FAO Activities on Zoonotic and Food-borne Disease

Joint APHCA-OIE Regional Workshop on Zoonoses, Food-Borne Diseases and Antimicrobial Resistance
Thimphu, Bhutan, 24-25 September 2013
FAO’s Mandate

• Achieving food security for all is at the heart of FAO's efforts – to make sure people have regular access to enough high-quality food to lead active, healthy lives.

• Our mandate is to improve nutrition, increase agricultural productivity, raise the standard of living in rural populations and contribute to global economic growth.

• FAO recognizes the importance of zoonotic and food-borne diseases as they impact not only on livestock productivity but also consumer health as well as health of farmers that may lead to insufficient ability in farming.
FAO Activities Related to Zoonotic and Food-Borne Diseases

- Various sources of funding (development partners and FAO) for country and regional projects related to zoonotic and food-born diseases control.

Promote adequate governance of Veterinary Services at regional, national and field levels in accordance to the Standards.
Priority diseases including zoonosis

Strategic and Collaborative Frameworks

Multi-sectoral and multi-disciplinary approach

Support in Planning and Policy Development and Coordination

Coordination

Diagnostic laboratory support

Surveillance, early warning and outbreak response

Risk determination and risk mitigation

Evidence/Scientific-Based Planning and Implementation

Networking and Information Sharing

Capacity Building and Networking

Capacity building – HR and Institution
Support Capacity Building and Networking
Technical Scopes for Laboratory Capacity Building

- Workshops/Trainings
- Provision of reference books, software, sample referral, equipment, reagents and supplies
- Laboratory assessment
- Proficiency testing program
- Biosafety risk assessment
- Biosafety cabinet testing and calibration
- National and Regional laboratory network meetings (LDF, Lab-TAG)
- Laboratory partnerships

• Strengthen diagnosis capacity
• Facilitate laboratory networking at national and regional level
• Assure the quality of laboratory services
• Improve laboratory biosafety

ECTAD Emergency Centre for Transboundary Animal Diseases
Geographic Focus
2012-13 Regional laboratory activities

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
Regional Laboratory QA program

2010 – Influenza (FluA, H5,)
2011 – Influenza (FluA, H5,), PRRS, CSF
2012 – Influenza (FluA, H5,), PRRS, CSF, ASF, ND, Rabies
2013/14 – Influenza (FluA, H5, H7), PRRS, CSF, ASF, ND, Rabies, Brucellosis
Regional Laboratory Biosafety Program

Laboratory staff safety – Rabies vaccination program

<table>
<thead>
<tr>
<th></th>
<th>2010-11</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>6</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Laboratory</td>
<td>7</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>Serviced BSCs</td>
<td>39</td>
<td>130</td>
<td>170</td>
</tr>
</tbody>
</table>
Field Epidemiology Training Program for Veterinarian (FETPV):

- Regional program hosted by Department of Livestock Development, Thailand

- Concept - Training through providing services

- Jointly supported by FAO, USAID, US CDC and others

- Closely linked with FETP for public health sector:
  - Joint training module – epidemiological concept as common core course
  - Joint demonstration and actual on Zoonotic or Food-Borne Disease Outbreak Investigation

- Linkage between “epidemiology and laboratory networks”
- Multidisciplinary approach
- Engagement of wildlife health sector
- One Health Approach

- Expanded to country level in SE Asia – China, Cambodia, Laos, Viet Nam
- Expanded to South-Asian sub-region – India, Nepal
- There are also other similar epidemiology training programs – Applied Veterinary Epidemiology Training (AVET)
Environmental Animal Health Management

- Building capacity in assessing, correcting, controlling and preventing those factors that may have adverse effects on the health of animal and human populations, and the wider environment.
  - This relates to those aspects of animal health and welfare that are determined by physical, chemical and biological factors, external to the animal in the local farm setting and the broader environmental context of animal production.

Placing surveillance results in their environmental setting
Consolidation and Application of Capacities for Zoonosis and TADs Surveillance and Control

- Risk assessment
  - Baseline information – animal population/census
  - Value chain
  - Social network analysis
  - Ecological studies – dog and wildlife
- Risk-based surveillance – link field epidemiology and laboratory
- Planning for risk management – field, national, cross-border levels
Support in Planning and Policy Development and Coordination
Strengthening the Policy and Coordination for Laboratory and Epidemiology Capacity Development and Networking at Regional Level

Partners engagement
- Technical Advisory Group (TAG) Meeting
- Epidemiology Consortium Meeting
- Donors, Implementing partners, including the Director of the Regional Reference labs and RRL
- Technical Meeting and training
- Joint Animal Health and Public Health Laboratory Meeting

Policy advocacy
- Laboratory Directors’ Forum Meeting
- Directors of the RLN members, RRL, RLDL
- CVO Meeting for epidemiology development

ASEAN SAARC Regional Strategic Frameworks
Six strategic goals

ASEAN Strategic Framework for Laboratory Capacity Building and Networking

- Development of regionally-coherent, national laboratory strategies and policies
- Allocation and mobilisation of resources to support implementation of national strategies for efficient and cost-effective delivery of laboratory services
- Strengthening of ASEAN Member States capacity to provide acceptable quality and proficient laboratory services
- Enhancement and promotion of acceptable biosafety and biosecurity practices and environment in laboratory settings
- Enhancement and promotion of linkages and sharing of information among laboratories and stakeholders to ensure rational use of laboratory services
- Strengthening of ASEAN Member States capacity on planning, coordinating, and implementing research activities under standard ethical research conducts
Four strategic goals
ASEAN Strategic Framework for Epidemiology Capacity Building and Networking

Development of regionally-coherent, **national organizational structures and systems** to support functions of veterinary epidemiology

Enhancement and promotion of **linkages, partnerships, networks, coordination and collaboration** among AMS, development partners and stakeholders to maximize efficient and sustainable uses of available resources

Strengthening **human resources capacity** and management to ensure effective use of trained veterinary epidemiologists and to effectively deliver national animal health programs in compliance with international standards

Enhancement and promotion of awareness and understanding of **veterinary epidemiology** to provide support, to ensure science base decision-makings, and to efficiently mobilize resources based needs
ASEAN cooperation on animal health and Zoonosis

- ASEAN Animal Health Trust Fund (AAHTF)
- Synergizing Information Systems
  - ARAHIS and AHPISA
- ASEAN priority diseases
  - AI, ND, FMD, CSF, PRRS, Rabies, BSE
- Establishment of ASEAN Coordination Centre for Animal Health and Zoonosis (ACCAHZ)
Establishment of ACCAHZ

Regional coordination mechanism on matters related to animal health and zoonoses

Pre 2008
- SEAFMD Transition
- HPAI
- Recognition of the need for an RCM

2008 – 2009
- Conduct a study on Strengthening ASEAN Regional Coordination on AH and Zoonoses

2010
- Agree on the proposed establishment of an RCM
- Establishment of an ad hoc taskforce & TOR
- Ad hoc TF TOR endorsed and supported its implementation by SOM-AMAF 32nd.

2011 – 2012
- SOM-33rd AMAF endorsed the proposal and implementation of preparatory plan
- ACCAHZ Preparatory Committee established
- Develop the Framework of the Establishment and Financing Agreement
Establishment of ACCAHZ

- **2011-2014**: Preparatory Phase
  - Agreements signed

- **2015-2016**: Establishment Phase
  - Phasing in other mechanisms

- **2017 onwards**: Operational Phase
  - Fully functional ACCAHZ

**ASEAN RSU assuming functions of ACCAHZ**

- **2011-2014**: Preparatory Phase
  - Agreements signed

- **2015-2016**: Establishment Phase
  - Phasing in other mechanisms

- **2017 onwards**: Operational Phase
  - Fully functional ACCAHZ

**ASEAN RSU as an Interim Secretariat**
Establishment of ACCAHZ

- ACCAHZ proposed structure

Structure and funding options will be considered by SOM and AMAF during 26-27 September
Tripartite (FAO-OIE-WHO) Collaboration at Regional Level

- Joint activities under:
  - EUHPED and IDENTIFY
  - Support joint coordination at regional and country levels
  - Laboratory aspect
  - Training (field epidemiology training program at regional and country levels)
- National OH events
- Disease specific activities
  - Avian Influenza
  - Rabies
  - AMR

Regional Workshop on Collaboration between Human-Animal Health Sectors on Zoonoses Prevention and Control:
- First Meeting (WPRO) – Sapporo
- Second Meeting (FAO) – Chiang Mai
- Third Meeting (OIE) – Bali
- Fourth Meeting to be organized by SEARO in Nepal
### Priority Transboundary Animal Diseases for Asia

<table>
<thead>
<tr>
<th>Poultry</th>
<th>Pig</th>
<th>Cattle</th>
<th>Goat/Sheep</th>
<th>Multi-species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avian Influenza</td>
<td>African Swine Fever</td>
<td>Anthrax</td>
<td>Peste des Petits Ruminants</td>
<td>Brucellosis</td>
</tr>
<tr>
<td>New Castle Disease</td>
<td>Classical Swine Fever</td>
<td>BSE</td>
<td></td>
<td>Salmonellosis</td>
</tr>
<tr>
<td>Porcine Respiratory and Reproductive Syndrome</td>
<td>Tuberculosis</td>
<td></td>
<td></td>
<td>FMD</td>
</tr>
<tr>
<td>Nipah Virus Infection</td>
<td>Hemorrhagic Septicemia</td>
<td></td>
<td></td>
<td>Leptospirosis</td>
</tr>
</tbody>
</table>

**Zoonotic diseases**
## Disease-Specific Activities

<table>
<thead>
<tr>
<th>Disease</th>
<th>Activities</th>
<th>Coverage</th>
</tr>
</thead>
</table>
| **Avian Influenza**                          | 1. Planning and coordination  
2. Laboratory and epidemiology capacity  
3. Risk assessment and management including biosecurity improvement  
4. Cross-border collaboration                 | China, SE Asia and South Asia                                             |
| **Rabies**                                   | 1. Planning and coordination  
2. Dog ecology  
3. Laboratory capacity  
4. Bite case integrated management  
5. Risk communication and advocacy            | China, SE Asia (Laos, Indonesia, Philippines, Viet Nam) and South Asia   |
| **Nipah and other bat carrying diseases**    | 1. Planning and coordination  
2. Bat ecology  
3. Research on WH-AH-HH interface            | SE Asia (Philippines, Thailand, Viet Nam)                                |
| **Brucellosis**                              | Laboratory capacity (jointly with OIE)                                    | SE Asia                                                                |
| **Anthrax**                                  | Outbreak investigation                                                     | Laos                                                                  |
| **AMR**                                      | Meetings and workshops to assess the current status of problems and capacities, needs and future directions | Regional level                                                         |
Impacts (so far)

• Capacity on laboratory and epidemiology of human resources in the region has been improved with quality demonstrated to some level – influenza, rabies, etc.

• Better understanding of risks – trade & clade
  – Capacity built to be able to update risk information

• Better coordination with other sectors – Collaborative Framework for Program implementation

• Involvement of policy level
Sustainability

Expectation
Ability to apply capacities that have been built to other endemic and emerging zoonotic diseases

• Challenges
  – Human resources: Training without follow-up activities relevant to priority will not last.
  – Political commitment: to ensure career path of HR, and to develop the national strategies related to animal health/disease control so financial resources can be in place to sustain activities in longer term
  – The above has even made it more difficult to apply/adapt to the changing environments or future emerging threats.

• FAO’s effort to address the challenges:
  – Concurrently building institutional capacity – strategic planning and system development at national and regional levels
  – Continue to advocate to the decision makers at the member countries on the challenges that require their commitment and actions
While capacities of member countries are improved/in place, but with limited national financial resources, advocacy needs to be made to developmental partners for any global public goods.
THANK YOU