

# ASEAN-US Technical Assistance and Training Facility

## Toward a Roadmap for Integration of the ASEAN Logistics Sector: Rapid Assessment & Concept Paper Executive Summary



The purpose of this paper is to provide a rapid but comprehensive assessment of the logistics sector in the ASEAN region to assist ASEAN in developing a roadmap for the integration of this sector.

### BACKGROUND

In support of ASEAN Vision 2020 strategies for economic integration, the ASEAN economic ministers resolved that logistics should be the ASEAN Economic Community's 12th ASEAN Priority Sector for Integration.<sup>1</sup> Vietnam has been named the coordinating country for logistics, and with the ASEAN Secretariat and in consultation with ASEAN Member Countries, has started drawing up a roadmap of detailed measures to be implemented beginning in 2006 until the medium to long term.

As part of this process, the Nathan team consulted with stakeholders in the logistics system and carried out on-the-ground research on the status and performance of the ASEAN logistics system. This paper presents the results of that research and those consultations and proposes guiding principles for the proposed roadmap that are consistent with the work of the coordinating country for logistics and the recent draft roadmap produced with the ASEAN Secretariat. In addition the paper suggests actions to consider as the roadmap is developed.



### LOGISTICS SYSTEM OVERVIEW

The ASEAN transport and logistics system, like any other transport and logistics systems, is composed of (1) shippers, traders, and consignees; (2) public and private service providers; (3) regional and national rules, policies, and institutions; and (4) transport and communications infrastructure. These four components combine to determine the performance of the transport and logistics system in terms of price, time, and reliability. These performance measures affect both the international



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<sup>1</sup> The ASEAN Framework Agreement for the Integration of Priority Sectors was signed by ASEAN leaders in Vientiane during the 10th ASEAN Summit on November 29, 2004. Article 10 (Logistics Services) of the agreement calls for expediting the development of integrated transport services in ASEAN.

competitiveness of the ASEAN logistics services and the level of integration of the ASEAN logistics system, which can be summarized in terms of the performance of the ASEAN logistics system as a whole. This performance affects the costs of logistics services and the non-tariff barriers to trade in ASEAN countries, which have a major influence on intra-ASEAN trade and ASEAN economic integration. The sum of all these factors determines ASEAN's international competitiveness, and the transport and logistics system plays a key supporting role.

## **IMPACT OF LOGISTICS INEFFICIENCIES**

An assessment was made of the impact of logistics system inefficiencies on the economies of ASEAN countries and the regional economy. The total impact of existing inefficiencies was measured in two ways, first in terms of total logistics costs as a percentage of FOB costs and then as a loss in trade volume due to excess logistics time requirements. The first results showed that more than 30 percent of the total export logistics costs are derived from institutional rules and regulations. This in turn hinders the price competitiveness of ASEAN exports, especially those destined for ASEAN's main export markets.

In terms of time requirement, it takes on average about 22 to 23 days for all documentary processes to be completed for both export and import. This is another factor that affects the competitiveness of ASEAN exporters and importers both in terms of responsiveness capability and costs. As manufacturing systems become more global, delays in documentary procedure will impact the capability of ASEAN becoming a single integrated production base. Each day lost because of administrative delays increases not only firms' inventory holding costs but also ASEAN trade, which is reduced by more than 1 percent for each additional day that a product is delayed before being shipped or moved to destination. This could result in trade reduction in the range of 30–40 percent, according to an indicative analysis in this report.

## **LOGISTICS CORRIDOR PERFORMANCE**

To determine the status and performance of the ASEAN transport logistics sector, The Nathan team applied the FastPath assessment approach, which combines a rapid logistics systems audit and a corridor analysis.<sup>2</sup> The audit was carried out with the help of the ASEAN Secretariat through a series of checklist questionnaires given to the appropriate organizations in all 10 ASEAN countries. Two corridors were selected for detailed performance analysis:

- Vientiane (Lao PDR) to Laem Chabang (Thailand)
- Danang Port (Vietnam) to Mukdaharn (Thailand) via Sawanakhet (Lao PDR)

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<sup>2</sup> FastPath summarizes the cost, time, and reliability of corridor operations from the shippers' viewpoint. Reliability is defined as the percent that transit time varies from the mean value of 90 percent of shipments. The higher the number, the less reliable the corridor.

## Vientiane–Laem Chabang Corridor

The overall performance of this corridor for exporters is rated *fair*; it did not score higher mainly because of relatively high transport costs. Two aspects of the corridor logistics chain deserved a rating of *poor*: the export formalities on the Lao side because of the time required (12 days) and the road transport cost (three times international norms for good roads). Inland clearance depot (ICD) operations and rail operations are relatively efficient. In terms of transit time, the transport system functions well, and the border crossings are also relatively efficient. The customs costs are reasonable, and the undocumented costs are a very small portion of total costs. The port is very efficient. Table E1 summarizes the FastPath analysis of the Vientiane–Laem Chabang corridor.

Table E1  
Cost, Time, and Reliability of Vientiane–Laem Chabang Corridor (Export)

Component	Cost to Shipper (\$)		Time to Shipper		Reliability (% Variation in Transit Time)		Overall Rating (Good–Very Poor)
	Actual	Norm	Actual	Norm	Actual	Norm	
Port and terminal operations	70	50–150	3.5 days	3–5 days	125	35–50	Good
Seaport customs	0	0–50	0.5 hour	0.5– 1.5 hours	50	35–50	Good
Rail transport	35	0–50	3.5 hours	2.5–3.5 hours	75	35–50	Good
ICD operations	62.5	10–30	2.5 days	1–2 days	75	35–50	Fair
Road transport	845	200–300	16 hours	12–15 hours	125	35–50	Fair-Poor
Transloading	50	50–150	2 hours	2–4 hours	125	35–50	Good
Inland customs	180	100–300	3 hours	2–4 hours	100	35–50	Good
Export formalities	120	50–150	12 days	3–5 days	50	35–50	Poor
Total	1,362	820 av.	18.5 days	10.5 days av.	100	35–50	Fair

For the future, the use of paper processing will have to decline, and the lengthy preparation times for import and export papers will have to be shortened as traffic grows. The use of electronic data interchange (EDI) would help.

## Danang–Mukdaharn Corridor

The overall performance of the Danang–Mukdaharn corridor for importers is rated *fair-poor*; this corridor is not rated higher because of high transport costs and document processing times. Only two aspects of the logistics chain deserved a rating

of *poor*: the import formalities, because of the time required (10 days) and the road transport cost (two to three times international norms for good roads). In terms of transit time, the transport system functions well, and the border crossings are also relatively efficient. There are toll stations in Vietnam that seem to be efficiently run and not very expensive. The river crossing at Sawannakhet is also well run. The customs costs are very reasonable, and the undocumented costs are a very small portion of total costs. The port of Danang appears to be very efficient as well. Table E2 summarizes the FastPath analysis of cost, time, and reliability data for the Danang–Mukdaharn corridor.

**Table E2**  
*Cost, Time, and Reliability of Danang–Mukdaharn Corridor (Import)*

Corridor Component	Cost to Shipper (\$)		Time to Shipper		Reliability (% Variation in Transit Time)		Overall Rating (Good–Very Poor)
	Actual	Norm	Actual	Norm	Actual	Norm	
Import formalities	200	50–150	10 days	2–3 days	50	35–50	Poor
Port and terminal operations	107	50–150	½ day	½–2 days	125	35–50	Good
Seaport customs	262	50–150	1 day	1–3 days	125	35–50	Fair
Road transport	581	120–180	10.5 hours	0.5–1 day	125	35–50	Fair–Poor
River crossing	132	50–100	3.5 hours	2–4 hours	125	35–50	Fair
Transloading	316	50–150	2 hours	2–4 hours	125	35–50	Fair
Inland customs	28	100–300	1 hour	2–4 hours	125	35–50	Good
Total	1,626	825 av.	12 days	7 days av.	125	35–50	Fair–Poor

For the future, the use of paper processing will have to be reduced, the lengthy preparation times of import and export papers will have to be shortened, and the use of EDI will help as traffic grows. Some of the formalities not documented for these particular shipments prevent these gateways from providing for transit traffic, which is a major reason for the low usage of the corridor.

## **ASEAN LOGISTICS STATUS—STRENGTHS AND WEAKNESSES**

The status of the ASEAN transport and logistics system was determined primarily through a rapid assessment of seven sectors:

- Customs
- Ports and maritime transport
- Rail transport
- Road transport
- Inland waterway transport

- Air transport
- Logistics services

Logistics capacity varies widely among ASEAN member countries, primarily because member countries levels of economic development vary widely. There is a very strong correlation between the level of economic development and the types of logistics services offered.

The checklist survey/audit and the corridor performance analysis revealed the following strengths and weaknesses in the ASEAN logistics system:

### **STRENGTHS**

1. Logistics service providers supply their services under difficult conditions.
2. Many, but not all, ports are being upgraded and managed efficiently.
- There is a strong movement toward improving customs operations in ASEAN countries, which is critical for logistics development.

### **WEAKNESSES OR GAPS—AREAS THAT NEED ATTENTION**

3. Customs
  - ASEAN electronic single window
  - ASEAN customs declaration document
  - Full customs valuation based on WTO rules
  - Direct trader input
  - EDI system
  - Clearance of documents with post audit
  - Computerized risk management
  - Inland bonded warehouses
  - Electronic processing of inward general manifest
4. Ports and maritime shipping
  - Computerized information systems serving ports and linking ports, shippers, and freight forwarders
  - Automated gate entry
  - Off-dock container yards
  - Bonded distribution facilities
  - Improved rail and road linkages to the port (where available)
  - Full-truck scanners for security
5. Rail transport
  - Limited length of double-track rail and dedicated track for freight services (especially for containers)
  - Lack of wagons that can carry more than 80 tons
  - No provision for long trains that can operate with more than 50 wagons

- Limited rail management resources, especially for intermodal movements.
6. Road transport
    - Lack of funding for road maintenance on international routes
    - Low standards for international truck facilities at border crossings and transloading areas
    - Lack of *Transport International Routier (TIR)* agreements or similar customs transit agreement that allow trucks to travel easily from one country to the next with transit goods
  7. Inland waterway transport
    - Linkage between inland waterway routes and the rest of the transportation network
    - Equipment for handling containers at inland waterway ports
  8. Air transport
    - Air freight hub facilities, such as cargo villages
    - Cold storage, dangerous goods storage capability, and competitive ground handling services
    - Large pallet scanners for security
  9. Logistics services
    - Trained personnel
    - Knowledgeable personnel in the international logistics field
    - Communication links with shippers, customs, port management, and other logistics service providers
    - Domestic containers in some countries
    - Track and trace, distribution and cross-docking centers in some countries
    - Standard service contracts, multimodal transport documents, and house bills of lading

## **LOGISTICS POLICY DEVELOPMENT**

Logistics is seen in ASEAN as an important factor in sustaining a country's or the region's competitive advantage. However, although several member countries have started to develop national logistics policies, no ASEAN-wide logistics policy is being developed. In most ASEAN countries there is still a lack of understanding of what makes up logistics and how a logistics policy should be developed. Logistics development policy frequently becomes just a transport investment infrastructure plan, but logistics is much more than just transport infrastructure, and developing a national logistics policy requires a holistic approach that encompasses traders, service providers, infrastructure, and rules and regulations.

ASEAN member countries would benefit greatly from sharing their experiences in developing national logistics policy. The ASEAN Secretariat in turn could help coordinate a common ASEAN logistics development policy.

In response to the strengths and weakness identified above, and to improve the efficiency and security of the ASEAN logistics system and its connectivity to logistics systems of other countries, we recommend certain principles for the development of the roadmap.

## **GUIDING PRINCIPLES FOR THE ROADMAP**

To be comprehensive, the roadmap should address issues raised in each of the four components of transport logistics. It should address all the weakness identified in the performance analysis, building on the strengths of the current logistics systems.

### **Objectives**

Two basic objectives should help determine the priorities:

- Create an ASEAN single market by 2020 by strengthening ASEAN economic integration through liberalization and facilitation measures in logistics services; and
- Support the establishment and enhance the competitiveness of an ASEAN production base through the creation of an integrated ASEAN logistics environment.

These objectives refer back to Vision 2020 and define the role of transport logistics as a supporting role for trade development and integration.

### **Major Policy Areas**

To reach these objectives, the stakeholders have recommended that ASEAN member countries take action in six major policy areas<sup>3</sup>:

- Encourage the integration of ASEAN national logistics systems – by improving communication at the regional level to identify actions in the logistics sector to support and facilitate trade flows between ASEAN countries
- Encourage the progressive liberalization of logistics service providers – to enable them to respond better to the opportunities available for ASEAN integration and increasing competitiveness
- Increase trade, logistics and investment facilitation – to identify the means needed to improve transport logistics facilities and the priorities for investment
- Build ASEAN logistics capacity – by encouraging human resource development in the sector and an environment conducive to use of best practices in the sector, especially for SMEs

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<sup>3</sup> Based on recommendations developed in the ASEAN Logistics Integration Stakeholder Workshop held in Jakarta on 9 November 2006.

- Promote ASEAN logistics service providers – by identifying them and providing channels for their greater participation in the sector
- Promote multimodal transport capacity – especially containerized transport

These six major policy areas cover the four components of the logistics system and the performance issues identified above, while building on the capacity of the logistics service providers.

## **Recommendations**

Based on the recommendations of the stakeholder workshop, the following actions were identified as priorities in each area:

### **AREA 1: ENCOURAGE THE INTEGRATION OF THE ASEAN NATIONAL LOGISTICS SYSTEMS**

- Establish a high-level consultation process among ASEAN countries with access to logistics performance indicators to identify ASEAN logistics system deficiencies.
- Introduce user-friendly policies that reduce transport logistics costs and increase reliability
- Implement an ASEAN logistics database system that tracks costs, transit times and reliability for ASEAN importers and exporters
- Improve ASEAN logistics gateways accessibility and connectivity
- Support policies for improved electronic communication linkages between ASEAN logistics gateways and national customs centers as well as between national customs centers themselves
- Facilitate the development of an integrated system for linking customs and other EDI information systems to improve communications between shippers, importers, exporters and government agencies
- Improve freight track and trace capability
- Establish implementation protocols for effective cross-border logistics with support from information technology. Pilot test RFID for cross-border traffic.
- Develop ASEAN wide standard for “Secured Logistics Chains” that is in line with recently adopted international standards
- Identify and adopt best practices for the provision of logistics services
- Promote investment regulations related to the provision of logistic facilities and services
- Encourage public-private partnerships for investment in logistics infrastructure and facilities.

## **AREA 2: ENCOURAGE THE PROGRESSIVE LIBERALIZATION OF LOGISTICS SERVICES**

- Agree upon priorities for the liberalization of the logistics sector
- Monitor the progress of logistics services liberalization in member countries and report on this progress to other ASEAN members

## **AREA 3: INCREASE TRADE, LOGISTICS AND INVESTMENT FACILITATION**

- Simplify the information and processes required by related authorities to an absolute minimum. Reduce logistics related formalities, procedures and documents.
- Normalize formalities, procedures and documents.
- Harmonize trade, logistics and investment procedures
- Support ongoing customs reform and harmonize customs procedures
- Support member countries toward signing a TIR type agreement to facilitate transit freight movement
- Promote 24-hour-a-day port, customs and freight terminal operations (especially with the use of internet connections).

## **AREA 4: BUILD ASEAN LOGISTICS CAPACITY**

- Identify gaps in human resources related to logistics knowledge and support programs to fill the gaps
- Create training-of-trainers activities for the logistics sector
- Support the establishment of ASEAN logistics centers of excellence through the ASEAN University Network
- Provide special support programs for Small and Medium Logistics Service Enterprises in ASEAN countries to make them more competitive in a liberalized environment

## **AREA 5: PROMOTE ASEAN LOGISTICS SERVICE PROVIDERS**

- Establish an Internet-based system to promote the use of ASEAN logistics service providers and facilitate communications between them
- Set up an ASEAN logistics service provider database hosted by the ASEAN Secretariat to facilitate networking
- Encourage businesses in ASEAN to outsource logistics activities to ASEAN service providers
- Support the establishment of a common standard trading provisions for logistics service providers operating in ASEAN

## **AREA 6: PROMOTE MULTIMODAL TRANSPORT CAPACITY**

- Implement all protocols related to the ASEAN Agreement on the Facilitation of Goods In Transit
- Implement The Framework Agreement for ASEAN Multimodal Transport
- Sign the ASEAN Framework Agreement for Inter-State Traffic
- Promote inter-island multimodal shipping and container handling capacity in smaller ports through integrated logistics policy initiatives
- Promote inland waterway multimodal shipping and container handling capacity in river ports through integrated logistics policy initiatives
- Promote the development of inland clearance depots and intermodal road-rail transfer facilities through integrated logistics policy initiatives

These priority actions are designed to reinforce the related ASEAN activities in the other priority sectors as well as create new initiatives. It is recommended that immediate follow-up activities be commenced in the following areas:

1. Organization of a high-level group or coordinating committee for logistics integration that can recommend specific policies and monitor the opportunities for integrating the logistics sectors of ASEAN member countries. This could be an adjunct of the ASEAN Freight Forwarders' Association (AFFA) or a joint committee of AFFA and the ASEAN Secretariat.
2. Selection and implementation of short-term supporting initiatives in
  - Developing a strategy for ASEAN EDI and customs gateway connectivity and accessibility
  - Developing a strategy for ASEAN-wide track and trace capability
  - Developing a strategy for monitoring logistics performance in key areas for ASEAN economic integration
  - Developing an ASEAN standard for secure transport logistics chains in line with international standards
  - Developing a strategy for promoting ASEAN logistics service providers (especially the SMEs) and increasing their capacity.
3. Reinforce the importance of ongoing ASEAN initiatives to improve and modernize customs operations in member countries, particularly in providing single electronic window capabilities and implementing the Framework Agreement for ASEAN Intermodal Transport.
4. ASEAN should also lead an initiative for member governments to set objectives for lowering the time and cost of imports and exports in terms of goals for the specific number of days and documents required.