THAILAND: ASEAN’S LOGISTICS HUB
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Thailand sits in the center of mainland Southeast Asia, bordering Myanmar, Lao PDR, Cambodia, and Malaysia. It is this central location that makes Thailand well suited to take on the role as ASEAN’s Logistics Hub. Besides bordering most of the mainland Southeast Asian nations, Thailand has access to the Mekong River as well as plenty of coastline along the Gulf of Thailand and Andaman Sea, thus offering logistic opportunities that few, if any, other ASEAN countries can compete with. Thailand’s share of regional logistics is bound to grow, especially with its linkage to Cambodia, Lao PDR, and Myanmar, states whose growing economies are catching the eyes of investors worldwide.

Thailand is one of Southeast Asia’s top performers in the logistics field. Currently, Thailand ranked 35th out of 160 countries in the World Bank’s Logistics Performance Index (LPI) and ranked 3rd among ASEAN countries listed in the index. This is clear evidence that Thailand is competitive at a global level.
The actual breakdown of Thailand’s score compared to other Southeast Asian nations provides a more accurate picture of Thailand’s core strengths in logistics. By examining the breakdown of each component of the World Bank’s LPI, it is clear that Thailand scores exceptionally well when compared to all other ASEAN countries and why Thailand is capable of becoming the logistics hub of ASEAN.

### Six Key Concerning Areas of LPI, 2014

<table>
<thead>
<tr>
<th>Country</th>
<th>Customs</th>
<th>Infrastructure</th>
<th>International Shipments</th>
<th>Tracking and Tracing</th>
<th>Logistics Quality and Competence</th>
<th>Timeliness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>4.01</td>
<td>4.28</td>
<td>3.70</td>
<td>3.90</td>
<td>3.97</td>
<td>4.25</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3.37</td>
<td>3.56</td>
<td>3.64</td>
<td>3.58</td>
<td>3.47</td>
<td>3.92</td>
</tr>
<tr>
<td>Thailand</td>
<td>3.21</td>
<td>3.40</td>
<td>3.30</td>
<td>3.45</td>
<td>3.29</td>
<td>3.96</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>2.81</td>
<td>3.11</td>
<td>3.22</td>
<td>3.19</td>
<td>3.09</td>
<td>3.49</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2.87</td>
<td>2.92</td>
<td>2.87</td>
<td>3.11</td>
<td>3.21</td>
<td>3.53</td>
</tr>
<tr>
<td>Philippines</td>
<td>3.0</td>
<td>2.60</td>
<td>3.33</td>
<td>3.00</td>
<td>2.93</td>
<td>3.07</td>
</tr>
<tr>
<td>Cambodia</td>
<td>2.67</td>
<td>2.58</td>
<td>2.83</td>
<td>2.92</td>
<td>2.67</td>
<td>2.75</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>2.45</td>
<td>2.21</td>
<td>2.50</td>
<td>2.20</td>
<td>2.31</td>
<td>2.65</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1.97</td>
<td>2.14</td>
<td>2.14</td>
<td>2.36</td>
<td>2.07</td>
<td>2.83</td>
</tr>
<tr>
<td>Brunei</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: World Bank LPI Report 2014 (Score range is 1-5 with 5 being the best possible score)

Thailand’s scores in the next LPI will be higher as government policies supporting the logistics industry and investment plans aiming to build world class infrastructure begin to see results.
Thailand has been actively executing new policies that will transform all aspects of Thailand’s transportation infrastructure into globally competitive, first tier systems. The new administration recently passed a new Infrastructure Development Plan (2015-2022) worth US$ 75 billion (THB 2.4 trillion) to revamp Thailand’s infrastructure. The targets of this new Infrastructure Development Plan are illustrated below.

The massive scope of this plan is designed to maximize capacity and efficiency of every element of Thailand’s national transportation systems. This infrastructure development plan will greatly benefit logistics providers. Upgraded railways will expand the capacity of Thailand’s railroads while minimizing transit durations. Expanded four way highways between Thailand’s arteries of commerce will minimize transit times. Expanded seaports will welcome even greater volumes of cargo as Thailand cements its position as ASEAN’s logistics hub. Expanded and enhanced airports across Thailand will increase capacity while upgraded air traffic systems will improve efficiency.

Thailand will not only maintain its superior position in the logistics industry, but will also guarantee that Thailand will become the premier center for logistics in Southeast Asia. The chart below depicts Thailand’s Logistics Development Strategy for achieving the goals listed by 2017. It shows in greater detail how the 3 missions and 7 strategies will work in harmony to accomplish the above listed goals of improving competitiveness, co-prosperity, and sustainability, as well as improving overall quality of life in the region.

### New Transportation Development Strategies 2015-2022

<table>
<thead>
<tr>
<th>Railway</th>
<th>Road Network</th>
<th>Mass Transit in Bangkok &amp; Vicinity</th>
<th>Water and Air Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inter-city rail network</td>
<td>2. Capacity enhancement for highway network to link with key areas in the country and with neighboring countries</td>
<td>3. Public transportation network development plan for Bangkok metropolitan region</td>
<td>4. Air transport capacity enhancement</td>
</tr>
<tr>
<td>5. Maritime transport development</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Railway**
  - Upgrade rail infrastructure and overall system
  - Build double-track in 6 main rails with their extension to respective borders
- **Road Network**
  - Develop 4 lane road networks linking Thailand’s key economic regions and border areas
  - Construct new motor ways
  - Develop facilities along the main roads such as container yards
- **Mass Transit in Bangkok & Vicinity**
  - Extend mass transit railway system in Bangkok and vicinity
  - Improve quality of service and safety of mass transit bus as well as to enhance its environment standard
- **Water and Air Transport**
  - Improve seaport on both Thai gulf and Andaman sea
  - Enhance capacity of airports to be the regional center of air transportation
  - Establish the aviation industrial estates

Source: The Office of the National Economic and Social Development Board (NESDB), Aug 2014
Furthermore, below is a chart explaining the Manufacturing Logistics Development Master Plan (2015-2017). The plan aims to enhance Thailand’s logistic and supply chain management in order to increase the overall competitiveness of the manufacturing logistics sector. This plan targets maximizing efficiencies in the logistics sector, nurturing skilled human capital, and utilizing technology to make Thailand’s logistics sector more competitive. The ultimate goal of the plan is for Thailand to increase its competitiveness in the aspects of cost, time, and quality by the year 2017, making it a key driving force in Southeast Asia logistics.

**Manufacturing Logistics Development Master Plan 2013-2017**

**VISION**
Thai industries attain efficient logistics and supply chain management with strong collaboration creating value chain sustainable competitiveness

**OBJECTIVES**
1. Engender Business Logistics Professional
2. Creating Supply Chain Competitiveness

**GOALS**
1. Industrial logistics cost/GDP is decreased by 15% within the year 2016
2. Efficiency of industrial logistics performance in 3 aspects including cost, time, and quality is increased 10% by the year 2016

**STRATEGIC AGENDAS**
1. Creating logistics management professional in industrial business by providing consultancy, coaching and training personnel, promoting technology, and furnishing enhancing
2. Promote collaboration and connectivity throughout the supply chain with information sharing and linking, and standardization for SC synchronization alignment
3. Support enabling factors to enhance national SC competitiveness from upstream suppliers to LSPs with sufficient effective infrastructure and amended regulations

*Source: Bureau of Logistics, Ministry of Industry, 2014*
Thailand’s world class international airports see heavy amounts of traffic due to Thailand’s central location in ASEAN. With Don Mueang Airport reopened as an international airport in 2011, along with the world-renowned Suvarnabhumi International Airport, Bangkok has seen a significant increase in both passenger movement and aircraft movement volume. These volume increases still do not account for future expansion plans for both airports that will undoubtedly allow for even greater volume growth.

According to the Ministry of Transport (MOT), Suvarnabhumi Airport’s expansion goal is to accommodate 120 million passengers and 6.5 million tons of cargo per year in the future. Furthermore, to facilitate the movement of arrival, departure, and transfer freight with less customs regulation, a Free Zone complex has been established in the northwest area of the airport that will allow for duty exemption, zero rate value added tax (VAT) calculation, excise duty exemption, and no time limit for storage in the zone’s warehouse.

For Don Mueang International Airport, Airports of Thailand Public Company Limited (AOT) under the MOT, expects to expand the airport further to better serve the rapidly growing volume of passengers and cargo. The
The current project consists of the following: the modification of Terminal 2 for domestic passengers, the modification of South Corridor and Pier 5, the modification of the car park, the modification and expansion of the existing domestic terminal, the modification of Pier 6, the expansion of Terminal 1 for international passengers, and the modification of the airport in order to accept an increase of cargo intake.

Thailand’s airport infrastructure will see massive upgrades as a result of the Infrastructure Development Plan. The following five airports were selected in the plan for development:

1) Suvarnabhumi Airport
2) Don Mueang Airport
3) Phuket Airport
4) Betong Airport
5) Mae Sot Airport

Besides enhancing airport facilities, the plan is investing in enhancing Thailand’s airport traffic systems and establishing aviation industrial estates for the purpose of becoming the regional center for air transportation.

### Thailand Aircraft Traffic 2013

<table>
<thead>
<tr>
<th>Airport</th>
<th>Total Movement</th>
<th>% Change from 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Passenger</td>
<td>Aircraft Movement</td>
</tr>
<tr>
<td>Chiang Mai</td>
<td>5,172,742</td>
<td>41,295</td>
</tr>
<tr>
<td>Chiang Rai</td>
<td>1,053,863</td>
<td>6,882</td>
</tr>
<tr>
<td>Hat Yai</td>
<td>2,465,370</td>
<td>17,056</td>
</tr>
<tr>
<td>Phuket</td>
<td>10,979,537</td>
<td>70,198</td>
</tr>
<tr>
<td>Suvarnabhumi &amp; Don Mueang</td>
<td>66,463,450</td>
<td>423,992</td>
</tr>
</tbody>
</table>

Note: Data for fiscal years, Oct 2012 - Sep 2013
Source: Airports of Thailand

Regarding total passenger movement volume, all of Thailand’s airports have positive growth trends. A combination of factors have led to these positive growth trends including Thailand’s title as one of the most visited nations in the world and its role as the hub of commerce for Southeast Asia. Aircraft movement volume as well has seen positive growth trends across Thailand’s airports.
Air Cargo

Air Cargo Traffic from 2010-2013

<table>
<thead>
<tr>
<th>Airport</th>
<th>Total Cargo Throughput (Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Chiang Mai</td>
<td>20,641</td>
</tr>
<tr>
<td>Chiang Rai</td>
<td>2,682</td>
</tr>
<tr>
<td>Hat Yai</td>
<td>13,464</td>
</tr>
<tr>
<td>Phuket</td>
<td>25,921</td>
</tr>
<tr>
<td>Suvarnabhumi &amp; Don Mueang</td>
<td>1,280,271</td>
</tr>
</tbody>
</table>

Note: Data for fiscal years, Oct 2009 – Sep 2013
Source: Airports of Thailand

The information from the Airport of Thailand’s annual report shows that from 2010 to 2012, average cargo volume across Thailand’s airports saw healthy growth. As Thailand’s airport infrastructure continues to be enhanced, air cargo volume will undoubtedly see continued healthy growth as logistics providers take advantage of state of the art facilities and newly upgraded air traffic technology that will increase efficiency of air cargo transportation to and from Thailand.

Excellent Seaports & Coastal Ports

Thailand has access to the Gulf of Thailand and possesses two major deep sea ports, Laem Chabang and Map Ta Phut Industrial Port.

The Port of Laem Chabang is Thailand’s largest port, located about 25 kilometers north of Pattaya and south of the city Chon Buri, the port occupies about 2,572 acres. The port consists of several separate ports with a total capacity of 11 million TEUs (20 foot equivalent units) and has a berthing capacity that can accommodate ships weighing up to 50,000 DWT (deadweight tonnage). The Infrastructure Investment Plan includes a Phase 3 development project for Laem Chabang. The project would expand TEU capacity to 18 million and accommodate ships weighing over 100,000 DWT. Besides expanding container capacity and accommodating a new generation of super-sized container ships, a major roadway is planned that will connect Laem Chabang Port to Map Ta Phut Industrial Estate.
Map Ta Phut Industrial Port is located on the east coast of the Gulf of Thailand, about 220 kilometers from Bangkok, and is an industrial harbor owned by the Industrial Estate Authority of Thailand (IEAT). Map Tap Phut port is a multi-purpose port that has dedicated facilities for storing gaseous and liquid chemicals including natural gas and petrochemicals. The port can accommodate several sizes of ships including ships weighing up to 120,000 DWT. Map Ta Phut Port is composed of two types of berths:

1) Public Berths that are opened to provide services to customers who consist of Thai Prosperity Terminal Co., Ltd. and Thai Tank Terminal Ltd.

Other than the main deep sea ports, Thailand has a number of coastal ports that could be assets for logistics applications.

- The Port of Bangkok is located on the Chao Phraya River in the Khlong Toei District of Thailand’s capital city.
- The Port of Chiang Saen is located on the Mekong River in Chiang Rai Province near the border of Lao PDR in the very north of Thailand. It is mainly used for trading between Lao PDR, China, and Myanmar.
- The Chiang Kong Port is also located on the bank of the Mekong River in Chiang Rai, but is much smaller than Chiang Saen. It contains one berth port with a width of 24 meters and a length of 180 meters.
• The Port of Ranong is located on the Kra Buri River, near the Myanmar border, and is the port located nearest to the Indian Ocean. Originally approved by the Port Authority Thailand in 2003, its purpose is to act as a cargo hub for the West Indian Ocean and Andaman Sea areas.

Recognizing the importance of seaports in Thailand’s role as ASEAN’s logistic hub, the Infrastructure Development Plan has targeted significant enhancement to Thailand’s seaport capabilities. Thailand will improve its port capabilities in both the Gulf of Thailand and the Andaman Sea. The plan also calls for building container centers to maximize container capacity at Thailand’s ports.

Sea Cargo

Sea Cargo Traffic from 2010-2013

<table>
<thead>
<tr>
<th>Seaport</th>
<th>Total Cargo Throughput (Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Bangkok</td>
<td>17,996,623</td>
</tr>
<tr>
<td>Chiang Saen and Chiang Khong</td>
<td>134,610</td>
</tr>
<tr>
<td>Laem Chabang</td>
<td>52,994,634</td>
</tr>
<tr>
<td>Ranong</td>
<td>48,973</td>
</tr>
</tbody>
</table>

Note: Data for fiscal years, Oct 2009 – Sep 2013
Source: Port Authority of Thailand

Information from the Port Authority of Thailand (PAT) shows that shipping freight volume has seen a significant increase over the past 4 years. From 2010 to 2013 Thailand’s Sea Cargo Traffic had an annual compounded growth rate of 7%. Thailand’s top tier port facilities and vital role in the global supply chain have made Thailand a top destination for cargo.

Land Linkages

Road Network

Compared to other mainland Southeast Asian nations, Thailand is more strategically located for logistics purposes. Thailand is virtually ASEAN’s crossroad; it shares over 5,500 kilometers of borders with its four neighboring countries with 30 provinces physically connected to neighboring states.

Myanmar shares the longest land linkage with Thailand, with a total length of about 2,096 kilometers and borders 10 of Thailand’s provinces in the northern, central, and southern regions of Thailand. These provinces include: Chiang Rai, Chiang Mai, Mae Hong Son, and Tak in the North, Kanchanaburi, Ratchaburi, Phetchaburi, and Prachuap Khiri Khan in the West, and lastly Chumphon and Ranong in the South.
Lao PDR ranks second in shared land linkage with Thailand, with a total length of roughly 1,835 kilometers and borders 12 provinces in the Northern and Northeastern regions. These regions include: Chiang Rai, Phayao, Nan, Uttaradit, and Phitsanulok in the Northern region, and Loei, Nong Khai, Nakhon Phanom, Bueng Kan, Mukdahan, Amnat Charoen, and Ubon Ratchathani in the Northeastern region.

The third longest connection is Cambodia, which shares a length of roughly 803 kilometers with Thailand and borders 7 provinces in the Northeastern and Eastern regions.

Lastly, Malaysia shares about 506 kilometers with Thailand and borders 4 provinces of the southern region of Thailand, namely Satun, Songkhla, Narathiwat, and Yala.

Thailand is utilizing its central location in Southeast Asia to conduct various land transport development projects with its neighbors to maximize cross border road freight opportunities. According to the Thailand Development Research
Institute (TDRI), Thailand currently has 23 cross-border land infrastructure projects in various stages of completion. The following graphic maps out these 23 different projects.

**Thai-Laos (8 projects)**
1. Road construction between Huay-Sai-Luang Naam Tha-Bo Tent
2. Bridge construction between Khong River, Chiang Kong across Huay Sai
3. Road construction between Huay Kon-Pak Bang
4. Road construction north route number 13-Sankhalok in Luang Phra Bang
5. Bridge construction between Nam Hueng Thali District Loie Province
6. Road construction link between Ban Wern Tai Pier-Laos Super Highway route 13
7. Bridge construction over Khong River 3rd location at Nakorn Phanom
8. Bridge construction over Khong River 2nd location at Mukhdaham

**Thai-Cambodia (3 projects)**
9. Road construction route number 67 Chong Sagam-Anlong Veng-Siemreap
10. Road construction route number 68 Chong Chom-Krolan
11. Road construction route number 48 Ko Kong-Srae

**Thai-Malaysia (5 projects)**
12. Bridge construction across Kolok River at Tak Bai District
13. 2nd Bridge construction between Kolok River at Sungai Kolok District
14. Bridge construction between Kolok River at Ban Bu Ke Ta Waeng
15. Road construction Na Thawee/Baan Prakob/Durian Burung-Alor Setar
16. Road construction Satun Route-Wang Prachan/Wang Klian-Perlis-Ton-Khuansator-Wang Prachan

**Thai-Myanmar (7 projects)**
17. Road construction Kanchanaburi route-Tawai-Khon Pha Naam Ron-Thai/Myanmar border (Baan Mae Ha Mee)
18. Road construction Baan Mae Ha Mee-Tawai
19. Bridge construction Thai-Myanmar Friendship bridge at Mae Sot District, Tak Province
20. Road construction Myawaddy route-Tenasserim Range (Km.18)
21. Road construction Tenasserim Range-Kawkareik
22. Road construction Thai-Myanmar-India route between Kawkareik-Tha Ton
23. Bridge construction over Sai River 2nd location at Mae Sai District, Chiangrai Province

*Source: Ministry of Transport & Thailand Development Research Institute, 2014*
Thailand is not only upgrading cross boarder land infrastructure, the Infrastructure Development Plan calls for massive upgrades to Thailand’s highway system. In order to minimize transit time between Bangkok and other major cities, expanded four-lane highways will be built. Thailand’s Main Corridor, the major artery of road based commerce, will see 235 projects on 12 major routes spanning 2,162 km.

According to the Ministry of Transport, the road conditions for routes between Thailand to Myanmar and Thailand to Viet Nam via Cambodia will be significantly improved in the future to accommodate the continuing growth of inland truck cargo throughout the region. The map above depicts the Greater Mekong Sub-Region road networks. By observing Thailand’s central location in every route of the network, one clearly sees that Thailand has the potential to be the hub for the region’s inland freight transport.
Road Freight

## Trucking Freight by Main Borders to Neighboring Countries

### Imports 2010-2013

<table>
<thead>
<tr>
<th>Country Trading With</th>
<th>Main Border</th>
<th>Thailand Imports (US$)</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>Aranyaprathet, Sa Kaeo Province</td>
<td></td>
<td>108,608,141</td>
<td>159,045,414</td>
<td>190,643,806</td>
<td>151,739,083</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>Nong Khai, Nong Khai Province</td>
<td></td>
<td>89,059,344</td>
<td>80,688,156</td>
<td>107,133,969</td>
<td>105,979,688</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Sadao, Songkhla Province</td>
<td></td>
<td>4,224,750,000</td>
<td>4,518,098,750</td>
<td>4,560,661,250</td>
<td>5,454,339,375</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Mae Sot, Tak Province</td>
<td></td>
<td>34,679,594</td>
<td>26,705,656</td>
<td>36,331,594</td>
<td>78,449,688</td>
</tr>
</tbody>
</table>

Note: Data for fiscal years, Oct 2009 – Sep 2013
Source: The Customs Department

### Exports 2010-2013

<table>
<thead>
<tr>
<th>Country Trading With</th>
<th>Main Border</th>
<th>Thailand Imports (US$)</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>Aranyaprathet, Sa Kaeo Province</td>
<td></td>
<td>852,093,662</td>
<td>1,022,767,403</td>
<td>1,300,450,149</td>
<td>948,011,142</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>Nong Khai, Nong Khai Province</td>
<td></td>
<td>1,102,191,750</td>
<td>1,295,939,719</td>
<td>1,860,844,906</td>
<td>1,745,981,250</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Sadao, Songkhla Province</td>
<td></td>
<td>4,607,250,000</td>
<td>5,071,053,438</td>
<td>4,555,694,375</td>
<td>4,237,528,577</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Mae Sot, Tak Province</td>
<td></td>
<td>896,033</td>
<td>546,610</td>
<td>1,061,519</td>
<td>1,295,904</td>
</tr>
</tbody>
</table>

Note: Data for fiscal years, Oct 2009 – Sep 2013
Source: The Customs Department

Trade with Malaysia currently makes up for roughly 20% of all intra-ASEAN trade for Thailand. Thai-Malay trade has the highest value in terms of imports and exports compared to the other three bordering countries due to the fact that Malaysia has a much stronger economy. Thai border trade will continue to see growth as Thailand’s new road infrastructure makes trucking freight convenient and cost effective.
Rail Network

Railroad infrastructure development is a key aspect of Thailand’s Infrastructure Development Plan. Thailand’s provincial railroad network will see upgrades to its infrastructure and six main rails covering 887 km will become dual track rail lines. The dual rail infrastructure will enhance the capacity of local trains and make rail transport a more attractive option for logistics purposes.

The six double-track projects in the Infrastructure Development Plan are:

1) Nakhon Ratchasima – Khon Kaen (185 km)
2) Prachuap Khiri Khan – Chumporn (167 km)
3) Nakhon Pathom – Hua Hin (165 km)
4) Map Ka Bao – Nakhon Ratchasima (132 km)
5) Lop Buri – Nakhon Sawan (148 km)
6) Hua Hin – Prachuap Khiri Khan (90 km)

FURTHER INFORMATION

Thailand Board of Investment (BOI): http://www.boi.go.th
Airport of Thailand Public Company Limited (AOT): www.airportthai.co.th
Department of Civil Aviation (DCA): www.aviation.go.th
Thailand Ministry of Transport (MOT): www.mot.go.th
Thailand Office of the National Economic and Social Development Board: www.nesdb.go.th
Thailand Marine Department: www.md.go.th
Port Authority of Thailand: www.port.co.th
Thailand Customs Department: www.customs.go.th