

2.3 CBTI Development

1) Asian Highway

History of Asian Highway⁷⁾

The Asian Highway project started in the 1950s with the aim of developing the international land transport network as was achieved with the development of the Pan-American Highway and the European Highway. The development of the international road network was expected to be conducive to promoting regional development and fostering regional trade and tourism in Asia. In 1959, the Asian Highway Plan was adopted in the general assembly of the Economic Commission for Asia and the Far East (ECAFE), which was the forerunner of the UNESCAP. Initially, it had 15 member countries with a central focus on southern Asia, which included 5 GMS countries, namely Cambodia, Lao PDR, Myanmar, Thailand, and the former South Vietnam.

The original plan consisted of 41 routes or a total of 65,000km of road network, which linked each capital, important cities, ports, industrial centers, and other major cities in the region. The Asian Highway Network had been developed with the assistance of the developed countries and the United Nations Development Programme (UNDP) as well as through local projects of the respective member countries. In 1968, the Secretariat for the Asian Highway Transportation Engineering was established under UNESCAP to manage its development and coordinate with donor agencies. However, the Secretariat was closed down in 1975 due to financial constraints within the United Nations. While UNESCAP's Department of Transport and Communication took over the management of the Asian Highway Plan, its implementation had slowed down.

Since the 1980s, Asian countries have built the momentum rolling again to promote the development of the Asian Highway, as a result of the political stabilization in South Asian countries, the dismantling of the Cold War structure worldwide, following the increase in international exchanges and trade. The necessity of international transport infrastructure development was strongly felt all over the region. The accession of China, Myanmar, and Mongolia in 1988, 1989, and 1990, respectively, to UNESCAP and Vietnam's strong willingness to integrate with the world economy as shown by its Doi Moi policy has enhanced the opportunities to promote the Asian Highway Plan.

In 1992, UNESCAP endorsed three (ALTID) projects, comprising the Asian Highway, the Trans-Asian Railway, and the facilitation of land transport projects. The Asian Highway network was revised to accommodate the modifications to the existing network and the identification of new routes in new member countries.

With the increase in member countries, the Asian Highway Network also expanded, reaching a total length of 141,000km and linking 32 Asian countries with Europe, after addition of 3,200km of Turkey in 1999, while it was 29 routes with 69,000 km in 1995,

Recent Development

In 2004-2005, of the total length of the Asian Highway, some 22,000km or 15.8% of the network do not conform to the specified minimum design standards. The sections that have already met the minimum design standards are either in poor condition or are

⁷ Toward an Asian Integrated Transport Network (UNESCAP, 2005), based on the website of Japan's MLIT (<http://mlit.go.jp/sogoseisaku/inter/kokusai/AH2005/history.html>) and relevant studies.

approaching their capacities due to high traffic volume, requiring maintenance, rehabilitation, and upgrading. While development and maintenance are a responsibility of each member country, some are incapable of mobilizing financial resources and need the financial assistance of the international and bilateral donors. UNESCAP estimated the required investment for the Asian Highway priority projects, as follows:⁸⁾

- Multilateral and bilateral donors are either currently investing or have committed to invest about US\$ 26 billion in the construction, rehabilitation, and upgrading of some 37,000km of the Asian Highway network.
- Almost US\$ 18 billion in investment is additionally required to implement 121 priority road projects to upgrade some 26,000km of the Asian Highway in 25 member countries.

Based on the results of an investment needs estimation, the regional workshop on “Upgrading of the Asian Highway Priority Routes” was conducted in June 2007 with the objectives of: (i) creating awareness of the investment opportunities in member countries and promoting investment in priority projects along the Asian Highway, (ii) sharing experiences and learning the various approaches to project formulation and conducting prefeasibility/feasibility studies of road projects. Discussions were conducted on the further actions to upgrade the Asian Highway routes.

Figure 2.3.1 Asian Highway Route Map



Source: UNESCAP website (http://www.unescap.org/ttdw/common/TIS/AH/maps/ah_map_2007.jpg)

Asian Highway Network in the Greater Mekong Subregion

The study area, the Greater Mekong Subregion, has a total of 14,511km of Asian Highway road sections (see Figure 2.3.2), of which 5,333km are still classified as Class III with two

⁸ Priority Investment Needs for the Development of the Asian Highway Network (UN-ESCAP 2006)

lanes with DBST surface (Double Bituminous Surface Treatment).

Figure 2.3.2 Asian Highway Network in the Greater Mekong Subregion



Source: made up with UN-ESCAP data

2) ASEAN Highway

The ASEAN Highway Network Project was agreed on at the Fifth ASEAN Transport Ministers Meeting in 1999 with the following goals:

- (i) to provide the institutional mechanism to formalize the strategic route configuration and the uniform technical design standards of the ASEAN Highway network, being the major road component of the overall trans-ASEAN transportation network;
- (ii) to formulate the ASEAN Highway Infrastructure Development Plan consisting of priority highway projects of regional significance;
- (iii) to promote cooperation with other international and regional organizations; and
- (iv) to intensify cooperation in the facilitation of international road traffic throughout the Southeast Asian region.

The total network comprises 23 routes covering some 38,400km. The original development strategy intended to complete network configuration and the designation of national routes by 2000, to upgrade all designated national routes to at least Class III⁹⁾ standards and to construct all missing links by 2004, and to upgrade all designated national routes to at least Class I or primary road standards or low traffic volume non-arterial routes to Class II standards by 2020.

While the ASEAN Highway Network does not relate with the Asian Highway network, the former basically follows the Asian Highway network for the major routes, adding some routes of importance to the region (see Figure 2.3.3).

⁹ Technical design standards and requirements are set for Primary, Class I, Class II, and Class III roads. Design speed, road width, and type of pavement are specified in accordance with terrain classification including level, mountainous, and rolling terrains.

Figure 2.3.3 ASEAN Highway Network



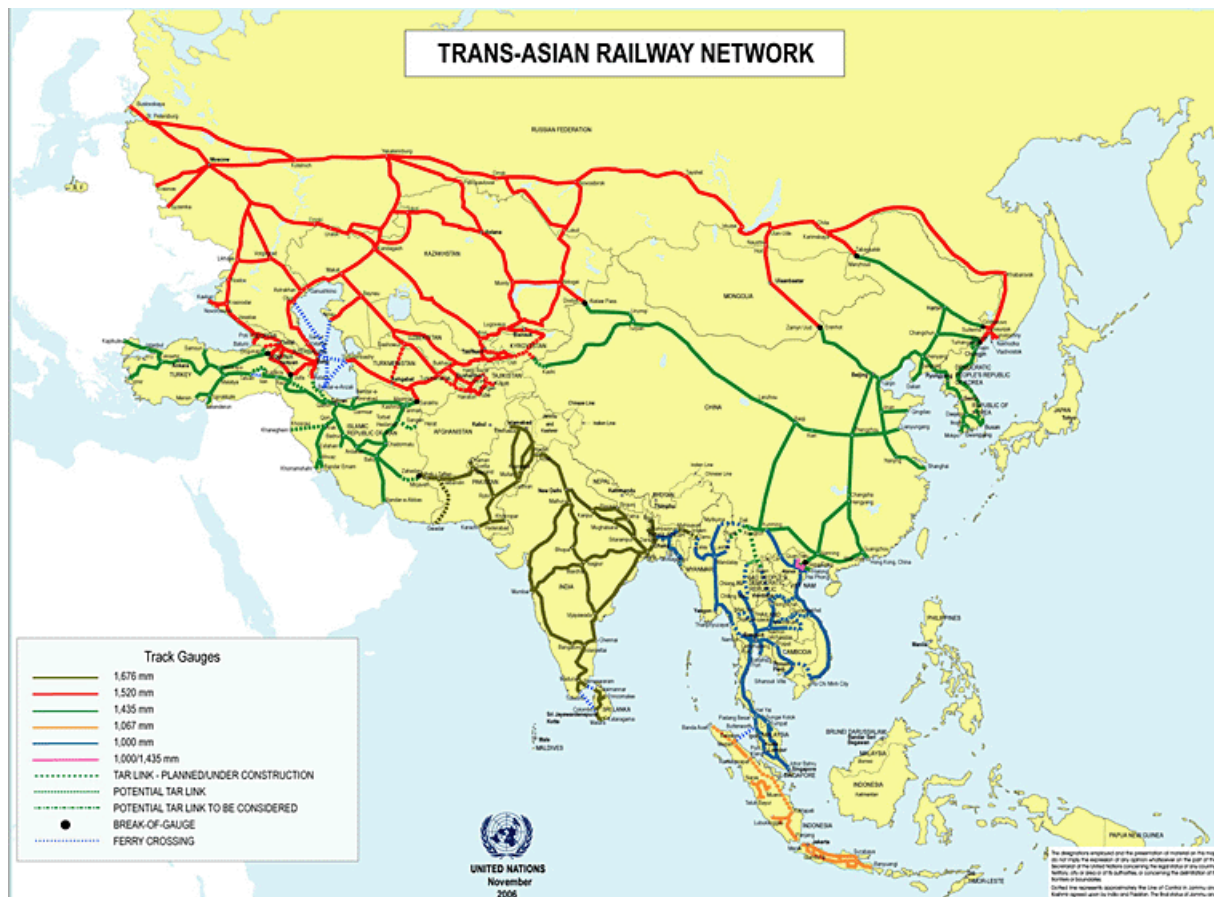
Source: Formulated by the Study Team based on existing data.

3) Other Infrastructure Development

(1) Railway Network

There is a regional railway network development framework, the Trans-Asian Railway (TAR) as shown in Figure 2.3.4, which aims to connect the whole Eurasia continent by railway.

Figure 2.3.4 Trans-Asian Railway Network



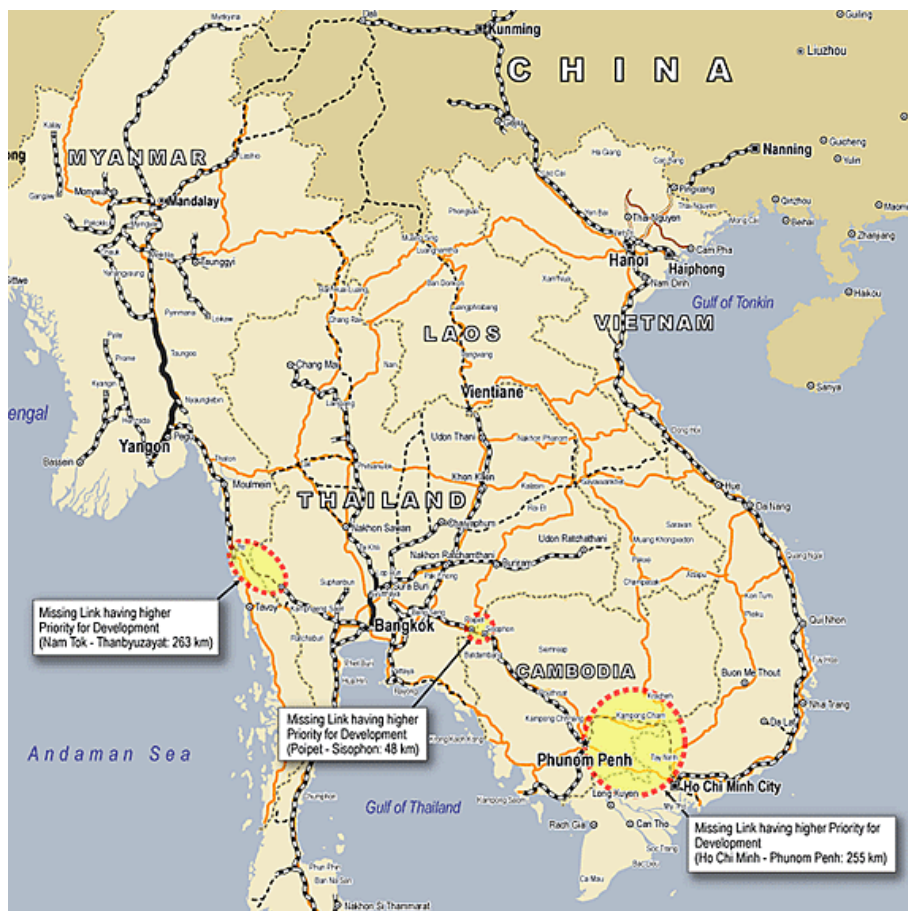
Source: UNESCAP Website (http://www.unescap.org/ttdw/common/TIS/TAR/images/tarmap_latest.jpg)

In the Greater Mekong Subregion, railway infrastructure has been developed in all countries except for Lao PDR, where its usage for passenger and freight transport is limited. Narrow-gauge tracks of 1,000mm are introduced, except in some links in Vietnam. There are three missing links to be prioritized in the formulation of the GMS railway network, as follows:

- (a) **Western part of Thailand between Namtok and Tanbyuzayat (263km):** With the development of this section, railway linkages from Thailand to the Andaman Sea will be complete.
- (b) **Railway Link within Cambodia between Poipet and Sisophon (48km):** This is a missing link in the railway network connecting Bangkok and Phnom Penh. This is a high-priority project listed in the development plan of Cambodia, wherein the Malaysian government has committed intake assistance for rails.
- (c) **Railway Link between Ho Chi Minh and Phnom Penh (255km):** This is a critical missing link in the SKRL railway network, connecting Singapore and Kunming in China. The feasibility study has been conducted both for the Vietnamese section

from HCMC to the border, and that from Phnom Penh to Loc Ninh, where the locations of the cross-border junctions are yet to be decided.

Figure 2.3.5 Railway Network in the Greater Mekong Subregion



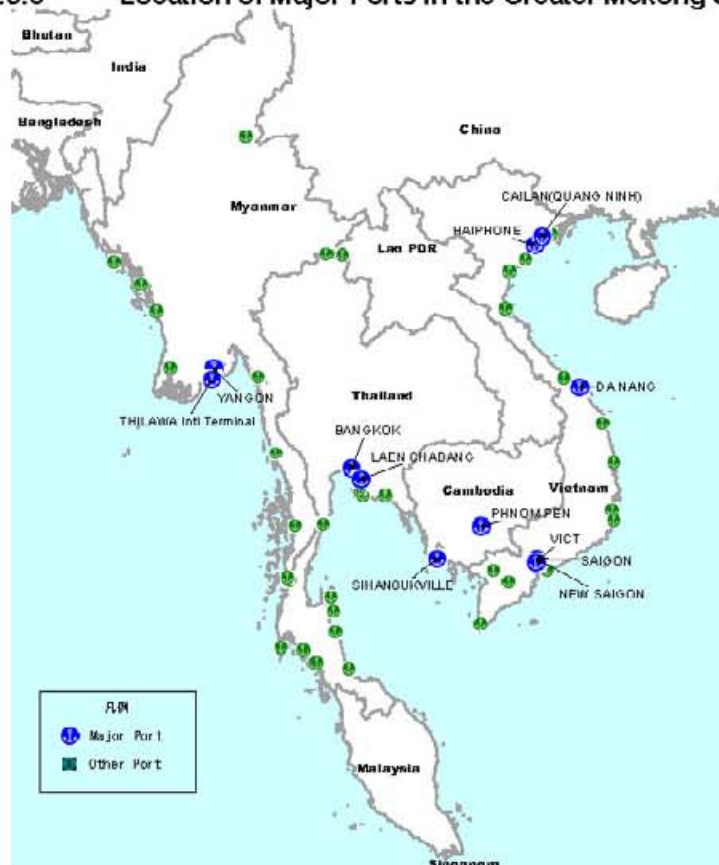
Source: JETRO, ASEAN Logistics Network Map, 2006

In Lao PDR, the only country which has no railway infrastructure, the first railway linkage is planned from the center of the 1st Mekong Bridge (Friendship Bridge) to Vientiane for a length of 13.5km and whose right of way has already been secured. For the first phase, the section up to Thanaleng (3.5km) will be financed by Thailand. For the second phase, from Thanaleng to Vientiane (9.0km), the feasibility study is planned with the assistance of France, and this has not started yet.

(2) Port and Airport

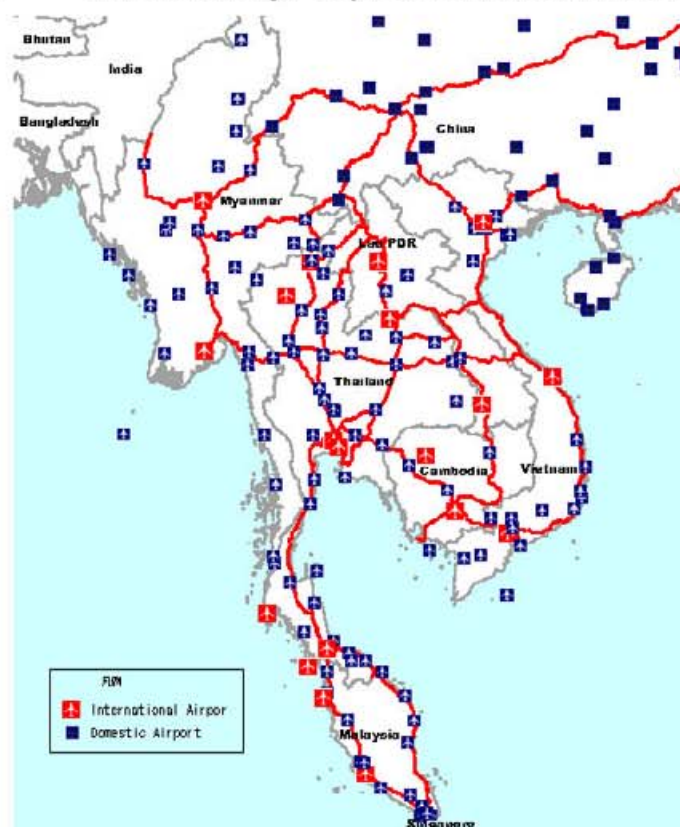
Figures 2.3.6 and 2.3.7 show the location of major ports and airports in the region. Port infrastructure plays a very important role in international trade, handling most cargo intended for GMS countries. Infrastructure facilities in major ports are shown in Table 2.3.1. On the other hand, several ports, such as Hai Phong and Cai Lan ports in Vietnam, Shihanoukville Port in Cambodia, and Yangon Port in Myanmar, only provide feeder shipping services linking with Singapore and Bangkok (Laem Chabang Port). This shows the low accessibility and flexibility of shipping lines among GMS ports (see Figure 2.3.8).

Figure 2.3.6 Location of Major Ports in the Greater Mekong Subregion



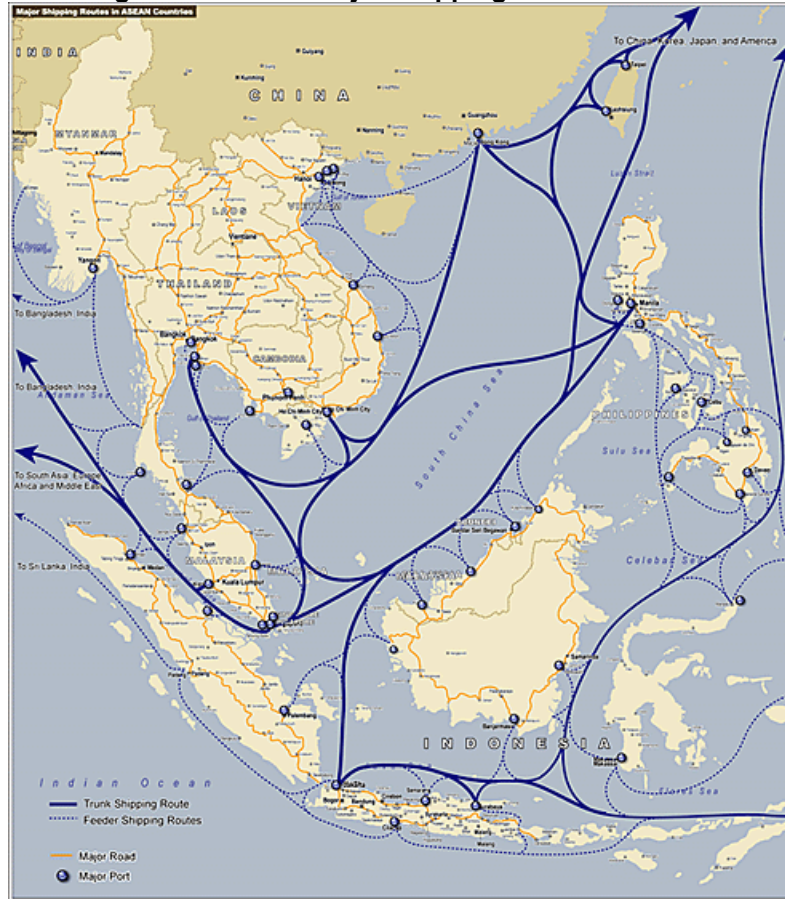
Source: Prepared by the Study Team based on existing sources.

Figure 2.3.7 Location of Major Airports in the Greater Mekong Subregion



Source: Prepared by the Study Team based on existing sources.

Figure 2.3.8 Major Shipping Lines in ASEAN



Source: JETRO, ASEAN Logistics Network Map, 2006.

Table 2.3.1 Information on Major Ports in Cambodia, Myanmar, and Thailand

Facility \ Major Port		Cambodia		Myanmar		Thailand	
		Phnom Penh	Sihanouk ville	Yangon	Thilawa international Terminal	Bangkok	Laem Chabang ²⁾
Berths	No. of Bergh	6	16	2	5	84	18
	No. of Container Berth	3	3	2	5	0	11
	Total length of Bergh (m)	n.a.	1,693	n.a.	1,000	7,688	8,005
	Total length of Container Bergh (m)	n.a.	400	n.a.	1,000	0	5,000
	Draft Limit (m)	n.a.	8.3	n.a.	10.0-12.5	4.6-8.2	10.0-16.0
Storage Area	Terminal Facilities (m ²)	n.a.	n.a.	40,000	750,000	363,168	3,329,265
	CFS (m ²) ¹⁾	n.a.	36,000	4,600	20,000	498,063	74,792
Operation Statistics	Cargo Handling Volume (1,000 ton)		1,381			16,031	35,736
	Import	n.a.	n.a.	3,307		8,852	12,717
	Export	n.a.	n.a.	910		7,179	23,019
	Domestic	n.a.	n.a.	440		n.a.	n.a.
	Container Throughput (1,000TEU)		211	n.a.		1,349	3,766
	Import	n.a.	106	n.a.		666	1,869
	Export	n.a.	105	n.a.		683	1,897
	Transshipment	n.a.	0	n.a.		n.a.	n.a.
	No. of Ship calls	n.a.	1,372	1,215		2,570	6,410

Source: JETRO, ASEAN Logistics Network Map, 2006.

1) CFS: container freight station.

2) Pamphlet of Laem Chabang Port.

Table 2.3.2 Information on Major Ports in Vietnam

Facility \ Major Port		Vietnam					
		Hai Phong	Sai Gon	New Sai Gon	Cai Lan	VICT	Da Nang
Berths	No. of Bergh		10	7	5	3	10
	No. of Container Berth	16	10	7	2	3	n.a.
	Total length of Bergh (m)	2,438	704	2,037	926	486	1,657
	Total length of Container Bergh (m)	2,438	704	2,037	450	486	n.a.
	Draft Limit (m)	8.4-10.5	8.5	11.0-12.0	5.0-13.0	10.0	7.0-11.0
Storage Area	Terminal Facilities (m ²)	127,300	500,000	560,000	n.a.	200,000	267,456
	CFS (m ²) ¹⁾	50,892	8,200	22,000	n.a.	5,700	n.a.
Operation Statistics	Cargo Handling Volume (1,000 ton)	10,511	10,744	15,778	3,185	n.a.	2,256
	Import	5,370	4,965	7,538	1,059	n.a.	595
	Export	1,911	2,549	7,604	975	n.a.	778
	Domestic	3,230	3,230	636	1,151	n.a.	882
	Container Throughput (1,000TEU)	398	285	1,056	119	377	32
	Import	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Export	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Transshipment	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	No. of Ship calls	2,430	1,843	1,636	336	1,025	1,290

Source: JETRO, ASEAN Logistics Network Map, 2006.

1) CFS: container freight station.

4) Cross-border Point

There are many cross-border points across the GMS countries, including 40 Class I cross-border points (CBPs)¹⁰⁾ where people and goods from third countries as well as between two countries are allowed to pass through (see Figure 2.3.9). They also include 36 Class II CBPs¹¹⁾ where only people and goods between two countries are allowed to pass through. Figure 2.3.9 shows the locations of these Class I CBPs. While most cross-border points are linked via road or in some cases via railway, ferry crossing is available only at some Class I CBPs.

Infrastructure conditions and traffic volume have been clarified for major Class I CBPs. However, most CBPs are utilized only for local transport, and information about their infrastructure conditions and cross-border procedures are only available from minor travel records. Such information should be integrated and disseminated to enhance cross-border transport and extend the impact of regionalization.

Figure 2.3.9 Location of Class I Cross-border Points in the Greater Mekong Subregion



Source: Prepared by the Study Team based on various sources.

¹⁰⁾ In principle, people and goods from any country including third countries with whom the transit country has diplomatic relationships, can pass through.

¹¹⁾ In principle, only the people and goods of interested countries, mostly two countries, can pass through. In some cases, movement from country A to country B is allowed only for 1 day.