**Assessment on National Laboratory System**

**for GHSA Meeting on “Step towards Regional Strategic Collaboration in Asia-Pacific on Workforce Development, National Laboratory System Strengthening & Antimicrobial Resistance Prevention to Respond Global Challenges”**

**6-8 May 2015, Bangkok, Thailand**

**for animal health sector**

This assessment will be used to identify existing National Laboratory System capacities, needs, gaps and challenges. This information will be useful to develop the initial roadmap of regional collaboration mechanism for Asia-Pacific Region in the GHSA meeting on “Step towards Regional Strategic Collaboration in Asia-Pacific on Workforce Development, National Laboratory System Strengthening & Antimicrobial Resistance Prevention to Respond Global Challenges”

Action package : Detect-1 National Laboratory System

This questionnaire is intend to use to assist the participant to prepare the information for the GHSA meeting on May 6-8 only. It is not intended to substitute any assessment process. Each country should reply only 1 set of questionnaire.

Please read the action package provided and answer the questions.

1. Background information

1.1. Country :

1.2. Name of individual respondent :

Position :

Institute :

Ministry:

Address :

Phone : Fax : e-mail :

Affiliation: …….Government

…….Private

…….University

…….Other …………………………

1.3. Name of the institute that oversight the laboratory in the country.

Address :

Contact person name :

e-mail :

1.4. Brief country profile

Area :

Population :

Top 5 burden diseases (Zoonosis only)

1 2

3 4

5

**Please answer the below questions by ticking Yes or No and describe some relevant details**

**Five-Year Action Items:**

**Actions will be coordinated, as appropriate, with relevant international organizations including FAO, OIE and WHO.**

1. Evaluate capacity needed at national reference, provincial, and district laboratories and implement a five-year approach based on experience with Integrated Disease Surveillance and Response (IDSR) and other ongoing platforms to build capacity at each level. (please describe capacity needed)

1.1 National level \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.2 Regional level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 State/Provincial level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 District level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Integrate or increase collaboration among human and animal laboratory systems for a One Health approach.

Yes No

3. Have field-test novel point-of-collection diagnostics appropriate for screening outbreak specimens.

Yes No

4. Train biomedical engineers in-country to certify biosafety cabinets and repair/maintain general laboratory equipment (centrifuges, fridges, freezers, incubators).

Yes No

5. Systematically submit microbial samples or isolates to the public health reference laboratory/ies at the regional or national level.

Yes No

6. Establish a laboratory information management system that links with the national disease reporting system.

Yes No

7. Provide infrastructure improvements, security enhancements, freezers, and a pathogen access control software system to archive and protect collections of dangerous pathogens.

Yes No

8. Implement step-wise improvement toward accreditation at the district and central levels.

8.1 Central level Yes No

8.2 Regional level Yes No

8.3 State/Provincial level Yes No

8.4 District level Yes No

9. Implement basic microbiology training for each level laboratory technicians

Modules on \_\_\_\_\_\_\_\_\_\_specimen collection

\_\_\_\_\_\_\_\_\_\_packaging, transport

\_\_\_\_\_\_\_\_\_\_disposal.

10. Have mechanisms to integrate and sustain national and regional diagnostic capability, including acquisition of reagents and media and access to reference laboratories to support ongoing validation of point-of-care diagnostic tests.

Yes No

If yes please clarify\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Baseline Assessment and Planning Activities**

1. Use OIE’s PVS Pathway to identify countries’ priorities for strengthening core competencies. Yes No Others (please identify)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Identify the five priority test-pathogen combinations to form the basis for nationwide laboratory system strengthening efforts.

2.1 Pathogens\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Testing methods\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 Pathogens\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Testing methods\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.3 Pathogens\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Testing methods\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.4 Pathogens\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Testing methods\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.5 Pathogens\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Testing methods\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Determine the level of diagnostic capability practical and needed at each level of the animal health hierarchy from national to district.

3.1 National level

Current laboratory biosafety level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_needed level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.2 Regional level

Current laboratory biosafety level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_needed level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.3 State/Provincial level

Current laboratory biosafety level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_needed level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.4 District level

Current laboratory biosafety level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_needed level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.5 Other level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Current laboratory biosafety level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_needed level\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. There are laboratory assessments

Yes No If yes please notify the organization\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4.1 If the assessments failed, is the correction performed prior the test continue

Yes No

5. Develop national plans for developing and transitioning diagnostic approaches and training.

Yes No Please briefly explain\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Map all laboratories in the country with geographic information system (GIS) technology.

Yes, based on\_\_\_\_1.population density\_\_\_2.disease burden\_\_\_\_3.both No

6.1 Calculate the number of additional testing facilities or specimen referral routes needed to ensure animal population access, especially by rural and vulnerable animal populations, to diagnostic testing and care facilities.\*

Yes No

7. Contain existing system vulnerabilities (e.g., laboratory commodity supply chain weaknesses).

Yes No If yes please identify\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Develop national protocols to address specimen handling (safe and secure collection, packaging, transport, and disposal), controlled archiving, and import/export procedures.

Yes No

8.1 Identify public-private partnerships that could support a more robust specimen transport system and/or use of mobile health technology for laboratory result reporting.

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9. Develop a complete toolkit of best practices, guidance, lessons learned and capacity building actions to offer to countries and to contribute to measurable progress.

Yes No If yes please identify\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Identify performance measures:

10.1 Identify and/or define performance measures, target laboratories for phased improvements, tier-specific testing capacities, and result reporting pathways

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10.2 Identify existing performance measures for laboratory-based disease surveillance.

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11. Develop appropriate accreditation programs at the region and central levels.

Yes No If yes please identify\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. Develop a catalog of diagnostics, both currently available and in development, which may be of use to partners interested in incorporating new diagnostic capabilities.

Yes No

\* Mapping should include laboratory capacities, networks, and partner domains and competencies. Calculate the number of additional strategic sites necessary for storage of rapid tests for priority diseases.

**Monitoring and Evaluation Activities**

1. Laboratory quality assurance:

1.1 Train long-term laboratory assessors.

Yes No

1.2 Conduct annual proficiency panel testing on testing capacities defined by tier at each testing site.

Yes No If yes please identify frequency\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Conduct proficiency testing for animal diseases with guidance from reference laboratories.

Yes No If yes please identify disease and which Reference laboratory \_\_\_\_\_\_\_\_\_

3. Monitor turn-around time and laboratory result reporting and ensure that they are within defined limits.

Yes No

4. Review system performance during outbreaks or execute drills to assess performance of system improvements at least annually.

Yes No