# Regional Analysis of GLOBE Mosquito Data in Asia: Examining Species Diversity, Breeding Sites, and Container Index


Presented by : Group 2

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# Contents

# Introduction

(Dengue Fever)

(Chikungunya Fever)

(Zika Virus Disease)

(Japanese Encephalitis - JE)

(Malaria)

(Lymphatic Filariasis)

# Introduction

*Ae. aegypti spp.*

*Culex spp.*

*Armigeres spp.*

*Toxorhynchites spp.*

*Mansonia spp.*


*Anopheles spp.*

# Objectives

1. Analyze mosquito species distribution across different countries in Asia using GLOBE mosquito data.
2. Identify and compare breeding container types used by mosquitoes in various regions.
3. Assess the container index (percentage of water-holding containers infested with larvae) in different countries.

# Material and methods


# Study sites

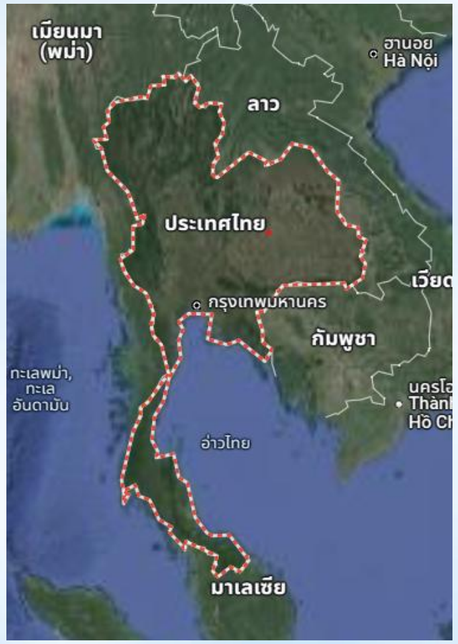



Figure 1.Map of Thailand

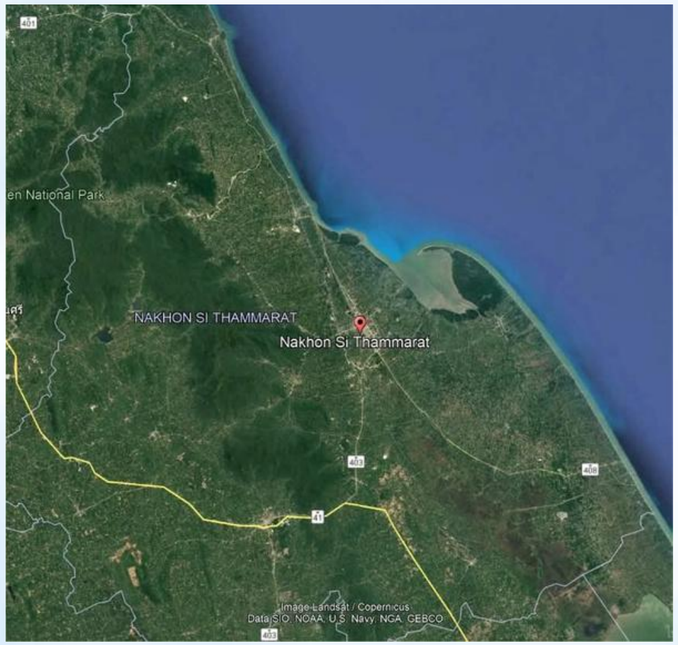


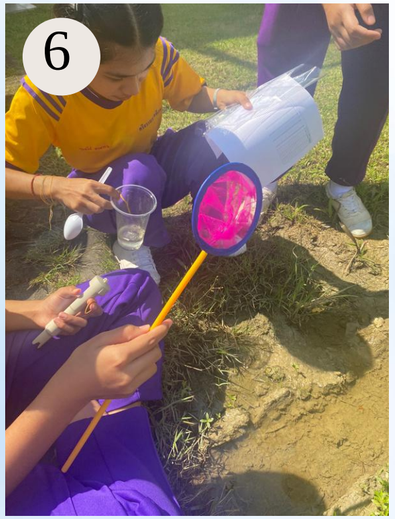

Figure 2.Map of Nakhon Si Thammarat

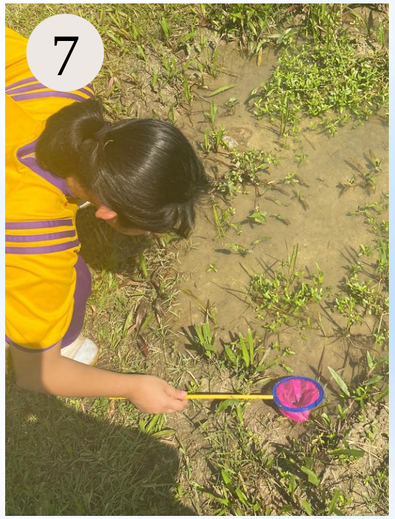

Figure 3.Map of Walailak University

# Cites Observed

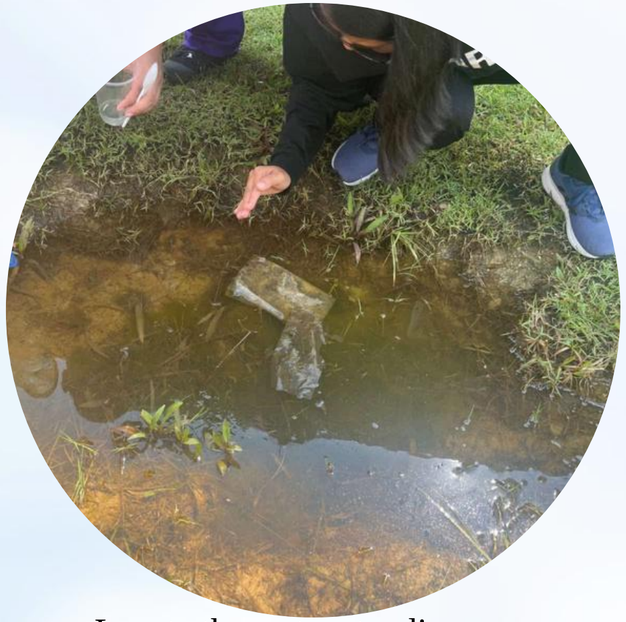





# Data Collection



Locate the water standing areas.

Measure Water Quality (pH and Temperature.)


pH Meter .

Use net to scoop the Mosquito.

Put them in the Plastic  cup to count the  Larvae  Count.

Collect them in Plastic Bag.

# Identificatio n

Plastic spoon to gently scoop the larvae from the plastic bag.

The larvae to a small  dish with some of the water .

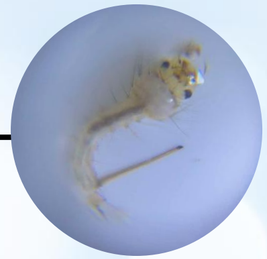
Clean the glass slide and cover slip with ethanol to remove any dus.

Use the microscope to examine .

Take photos through the microscope.

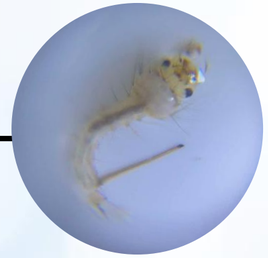
# Results

# Species Variation



*Aedes aegypiti*

60



*Aedes aegypiti*

105

*Aedes aegypiti*

1034

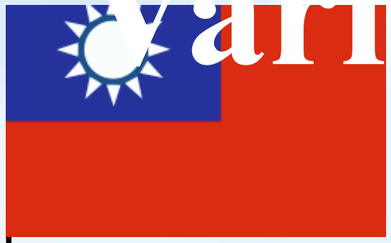
*Culex mosquito*

80

*Anopheles aegypiti*

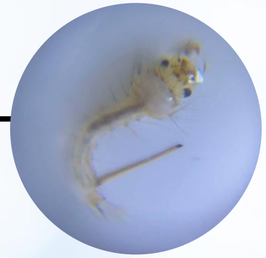
251

# Species Variation



*Culex mosquito*

52



*Aedes aegypiti*

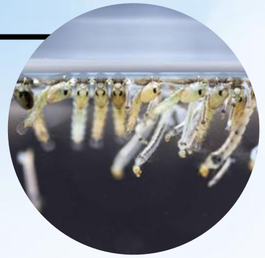
70

*Aedes aegypiti*

529

*Culex mosquito*

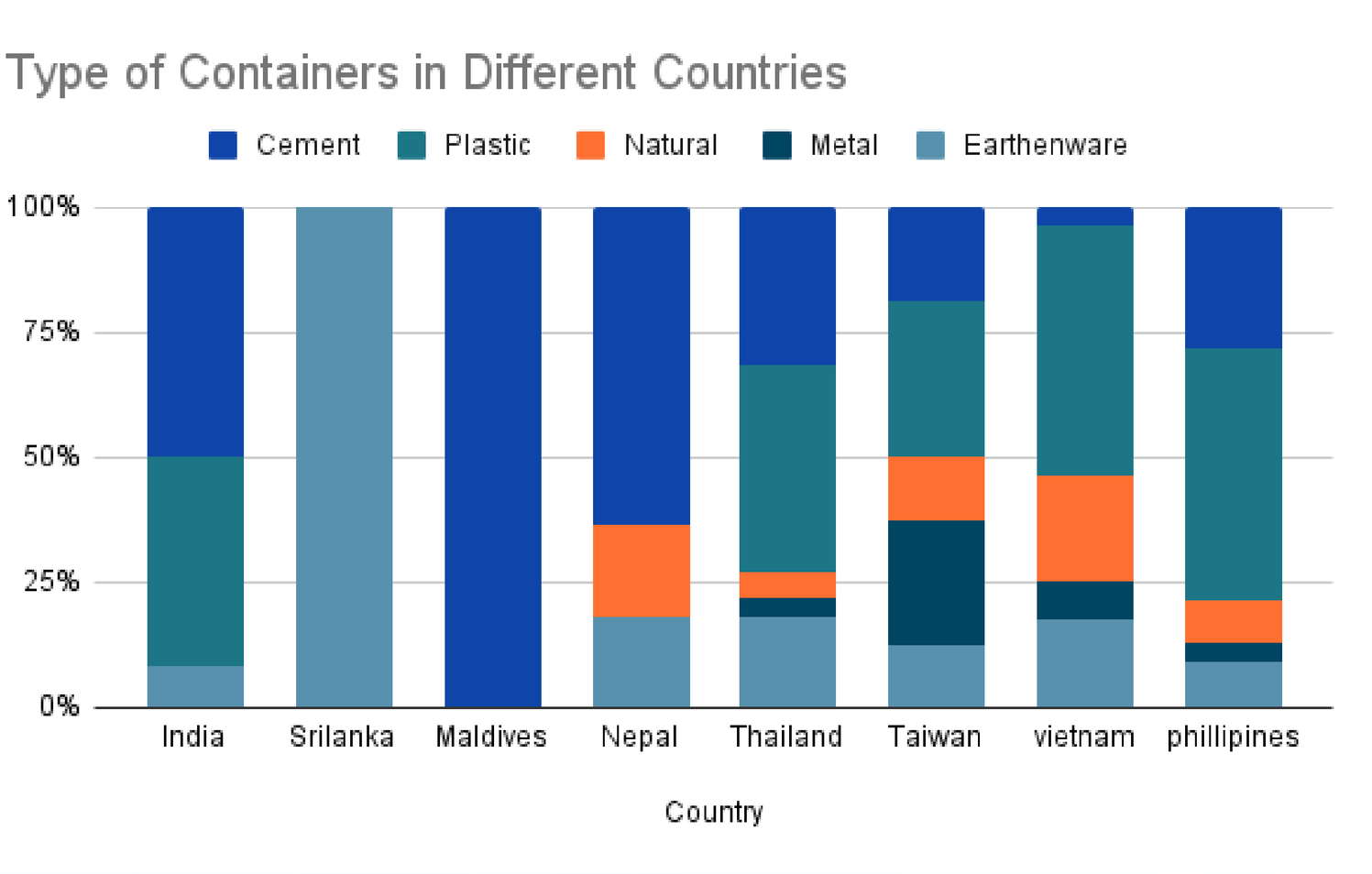
70



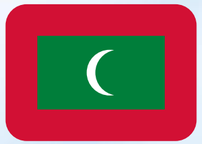
*Anopheles spp*

664

# Distribution of Mosquito Breeding Containers by Type and Country in Asia







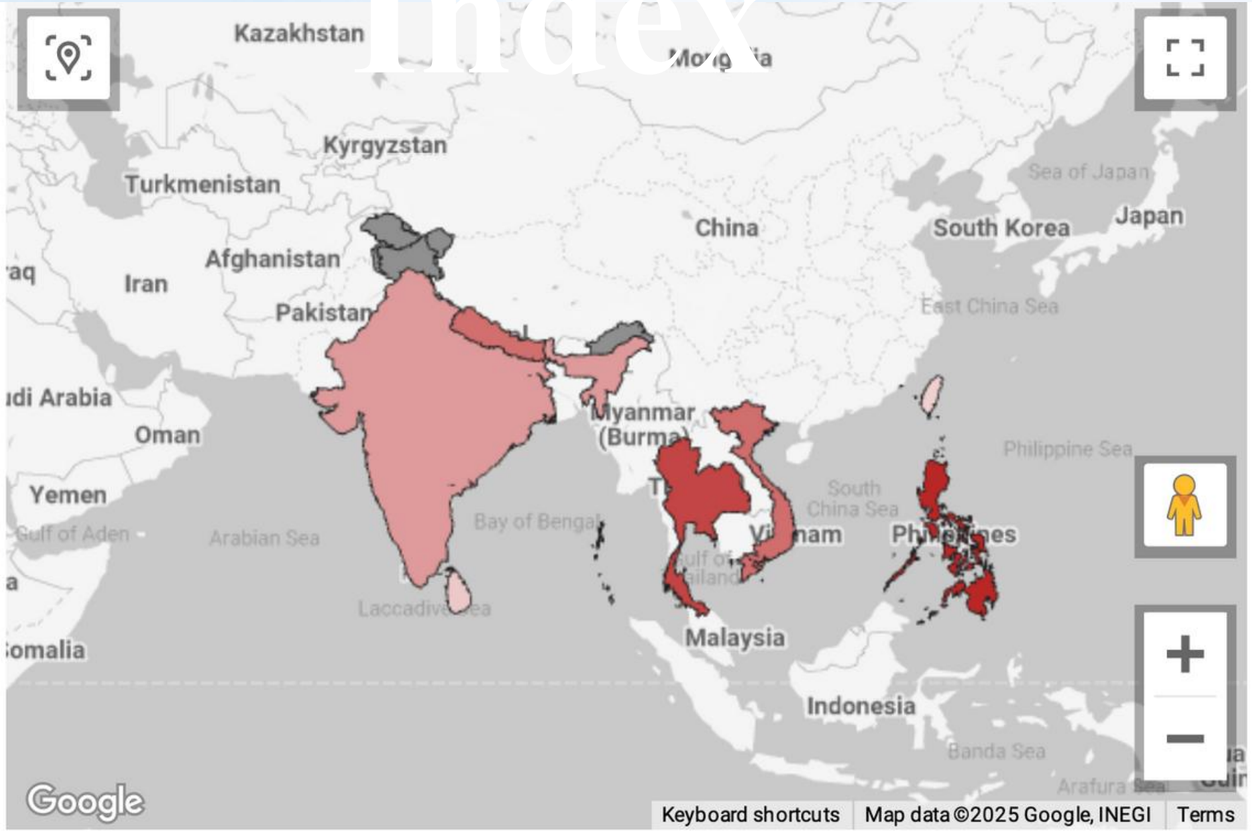

**Cement: > 50%**

**Earthware : 100%**

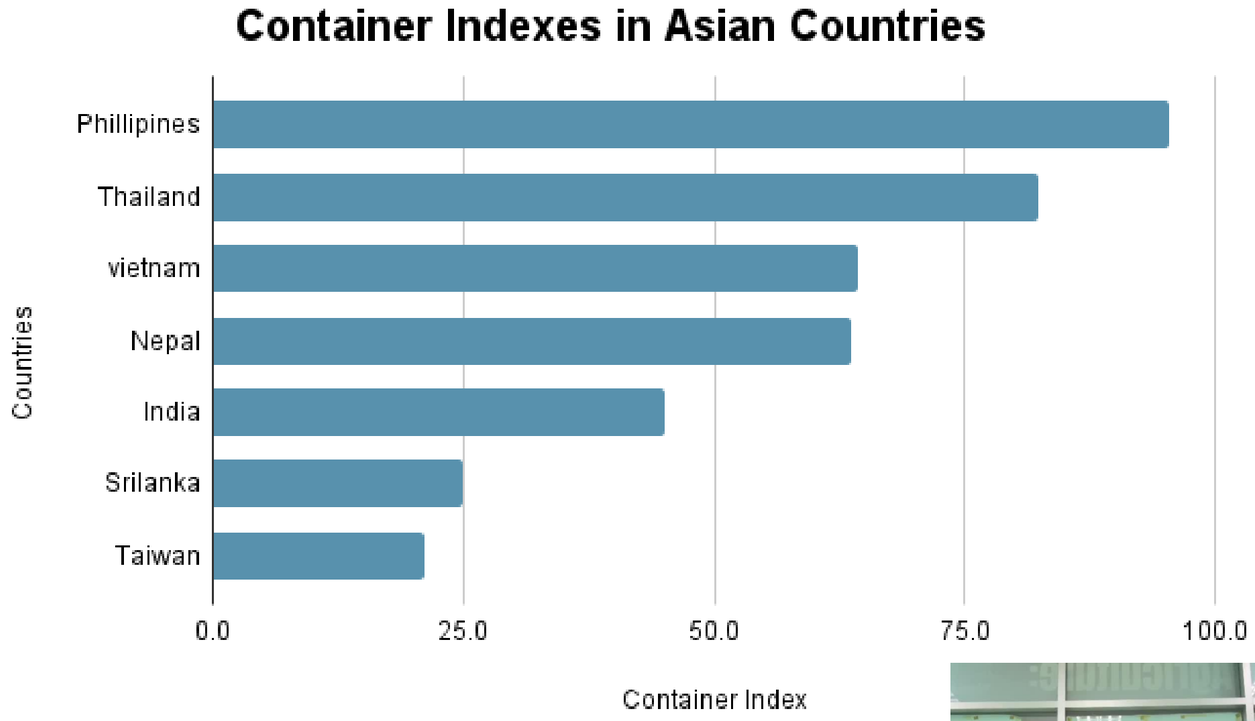



**Plastic: > 50%**

# Container Index




**Container Index** 21.05 100




# Conclusion

**High-Risk Countries**

- In the Philippines, Vietnam, Taiwan, and Thailand, mosquitoes are predominantly found in plastic containers, increasing the risk of Aedes species breeding and the spread of vector-borne diseases.

**Disease Threats**

- High Aedes and Anopheles populations in India, Thailand, and the Philippines elevate risks of dengue and malaria.

**Urgent Interventions Needed**

- Improved waste management and targeted vector control strategies are critical to reducing mosquito-borne disease transmission

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