

# Subgroup 4

## “Guidance for the Developing Countries to Build a Sustainable Freight Transport System”

Members of Subgroup4

Baasankhuu MANDUUL (Mongolia),

The other subgroup member who has contributed to the report

Younoussa KOITA (Guinea)

# Contents of Report

## 1. International Multimodal Transport

Found out issues common in developing countries.

## 2. Transport Development Policies

18 policies provided to improve transport such as Land Use Planning, Congestion Free System and Safety And Quality of Services.

## 3. International Border Crossing

6 key factors provided for simplification in crossing border transport among several countries.

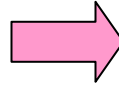
## 4. Conclusions and Recommendations

1. There can't be one unified approach for all the countries and the continents.
2. There is a need to develop an appropriate approach compatible to a given economy.
3. Five points are made as a recommendation to promote sustainable transportation system.

# 1. International Multimodal Transport

## Why need International Multimodal Transport?

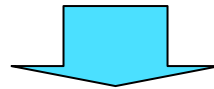
Globalization of market  
(Supply and Demand)



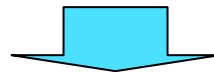
Urgent need of international regulation  
to help facilitate international transport  
(especially landlocked counties)

Following issues are common in developing countries

- Imbalanced means of transport
- Deficient or inadequate infrastructure
- Lack of harmony in regulations for international transport



**Developing countries need to improve international multimodal transport system**



**There are key factors to consider.**

## 2. Transport Development Policies

18 key factors to consider

### I. Planning/Assessment

#### 1. Land use plan

i.e. increase facilities

#### 2. Development plan

Need of short term and long-term Development plan

#### 3. Prioritization of projects

The weighted evaluation provides the priority list of road projects

#### 4. Decentralization

after the minimum goal is achieved to eliminate the regional imbalances

#### 5. Assessment of economic benefits

i.e. Cost benefit analysis, Environmental impact study etc.

# 2. Transport Development Policies

18 key factors to consider

## II. Social/Environment

6. Environmental protection  
i.e. reducing traffic-generated pollution
7. Harmonization with the natural environment  
e.g. minimize cutting and filling when building highways.
8. Resource management and waste utilization  
i.e. recycle and reuse
9. Sustainable energy sources  
i.e. solar energy and wind energy etc.
10. Social development tool  
e.g. new roads induce economic growth, boost the tourism



## 2. Transport Development Policies

18 key factors to consider

### III. Service level of transport

#### 11. Congestion free system

i.e. building roads adequate for traffic demand

#### 12. Safety and quality of services

i.e. safe road design, driver education

#### 13. Intelligent transport systems (ITS)

expensive but effective for building a safe, congestion-free road system

#### 14. Supporting secondary services

i.e. insurance service to cover the loss of the commodities transported

#### 15. Competition among the means of transport (road, rail, air etc.)

giving the opportunity to choose the optimal mean of transport

## 2. Transport Development Policies

18 key factors to consider

### IV. Organization

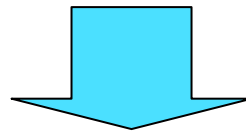
16. Working together with related public authorities such as Environmental Ministry and Labor Regulation Authority

17. Public consultation

There should be national debate on fixing the priorities of development projects.

18. Design and planning team

Technical personnel and planners has to be employed



**There can't be one unified approach for all countries.  
Needs to develop an appropriate approach compatible with a given situation.**

# 3. International Border Crossing

6 issues are identified in simplification of cross border transport.

(1) Multinational agreements

Agreements with several countries within a wide-area for transit movement.

(2) Vehicle emission requirements

World standard has to be used to control vehicle emission.

(3) Axle load control

Important requirement to protect pavement structure.

(4) Vehicle dimension control

Agreement is needed on various size of freight vehicles among trading countries.

(5) Tariffs, road user charges and transit fees

Common road user charge system for international and domestic vehicles to avoid stopping vehicles at borders

(6) Transport services

Food, sanitary, medical service, finding return cargos etc.



# 4. Conclusions and Recommendations

## Common issues in developing countries

- Imbalanced means of transport (I.e. lack of multimodal transport system)
- Inadequate infrastructure
- Inadequate social system
- Need for simple and harmonized regulations for international transport

## Recommendations

To solve the issues and to promote sustainable transportation system, it is needed to...

1. Establish a multimodal transport system
2. Utilize international experts
3. Have regular conventions of concerned countries for discussion of the related issues
4. Establish an independent body which assesses impact of transport growth
5. Establish a special bodies constituted by international agencies for developing simple regulations for international transport

# Case examples

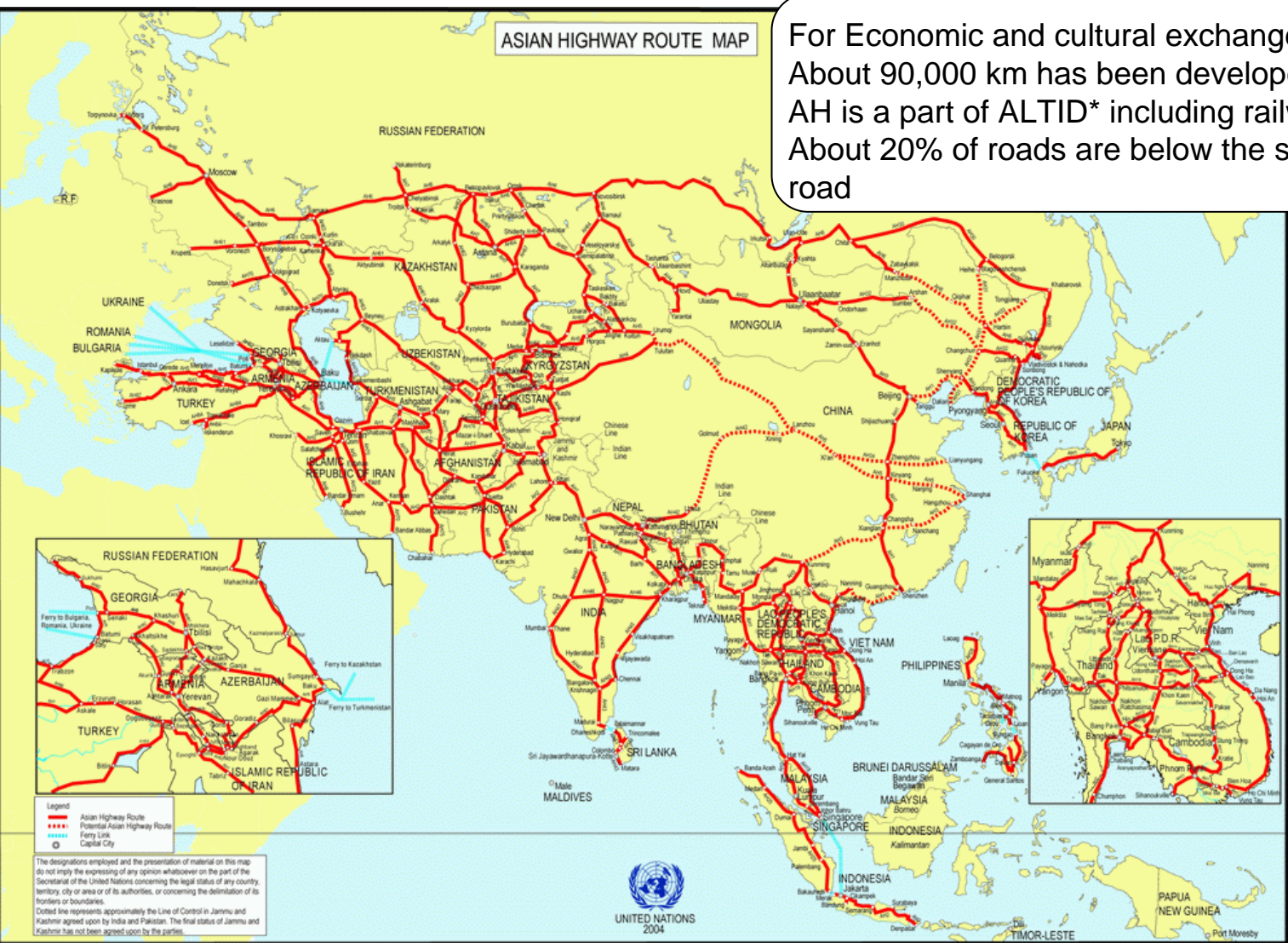
## International intermodal freight transport in Asia

1. Asian highway plan and current state of development
2. Effects of cross-border traffic infrastructure development (Thai-Malaysia)
3. ASEAN logistics map (Japan)
4. Partnership for Competitive International Distribution (Japan)
5. Conclusion

# 1. Asian Highway (AH) plan and current state of development

- 41,000 kilometers of roadways crisscrossing 32 Asian countries with linkages to Europe
- A total of US\$26 billion has already been invested in Asian Highway

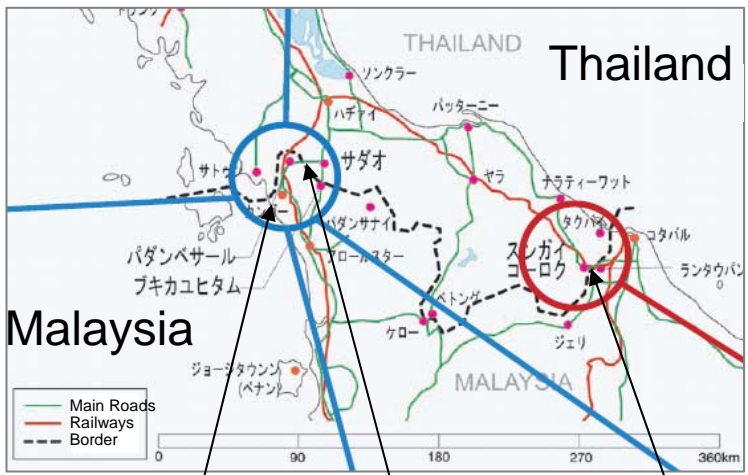
For Economic and cultural exchange and development  
 About 90,000 km has been developed  
 AH is a part of ALTID\* including railways and waterways  
 About 20% of roads are below the standard quality of road



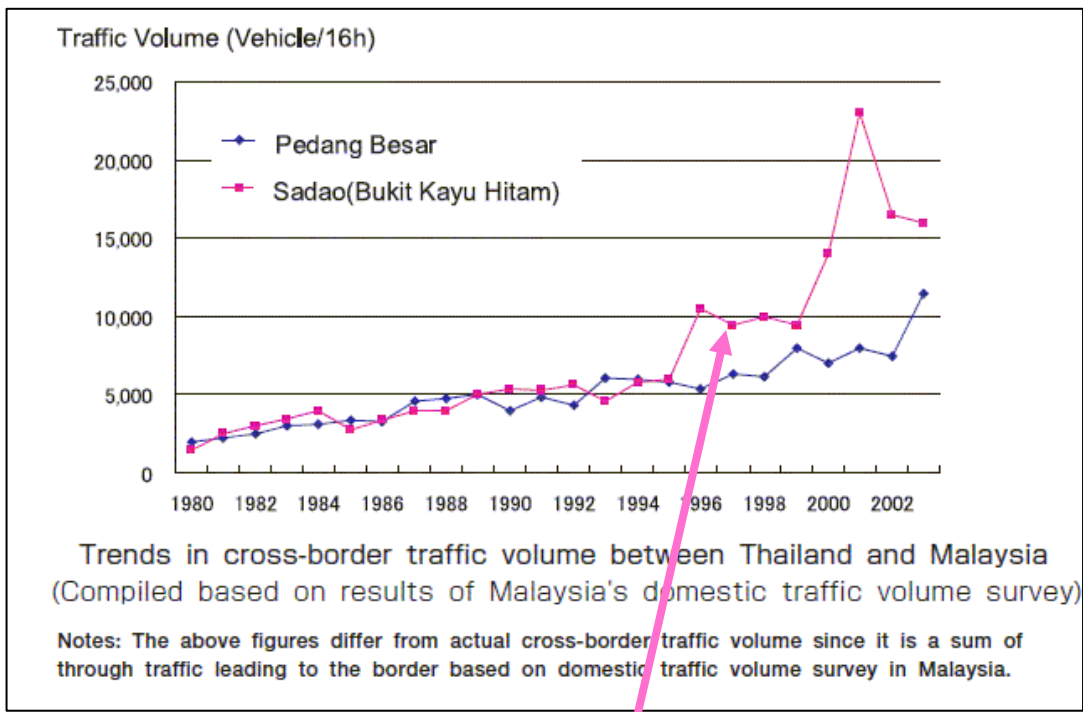
# 2. Effects of cross-border traffic infrastructure development (Thai-Malaysia)

## Developing roads and railways as infrastructure for cross-border traffic

Effect of Development



**Sadao - Bukit Kayu Hitam**  
 (Mainly Trade or Long distance traveler )  
 Arterial roads already developed



**Padang Besar**  
 ( Mainly Trade or Long distance traveler )  
 (Railways)  
 Crossing process made in one facility  
 Takes 5 minutes each for E/D  
 (Roads)  
 Not heavy traffic

**Sungai Kolok-Rantau Panjang**  
 (Mainly Local residents near border)  
 (Railways)  
 Crossing process made in one facility  
 (Roads)  
 Two countries connected with arterial road

Cross-border traffic volume at increased after infrastructure improvement

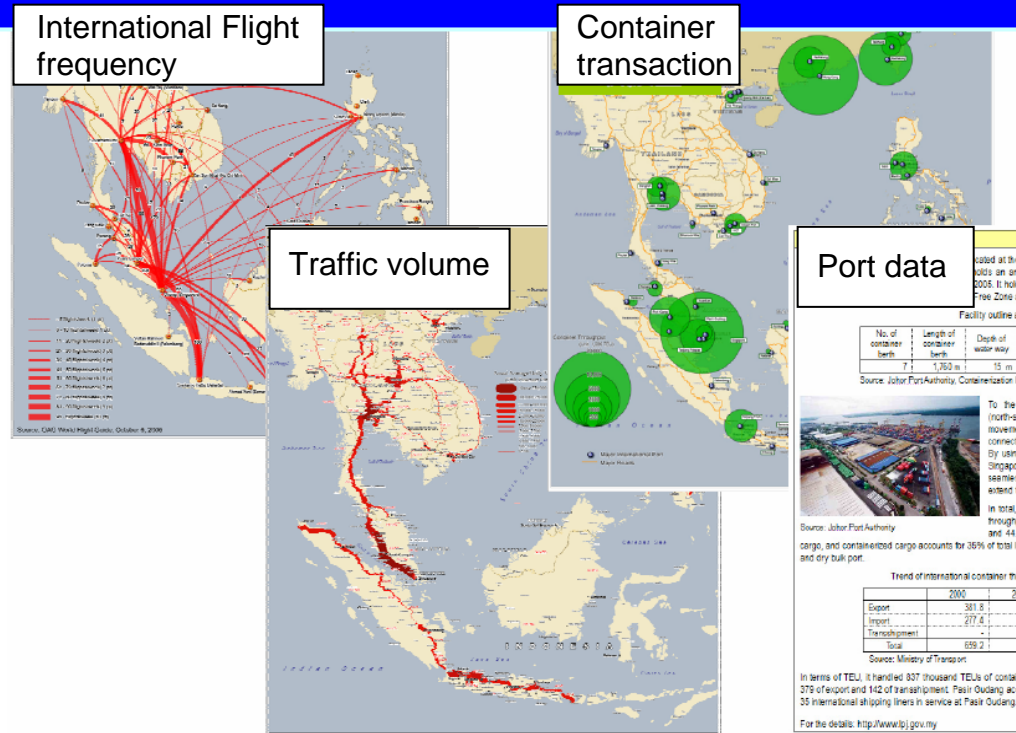


# 3. ASEAN logistics map (JETRO, Japan)

## Contributing seamless international logistics by learning bottlenecks at borders in ASEAN



Researched 7 routes Japanese companies are interested



Sample images of data

- Focusing on customs at the borders and EDI\* system.
- Transport mode includes Air, Sea and Land.
- Comparing transport costs, travel time and time needed for customs of each country to another.
- Enables owners of goods to choose the optimal root considering estimated lead time and costs.
- Induces countries to develop/improve logistics infrastructure (software and hardware) with this map.

# 4. Partnership for Competitive International Distribution (Japan)

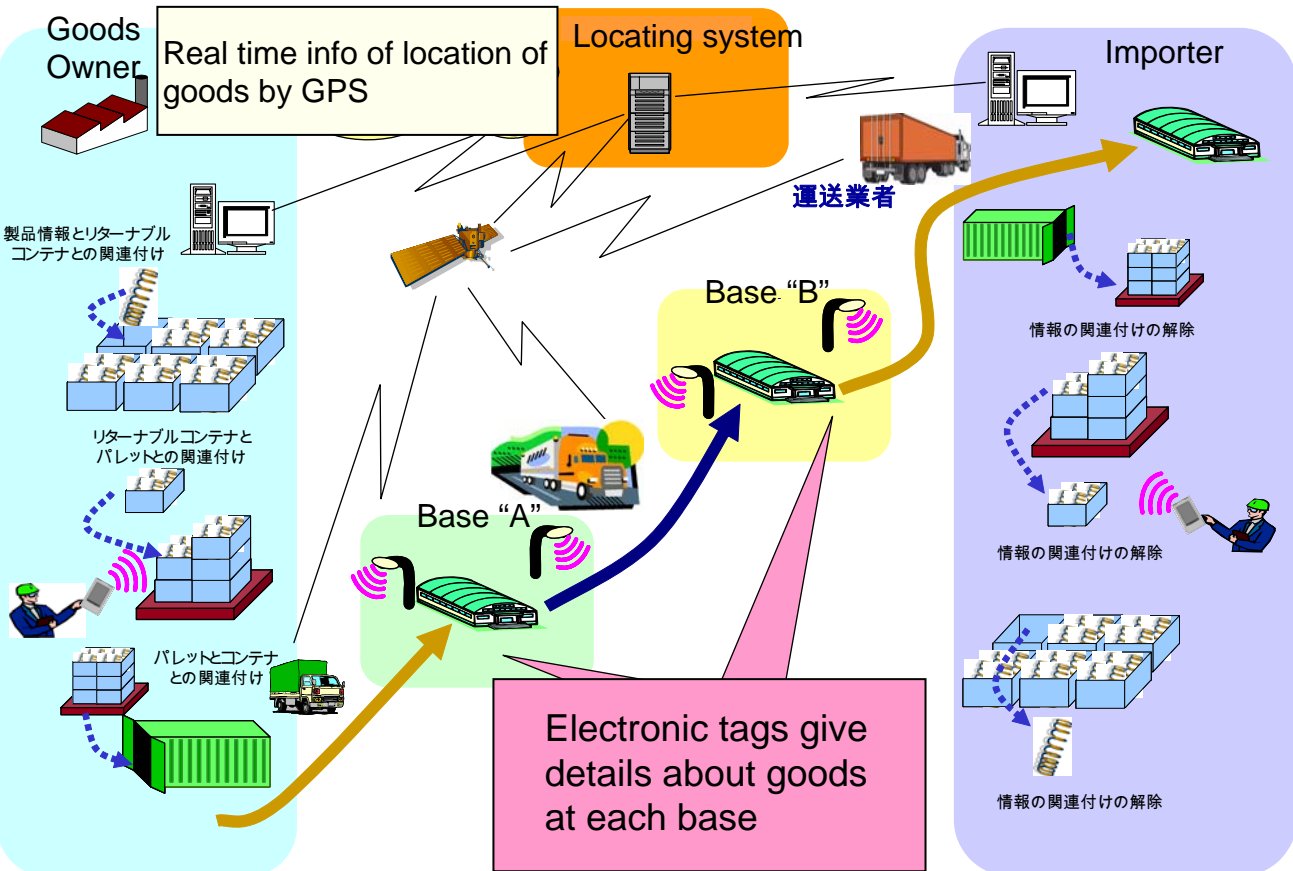
Aiming for reducing logistics cost and lead time by half in ASEAN in a long run

## In ASEAN

- Logistics tools such as Electronic tag are not common
- Effects by using logistics tools do not penetrate
- Necessary condition such as Radio Law is yet to come

## In JAPAN

- Promote Electronic tags by demonstration
- Induce use of the tags in private/public sector



- Verify operability and effects by demonstration
- Realizing effective logistics work

## 5. Summary

# Improvement of International intermodal transport is underway

- Cross-border Infrastructure development is underway. Effects of traffic volume increase after cross-border infrastructure development.
- Seamless international transport tools such as ASEAN logistics map.
- Software such as electronic tags for smooth international transport.