laboratory Strengthening

**Accurate & timely diagnosis**

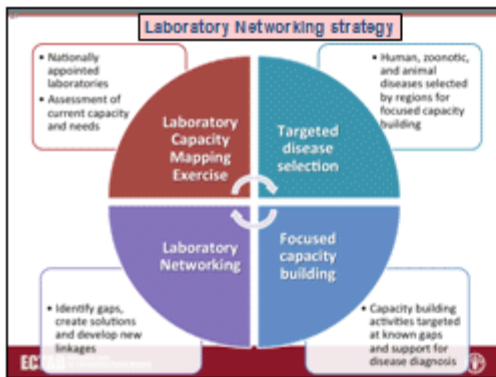
- Strengthen accurate and timely laboratory diagnosis capacity
- National internal quality control and OIA
- Laboratory biosafety / biosecurity
- National self-sufficiency and sustainability of laboratory services

**Expand, share info & resources**


- Support regional and international laboratory networks and information sharing
- Enhance synergy between laboratory and epidemiology networks
- Establish laboratory referral systems

**Human-Animal Interface**

- Advocate for joint infectious disease or public health event surveillance, risk assessment and response systems

### Regional Laboratory Network for Animal Influenza Diagnosis in SE Asia




- Network of institutions, people and experts in the region on a sharing platform
  - Technical assistance
  - Diagnostic advice
  - Information
- Regional Guiding Principles for Animal Influenza Surveillance and Diagnosis in SE Asia



### Partnerships

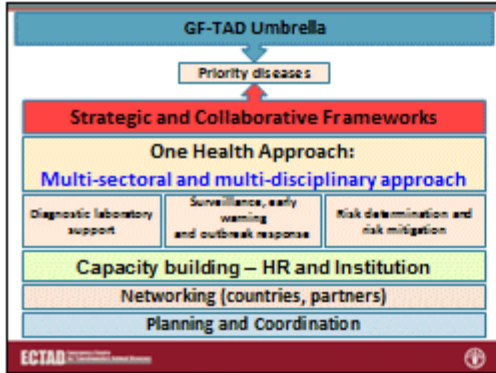
- ASEAN's support for regional coordination and activities:
  - Regional strategy for epidemiology capacity building
  - Linkage with ASEAN+3 FET Network in public health sector
- Common work plan among FAO, OIE and WHO as well as others
- OIE-PVS – for overall strengthening of Veterinary Services
- Formal VS Informal communication and coordination is required



### Regional Tripartite Platforms







One Health  
Country Level

**Delivering *One Health***  
More pilot projects at the country level

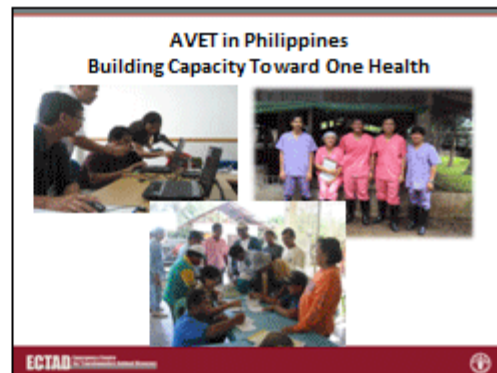
- Thailand
  - Linkage of Thai PETPV and PETP with possibility to expand to involve wildlife group and private livestock producing sector
  - Partnerships with Government Research Funding Agencies and Thai universities to study "Animal-Human-Ecosystem Interface" using bats and Nipah Virus Infection as a model
    - Involve WHO Collaborating Center for Viral Zoonotic Diseases
    - Participatory learning process using multi-disciplinary approach at community level for veterinary student at undergraduate level



**AVET in Philippines**  
Building Capacity Toward One Health

**Key Achievements**

- Four (4) AVET courses were conducted since 2007 churning out 57 graduates.
- The private sector has joined the AVET and have expressed interest to participate in future courses.
- AVET graduates have used the knowledge gained especially the OIM in investigating swine diseases.
- The Veterinary Epidemiology Network (VEN) was formed and the 1st VEN Conference was organized in May 2010.
- Faster information exchange was established and sharing of technical knowledge on animal health issues were better facilitated through the VEN website developed by the PhilVet Health Services (<http://ven.ph.livet.org/>).
- Initiatives were done to establish a Master in Veterinary Epidemiology program, focusing on the need of the local government to train veterinarians and other veterinary professionals.



### Philippines: ERV reservoir One Health on the Ground – Implementation of Multi-Sectoral Collaboration

In January 2010, FAO and a consortium of international partners (EcoHealth Alliance and Biosecurity Queensland) joined with Philippines livestock, public health and wildlife agencies to develop a two-stage plan to investigate the natural reservoir of ERV.

### Rabies in Indonesia

TCP/IN/3502 Enhanced coordination of control efforts, capacity building, awareness raising and rapid outbreak response to control rabies in Bali, Indonesia

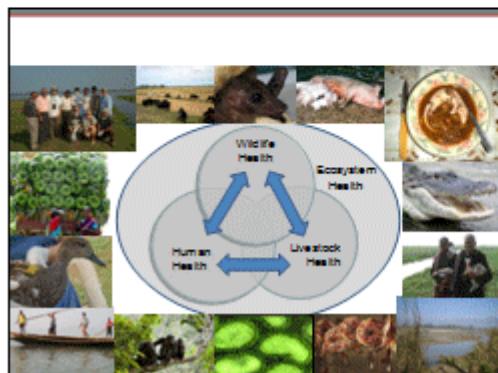
- An effective program coordination and facilitation mechanism
- Improved surveillance, response and control mechanisms
- Advocacy and coordination of rapid and accurate rabies diagnosis
- Community awareness
- Capacity of animal health staff to better manage rabies control
- A revised national rabies control and eradication strategy

### One Health: Concept to Action

- Within the context of GF-TADs
- One Health approach
- Ironing the trouble spots
  - Understanding the concept within the FAO structure
  - Stakeholders, sectors involved
  - Collaboration
- Themes
- OH at regional level
- OH at country level


### APHCA and One Health

- APHCA's unique mandate that covers a wide range of animal production and animal health issues
- Entry points for APHCA?
  - Entry points for countries?



# Society, Equity and Livestock in Asia and the Pacific: Aspirations, Reality and Dilemmas (Olaf Thieme)

Food and Agriculture Organization of the United Nations



## Society, Equity and Livestock in Asia and the Pacific: Aspirations, reality and dilemmas

Olaf Thieme  
Animal Production Systems Branch, FAO, Rome

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### Overview

- Aspirations
  - MDGs
  - Food Security
  - Healthy diets
  - Food Supply
  - Sustainable livelihoods
- Reality
  - Smallholders - industrial production
  - Diversification
  - Crop-livestock integration
  - Non food supply from livestock
  - Role of women
  - Nomads
  - Feed for the cities
- Dilemmas

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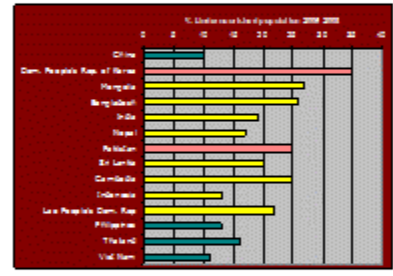
### Aspiration – Millennium Development Goals (MDGs)

- Eradicate extreme poverty and hunger
- Achieve universal primary education
- Promote gender equality and empower women
- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, malaria, and other diseases
- Ensure environmental sustainability
- Develop a global partnership for development



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### Aspiration – Food Security for all



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### Aspiration – Healthy diets for all

Undernourishment – Deficiencies – Obesity

- Meet requirements for:
  - Energy (kilocalories)
  - Macronutrients
  - Micronutrients
- Satiety
- Requirements differ with age groups
- Different preferences in the region
  - Vegetarian – Meat Eater
  - Beef – No Beef
  - Pork – No Pork
  - Mutton – No Mutton
  - Plenty Milk – Little or no milk
  - Chicken eggs – Duck eggs



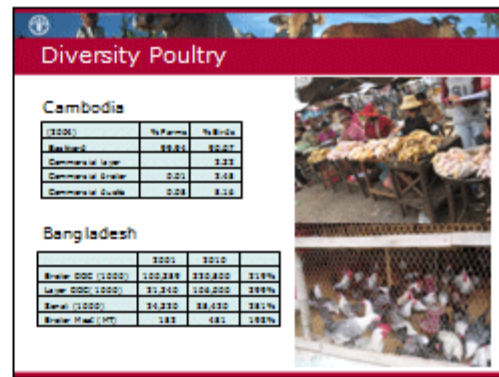
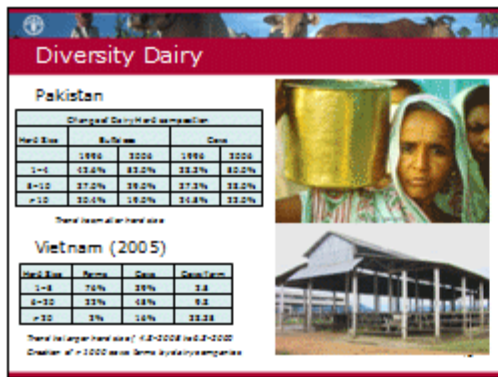
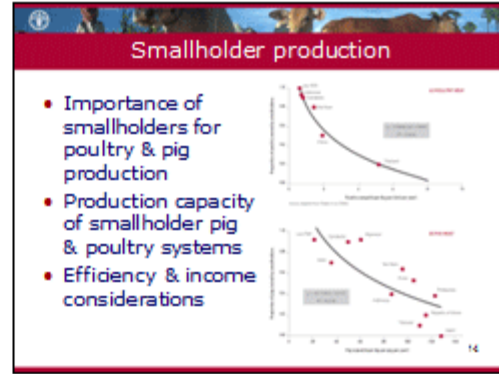
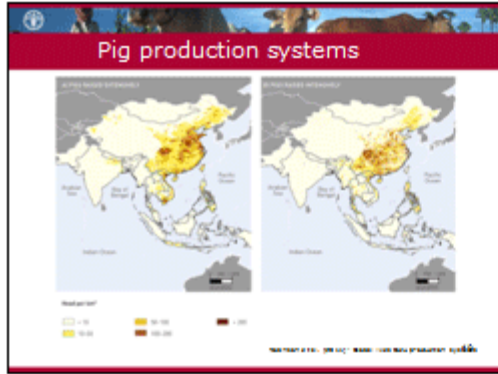
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### Aspiration – livestock products for a healthy diet

Nutrient	Meat	Milk	Eggs
Calcium	0	+++	0
Total Iron	+++	+	+
Haem Iron	+++	0	0
Zinc	+++	+	+
Riboflavin	++	+++	++
Vit B12	+++	++	++
Vit A	+	++	+++
Vit D	Organ meats & oily fish	0	0

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### Crop – Livestock relationship

CHARACTERISTICS OF THE AGRICULTURAL PRODUCTION SYSTEMS IN VIET NAM

Production system	Area (ha)	Number of communes	Population (thousands)	Poverty incidence (%)	Poultry density (per ha)	Number of pigs (thousands)
C	34,368	850	7,291	27	79	2,718
CL	77,768	4,253	29,364	47	103	12,076
CA	7,774	270	1,976	47	104	807
CP	49,124	550	2,985	51	33	1,274
CLA	7,027	424	3,724	48	309	1,007
CLP	103,074	2,202	9,109	57	45	5,297
CAF	3,761	49	600	43	70	247
CLAP	4,406	103	1,289	43	89	308
L	503	45	294	37	175	112
LA	2,015	32	924	39	101	176
LAP	479	74	109	48	74	32
A	2,393	44	424	43	176	271
AP	301	15	72	59	743	55
National	317,188	4,947	34,185	46	85	25,271

Legend: C=Crop, CL=Cropland, CA=Cropland, CP=Cropland

Source: FAO (2004), based on data production systems




### Livestock & Culture



### Employment from dairy

- Pakistan**
  - 3.8 million farmers, thousands of milk collectors, processors, processors, distributors and retailers
- India**
  - 2.47 million people of which 75% are women
- Vietnam (~ 700,000)**
  - Milk production 10,000
  - Support services 12,000
  - Milk retail in USD
  - Milk processing 2,000
  - Product marketing 600,000




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### Gender dimensions and livestock

- Gender in livestock production and marketing
- Gender related to type of livestock and production system.
- Gender and decisions making about consumption of food and nutrition.
- Gender decisions about utilization of income from livestock.


Total income from livestock activity		
	Female	Male
Bangladesh	2-4% (Q2)	5-9% (Q4)
Nepal	10-19% (Q2)	19-24% (Q5)
Pakistan	12-19% (Q1)	19-27% (Q4)
Viet Nam	14-18% (Q1)	16-22% (Q1)



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### Nomadic livestock production

- Camels, Horses, Small Ruminants, Yaks
- In Mongolia employment for 40% of population
  - Rapid rise and decline of small ruminant population
  - Record livestock numbers but decreasing production
  - Small herders are pushed out of business through time of climatic stress
  - Decline of animal products in the diet and the per capita meat consumption has gone down
  - Production of cashmere has increased income but is dependent on a somewhat volatile world market
  - Herders use traditional practices and introduction of change is difficult
  - Subsistence livestock may not feed the growing population



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### Food for the cities

- Population growth will be largely concentrated in urban areas
- Projected urban population increase in Asia of 1.7 billion
- Consequences for livestock products:
  - More transport and organized marketing chains
  - Changing food habits
  - More processed food and outside eating and street food
  - Increasing importance of food safety issues
  - Greater difficulties of direct marketing



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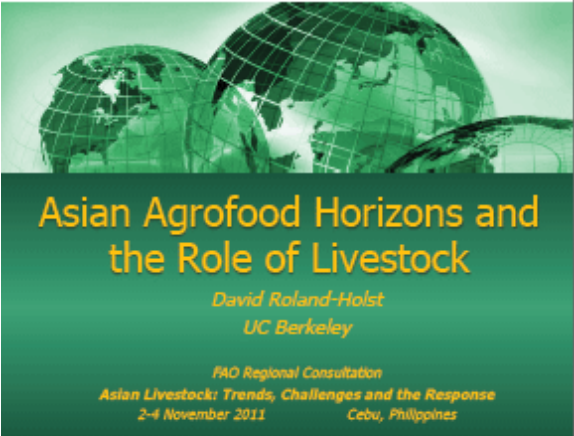
### Dilemmas

- Direction of change - Maintaining diversity
- Use of resource for livestock or human consumption
- Efficiency – Participation of many producers
- Support of less favorable production sites
- Health diets with or without livestock products
- Traditional food – Modern production
- Cheap food – sufficient income for producers
- Priorities for rural – urban populations

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## Asian Agrofood Horizons and the Role of Livestock (David Roland-Holst)



### Contents

1. How We Got Here
2. China's AgroFood Balances
3. Asian AgroFood and Livestock Growth
4. Conclusions

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### Context

## 1. How We Got Here: Global and Asian AgroFood Trade

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- Loss of momentum in the latest round of multilateral trade negotiations has improved the prospects for regional trade within Asia.
- This is particularly true for agriculture, a primary obstacle to WTO negotiations and a sector in which Asia has significant demand and supply potential.
- Historically, regional food trade has been driven by demand from higher income Asian economies. This provided important development stimulus to regional partners, including Taiwan, Thailand, Indonesia, and Malaysia.
- Regional AgroFood absorption is now accelerating rapidly from a new source, emergent middle classes in China and India.
- This could make a significant contribution to regional growth and poverty alleviation, contributing to two important policy objectives: greater Asian cooperation and more inclusive development.

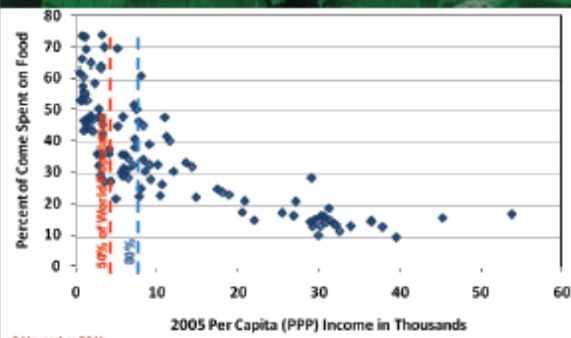
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### North-South Relations and the Cheap Food Consensus

- Higher income economies have long subsidized their own agricultural activities with the combined goals of supporting food security and powerful rural populations.
- In the South, many economic development policies have been built on bedrock of low wage industrialization, accompanied by food security (low prices) for politically sensitive urban poor populations.
- The result has been a *de facto* global consensus, supporting two generations of declining food prices.

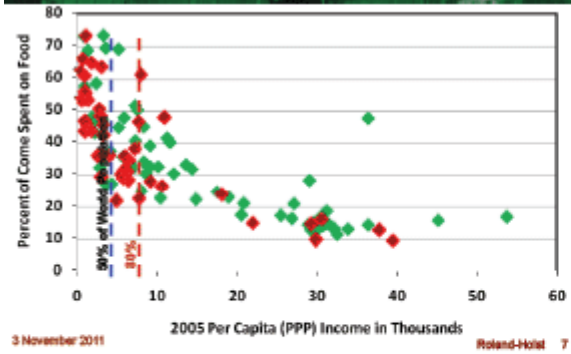
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### Food Security and Income



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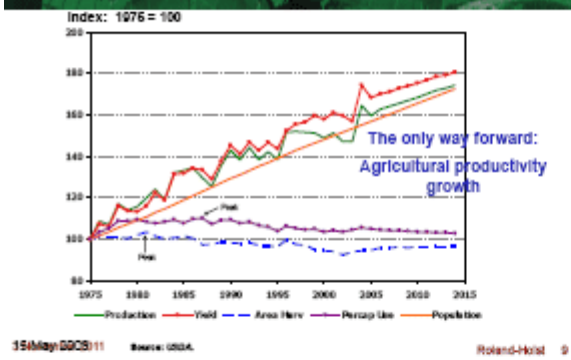
### Food Security and Climate Risk: Tropical Countries in Red



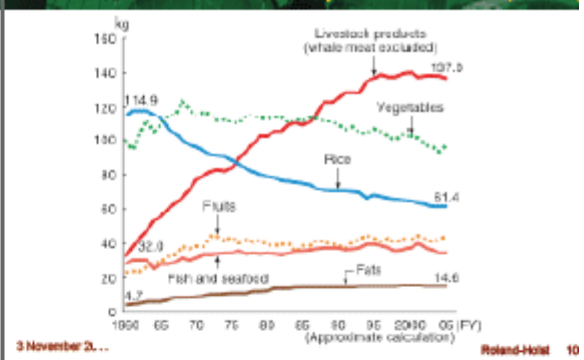
### Food Price Index and Cereal Prices 2001-2011



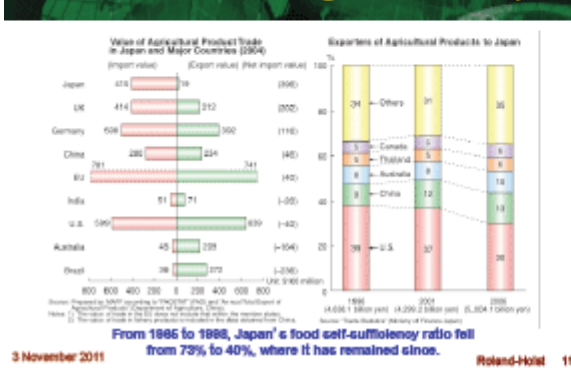
### How we got here and how we go forward Total World Grain and Oilseeds



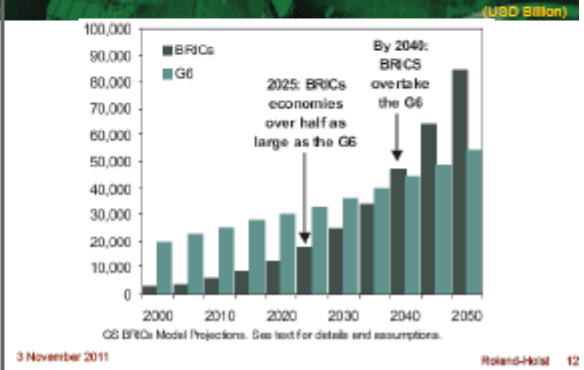
### The Early Modern AgroFood Model for Asia Japan's Growth, Diet



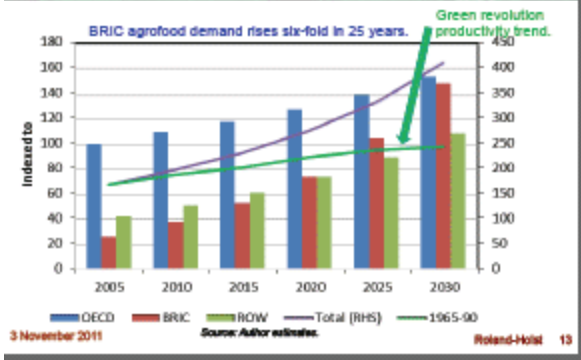
### and AgroFood Absorption



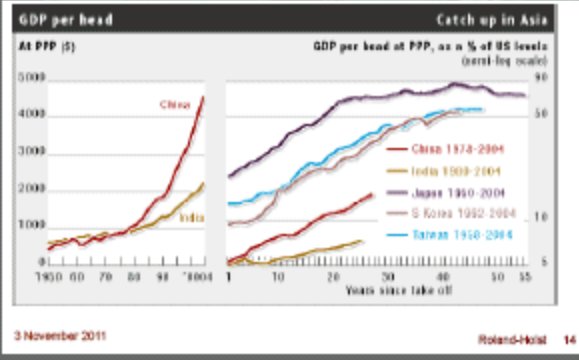
### The New Model of Emergent Demand: BRICs and G6 GDP (USD Billion)



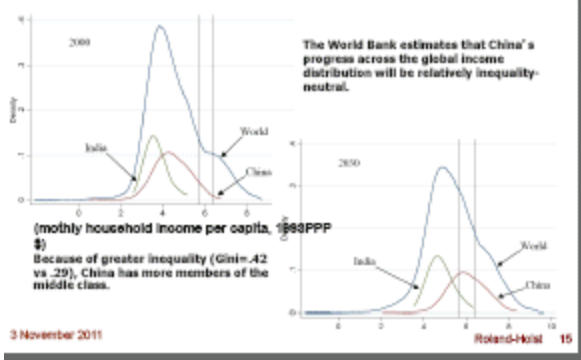
## Global Agrofood Demand



## Asian Growth Still has Room to Run



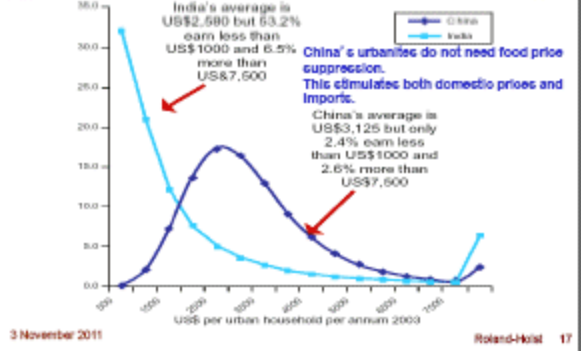
## More Fundamentally, a New Middle Class is Emerging



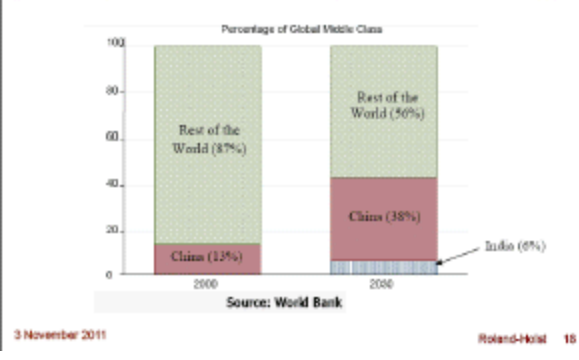
## Fundamentally Changing the Narrative on Regional Food Demand



## China's Urban Population will Accelerate Resource-intensive Regional Food Demand



## Asian Middle Class Emergence

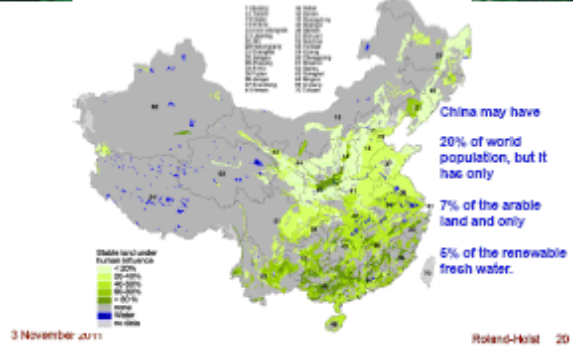


## Supply Side: China's Farmland is scarce...

### 2. China's AgroFood Balances

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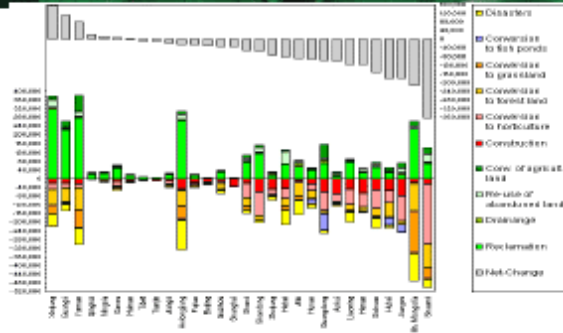
Roland-Hoist 19



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Roland-Hoist 20

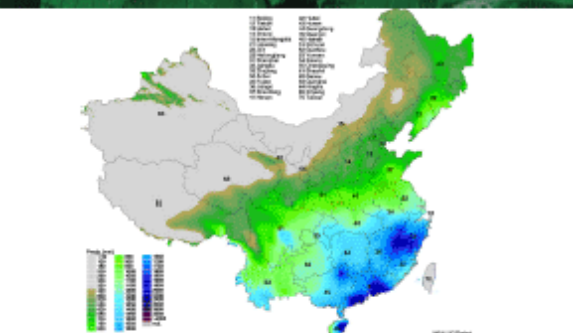
## and shrinking.



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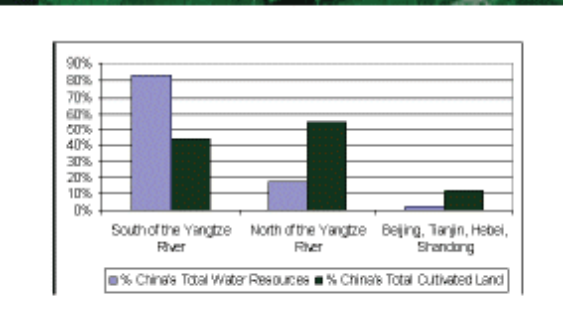
## Annual rainfall is limited...



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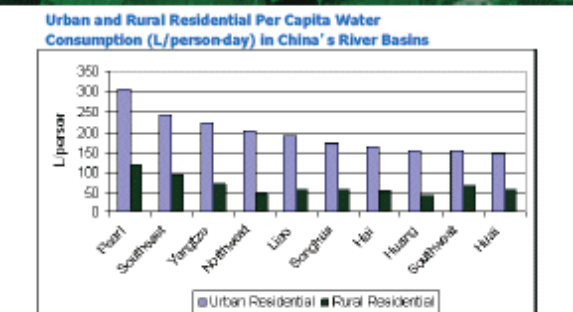
## and water resources are distributed very unevenly



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## Thirsty Cities: Urbanites are more than twice as water-intensive

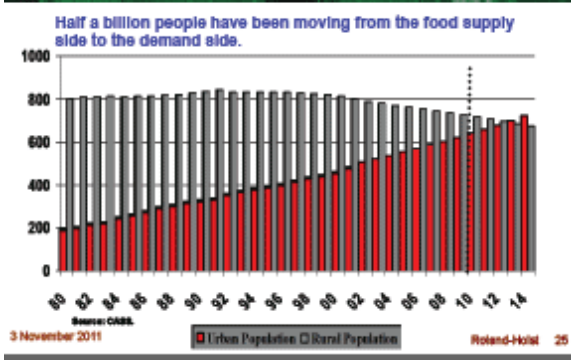


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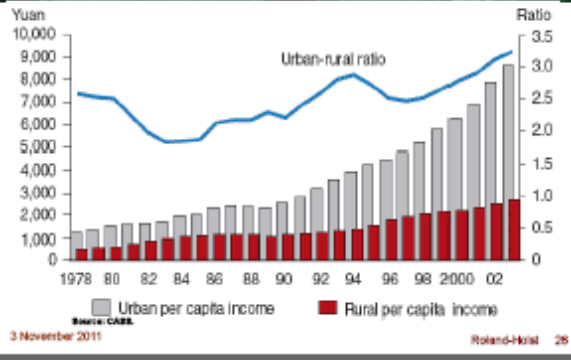
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### Demand: China's Population is Moving

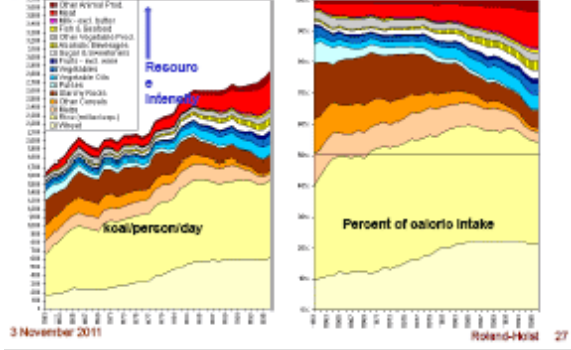
(Rural and Urban, millions)



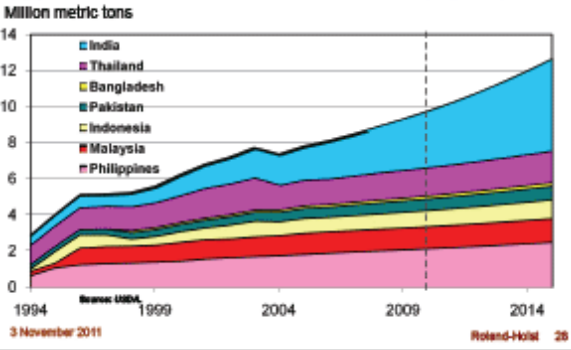
### Income and inequality are both rising



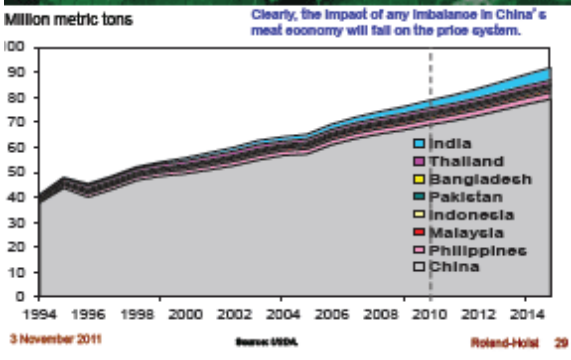
### and Diets are Changing



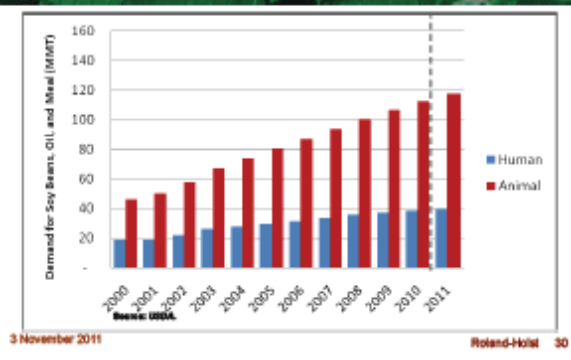
### How Big? Asia Pork and Poultry Production



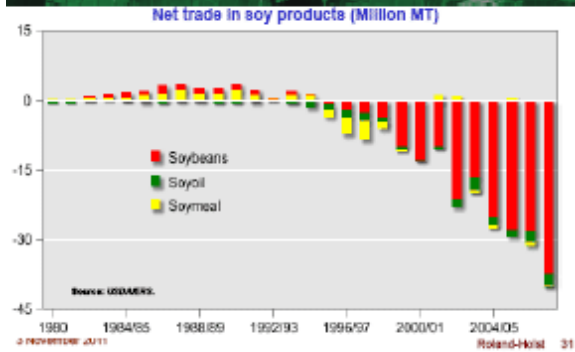
### All Asia Pork and Poultry



### China Soy Demand



### Trade: China's Soy Tsunami



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### 3. Asian AgroFood and Livestock Growth

- With the world's largest population and fastest growing middle class, China's agroFood demand could exert enormous influence on global trade
  - Despite its obvious importance, substantial uncertainty remains about China's future food self-sufficiency
  - Our research suggests that regional agrofood trade will present significant opportunities to alleviate rural poverty at home and elsewhere in Asia.
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### Scenarios for Asian AgroFood Expansion

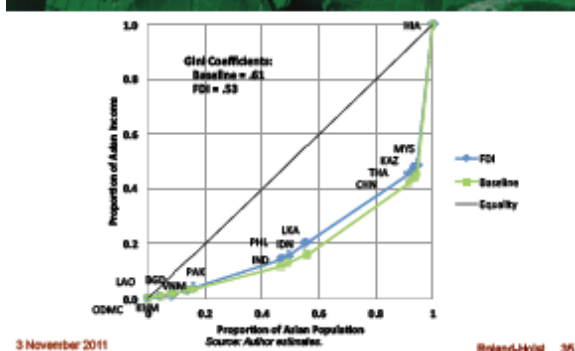
1. Trade Facilitation - In addition to Scenario 1, assume trade, transport, and transit margins to and from and through low income GMS countries are reduced by 50%.
  2. AgroFood Productivity - Assume that total factor productivity grows at 4% annually in Agriculture and Food Processing sectors
  3. Foreign Direct Investment - In addition to Scenario 2, assume that FDI in the low income GMS countries rises to 4% of GDP by 2030 (region varies between 1-12%).
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### Real GDP Impacts Percent Change from Baseline in 2030

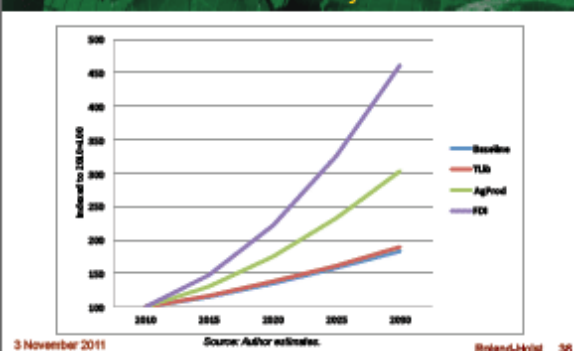
	Trade Lib	AgProd	FDI
HilIncome Asia	0%	1%	0%
PRC	2%	9%	28%
India	1%	22%	64%
Other S. Asia	3%	92%	246%
Thailand	3%	23%	55%
Viet Nam	6%	33%	88%
Cambodia	10%	48%	191%
Laos PDR	2%	86%	258%
Philippines	3%	31%	109%
Other Asia	4%	20%	57%

3 November 2011 Source: Author estimates. Roland-Holst 34

### Regional Agrofood Expansion can be Pro-Poor



### Total Output of Livestock Products by Asian Countries





### III. Livestock Expansion can Improve Health

- Mechanisms like contracting, certification, and cooperatives can improve product quality for consumers, including nutritional values, animal health status, and food safety
- Moreover, such mechanisms are incentive-compatible, promoting investment and management that increases producer income through product improvement
- Such market oriented policies support self-directed poverty alleviation through positive market incentives, reducing sustained expenses for surveillance and transfer payments

*Thank you!*

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## Regional Consultation Asian Livestock: Trends, Challenges and the Response: Design & Mechanics *(Salvador P. Catelo)*

<p><b>Regional Consultation</b> Asian Livestock: Trends, Challenges and the Response</p> <p><b>Design &amp; Mechanics</b></p> <p>Salvador P. Catelo Consultant FAO-RAP</p> <p>November 2-4, 2011 Marco Polo Plaza Hotel Cebu City, Philippines</p>	<p><b>OBJECTIVES</b></p> <p>bring together selected stakeholders from across the region to brainstorm and outline elements of an institutional architecture that can address the challenges in the livestock sector;</p> <p>document the analyses and resolutions in the form of a consultation paper (that shall serve as inputs into country programs, FAO RAP regional program, and other regional and global initiatives)</p>
<p><i>In conjunction with APHCA's mandate</i></p> <p>"to review and track regional issues, status and trends in the livestock sector and to spur national and international action in support of its sustainable development"</p> <p>outcomes will be presented in the 2nd multi-stakeholder Consultation on Global Agenda of Action for Sustainable Livestock, to be held in Phuket on December 1-4, 2011</p>	<p><b>DESIGN</b></p> <p><b>Situational Analysis</b> Adopts the Goal Oriented Project Planning (GOPP) Approach</p> <ul style="list-style-type: none"> <li>Problem Analysis</li> <li>Objective Analysis</li> <li>Alternative Analysis</li> <li>Participation Analysis</li> </ul>
<p><b>STRATEGIC PLAN</b></p> <p>(1) Where are we now? <i>e.g., 10 years from now</i></p> <p>(2) Where do we want to be?</p> <p>(3) How do we get there?</p> <p>(4) How to stay there?</p> <ul style="list-style-type: none"> <li>Are the current policies, programs, projects working? Success factors?</li> <li>If not, what are needed to fill the gaps? (i.e., technological gap; institutional failures; etc)</li> <li>How do we really know that we got there? (What are the indicators?)</li> </ul>	<p><b>WHAT IS THE RIGHT PATHWAY?</b></p> <p>(3) How do we get there?</p> <p>Interventions</p> <p>Satisfaction of the necessary &amp; sufficient conditions</p> <p>(4) How to stay there?</p> <p>Target Outcomes and/or Effects</p>

**APPROACH/PEDAGOGY**


**Thematic discussions & consensus building**

1. Each group shall conduct a situational analysis.
2. Each group shall assign a lead-facilitator and a rapporteur.


The facilitator shall lead the discussion while the rapporteur shall ensure the documentation of all relevant issues, ideas, and supporting facts and figures.

**Thematic discussions & consensus building**  
... continue

3. The workshop shall be aided by structured guide questions.
4. In the course of participation, meta cards shall be used in sharing thoughts among members of the group.



**Meta Cards: to facilitate full participation and faster visualization of ideas**



- brain storming rapid collection of ideas of all members of a discussion group using rectangular pieces of paper and felt pens
- written discussions participation of all, simultaneous; quicker documentation of statements; more efficient consensus building
- group presentation effective and faster way of packaging group ideas

**Answers**

**Thematic discussions & consensus building**  
... continue


5. All members must actively participate.  
*Each is required to answer independently all questions using the meta cards.*
6. All answers shall be posted on the board or wall, arranged or grouped according to the sequence of the questions.  
*No discussion shall take place at this stage.*

**Thematic discussions & consensus building**  
... continue

Question 1	Question 2	Question 3	And so on ...
A.1	A.2	A.3	.
A.1	A.2	A.3	.
A.1	A.2	.	.
A.1	.	.	.
A.1	.	.	.

**Thematic discussions & consensus building**  
... continue

7. After all questions are answered, the group shall review and discuss all the posted answers and arrive at a consensus.



**Thematic discussions**  
... continuation

Question 1	Question 2	Question 3	Question 4
A.1	X	A.2	A.3
X	A.4	A.5	X
A.6	X	A.7	A.8
A.9	A.10	X	A.11
	A.12	A.13	A.14
	X	X	
	A.15		

*consensus building*

**Thematic discussions & consensus building**  
... continuation

8. Each group shall assign spokesperson(s) for the group report presentation. Each group is entitled to a maximum of 20 minutes.

**Summary Matrix**

CATEGORY	Changes (A)	Critical Issues (B)	Success Stories (C)	Suggested Strategies (D)
1. Character of the Livestock Sector				
2. Socio-Economic Dimensions				
3. Human-Animal-Ecosystem Interface				

**Character of the Livestock Sector**

refers to the profound structural changes in the livestock sector

- arising from rapid growth and technological innovation

- (i) move from smallholder mixed farms (safety net) towards large-scale specialized industrial production systems;
- (ii) a shift in the geographic locus of demand and supply to the developing world;
- (iii) an increasing emphasis on global sourcing and marketing

**Character of the Livestock Sector**

**Demand-side Factors**

Rapid increase in consumption of livestock products - per capita consumption has markedly outpaced growth in consumption of other major food commodity groups

- (i) driven by economic growth and rising per capita incomes
- (ii) urbanization - has a significant effect on the consumption of animal products (independent of income levels)
  - growing concentration of animals in cities as people tend to move livestock activities to urban areas

**Character of the Livestock Sector**

**Demand-side Factors ... continuation**

- (iii) Natural-resource endowment - affects the relative costs of different food commodities
  - access to marine resources favors consumption of fish while access to natural resources for livestock production favors consumption of livestock products
- (iv) Cultural reasons - influence consumption habits

<p><b>Character of the Livestock Sector</b></p> <p><b>Supply-side Factors</b></p> <p>1. Favorable (unfavorable) long-run trends in the prices of inputs</p> <p>feed grain prices and consequences on use fuel prices and consequences on transportation and feed grain prices</p> <p>2. Technological change</p> <p>developments and innovations in all aspects of livestock production from breeding, feeding and housing to disease control, processing, transportation and marketing</p>	<p><b>Supply-side Factors</b> ... continuation</p> <p>2. Technological change</p> <p>(i) private research and development efforts impacts on smallholders? commercial producers?</p> <p>(ii) foci of R&amp;D impacts on poor people? externalities related to the environment or public health?</p> <p>(iii) genetic advances &amp; productivity growth true for all sub-sectors? for temperate as well as tropical low- input regions?</p> <p>(iv) technological innovations in processing, transportation, distribution and marketing (value chain) wider use of cold chains? longer shelf-life?</p>
<p><b>Socio-Economic Dimensions</b></p> <p><b>multiple roles of livestock in the livelihoods of people especially those living in poverty; production system and economic performance; demographic change</b></p> <p>Livestock modernization - characterized by large-scale and intensive use of inputs, technology and capital</p> <p>from being multifunctional to commodity specific; increased specialization of production units focusing on single-product operations</p>	<p><b>Socio-Economic Dimensions</b></p> <p>progressive substitution of non-traded inputs in favor of purchased inputs (e.g., feeds being sourced off the farm, either domestically or internationally)</p> <p>livestock- no longer part of integrated production systems (based on local resources with non-food outputs serving as inputs in other production activities within the system)</p> <p>Are the producers better-off or worse off? (per capita income and per capita consumption)</p>
<p><b>Socio-Economic Dimensions</b></p> <p>livestock sector as user and steward of natural resources; how are the players now? social behavioral and impact considerations?</p> <p>- livestock production exacts an environmental cost</p> <p>expansion of land use contributes to deforestation in some countries, while intensification of livestock production causes overgrazing in others</p> <p>creation of alternative social safety nets that protect livelihoods from external shocks</p>	<p><b>Human-Animal-Ecosystem Interface</b></p> <p><b>the way the sector interacts with the natural-resource base and for the management of animal diseases and human- health risks</b></p> <p>changes with respect to the access to animal-health services and a greater voice in livestock disease-control measures</p> <p>diseases impose heavy burden on the poor because poor livestock keepers live in closer proximity to their animals</p> <p>smallholders have less access to veterinary services amidst limited or no surplus income during emergencies</p>

### Human-Animal-Ecosystem Interface

Mandate: improvement in the resource use efficiency and at the same time reduction of negative environmental externalities

- proper incentives, regulations and technology

creative measures against global greenhouse gas (GHG) emissions

geographic concentration of livestock production to balance the absorptive capacity of "wastes" of an area

relocating livestock production away from human population centers in order to minimize the risk of disease transmission

### Summary Matrix (Sample 1)

CATEGORY	Changes (A)	Critical Issues/ Challenges (B)	Success Stories (C)	Suggested Strategies (D)
1. Character of the Livestock Sector	A 1.1	B 1.1.1 B 1.1.2 B 1.1.3	C 1.1.1 C 1.1.2	D 1.1.1
	A 1.2	B 1.2.1 B 1.2.2	C 1.2.1	Sustain the strategies for D 1.2.1
2. Socio-Economic Dimensions				
3. Human-Animal-Ecosystem Interface				

### Summary Matrix (Sample 2)

CATEGORY	Changes (A)	Critical Issues/ Challenges (B)	Success Stories (C)	Suggested Strategies (D)
1. Character of the Livestock Sector				
2. Socio-Economic Dimensions	A 2.1 A 2.2	B 2.1.1 B 2.2.1	None so far C 2.2.1	D 2.1.1 Sustain the strategies for C 2.2.1
3. Human-Animal-Ecosystem Interface				

### Summary Matrix (Sample 3)


CATEGORY	Changes (A)	Critical Issues/ Challenges (B)	Success Stories (C)	Suggested Strategies (D)
1. Character of the Livestock Sector	A 1.1	B 1.1.1 B 1.1.2 B 1.1.3	C 1.1.1 C 1.1.2	D 1.1.1
	A 1.2	B 1.2.1 B 1.2.2	C 1.2.1	Sustain the strategies for D 1.2.1
2. Socio-Economic Dimensions	A 2.1 A 2.2	B 2.1.1 B 2.2.1	None so far C 2.2.1	D 2.1.1 Sustain the strategies for C 2.2.1
3. Human-Animal-Ecosystem Interface	A 3.1 A 3.2	B 3.1.1 B 3.2.1	None so far None so far	D 3.1.1 D 3.2.1

### Example

ITEM	Changes	Critical Issues &/or Challenges	Suggested Strategies
Human-Animal-Ecosystem Interface	1. Climate change	1.1 Water scarcity and/or flooding (Please cite country- specific cases)	1.1.1 Mainstreaming of climate change adaptation in local development plans 1.1.2 Improving knowledge on natural resource protection and sustainable agriculture, and stakeholders' responsibilities
		1.2 Land degradation (Please cite country- specific cases)	1.2.1 Aligning incentives to environmental outcomes 1.2.2 Promotion of best production practices 1.2.3 Adoption of penalty and reward systems

### Common Pitfalls in Problem-Solving (Strategy Formulation)

**A Reminder**



<p><b>Common Pitfalls</b></p> <p>1. <u>Jumping to Cause</u></p> <p>A lot of jumping to conclusions about the cause of a problem, even without having agreed on a specific definition of the problem.</p> <p>2. <u>Butterfly Thinking</u></p> <p>The discussion shift from point to point without effectively dealing with any. The same point is discussed over and over again.</p>	<p><b>Common Pitfalls</b></p> <p>3. <u>Failure to Separate Assumptions from Facts</u></p> <p>Generalization and opinions are accepted without reference to evidence or available facts.</p> <p>4. <u>Analytical Overkill</u></p> <p>Unreasonably long time is spent considering an unimportant issue or something that has already been clarified.</p>
<p><b>Common Pitfalls</b></p> <p>5. <u>Action Overkill</u></p> <p>The "shotgun approach" where everything in sight is proposed to be changed in the hope of covering the causal factor.</p>	<p><b>GROUPINGS</b></p> <p>Group 1 South Asia - Bangladesh, Pakistan, Sri Lanka, Bhutan and Nepal</p> <p>Group 2 East and Southeast Asia - Thailand, Philippines, Malaysia, Vietnam, Laos, and Myanmar</p> <p>Group 3 Pacific Countries - Australia, Samoa, and Papua New Guinea</p>
<p><b>WORKSHOP GUIDE QUESTIONS</b></p> <p><i>Round 1. Individual Work</i></p> <p>1. Over the past decade, what were the notable changes that have occurred in the following aspects of the livestock sector in your country:</p> <ul style="list-style-type: none"> <li>1.1 Character of the Industry</li> <li>1.2 Socio-economic Dimension</li> <li>1.3 Human-Animal-Ecosystem Interface</li> </ul>	<p><b>WORKSHOP GUIDE QUESTIONS</b> ... continuation</p> <p><i>Round 1. Individual Work</i></p> <p>2. What are the critical issues that have arisen out of the above mentioned change(s)?</p> <p><i>Note: Kindly associate the critical issues with the current or emerging problems that your country is facing.</i></p> <p><i>What would be the effects or consequences of the problems when not properly attended to?</i></p>

<p>WORKSHOP GUIDE QUESTIONS ... continuation</p> <p><b>Round 1. Individual Work</b></p> <p>3. Discuss briefly but concisely the success story of the various interventions or strategies so far adapted, if any.</p> <p><i>Note: Discuss the nature of intervention particularly the creative or innovative features of it.</i></p> <p><i>Please highlight the necessary elements that have contributed to the success of the intervention.</i></p>	<p>WORKSHOP GUIDE QUESTIONS ... continuation</p> <p><b>Round 1. Individual Work</b></p> <p>4. What programs (specific interventions) do you suggest to address each of the critical issues identified in #2?</p> <p><b>Round 2. Group Dynamics/Consensus Building</b></p> <p>1. As a group, read all the answers posted on the bulletin board or wall.</p> <p>2. Discuss all the answers and come up with a consensus for all the questions. You may use the attached sample matrix to summarize your group's position paper.</p>
<p>WORKSHOP GUIDE QUESTIONS ... continuation</p> <p><b>Round 3. Group Reporting</b></p> <p>1. Prepare your group's output into a report in word and powerpoint electronic files for submission to the organizing committee.</p> <p>2. Assign the resource person(s) for the group's presentation on November 4, 2011.</p>	