

Activities on Diagnostic and Surveillance in Bacteriology and Mycology Laboratory, NAHPRI, GDAH

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中国动物卫生与流行病学中心
China Animal Health And Epidemiology Center

**WOAH Regional Hands-on Training on
Zoonotic TB Diagnosis**
Qingdao, China P.R., 1 – 5 September
2025

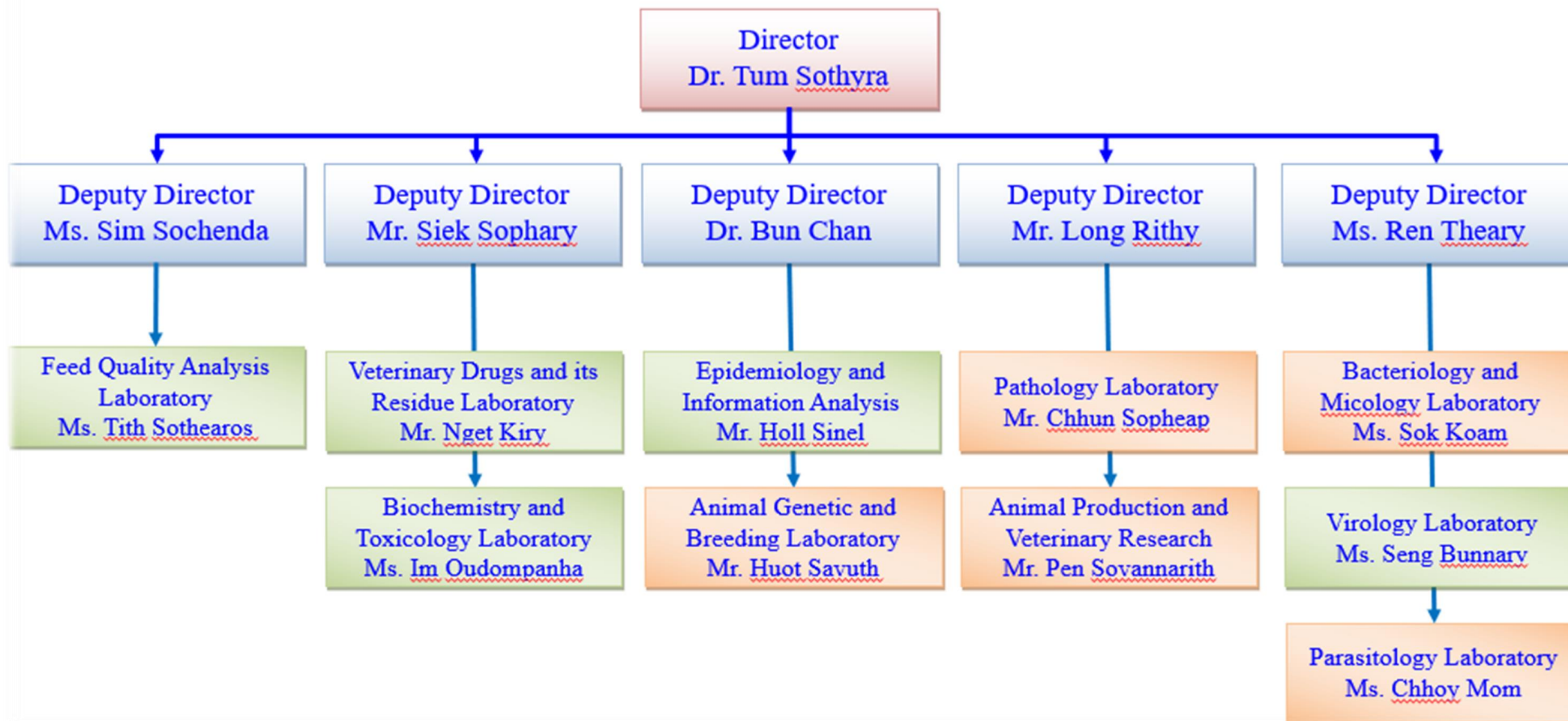




Background of the institution

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Organizational Chart of National Animal Health and Production Research Institute (NAHPRI)





Parameter	Cambodia Status
bTB (bovine TB) surveillance	No known data; likely under-surveyed
bTB prevalence in livestock	Unknown
Zoonotic diseases (Brucellosis, Q fever)	Extremely low prevalence in cattle (~0–1%)
Human TB control status	Ongoing; detection rate at ~55%, declining
Wildlife reservoir data	None available

https://www.who.int/westernpacific/newsroom/feature-stories/item/tackling-tuberculosis-%28tb%29--new-steps-towards-ending-tb-in-cambodia?utm_source=chatgpt.com

https://www.cdc.gov/one-health/php/stories/new-approaches-to-address-zoonotic-diseases-in-cambodia.html?utm_source=chatgpt.com



- ❑ Virology (HPAI, NDV, ASF, CSF, PRRS, LSD, FMD, PPR, others)
- ❑ Bacteriology (E. coli, Salmonella, S. aureus, K. pneumonia, A. hydrophilia, Pasteurella, Clostridium, Bacillus anthracis, Burkholderia pseudomallei, others)
- ❑ Parasitology (internal, external and blood)
- ❑ Pathology (autopsy, histopathology)
- ❑ Drug and drug residue (antibiotic, growth promoter, pesticide, formalin, aflatoxin)



Name of bacteria species	Method, parameter of test and reference standard
<i>Salmonella</i> spp	Culture and biochemical test (ISO- 6579-1:2017 CFU ISO 4833-1:2013) and (MPN Pelvic et al., 2010) AST (CLSI-VET-05E)
<i>Escherichia coli</i>	Culture and biochemical test (BAM -E.coli) CFU (ISO) AST (CLSI-VET-05E)
<i>Total coliform</i>	Culture plate count (ISO) CFU (ISO 4833-1:2013)
<i>Clostridium chauvoei</i>	Culture and biochemical testing using API 20 A CFU ISO 4833-1:2013 AST (CLSI fastidious)
<i>Staphylococcus aureus</i>	Culture (ISO 6888-1) CFU ISO 6888-1 AST (CLSI-VET-05E)
<i>Klebsiella pneumonia</i>	Culture (BAM-Klebsiella) CFU (No test) AST (CLSI-VET-05E)
<i>Bacillus anthracis</i>	Blood smear Ascoli test (OIE-Ascoli test)
<i>Pasteurella multocida</i>	Culture and biochemical testing using API 20 E CFU ISO 4833-1:2013 AST (CLSI fastidious)



- Live bird market surveillance (HPAI)
- Animal disease surveillance (including slaughterhouse)
- Disease outbreak investigation
- Zoonotic disease diagnosis
- Drug and chemical residues in animal products
- Meat quality study (microbial contamination)
- Antimicrobial resistance surveillance (E. coli, Salmonella, S. aureus, K. pneumonia, A. hydrophilia, others)

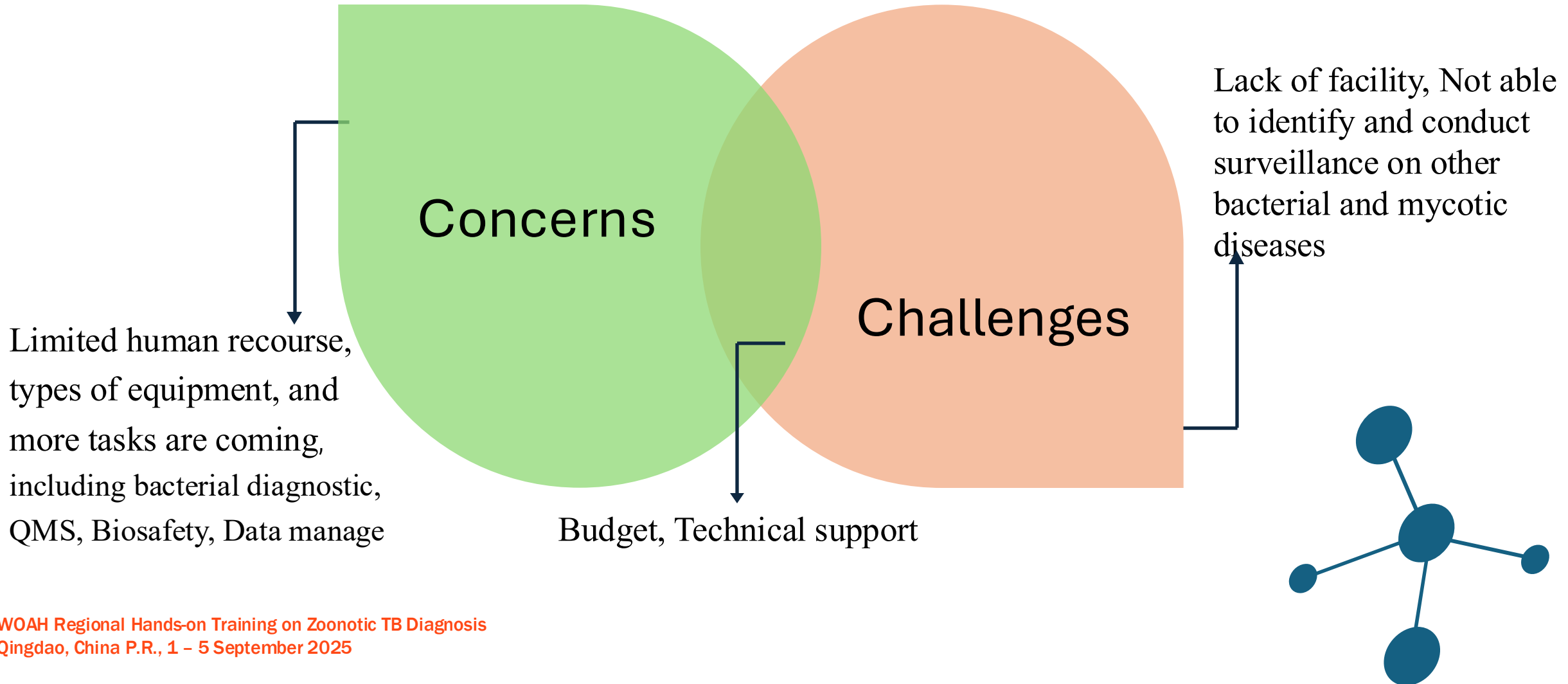


Disease Prevention and Control or Preparedness Strategy

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- Multisectoral Documents Developed
 - ✓ Food Safety Law
 - ✓ Multisectoral action plan for AMR (MSAP)
 - ✓ Standard operating procedure on coordinated human-animal avian influenza outbreak investigation and response
 - ✓ Standard operating procedure for wildlife health surveillance in Cambodia
 - ✓ National guidelines for rabies surveillance, prevention and control
 - ✓ National strategic plan to eliminate rabies in Cambodia
 - ✓ Multisectoral zoonotic disease strategic plan
 - ✓ National One Health strategy for Cambodia







- *New laboratory: National Agriculture Laboratory of Setbo will be finished in 2027.*
- **Capacity Building:** Strengthen the capacity of available personnel through targeted training programs on TB diagnostics, biosafety, quality management systems (QMS), and data management.
- **Strengthening zoonotic disease surveillance** in livestock and exploring small ruminants.
- **Diagnostic Strengthening:** Invest in low-cost, high-impact diagnostic tools. Veterinarians and community animal health workers will be explored.
- **Public Awareness & Farmer Engagement:** community education campaigns to improve understanding of zTB, promote early reporting, and reduce disease spread.
- Develop a long-term national bovine TB/zTB control strategy
- **Partnerships and Advocacy:** Strengthen partnerships with regional and international organizations (e.g., WOA, FAO, NGOs) to obtain technical support, funding, and access to shared laboratory infrastructure.



Thank you!

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