



# BIOLOGICAL SAMPLE TRANSPORTATION WITHIN THE NATIONAL LABORATORY NETWORK in Cambodia

“NTS”



Australian Government



**This project is supported by the  
Australian Department of Foreign Affairs  
and Trade's Indo-Pacific Centre for Health  
Security**





1. SEALAB Overall
2. NTS Project
3. NTS Action Plans
4. NTS Questionnaires
5. Lab Mapping
6. Setting Up the Laboratory Working Team (LWT)
7. NTS Time Frame

# I. SEALAB Project 2020-2023

- **Objective :**

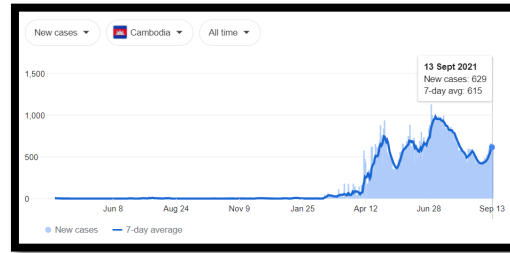
SEALAB aims at reinforcing national health system in Cambodia, Laos, and Myanmar to enable them to respond to emerging infectious disease, which are potentially pandemic, and/or zoonotic threats.

- **The focus will be on the laboratory systems:  
Strengthening Laboratories.**

- **Expected outcomes of the project:**

The national infectious disease outbreak detection and response systems in Cambodia are functional, well organized and reactive.





# Strengthening the Laboratory System





## II. NTS Project - Strategy.3

- The COVID pandemic has revealed the weaknesses of specimen shipping to reference laboratories. A component of SEALAB project aims at mapping laboratories and to assess the flow of samples within the country to propose a pilot transportation system to be experimented in 3 provinces for 6 months. Post-intervention analysis should outline a realistic and sustainable system.

Expected outcome of the project :

A standard biological sample transportation system will be established within the national laboratory network in Cambodia to respond to the disease outbreaks.





# NTS WORK PLAN

1. BLMS/GDAHP agree on TOR (current Flow of Speciment and Mapping)
2. Set up a LWT + Explain the Objectives & Expected Outcomes
3. Implement the NTS survey and Mapping the Labs
4. Desing a Pilot Study base on the Survey Findings (selected pathogens + selected provinces + set up indicator to access effectiveness)
5. Workshop to present and discuss the finding from Pilot study
6. Drafting the SOP/Guidelines for National Transportation System
7. National Transportation Sytem validated by MoH and MAFF

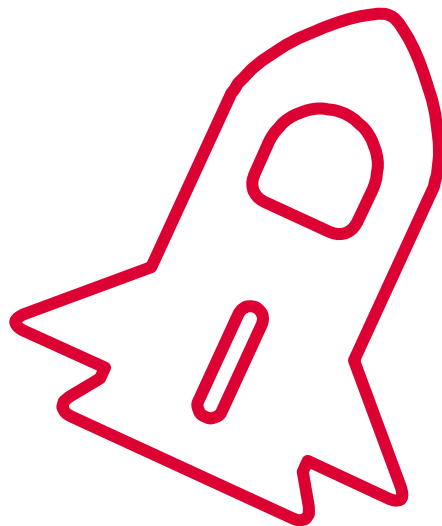




# NTS WORK PLAN

- **BIG CONCEPT**

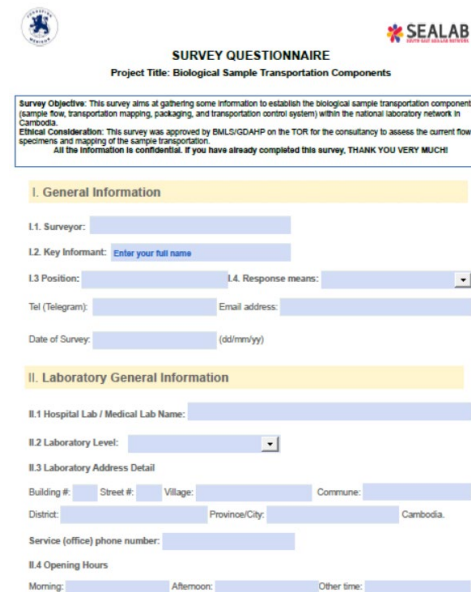
**A Standard Biological Sample  
Transportation System in CAMBODIA.**





# IV. NTS Questionnaire

- The National Sample Transportation (NTS) Survey will involve the national laboratory network including 10 national labs, CAP-1,2,3 labs, specialized/research labs, and 9 animal health labs.
- The questionnaires will be sent to each lab managers/lab staff in charge by email or telegram.
- And the above information will fill out electronically :
  - Lab Information (with GPS coordinate)
  - Lab Capacity
  - Sample Referral Flows
  - Packaging, Labelling, Transport doc
  - Transportation Planning
  - Transportation Duration
  - Quality of Sample
  - Suggestions from lab personnel



The screenshot displays the 'SURVEY QUESTIONNAIRE' for the 'Biological Sample Transportation Components' project. It includes a survey objective, ethical considerations, and two main sections: 'I. General Information' and 'II. Laboratory General Information'. Section I contains fields for surveyor, key informant, position, response means, telegram, email, survey date, and opening hours. Section II contains fields for hospital/medical lab name, laboratory level, address details (building, street, village, commune, district, province/city), service phone number, and opening hours.

**SURVEY QUESTIONNAIRE**  
Project Title: Biological Sample Transportation Components

**Survey Objective:** This survey aims at gathering some information to establish the biological sample transportation components (sample flow, transportation mapping, packaging, and transportation control system) within the national laboratory network in Cambodia.  
**Ethical Consideration:** This survey was approved by BMLS/GOAHP on the TOR for the consultancy to assess the current flow of specimens and mapping of the sample transportation.  
**All the information is confidential. If you have already completed this survey, THANK YOU VERY MUCH!**

**I. General Information**

I.1. Surveyor:   
I.2. Key Informant:   
I.3. Position:  I.4. Response means:   
Tel (Telegram):  Email address:   
Date of Survey:  (dd/mm/yy)

**II. Laboratory General Information**

II.1 Hospital Lab / Medical Lab Name:   
II.2 Laboratory Level:   
II.3 Laboratory Address Detail  
Building #:  Street #:  Village:  Commune:   
District:  Province/City:  Cambodia.  
Service (office) phone number:   
II.4 Opening Hours  
Morning:  Afternoon:  Other time:



# V. Lab Mapping - designed by



Epicollect5



National Sample T... National Sample Transportation System in Cambodia ▾

Photos of laboratory if available



Full name of laboratory

National Animal Health and Production  
Research Institute

Geographic Coordinates: Lat ##.#####,  
Long ###.#####

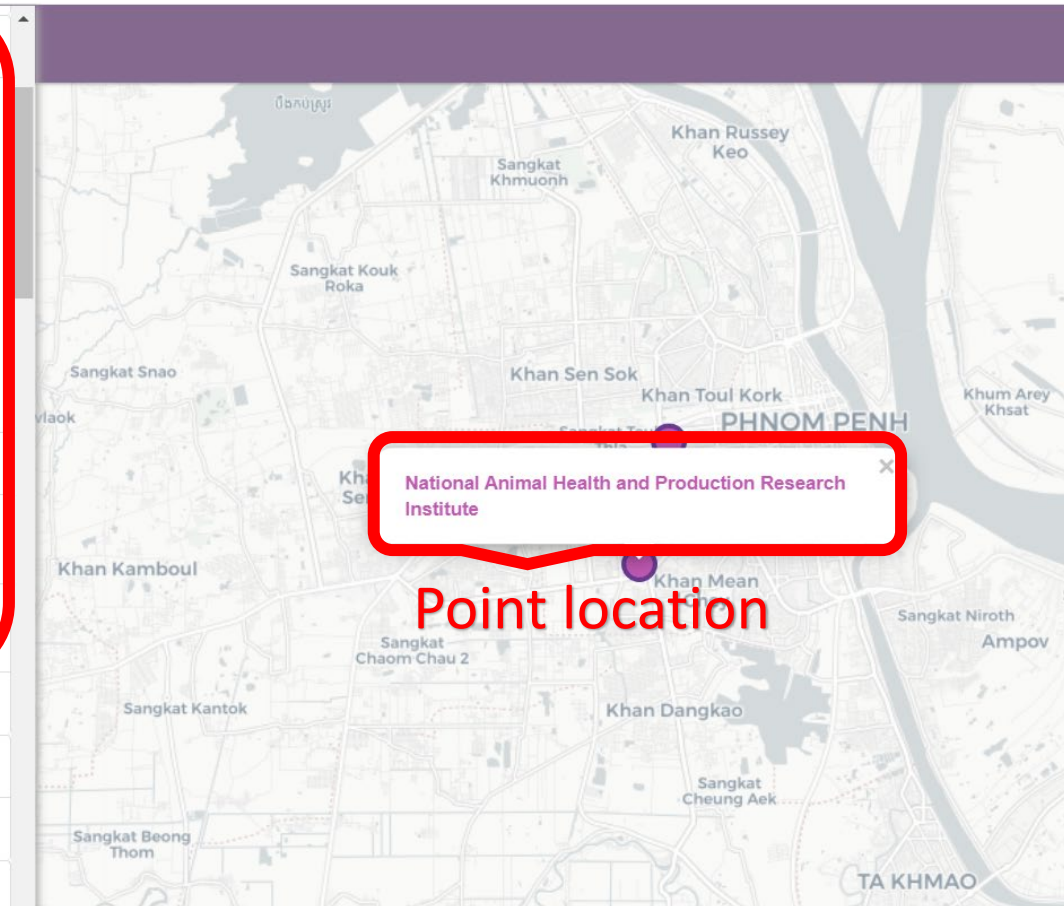
11.53005, 104.80359

Service Contact Phone Number

012952518

Address(Building #; Street #; Village;

**Detail info**



<https://five.epicollect.net/project/national-sample-transportation-system-in-cambodia/data>



## VI. Set Up a LWT

- It is planned to set up a Laboratory Working Team to participate in the design of the pilot transportation system and to follow-up the progress of this component.
- It is expected that key stakeholders from Human Health sector and Animal Health Sector can participate in this LWT.



# VI. Set Up a LWT

- At the end of the presentation, we would appreciate if all people interested to be involved in this LWT can give their name and their position in the chat box. They will be included in the invitation for the next meeting likely scheduled mid-October 2021.

No.	Government LWT		NGO's LWT	
	Institution	Name	NGO	Name
1.	BMLS	<input type="text"/>	US CDC	<input type="text"/>
2.	GDAHP	<input type="text"/>	WHO	<input type="text"/>
3.	NAPHRI	<input type="text"/>	FAO	<input type="text"/>
4.	CENAT	<input type="text"/>	IPC	<input type="text"/>
5.	NCHAD	<input type="text"/>	GIZ	<input type="text"/>
6.	CNM	<input type="text"/>	DMDP	<input type="text"/>



# VII. NTS Time Frame

Action for NTS	2021						2022											
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Agree with BMLS/GDAH on the TOR for the consultancy to assess current flow of specimens and mapping of laboratories																		
Identify consultants (Flow / GIS) and contract them																		
Set up a Laboratory Working Team (LWT: NAHPRI, BMLS, National programs, IPC, DMDP, WHO, FAO) and organize a preliminary meeting to explain the objectives and expected outcome of the survey																		
Implementation of the survey and mapping of labs (specifications of each lab) and routes																		
Organize a meeting with the LWT to discuss the findings and to design pilot study for selected pathogens (HIV, TB, COVID?....) and 3 selected provinces /Set up indicators to assess effectiveness of the system																		
Printing of SOP/guidelines: <u>SOP_ Specimen packaging and transportation</u>																		
Standardize shipping forms specific for NAHPRI and BMLS, and ensure completeness																		
Field test of the transportation company in each province <u>Pre identified</u> companies: Kerry express; Cambodia expresses; EMS; Bus, Taxi...																		
Identification of proper shipping boxes, temperature logs... for the pilot study.																		
Procurement of the shipping boxes																		
Create a display informative sticker for good handling process for the courier																		

Next steps forward



# VII. NTS Time Frame

Action for NTS	2021						2022											
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Training of laboratory in the 3 selected provinces of sample reception (by FMX TOS, who will visit all the sites)																		
Implement a 6-month pilot study / indicators monitored by BMLS and GDAHP with support of FMX (equipment, materials, transport cost...)																		
Monitoring of the good sample transportation practices within the laboratory network (Monthly monitoring by BMLS and GDAHP)																		
Organize LWT meeting to follow up implementation of the pilot study and to propose adjustments if necessary.																		
Consultants issue documented guidelines for <u>BIOLOGICAL SAMPLE TRANSPORTATION WITHIN THE NATIONAL LABORATORY NETWORK</u>																		
Draft the Contracts for the transportation companies (taxi/buses) to ensure timely, safety, quality etc. of transportation of biological samples.																		
Organize a workshop with key national stakeholders and donors to get commitments to support the transportation system in a sustainable manner																		
Validation of the <u>BIOLOGICAL SAMPLE TRANSPORTATION WITHIN THE NATIONAL LABORATORY NETWORK</u> by MOH and MAFF																		

Next steps forward

FMX inputs

Recommendations form the "Report Mapping Sample Transportation system 23 Jan 2020"

Done







# References

This presentations uses the following references :

- SEALAB Dashboard Project
- Sample Transportation System - Action Plan (updated)
- A meeting minutes on the Draft of Guidelines for establishing the WORK\_PLAN for the transportation system component on July 15, 2021.
- The draft of Survey Questionnaires





# THANK YOU!

Any comments or questions?