

Logistics Cost in Lao PDR

Masami Ishida

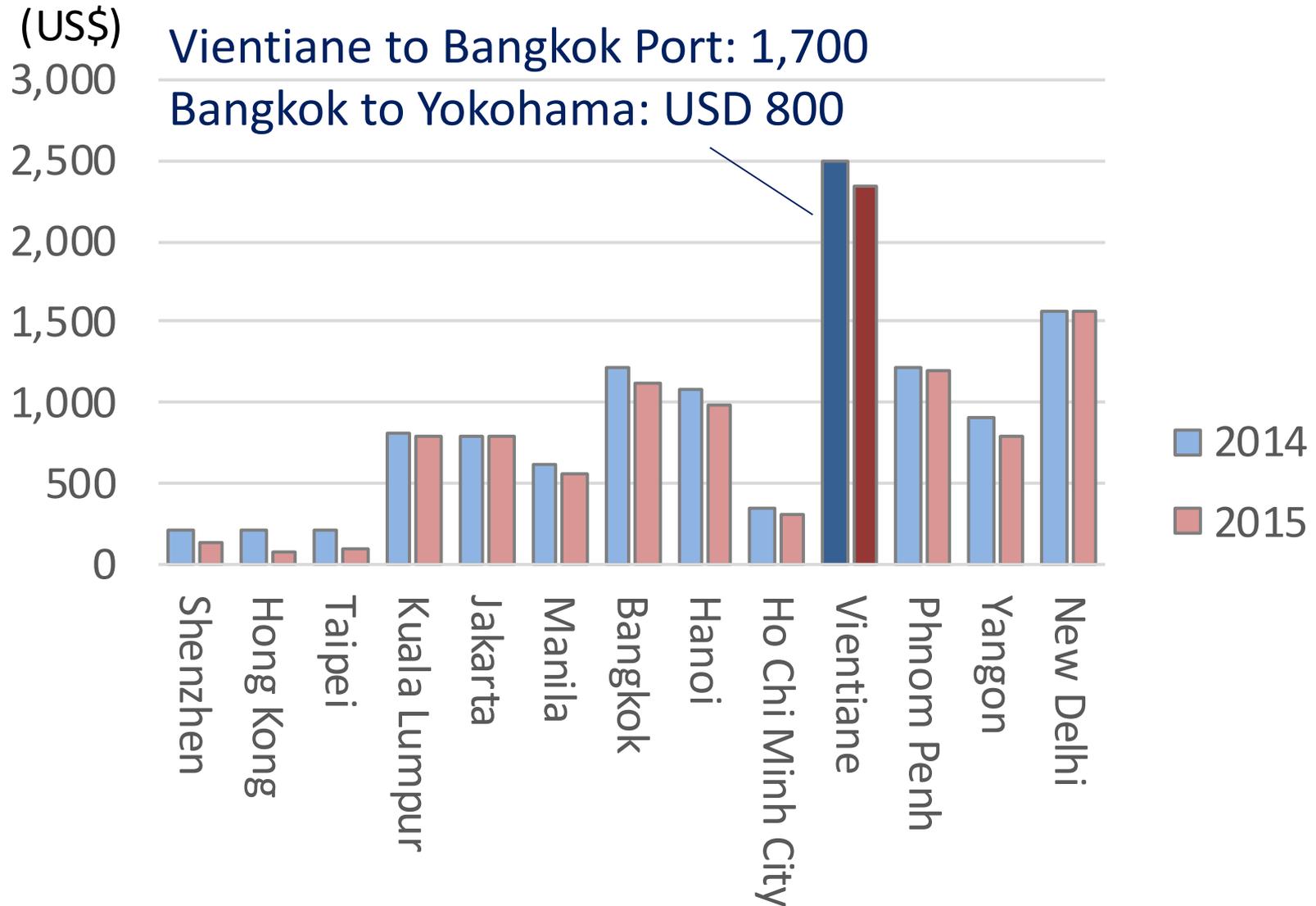
Institute of Developing Economies,
Japan External Trade Organization

Today's Presentation

- 1. Reviewing Last Year's Seminar**
- 2. Explanations on Fundamental Situations**
- 3. Domestic Logistics Cost in Lao PDR and in Thailand**
- 4. Logistics Cost between Vientiane and Bangkok (or Laem Chabang Port)**
- 5. Policy Recommendation**

1. Reviewing Last Year's Seminar

Shipping Costs of 40ft. Container to Yokohama



Source: JETRO Censor, May 2015 and 2016.

The Purpose of the Project

USD 1,700: Logistics Cost from Vientiane to Bangkok



USD 700: Logistics Cost between Nong Khai and Bangkok

USD 1,000: Nong Khai and Vientiane ?



Questions

- 1. Is it because the logistics cost between Vientiane and Tha Na Laeng is so high?**
- 2. Is it because the cross-border logistics cost is so high?**



In order to answer to these questions, this research project started.

2. Fundamental Situations

Distances between Lao PDR and Thailand

- Destinations & origins

Origins: **VTE & SVK**

Destinations: **BKK & LCP**

Connecting Node:

Nakhon Ratchasima

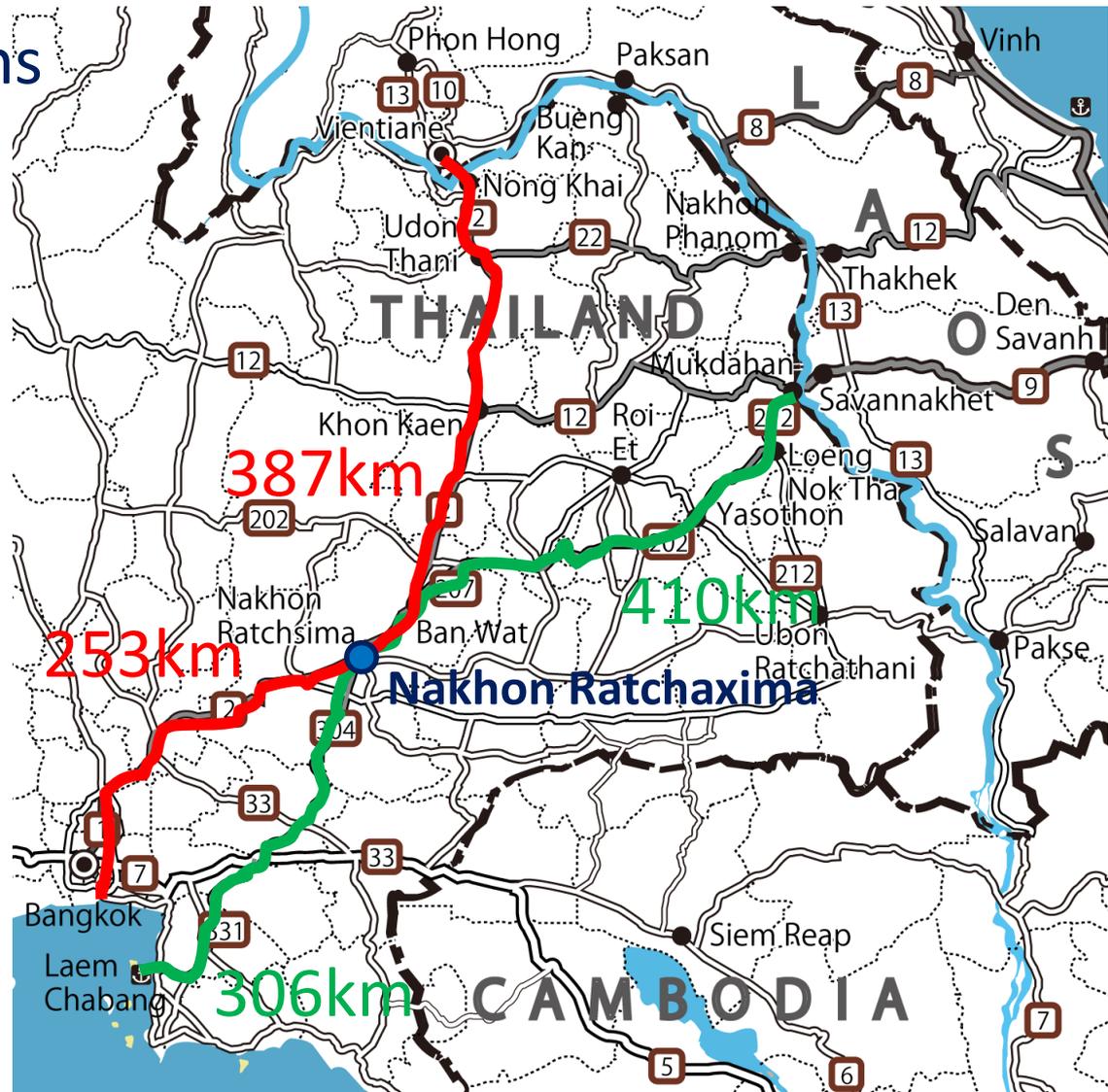
- Major Distances

VTE – BKK: 640km

VTE – LCP: 693km

SVK – BKK: 663km

SVK – LCP: 716km



Source: Drawn by the presenter.

Time Needed between LCP to VTE



Inspection at Laem
Chabang Port

4 – 5 hours

Transport to
Nong Khai

14 hours



Procedures

Thai Side: **2 hours**

Lao Side: **3 hours**

Transport to
Vientiane

1 hour



Total :

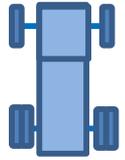
24 – 25 hours



Trucks Used for Cross-border Logistics



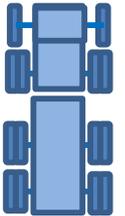
Pick-Up Truck



6 Wheel Truck



10 Wheel Truck



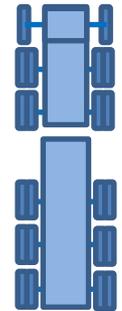
14 Wheel Semi-Trailer

Source: Taken by the presenter.

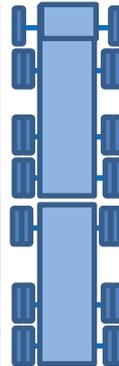
Trailers Used for Cross-border Logistics



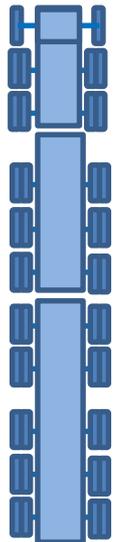
18 Wheel Semi-Trailer



22 Wheel Semi-Trailer



26 Wheel Full-Trailer



42 Wheel Full-Trailer

Source: Taken by the presenter.

Firm Survey Samples

< Forwarders in Lao PDR >

	Samples	LIFFA	Census
Lao Forwarders	4	1	
Thai Forwarders	1		
Japanese Forwarders	3	1	1
Sub-Total	8		

< Forwarders in Thailand >

	Samples	TIFFA	Yellow Page
Thai Forwarders	10	1	2
Japanese Forwarders	1		
Sub-Total	11		

< Forwarders in Japan >

	Samples
Japanese Forwarders	2
Sub-Total	2
Total	21

	Population
LIFFA	43
Economic Census	170
TIFFA	237
Thai Yellow Page	1,291

3. Domestic Logistics Cost in Lao PDR and in Thailand

Benchmark for Comparison

Vientiane – Savannakhet and Bangkok – Khon Kaen

- Distances

VTE – SVK: 490km

BKK – KKC: 450km

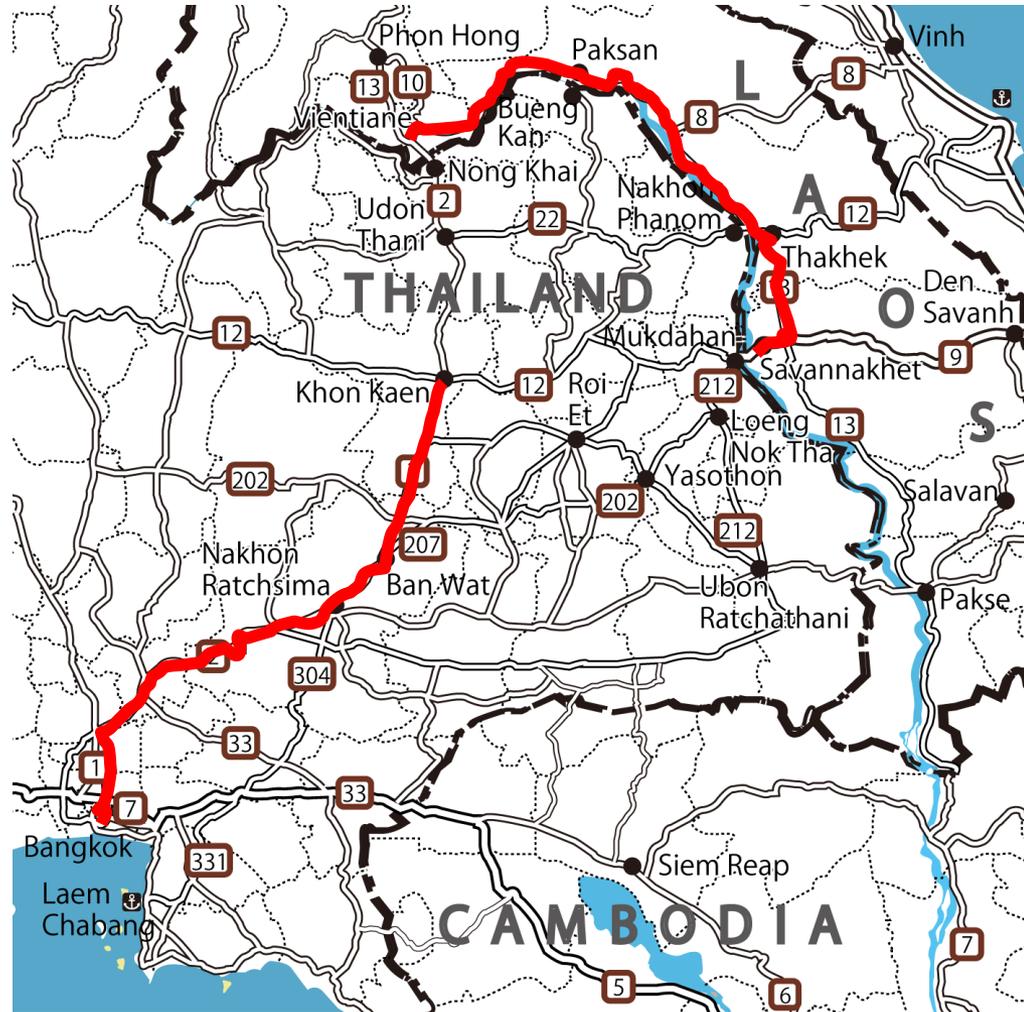
- Similarities

Both sections are composed of flat areas

- Difference

VTE – SVK: mostly 2 lanes

BKK – KKC: 4 or 6 lanes



Source: Drawn by the presenter.

Comparing between Lao PDR and Thailand

<Logistics Cost in US dollars>

	Min.	Max.	Average	Average per km	Scale Factor
VTE – SVK (one side)	1,100	1,250	1,208	2.466	2.2 times
VTE – BKK (Both sides)	735	750	743	1.515	1.4 times
BKK – KKC	333	667	507	1.126	1.0

Notes: 1) Exchange rate is assumed to be THB 30.0 and LAK 8,000 per USD 1.0, respectively.

2) Samples (VTE – SVK): 1 Japanese, 1 Thai and 1 Lao firms.

Samples (BKK – KKC): 5 Thai firms.

3) The answer of the Lao firm is based on a cost per km x ton base. So the cost is calculated with a an assumption 25 ton cargo in 20 feet full container

Source: Compiled by the project team.

Difference of Fuel Price

<Fuel Price in Vientiane on 7 June 2016>

	Price / ℓ	Ex. Rate	USD	Scale Factor
Gasoline	LAK 6,050	8,060	USD 0.75	1.04 – 1.14 times
Diesel	LAK 7,370	8,060	USD 0.91	1.27 times

<Fuel Price in Bangkok on 7 June 2016>

	Price / ℓ	Ex. Rate	USD	Scale Factor
20% Ethanol	THB 23.09	35	USD 0.66	87.9%
10% Ethanol	THB 25.23	35	USD 0.72	96.0%
Diesel	THB 25.14	35	USD 0.72	78.6%

Notes: 1) Exchange rate is the rate on the day based on website of Bangkok Bank.

Source: Surveyed by the project team.

Differences of Wages

<THB>

	Min.	Max.	Average	
Thailand	THB 20,000	THB 30,000	THB 56,883	
Lao PDR	LAK 1,300,000	LAK 1,500,000	LAK 1,400,000	

<USD>

	Min.	Max.	Average	Scale Factor
Thailand	USD 667	USD 1,000	USD 771	4.4 times
Lao PDR	USD 162.5	USD 187.5	LAK 1,400,000	1.0

Notes: 1) Exchange rate is assumed to be LAK 8,000 and THB 30.0 per USD, respectively.

2) Samples in Thailand: 1 Japanese and 3 Thai firms.

Samples in Lao PDR: 1 Japanese and 1 Lao firms.

3) The wages are those of trailer drivers.

Source: Compiled by the project team.

4. Logistics Cost between Vientiane and Bangkok (or Laem Chabang Port)

Logistics Cost by a Trailer

<THB>

	Min.	Max.	Japan Average	Thai Average	Overall Average
VTE – LCP	40,000	62,500	56,883	47,000	47,608
VTE – BKK	37,000	62,650	50,288	44,000	45,300

<USD>

	Min.	Max.	Japan Average	Thai Average	Overall Average
VTE – LCP	1,333	2,088	1,896	1,567	1,587
VTE – BKK	1,233	2,088	1,676	1,467	1,510

Notes: 1) Exchange rate is assumed to be THB 30.0 per USD 1.0.

2) Samples (VTE – LCP): 3 Japanese and 2 Thai firms.

 Samples (VTE – BKK): 4 Japanese and 2 Thai firms.

3) The difference between 20 and 40 feet container is small (THB 0 – 4,000)

Source: Compiled by the project team.

Bridge Tolls over Mekong River

	Tha Na Laeng			Savannakhet		2 nd /1 st
	LAK	USD		LAK	USD	
Trailer	81,000	10.1	Trailer (>10 wheels)	135,000	16.9	1.7
7-10 wheel Truck	54,000	6.8	7-10 wheel Truck	94,000	11.8	1.7
6 wheel Truck	41,000	5.1	6 wheel Truck	67,000	8.4	1.6
Tour Bus	27,000	3.4	Motor Coach	54,000	6.8	2.0
			Medium-sized Coach	40,000	5.0	
Mini Coach	13,000	1.6	Mini Coach	27,000	3.4	2.1
Pick-up & Jeep	8,000	1.0				
Sedan	5,000	0.6	Sedan (< 7 sheets)	13,000	1.6	2.6

Notes: 1) The Exchange rate is assumed to be LAK 8,000 per USD 1.0.

2) The lengths of First and Second Mekong Friendship Bridges are 1,170m and 1,600m, respectively.

Source: Surveyed by the project team.

Temporary Import Charge across Borders

	Tha Na Laeng			Savannakhet	
	LAK	USD		LAK	USD
Truck (> 17 wheels)	165,000	20.6	Trucks (> 17 wheels)	165,000	20.6
Bus (> 25 Sheets)	150,000	18.8			
Bus & Truck (10 – 12 wheels)	80,000	10.0	Truck (10 – 17 wheels)	80,000	10.0
Bus (> 6 sheets) & Truck (>6 wheels)	50,000	6.3	Passenger car (> 6 sheets)	50,000	6.3
Pick – Up & Jeep	25,000	3.1	Sedan	25,000	3.1
Sedan	9,000	1.1			

Notes: The Exchange rate is assumed to be LAK 8,000 per USD 1.0.

Source: Surveyed by the project team.

Immigration Fees over First Friendship Bridge

	Lao Nationals		Thai and Foreign Nationals	
	Passport	Border Pass	Passport	Border Pass
Weekdays 8:00 – 16:00	LAK 1,000	LAK 11,000	Free	Free
	USD 0.13	USD 1.38		
	THB 5	THB 50	Free	Free
	USD 0.17	USD 1.67		
Weekdays overtime 6:00 – 8:00 16:00 -22:00	LAK 10,000	LAK 20,000	LAK 11,000	LAK 11,000
	USD 1.25	USD 1.67	USD 1.38	USD 1.38
	THB 45	THB 90	THB 50	THB 50
	USD 1.50	USD 3.00	USD 1.67	USD 1.67
Sun., Sat. & Holidays	LAK 10,000	LAK 20,000	LAK 11,000	LAK 11,000
	USD 1.25	USD 2.50	USD 1.38	USD 1.38
	THB 45	THB 90	THB 50	THB 50
	USD 1.50	3.00	USD 1.67	USD 1.67

Notes: The Exchange rate is assumed to be LAK 8,000 per USD 1.0.

Source: Surveyed by the project team.

Summary of Cross-border Costs

Official Costs	(LAK or THB)	(USD)
Bridge Tolls	LAK 162,000	USD 20.2
Temporary Import Charge of Vehicles	LAK 165,000	USD 20.6
Immigration Fees	THB 0 – 100	USD 0.0 – 3.4
Sub-total		USD 40.8 – 44.2

Other Costs	(THB)	(USD)
Customs Clearance Fees in Lao PDR	THB 6,000 – 6,500	USD 200 – 217
Customs Clearance Fees in Thailand	THB 4,000 – 4,500	USD 133 – 150
Empty Container Transport Fee in Lao PDR	THB 1,500	USD 50
Empty Container Transport Fee in Thailand	THB 500	USD 17
Documentation Fees (Optional)	THB 4,000 – 6,000	USD 133 – 200
	THE 16,000 – 19,000	USD 400 – 633

		(USD)
Total Costs		USD 441 - 678

Issue of “load on One Side”

1. Case of a container owned by a shipping firm

1) In case of importing



2) In case of Exporting



- If loading with empty between LCP and Eastern Sea Board (less than 100km), the cost is smaller, but for the section between LCP and VTE (more than 600 km), the cost is larger !

2. Case of a container owned by a freight forwarder



(but if goods can be found out on the way back)

- Both of origin and destination are inland point, do not have to use a container owned by shipping firms.

Pure Logistics Cost

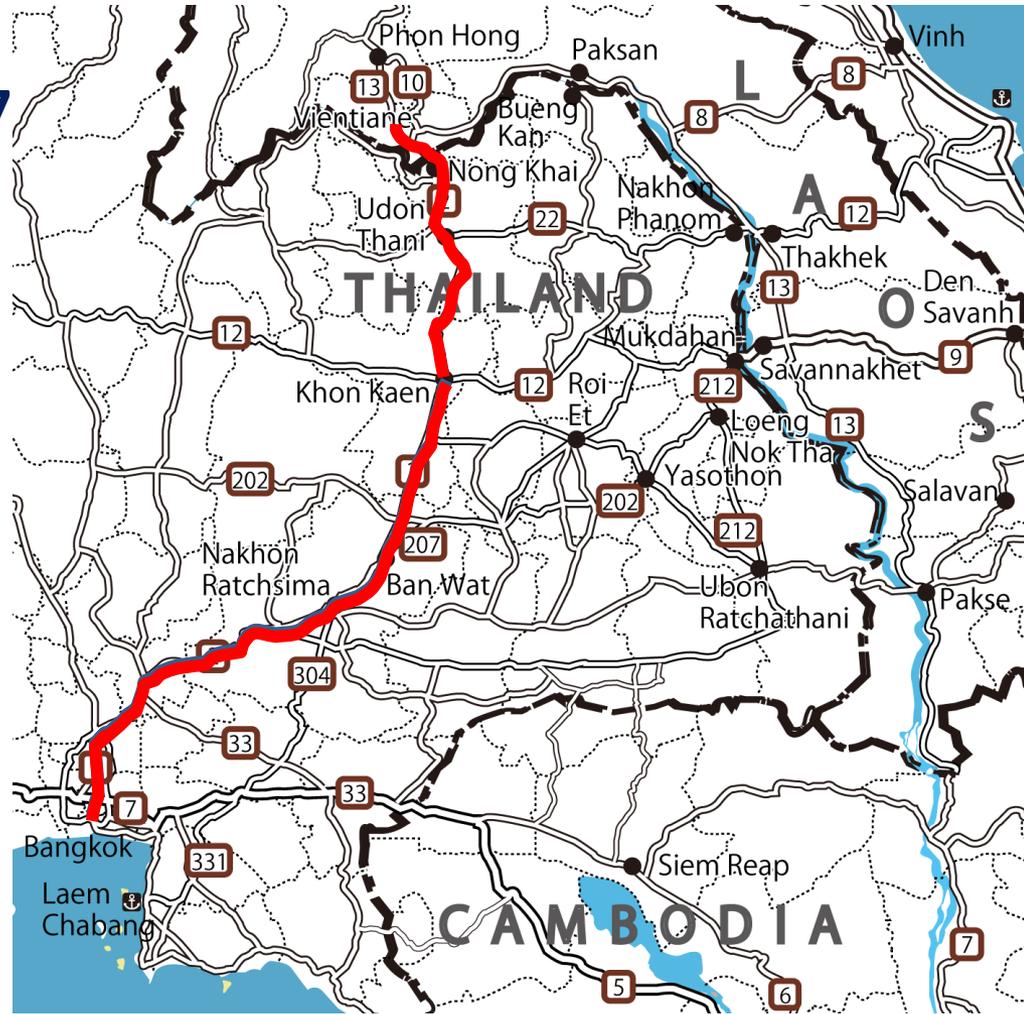
- Bench Mark Cost
Bangkok – Khon Kaen: USD 507
USD 1.126 / km
- Vientiane – Bangkok
 $1.126 \times 640\text{km} = \text{USD } 721$
- Cost of Load on One Side
Load on One Side: 100%
Load on Both Side: 70%



$$x + 0.7x = 721 \times 2$$



$$x = \text{USD } 848 \text{ (Load on one side)}$$

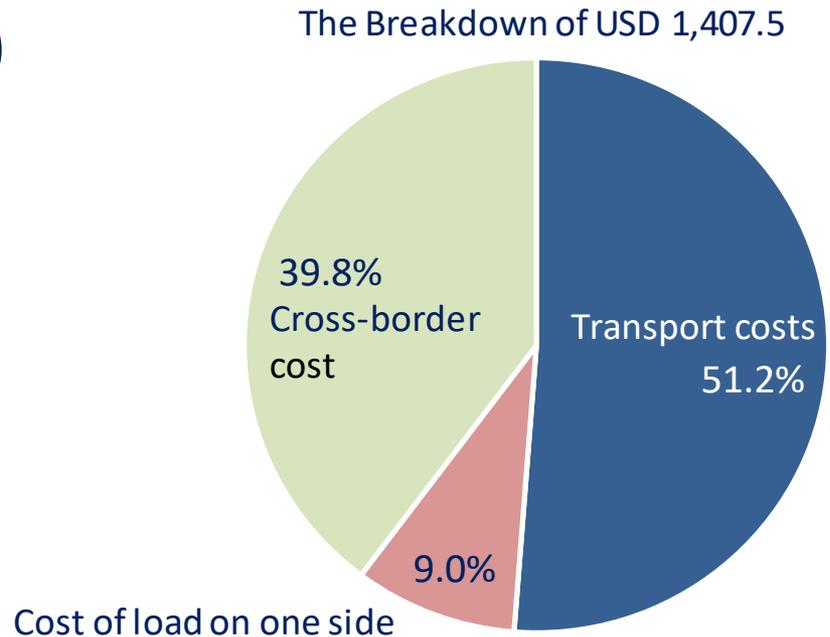


Source: Drawn by the presenter.

Logistics Cost between Vientiane and Bangkok

- Transport Cost: USD 721 (51.2%)
- Cost of Load on One Side:
 $848 - 721 = \text{USD } 127$ (9.0%)
or raise the price by 17.6%
- Cross – border Cost:
USD 559.5 (39.8%)
or raise the price by 77.5%.

Total Cost: USD 1,407.5



Source: Surveyed by the project team.

Logistics Cost by a Trailer

<THB>

	Min.	Max.	Japan Average	Thai Average	Overall Average
VTE – LCP	40,000	62,500	56,883	47,000	47,608
VTE – BKK	37,000	62,650	50,288	44,000	45,300

<USD>

	Min.	Max.	Japan Average	Thai Average	Overall Average
VTE – LCP	1,333	2,088	1,896	1,567	1,587
VTE – BKK	1,233	2,088	1,676	1,467	1,510

Notes: 1) Exchange rate is assumed to be THB 30.0 per USD 1.0.

2) Samples (VTE – LCP): 3 Japanese and 2 Thai firms.

 Samples (VTE – BKK): 4 Japanese and 2 Thai firms.

3) The difference between 20 and 40 feet container is small (THB 0 – 4,000)

Source: Compiled by the project team.

5. Policy Recommendation

Policy Recommendation

- Make efforts to reduce customs clearance fee and Empty Container Transport Fee at borders, at least the level of Thailand !
- In order for Lao PDR to be the logistics hub of inland ASEAN,
- In order to reduce the prices in general

Reducing the transport cost, including cross-border cost, is necessary !

Thank you !