



Current Status of Brucellosis in Lao PDR



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Region (Bovine Brucellosis serum Proficiency test and Ways Forward for the Region) in Chiang, Thailand, 18-21 March 2014

Livestock production Systems



Livestock production in Lao PDR is mainly produced at subsistent level.

- **Ruminant:**
 - **Free range**
 - **Semi commercial production**
- **Pig and poultry:**
 - **Backyard and scavenging**
 - **Commercial production**





Livestock population

Years	Buffalo	Cattle	Pig	Goat Sheep	Poultry
2011	1,197,100	1,520,300	2,651,200	430,900	26,850,000
2012	1,187,962	1,691,800	2,793,675	443,800	28,778,728
2013	1,256,214	2,385,644	2,964,762	603,078	32,804,887

Source: DLF

DLF Structure (6 D)



National Animal Health Laboratory

**Lab. Administration &
Management Unit**

PATHOLOGY Unit

VIROLOGY Unit

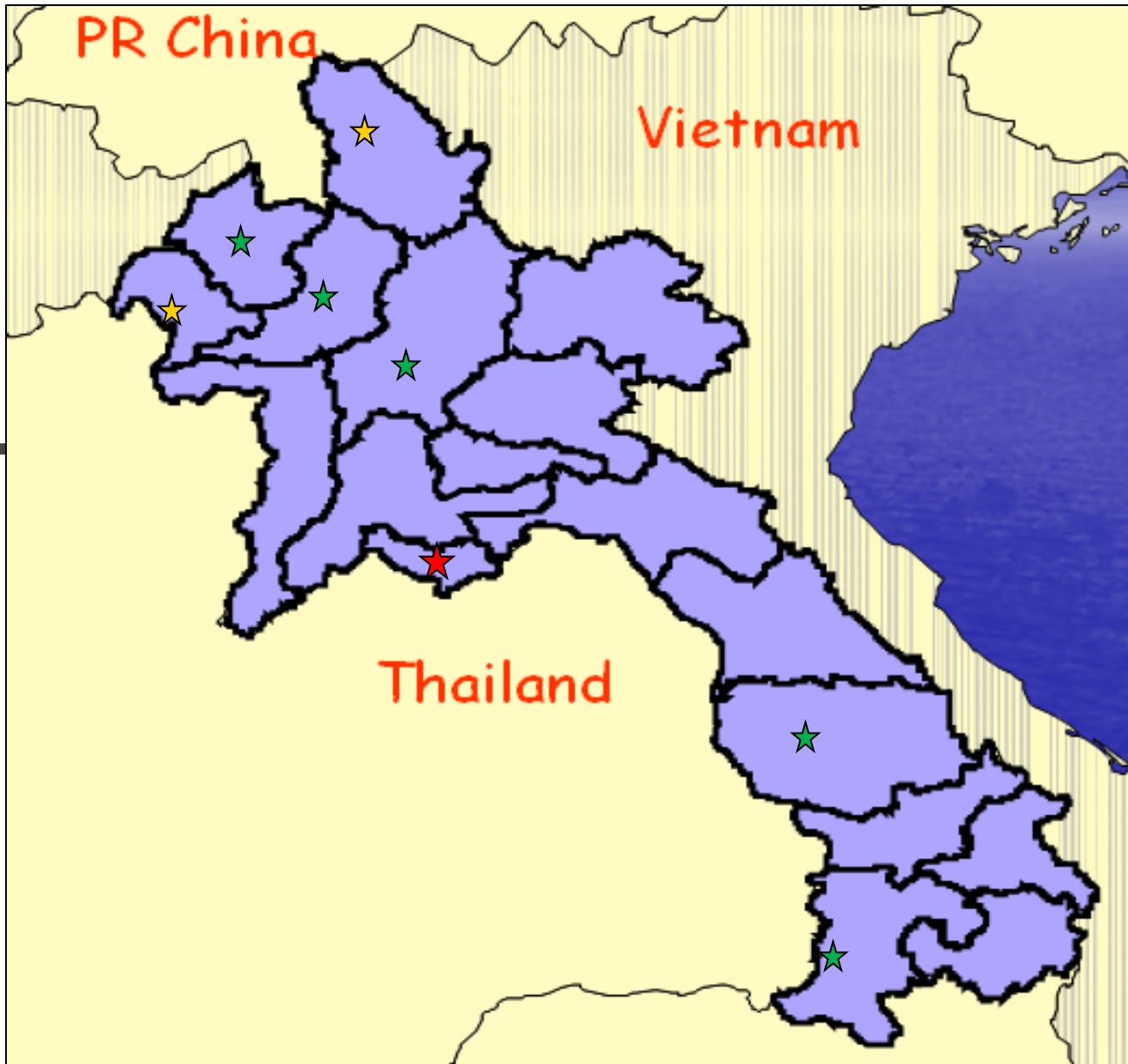
**BSL 3
Unit**

**BACTERIOLOGY
Unit**

PARASITOLOGY Unit

**Livestock product
Quality Unit**

Laboratory in Lao PDR



NAHL



Brucellosis surveillance

- Surveillance of brucellosis in Lao PDR was conducted in **2006** (supported by JICA and ACIAR).
- 471 serum samples (B=145, C=115, P=211) were randomly selected from 3 provinces (SVK 281, SRV 178 & LPB 12).
- All samples were negative by **Rose Bengal Test**.
- **In 2008**, 800 of pig serum samples were collected from 4 provinces of Northern region:
 - Brucellosis **-Rose Bengal Test-Neg**
- **2,018** of pig serum samples have been collected from VTC, LPB, SVK & CPS to test for the Swine Influenza and PRRS (if RBT & ELISA available will test for swine brucellosis)
 - Brucellosis **-Rose Bengal Test-Neg**



Brucellosis surveillance

- **In 2013, 384 of pig serum samples were collected from Xayaboury provinces of Northern region to test for the Swine Influenza and PRRS (ELISA available will test for swine brucellosis)**
 - **Brucellosis - ELISA – positive 21 samples**



Brucellosis surveillance

- In 2013, **50** of pig serum samples were collected from **Vientiane capital** to test for the **Rose Bengal Test** and **ELISA** swine brucellosis
 - **Brucellosis - Rose Bengal Test** and **ELISA** – positive **5 samples**
 - The results from the **PT reagent** provided by the **DLD of Thailand** **17 samples positive 10 samples.**



Diagnostic Strategy in regard to brucellosis

- **The NAHL is capable of performing diagnosis of:**
 - **Major animal disease: HS and Black leg, etc.,**
 - **Some zoonotic diseases: avian influenza, Anthrax and Brucellosis, etc., (RBT, ELISA ,Culture ,Molecular identifcaiton)**
 - **Some food-borne pathogens: *E. coli*, *Salmonella* spp, *Streptococcus suis*.**
- **Regional laboratories are performing only basic animal diseases diagnosis with test kits:**
 - **AI-flue A**



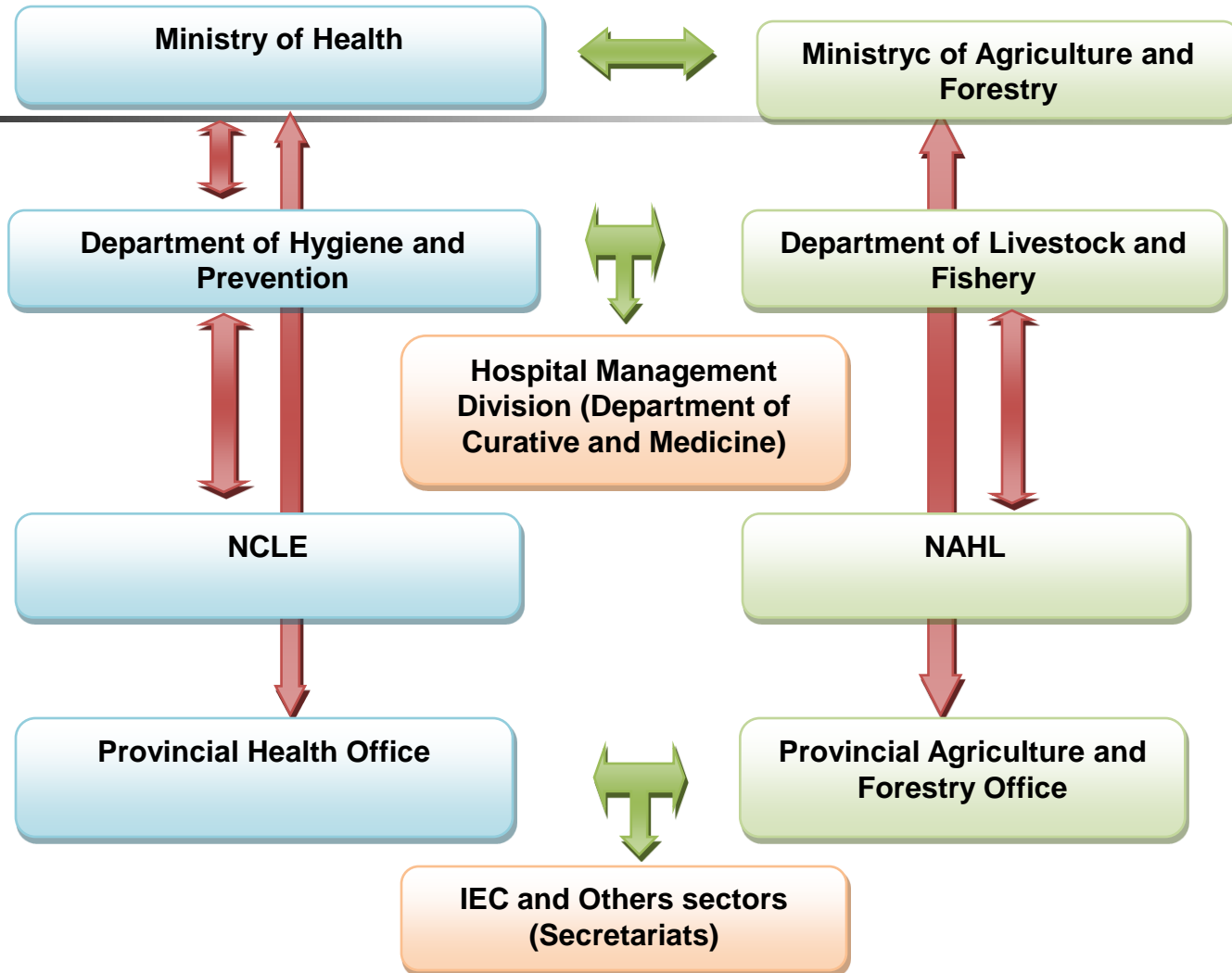
Regional collaboration on diagnosis & control of *B. melitensis*

No control program for brucellosis.

Collaboration between Human and Animal Health



Collaboration from central to local levels





Brucellosis in Human

- **Prevalence of Brucellosis in human in Lao PDR is under estimating.**
- **The sources/origins of pathogen in human is unknown and need to further investigation.**

(Personal communication with Dept. Hygiene and diseases control).



Objectives

- Joint campaigns
- Joint Applied research
- Technical meeting
- Sharing information from national level to provincial committees (**Existing AI, etc.,**)

Human and Animal Health Collaboration for Emerging and Neglected Zoonotic Diseases



Priority zoonotic diseases:

Avian Influenza

Rabies

Anthrax

Brucellosis

Leptospirosis

Trichinellosis

Thank you for your attention

