Major diseases situation in the Sub-region

No country other than Nepal reported outbreaks of highly pathogenic avian influenza (HPAI H5N1) in the Sub-region during September - October 2013. However, the Sub-region continued to record anthrax, leptospirosis and Crimean-Congo haemorrhagic fever (CCHF) in one or the other country. CCHF was continued to be reported from Pakistan, as was Anthrax in Bangladesh.

HPAI outbreaks in Nepal

Nepal continued to report H5N1 HPAI outbreaks in poultry. The Department of Livestock Services (DLS), Nepal reported 85 new outbreaks of HPAI H5N1 in August and September 2013 at various farms of Bagmati and Narayani zones (map) affecting commercial broilers, layers, parent stock birds and backyard poultry (Table - 1). A total of 43,691 poultry were affected out of a susceptible population of 1,416,000; 1,312,309 birds were destroyed during control and containment operations. The Government of Nepal submitted a follow-up report no. 13 on 12/11/2013 to the World Organisation for Animal Health (OIE) (http://www.oie.int).
<table>
<thead>
<tr>
<th>SN</th>
<th>Zone</th>
<th>No of Outbreaks</th>
<th>District</th>
<th>VDC/Municipality, wards and Village</th>
<th>Unit</th>
<th>Start date</th>
<th>Farm type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BAGMATI</td>
<td>1</td>
<td>Bhaktapur</td>
<td>Bhaktapur Municipality and adjoining villages</td>
<td>Farm and village</td>
<td>14-Aug</td>
<td>CL, CB, PS, BYP</td>
</tr>
<tr>
<td>2</td>
<td>BAGMATI</td>
<td>40</td>
<td>Kathmandu</td>
<td>Mulpani, Nayapati, Indrayani Pepsikola, Gothatar, Nayapati, Danchi, Kirtipur Municipality and Thankot Area</td>
<td>Farm</td>
<td>15-Aug</td>
<td>CL, CB, PS</td>
</tr>
<tr>
<td>3</td>
<td>BAGMATI</td>
<td>25</td>
<td>Lalitpur</td>
<td>Lubhu Lamatar, Thaiba, Sainbu, Bhaisepati</td>
<td>Farm</td>
<td>17-Aug</td>
<td>CL, CB, PS</td>
</tr>
<tr>
<td>4</td>
<td>BAGMATI</td>
<td>1</td>
<td>Sindhupalchowk</td>
<td>Pangretar-7</td>
<td>Farm</td>
<td>19-Aug</td>
<td>CB</td>
</tr>
<tr>
<td>5</td>
<td>BAGMATI</td>
<td>15</td>
<td>Kavre</td>
<td>Ugratara, Ugrachandi, Banepa Municipality, Nasika, Patalekhet, Tukucha Nala Area</td>
<td>Farm</td>
<td>21-Aug</td>
<td>CL, CB, PS</td>
</tr>
<tr>
<td>6</td>
<td>BAGMATI</td>
<td>1</td>
<td>Kathmandu</td>
<td>Tokha-7 Saraswati</td>
<td>Farm</td>
<td>24-Aug</td>
<td>CB</td>
</tr>
<tr>
<td>7</td>
<td>BAGMATI</td>
<td>1</td>
<td>Kathmandu</td>
<td>Phutung, Kavresthali-5</td>
<td>Farm</td>
<td>14-Sept</td>
<td>PBS</td>
</tr>
<tr>
<td>8</td>
<td>NARAYANI</td>
<td>1</td>
<td>Makwanpur</td>
<td>Hetauda Municipality-6 and 8</td>
<td>Farm and village</td>
<td>15-Aug</td>
<td>CL, CB, BYP</td>
</tr>
</tbody>
</table>

VDC= Village Development Committee, Village = smallest unit in the VDC/Municipality, CB=Commercial broiler, CL=Commercial layer, PS= Parent stock (broiler and layers), PBS=parent broiler stock, BYP = Backyard poultry

### Bangladesh

**Anthrax situation update**

According to update provided by the Institute of Epidemiology, Disease Control and Research (IEDCR), Bangladesh, there were total of 88 confirmed human cases reported from September to October 2013 in 3 Upazilas (Shahjadpur (11), Gangi (29) and Damurhuda (32) in September and Gangi (16) in October). More information can be seen on the website of IEDCR (http://www.iedcr.org).

### Pakistan

**Crimean Congo hemorrhagic fever (CCHF) update**

Till the week 40 of 2013, a total of 77 suspected and 48 confirmed cases of Crimean Congo hemorrhagic fever (CCHF) have been reported in Pakistan resulting in 15 deaths across the country. During September - October 2013, seven confirmed and 13 suspected cases of CCHF have been reported in Khyber Pakhtunkhwa (KPK) and Balochistan provinces. As per details 23, 7, 6 and 5 confirmed cases have been reported in the provinces of Balochistan, Sindh, KPK and Punjab, respectively. Almost all cases were found to be associated with animal trading / handling, animal slaughtering, and or have history of direct contact with patients of CCHF and tick bites. The calculated case fatality rate was 7.2%. The information was collected and reviewed from weekly epidemiological bulletin 2013:Vol. 4, Issue 37 – 40 (http://reliefweb.int/sites/reliefweb.int/files/resources/Weekly-Epidemiological-Bulletin-40-09102013.pdf).

### Sri Lanka

**Leptospirosis update**

Leptospirosis is a zoonotic disease which is endemic in Sri Lanka. It is being reported from almost all districts in the country. There were 309 and 256 leptospirosis cases from 23 and 21 districts, respectively between September and October 2013. Highest number of cases were reported from Gampaha district (106) followed by Kalutara district (71) of Western province and Ratnapura district (63) in Sabaragamuwa province. As of October end 2013, the total number of human leptospirosis cases recorded by the Epidemiology unit stands at 3439. Previous experience and data suggests that the disease is mainly associated with paddy farming. Therefore the persons engaged in paddy cultivation are advised to keep the area around the paddy fields clean, ensure the existing water is flushed prior to cultivation. More information can be seen on the website of the Epidemiology Unit, Ministry of Health (www.epid.gov.lk).
Workshops Conducted

Regional ‘Field Epidemiology Training Programme for Veterinarians (FETPV)’ for the SAARC countries, 9 - 27 September 2013, Kathmandu, Nepal

The Regional Epidemiology Center is engaged in building the epidemiology capacities of the field veterinarians from the SAARC sub region. The first short course (three weeks) “Field Epidemiology Training Programme for Veterinarians for the SAARC countries (FETPV)” was conducted by REC/RSU for the SAARC region in 2012. To continue the capacity building effort the second FETPV for SAARC countries was conducted from 9 - 27 September 2013.

The aim of the course was to support the basic understanding of epidemiological concepts, outbreak investigation and animal disease surveillance using a multidisciplinary approach, with about 40 percent of the training being field/exercise based. The specific learning objectives of the training programme were to provide the participants with basic field epidemiological competencies and skills and apply them in their work place after they complete the course.

The FETPV trainees were drawn from all the Member States of SAARC region numbering 3 - 4 participants from each Member State up to a total of maximum 22 participants. Criteria like minimum qualification of bachelor degree in Veterinary Science or Medicine, minimum two years of working experience, maximum age limit of 40 years and nominated by their respective Government authority were considered for the selection of the trainees.

The course was mainly conducted by the technical team members of REC/RSU. Two external resource persons were engaged each from FAO RAP, Bangkok and Colorado State University, USA to support the training programme along with local experts from UNICEF, WHO and Nepal wild life department for communication, public health and wild life, respectively.

2nd Regional workshop on progressive control pathway for foot and mouth disease (PCP-FMD) for South Asian countries, Agra, India, 2 - 4 October 2013

The first regional workshop to develop foot and mouth disease progressive control pathway (PCP-FMD) for SAARC countries was held from 22 - 24 November 2011 in Kathmandu, Nepal. The participants recommended reviewing the progress on yearly basis in a regional meeting. In order to review the progress made so far and challenges to implement the agreed road map 2011 - 2020 in the SAARC countries, the RSU held the second regional follow-up workshop of PCP -FMD for FMD virus gene pool-2 South Asian countries. The workshop was participated by Bangladesh, Bhutan, India, Nepal, Sri Lanka (pool 2), FAO and OIE. Two other SAARC countries (Afghanistan and Pakistan) falling under FMD virus gene pool-3 participated earlier in the 4th Annual West Eurasia Roadmap Meeting held in Baku, Azerbaijan from 2 - 4 April 2013.

Dr Mohinder Oberoi, Sub-regional Manager/RSU Coordinator and Dr Muhammad Akram, REC Assistant Coordinator participated in the workshop held in Agra, India from 2 - 4 October 2013.

The important recommendations drawn were;

- FAO continues to and OIE is encouraged to support
the countries in the region to move forward in adopting and implementing the PCP - FMD by providing specialised expertise to some countries of the region in preparing their national FMD control programme, including for endorsement by OIE of this National FMD control plan at the end of stage 3, and other support as needed

- Region continues to endorse the PCP approach and updating the roadmap, with annual assessment for indicators of progress

- The PCP continues to be used as a very valuable monitoring tool and that the countries regularly update their PCP stage evaluation using the PCP assessment tool (and the relevant questionnaires)

- Support be given for the strengthening of Veterinary Services when appropriate and that the relevant OIE Performance of Veterinary Services Pathway (PVS) tools be used for improving animal and public health and to allow them to ensure good governance

- Availability of quality controlled vaccines complying with the OIE standards be ensured and post-vaccination protocols be developed and implemented for monitoring in the countries and at a regional level

- Epidemiology capacity continues to be strengthened in the region and the development of a risk-based surveillance system for FMD across the value chain

- Support be given to develop capacity in the evaluation of national information systems as well as monitoring of control interventions

- The interactions between laboratory and epidemiology networks be developed to encourage exchange of expertise and information sharing

- Support be given to improve trained manpower in laboratory diagnosis and to upgrade the national FMD laboratory equipment

- Socio-economic impact analysis be undertaken and specialised expertise be provided where and when appropriate

- A feasibility study be undertaken to explore the possibility in establishing a regional vaccine bank for the SAARC region, considering the structure of the existing regional vaccine bank under the HPED, EU-funded programme when conducting the feasibility study

- The technical expertise available in the region be utilised across the SAARC member countries

- Each country should identify an FMD Roadmap focal point for communication and that the Roadmap Secretariat (RSU) sends a request to each participating country on this point

- Animal movement across borders and within countries should be investigated to complete PCP stage 1, assist in the design of the national risk-based strategic control plan and develop regional value chain analysis

- Countries be encouraged to create immune belt by vaccination along the international land borders

- Countries be encouraged to submit samples for characterisation at the SAARC RLDL on FMD

- The regional coordination mechanisms such as the Regional Support Unit enhanced with a well-balanced participation of all the South Asian countries

Workshops and Meetings Attended

Inception Workshop for FAO Technical Cooperation Projects: Emergency Assistance for Surveillance of Influenza A(H7N9) Virus in Poultry and Animal Populations in Southeast Asia and South Asia (TCP/RAS/3406(E) and TCP/RAS/3407(E), Bangkok, Thailand, 18 - 20 September 2013

The emergence of avian influenza A(H7N9) in China raises the possibility of the virus being introduced to a number of surrounding countries in the ASEAN and SAARC regions. The main areas requiring immediate reinforcement are epidemiologic knowledge, surveillance and diagnostic capacity, risk management including preparedness and response, risk communication to relevant stakeholders, as well as coordination and collaboration among ASEAN and SAARC countries and between animal and human health sector.

The overall objective of the projects is to conduct a coordinated sub-regional surveillance and response to
avian influenza A(H7N9) in poultry and other animal populations in high-risk countries in Southeast and South Asia. The immediate objective of the projects is to enable the targeted countries to better detect, control and respond to A(H7N9) influenza.

Dr Mohinder Oberoi, Sub-regional Manager/RSU Coordinator and Mr Simon Boas, Emergency Programme Officer participated in the inception workshop of FAO’s new TCPs at which a package of measures was agreed and time tabled for ASEAN and SAARC countries.

**Regional workshop on emerging infectious diseases: Novel Corona viruses, 8 - 10 October 2013, Colombo, Sri Lanka**

The regional workshop was organised by WHO-SEARO with the background that the South-East Asia Region is prone to numerous acute threats to animal health and public health, including emerging infectious diseases (EIDs) such as avian influenza H5N1, Crimean-Congo haemorrhagic fever (CCHF) and Nipah virus. Recently two new viruses avian influenza A(H7N9) and Middle East respiratory corona virus (MERS-CoV) have increased the threat perception of EIDs in the South and South-East Asia regions because of which this regional workshop was convened. The RSU Coordinator participated to represent FAO at the workshop.

The overall objective of the workshop was to strengthen regional capacity to respond to emerging infectious diseases (EIDs), especially to discuss epidemiology, preparedness and agree on public health actions to ensure effective management of events due to new EIDs. The workshop focussed on the national and regional preparedness for detection and response to new EIDs with particular reference to novel corona viruses.

The meeting discussed an overview of EIDs in SEA region, which included status of Nipah virus in Bangladesh, CCHF in India, H5N1 in Indonesia, H7N9 in China, MERS-CoV in Kingdom of Saudi Arabia, etc. Recommendations were drawn at the end of workshop for the Member States and WHO.

**Terminal workshop of OSRO/IND/802/USA project- ”Immediate Technical Assistance to Strengthen Emergency Preparedness for Highly Pathogenic Avian Influenza (HPAI) to India”, New Delhi, India, 24 September 2013**

Dr Mohinder Oberoi, Sub regional Manager/RSU Coordinator participated as a penalist in the terminal workshop of the project. At the conclusion of the project some of the key components for consideration which need to be strengthened under the Epidemiology programme were identified as: strengthening the capacity building in epidemiology and surveillance; involvement of various stakeholders; industry, public health, poultry farmers, backyard poultry owners and others; framing of guidelines and legislation to help in its implementation and need for a vision for the nation and the region for controlling HPAI and other TADs.

**RSU News**

**Dr Baikuntha Parajuli, Joins RSU as National Consultant**

Dr Baikuntha Parajuli joined as a National consultant in Sub regional ECTAD based Technical Cooperation Project “Emergency Assistance for Surveillance of Influenza A(H7N9) Virus in Poultry and Animal Populations in South Asia” (TCP/RAS/3407 (E)). Dr Parajuli, is a veterinarian with BVSc and AH from India and Master of Science in Animal Health from University of London. He has been trained in Veterinary Epidemiology and Economics in Livestock Development from VEERU, University of Reading, UK. He has more than 30 years of experience as a government veterinarian in various capacities and more than six years of experience in HPAI H5N1 in Nepal. He was working as Communication Specialist for Zoonoses Control Project of Nepal assisted by World Bank prior to this assignment.

**Upcoming events**

1. Regional training on quality control during FMD and PPR vaccine production, 02 – 06 December 2013, Pune, India

2. Regional Workshop on Risk Assessment of H7N9 and Regional Poultry Supply Chain in SAARC Countries, 18 – 20 December 2013, Bangkok, Thailand

3. Second Regional Workshop on Progressive Control of peste des petits ruminants (PPR) for South Asian Countries, 19 - 20 December 2013, Kathmandu, Nepal
Eliminating Animal Health Risks

**FAO/EMPRES guidelines for emergency risk-based surveillance for avian influenza A(H7N9)**

**Prioritization chart**

- Infected area / country
  - Risk-based surveillance along the market chain
  - Improved long-term preparedness
  - High Risk
    - Surveillance at port of entry
  - Moderate Risk
    - Surveillance at port of entry
    - Risk-based surveillance along the market chain
    - Improved long-term preparedness
  - Low Risk
    - Improved long-term preparedness
- Uninfected area / country
  - Risk-based surveillance along the market chain
  - Retrospective Surveillance
  - Improved long-term preparedness

Design process for risk-based surveillance along the market chain, based on a snowball sampling strategy

**STEP 1**
Select Live bird markets (LBMS):
Collect biological samples and administer questionnaire.

**STEP 2**
Identify the catchment area of positive LBMS:
collect biological samples and administer questionnaire in farms and LBMs linked to the positive LBMs.

**STEP 3**
Identify the secondary catchment area of positive farms and markets:
collect biological samples and questionnaires in farms and LBMs linked to the positive units. Conduct serological surveillance around positive farms.

Regional Support Unit and Emergency Centre for Transboundary Animal Diseases for South Asia
FAO, Kathmandu, Nepal

For further information, contact: Dr. Mohinder Oberoi, Sub-regional Manager: ECTAD and Co-ordinator Regional Support Unit (South Asia) at mohinder.oberoi@fao.org, Tel: +977-1-5010209, Fax: +977-1-5010312
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