EXECUTIVE SUMMARY

PROJECT FOR INDUSTRIAL COOPERATION

WITH NEIGHBORING COUNTRIES

Strategy for Industrial Cooperation Development under the BIMSTEC: the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation

On June 6, 1997, Thailand led the establishment of the Bangladesh-India-Myanmar-Sri Lanka-Thailand Economic Cooperation (BIMSTEC). The seven nations that compose the group are India, Bangladesh, Sri Lanka, Myanmar, Nepal, Bhutan and Thailand. At the First BIMSTEC Summit, the group was renamed "the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation" (BIMSTEC), to correspond with its purposes and the member countries' policies.

On February 8, the economic and trade ministers of the BIMSTEC countries, meeting at Phuket, Thailand, jointly signed a Framework Agreement (the BIMST-EC FTA) to establish a free trade area (FTA), applying the MFN Applied Rate of August 1, 2009 as the base to reduce tariffs and eventually eliminate them. Tariff reduction and its elimination were divided into 3 groups: the Fast Track, Normal Track and Negative List. The Fast Tract group will gradually reduce tariffs until they reach 0%, covering the 10% of tariff lines in the 6-digit HS 2007 system. The Normal Track group is divided into 2 categories – the Normal Track Elimination, which gradually reduces tariffs to 0%, covering 50% of the tariff lines, and the Normal Track Reduction, which gradually reduces tariffs to 1-5%, covering 21% of the tariff lines. The timeframe of tariff reduction/elimination in each group in the developing countries and the least developed countries varies, as is shown in Table 1 and Table 2.

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[1] The Republic of India, People's Republic of Bangladesh, Democratic Socialist Republic of Sri Lanka, Union of Myanmar, Federal Democratic Republic of Nepal, Kingdom of Bhutan are called India, Bangladesh, Sri Lanka, Myanmar, Nepal and Bhutan are included in this study.

Table 1: Fast Track under the BIMST-EC FTA

Countries	For India, Sri Lanka & Thailand	For Bangladesh, Bhutan, Myanmar & Nepal
India, Sri Lanka & Thailand	July 1, 2012 – June 30, 2015	July 1, 2012 – June 30, 2013
Bangladesh, Bhutan, Myanmar & Nepal	July 1, 2012 – June 30, 2017	July 1, 2012 – June 30, 2015

Source: Framework Agreement on the BIMSTEC Free Trade Area (as of February 2011)

Table 2: Normal Track under the BIMST-EC FTA

Countries	For India, Sri Lanka & Thailand	For Underdeveloped Countries
India, Sri Lanka & Thailand	July 1, 2013 – June 30, 2018	July 1, 2012 – June 30, 2013
Bangladesh, Bhutan, Myanmar & Nepal	July 1, 2013 – June 30, 2023	July 1, 2012 – June 30, 2021

Source: Framework Agreement on the BIMSTEC Free Trade Area (as of February 2011)

In addition to the BIMSTEC countries which have economic connectivity, Thailand and Myanmar are also members of the Greater Mekong Sub-regional Economic Cooperation (GMS-EC)[2], which has 9 areas of cooperation: transportation, telecommunications, energy, trade, investment, agriculture, environment, tourism and human resources development. The flagship transportation development plans are the North-South Economic Corridor (NSC), which connects Thailand, Myanmar, Laos and China; the East-West Economic Corridor (EWEC), which connects Myanmar, Thailand, Laos and Vietnam; and the Southern Economic Corridor (SEC), which connects Thailand, Cambodia and Vietnam.

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[2] The Greater Mekong Sub-region (GMS) consists of 6 member countries: Cambodia, China, Myanmar, Laos, Vietnam and Thailand, known as the Hexagon Economy.

The BIMSTEC and the GMS frameworks both have geographical connectivity. The GMS consists of the countries along the Mekong River which have continuously developed their economic cooperation, while BIMSTEC is a new economic zone west of Thailand with main routes that connect their land transportation together. Therefore, if the BIMSTEC and GMS frameworks of cooperation can be connected, the economy in the GMS region, with Thailand as a hub, will expand to the entire BIMSTEC framework. This will connect the Southeast Asian countries to the GMS and ASEAN, and Thailand will gain benefits by being a center of the development. Because of the significance of these cooperative frameworks, it is necessary to conduct an analytical study to develop the industrial development strategy for the whole of BIMSTEC and for each individual country that has connectivity with the GMS development plan. The purposes of this study are to set target industries, products and areas that have a potential to develop mutual cooperation; to study and analyze the impacts of the BIMST-EC FTA; to restructure the manufacturing of the industrial sector to take advantage of the FTA; and to gain the highest benefits for the development of Thai economy and industry.

The purposes of this research are

1) To study and make an in depth analysis of the economic and industrial structures, policies and economic and industrial development plans of the BIMSTEC member countries and the connectivity of the logistics and supply chain with the GMS countries.
2) To study, analyze and develop strategies for industrial development with the BIMSTEC countries as a whole and within each country that has connectivity with the GMS development plan by setting target industries, products and areas that have a potential to develop mutual cooperation.
3) To study and analyze any problems and obstacles of the development of industrial cooperation and investment in the BIMSTEC member countries, and to set guidelines and measures for promoting the investment cooperation both in the entire BIMSTEC group and in each country.
4) To study and analyze the impacts of the liberalization of industrial goods under the BIMSTEC framework and the guidelines for production restructuring of the industrial sector to take advantage of the FTA.

1. Framework

The project is intended to develop the framework of the strategy for industrial cooperation and investment in the BIMSTEC member countries in the target industries, products and areas of the development in order to create connectivity with the GMS development plan. The operation uses the following procedures:

1.4.1 Select the primary target product/industry

1.4.2 Select the ultimate target product /industry

1.4.3 Select the product/ industry according to the logistics and supply chain connectivity

1.4.4 Conduct in depth interviews

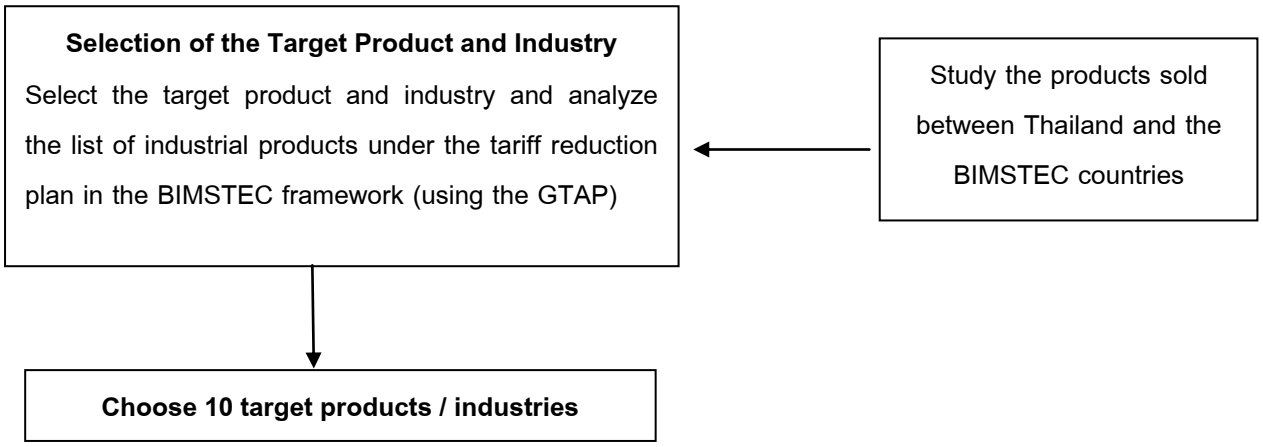
1.4.5 Develop a strategy for the development of each target industry

1.4.6 Conduct seminars and disseminate the outcome and knowledge for training

2. Research Methodology

2.1 Global Trade Analysis Project (GTAP)

The researcher used the Global Trade Analysis Project (GTAP) to select 10 primary target products/ industries.



2.2 Reveal Comparative Advantage (RCA)

After choosing 10 primary target products/industries, the Reveal Comparative Advantage is used as a tool or criterion to select the ultimate target product/industry. The RCA is used to analyze Thailand's potential and that of neighboring countries in exporting products/industries to third country markets.

2.3 Constant Market Share Model (CMS)

The Constant Market Share Model (CMS) is a tool to select the ultimate product/ industry, following the concept of Leamer and Stern (1970). The CMS measures the exports from one country to the world market to find if it is increasing or decreasing, and determines the reason for the change on the hypothesis that the market share of the exporter is constant.

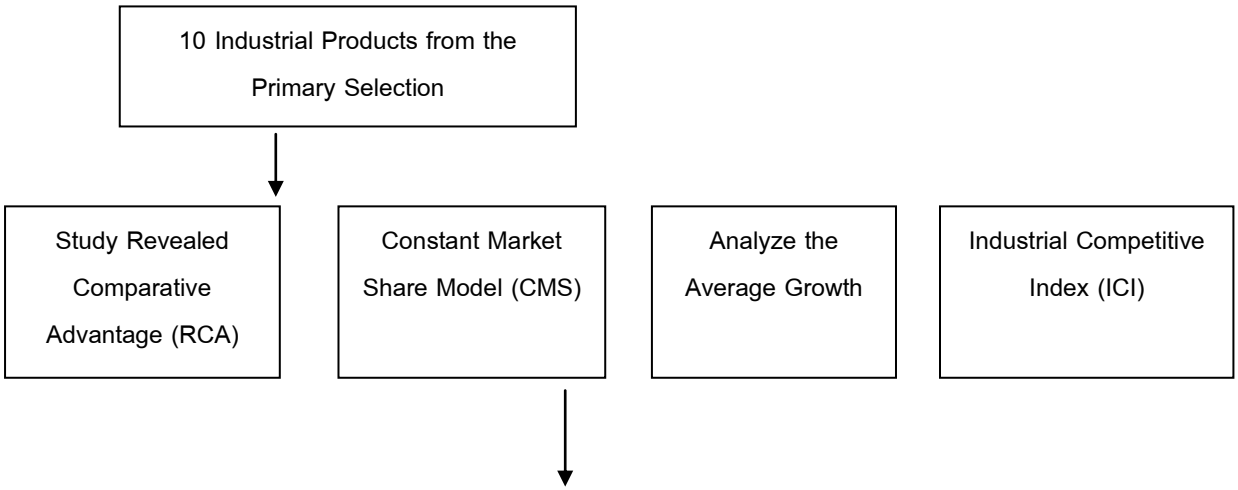
2.4 Average Growth Analysis

This is calculated from the values of the exports and imports of the 10 industries and products that were chosen in the primary selection. This includes the market share as a criterion to indicate the potential of the industries and products in terms of the trade balance to determine if it increases or decreases and at what rate. The consideration also includes the ability of the market share of those industries and products to hold its position.

2.5 Industrial Competitive Index (ICI)

The ICI is a measurement of the potential of an industry and product by adopting the concept of the Diamond Model of Professor Michael E. Porter to evaluate the investment potential of each Thai industry and product in the BIMSTEC framework.

The 4 criteria for selecting the ultimate target product/industry will be used to determine 10 primary target products and industries in order to choose 3 ultimate target products and industries. Each industry will be graded according to its potential; all marks will be totaled and the three industries with the highest marks will be selected as the ultimate target products and industries.

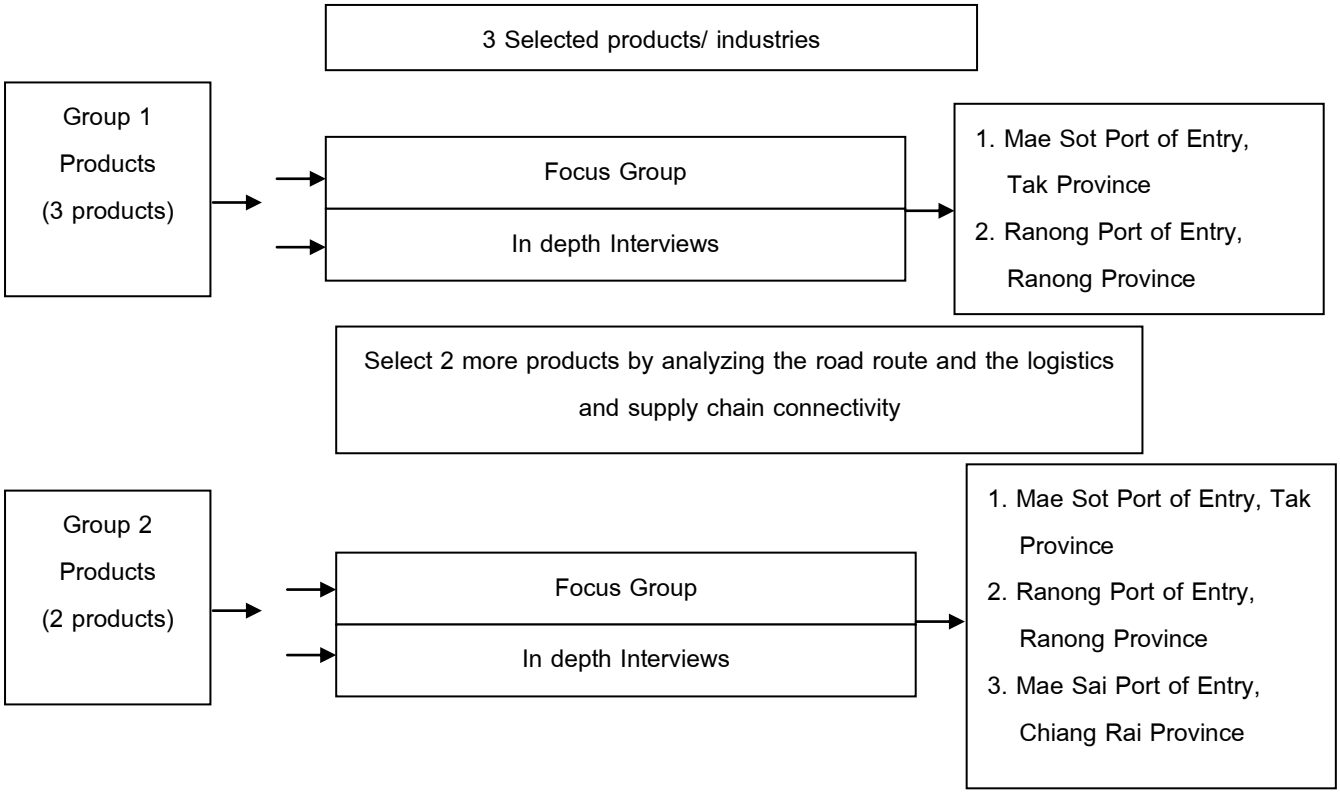


Item	Average Growth (%)		RCA Value	ICI	Weighting				Total Mark	Ranking
	Trade Balance	Market Share			Trade Balance	Market Share	RCA Value	ICI		
					0.25	0.25	0.25	0.25	1.00	
Meat	5.00	10.00	0.50	0.12	1.25	2.50	0.25	0.03	3.08	6
Exo-tic Meat	10.00	2.00	0.25	0.05	2.50	0.50	0.13	0.01	3.70	4
Plant Oil and Fats	15.00	5.00	0.30	0.05	3.75	1.25	0.15	0.01	3.91	3
Dairy Product	12.00	7.00	0.80	0.05	3.00	1.75	0.40	0.01	3.26	5
Rice	5.00	9.00	0.75	0.05	1.25	2.25	0.38	0.01	5.09	1
Sugar	8.00	4.00	1.00	0.02	2.00	1.00	0.50	0.01	4.96	2

Select 3 target products / industries from the mark ranking

2.6 The Diamond Model (Professor Michael E. Porter)

The Diamond Model is an analytical concept for selecting the products and industries according to the logistics and supply chain connectivity. The selected products in the previous procedure may not be transported through Myanmar, which is a land route under the GMS framework. Therefore, it is necessary to select 2 additional potential products/ industries by considering only those goods which are transported by land through Myanmar. The Diamond Model of Professor Michael E. Porter will be used as the framework of the analysis, along with focus group seminars of the entrepreneurs in the areas near Thailand-Myanmar border.



2.7 Develop Strategies for the Development of Each Target Industry

The study and analysis according to the above research methodology will lead to strategies for the development of each of the 5 target industries. The details of the agencies responsible for the operation are shown in Table 3.

Table 3: Examples of the Strategies for the Development of Thailand Industries and the BIMSTEC Member Countries

Strategy	Activity	Responsible Agencies
Production	1) Promote investment in product processing 2) Promote the goods production with standard quality	Board of Investment Ministry of Industry The Federation of Thai Industries
Imports and Exports	1) Discuss the international rules and regulations 2) Set up warehousing centers	Ministry of Foreign Affairs Ministry of Commerce Ministry of Transport and Communications The Customs Department

Strategy	Activity	Responsible Agencies
Logistics	1) Create the connectivity of international transportation 2) Develop land transport routes	Ministry of Transport and Communications The Customs Department
Marketing	1) Market Segmentation 2) Business Matching	Ministry of Industry Board of Investment Ministry of Commerce Thai Chamber of Commerce The Federation of Thai Industries

3. Target Industrial Areas for Setting Strategies for Industrial Cooperation Development

The selection of the target industries for establishing the strategies for industrial cooperation development covers 3 parts or areas:

3.1 Target Industries for Thailand-India Industrial Cooperation Development

3.2 Target Industries for Thailand-Myanmar Industrial Cooperation Development

3.3 Target Industries for Thailand-Myanmar-India Cooperation Development

4. Results of the Study of Target Industries and Strategies for Industrial Cooperation Development

4.1 Target Industries for Thailand – India Industrial Cooperation Development

From the result of the study, there were 3 target industries chosen:

1) Sugar Industry
2) Plastics and Plastic Products Industry
3) Rubber and Rubber Products

The strategies for developing industrial cooperation are as follows:

1) Strategies for Sugar Industry

The Thai sugar industry product, which is exported extensively, is refined sugar in its many forms, which reflects its consumption by a large part of the population of India. Sugar is also exported to Sri Lanka, Bangladesh and Myanmar. To increase the value of trade and

investment of the BIMSTEC group by the sugar industry, there should be strategies to promote and support this industry:

(1) A strategy to assist the sugar processing industry in providing export foods by developing more products made from sugar, as well as in packaging, to add product value to increase the export market.

(2) A strategy for the product standards and safety by encouraging small, medium and large entrepreneurs to maintain high standards in sugar production, both for the safety for the consumers' hygiene and for environmental-friendly methods to ensure the outstanding features of Thailand's products.

(3) A strategy to create a balance between the production, consumption and export of sugar to create stability in the price of domestic sugar cane and sugar so as to avoid price fluctuation and a shortage of goods. This will help save the government's budget as it would not be necessary to assist or maintain the price of goods for growers. In the long run, this will create sustainability in the sugar cane and sugar industry.

(4) A strategy for joint investment in neighboring countries, such as joint investment in sugar cane cultivation in Myanmar, including building sugar processing plants there to sell Thai sugar products to Myanmar and the neighboring countries in the BIMSTECV group, such as India and Bangladesh.

2) Strategies for Plastics and the Plastic Products Industry

The principal products in this industry are plastic pellets – that is, polyacetal and polycarbonate used in the production of electronic parts, motor vehicles, machinery or parts in various kinds of industries (H.S.3907) – and polyethylene used in the food or beverage package production industry in pasteurization or the UHT system, and in the telephone and electric wire production industry (H.S.3901). The promoting and supporting strategies are the following:

(1) Strategy for Production. Increase the value of plastics and plastic products to support the expansion of India's motor vehicle industry, and create a variety of plastic products to meet increasing consumer demand.

(2) Strategy for Marketing. Develop a data collection center for the in depth analysis of the plastics industry situation in Thailand and abroad.

(3) Strategy for Promoting and Facilitating Trade. The government sector should have government-to-government talks to improve and modify any rules and regulations

which are obstacles to trade under the BIMSTEC framework, especially high import tariffs which hinder decisions to invest in India.

3) Strategies for Rubber and Rubber Products

Thailand exports a large number of products in this group to India, including smoked rubber sheets and automobile tires. This connects Thai industries to the motor vehicle industry of India, a major manufacturer. Many automobile groups have invested in India's Chennai City, and the following strategies should be developed:

(1) A strategy for Increasing the Efficiency of the Raw Materials. The government should promote efficient para rubber cultivation for quality production.

(2) A strategy for Developing the Stability of the Domestic Market. The government must: give agriculturists the necessary comprehensive data and information about rubber cultivation, trends, and the current state policy concerning rubber and its prices; plan to create a balance between the cultivation, processing and domestic production of rubber and rubber products in order to be sufficient for both the domestic demand and exports; and maintain the stability of rubber prices so that fluctuations will only be minor.

(3) A strategy for Adding the Value of Natural Rubber for Export. Efforts must be made to add to the value of natural rubber for export, especially regarding tires, sheet rubber and constant viscosity rubber by conducting research and developing efficient and standard processing technology to meet the market demand.

(4) A strategy for Joint Investment in the Automobile Industry of India. At present, the motor vehicle industry in India is expanding continuously due to a constantly increasing population and an improved financial status of the people.

(5) A strategy for Promoting and Facilitating Trade. Government-to-government talks should be held to improve and modify all rules and regulations that are trade obstacles, particularly regarding the high import tariff and quota on para rubber that India has established to protect its own domestic rubber market.

4.2 Target Industries for Thailand-Myanmar Industrial Cooperation Development

Thailand is able to trade and invest in the target industries in 3 areas near Myanmar border, namely the provinces of Ranong, Tak and Chiang Rai. According to the synthesis of the

data from an analysis of the Diamond Model, the focus group in the areas and the in depth interviews, the potential products of Ranong Province are seafood and fishery processing products, while the potential product in Tak Province is textiles. Chiang Rai Province has the potential to be a border trading hub for the north region. Details of the strategies, tactics and guidelines for the operation in each area are as follows:

4.2.1 Strategy for Thailand – Myanmar Industrial Cooperation Development (Seafood and Fishery Processing Products, Ranong Province)

1) Develop Ranong as a Trade and Investment Gateway to Connect with Other Countries

(1) Ranong must be connected with the Rail Transport System**.** Ranong Province is a suitable location for exporting goods to other countries, especially to the BIMSTEC group. Significantly, a rail transport system would support the strategy of the province and the Andaman group, which would make Ranong the transportation port on the Andaman Sea. It supports the plan to connect the transportation network system and the logistics system between Thailand and the Andaman region. Geographically, Ranong consists of high mountains, which means that distribution costs are high. A guideline to solving this is by extending the rail system to the province.

(2) The potential use of the port as the sea transport center must be increased so that the port can be used efficiently, especially in freight transportation by containers from the Gulf of Thailand to the Andaman Sea. This will make Ranong Port a trade and investment gateway connecting Thailand with other countries and thus a transportation and distribution hub for the BIMSTEC member countries.

(3) The government should promote 2-way trade. When Ranong is connected by rail, more imports will come to Ranong Port; consequently, there will be more exports from Thailand as well. A better transportation system will lower ship transportation costs because it will be going both ways.

(4) Highway connections also need to be improved to promote and support transportation to use Ranong Port more efficiently, since the present road has many curves and only 2 traffic lanes, meaning travel takes a long time. The highway between Chumphon and Ranong should be expanded to 4 lanes to make transportation faster and more convenient.

2) Promote and Facilitate Trade

(1) Rules and regulations that are the obstacles to trade need to be modified by using the trade arena for negotiations to lessen them and facilitate exports. This would lead to an expansion of trade and investment in the future.

(2) The labor shortage problem must be solved to support and promote trade and investment by increasing the use of labor from neighboring countries and allowing them to work there for at least 1-2 years so that business can proceed without interruption.

3) Create Trade Relations with the BIMSTEC Countries

Because unlike some parts of Myanmar there is no conflict along the Ranong Province-Kawthoung border (Victoria Point), trade there has a high expansion rate. Trade and investment cooperation, especially by Thai businessmen investing in Myanmar, has increased in recent years. The Thai government and private sectors should work together to create good trade relations with the BIMSTEC countries, such as by organizing exhibitions of Thai products in the BIMSTEC group, conducting exchange activities or selling goods to each other.

4) Develop the Industry Sector

(1) Resources, the environment and industry should be managed so that there will be no impacts on the conditions and living of the local community. Ranong Province should establish zoning for the development of industry, tourism and the environment so that all sectors and the community can live together and Ranong Province can earn a stable and sustainable income.

(2) Manufacturing technology should be upgraded. Ranong's pulverized fish production plants still have problems because they use firewood as fuel. If they convert to other alternative fuels, it becomes necessary to change to a boiler, which means higher costs. Therefore, government agencies should have a policy to promote and enable entrepreneurs to have easy access to fund sources.

4.2.2 Strategy for Thailand – Myanmar Industrial Cooperation Development (Textile, Tak Province)

1) Develop and Expand the Trade and Investment in Tak Province to Connect with the BIMSTEC Countries

Tak Province borders Myanmar, and the provincial capital is thus considered important as it can connect with the trade routes through Myanmar to India. Tak has an opportunity and also a high potential to develop its businesses and industries and become a

trade hub for the neighboring countries and other countries in the region. It should take advantage of the agreements in the BIMSTEC framework. Having the opportunity, the potential, and the advantage of cheap labor, as well as becoming a special economic zone in the future, Mae Sot District of Tak Province is considered a good place to invest as a production base for the textile and garments industries.

2) Develop as a Trade and Investment Gateway to Connect with Other Countries

(1) The government should speed the establishment of the special economic zone at the Mae Sot border to support trade and investment that will connect with Myanmar and thence to India and the BIMSTEC countries.

(2) The transportation routes to be used as the base for driving the trade and investment sectors should be connected, since Tak Province is at the end of the East-West Economic Corridor (EWEC) and is the crossroads between the North-South Economic Corridor (NSEC) and the EWEC. It is therefore necessary to speed construction of the 4-lane Tak-Mae Sot Road, which is about 86 kilometers long. The government sector must accordingly set up a logistics system and transportation routes in order to connect Mae Sot with other regions by road, rail and air, both domestically and overseas.

3) Promote and Facilitate Trade

(1) The rules and regulations that are obstacles to trade must be modified, because Thai entrepreneurs have to conform to the national security laws, meaning they cannot import or export certain types of goods. The trade arena should be used for negotiations to reduce the import rules and regulations in order to facilitate exporters. This would lead to trade and investment expansion in the future.

(2) The labor shortage problem must be solved to support and promote trade and investment. The government sector should make it legal for foreign laborers to be employed in Thai industries and other economic sectors. There should also be a clear policy about national security and economic stability.

4) Create Trade Relations with the BIMSTEC Countries

Myanmar closed the Mae Sot Port of Entry in the middle of 2010 and it remains closed. This has caused problems in transporting goods through the Thailand-Myanmar Relationship Bridge. Even worse, the Myanmar government ordered the military officers who supervise the Border Trade Committee and the Customs officers at the Bago Customs Station to confiscate all imports from Thailand. As a result, it is now difficult to send goods from Thailand to

Myanmar. The Thai government must quickly establish a better relationship with Myanmar's government to create more opportunity for a mutually beneficial trade.

5) Develop the Industry Sector

(1) Thailand's manufacturing technology must be upgraded. The textile and garment manufacturing technology is not modern, and the government needs to support and promote these industries in Tak Province to reach a higher productivity level by using better technology and finding financial sources to pay for it.

(2) The knowledge and skills of the staff must be improved, especially among technical mechanics and engineering technicians, so they will have up-to-date knowledge, ability and expertise. As it is now, when machines break down, no local mechanics are able to repair or maintain them, and work must stop until mechanics from Bangkok arrive to repair the machinery. The government should establish a project to develop the knowledge and skills by providing training to produce adequately skilled mechanics to meet the demands in Tak Province.

4.2.3 Strategy for Thailand – Myanmar Industrial Cooperation and Border Trade Development (Chiang Rai Province)

1) Develop the Border Economic Zone in Chiang Rai to Achieve Immediate Concrete Outcome

To develop Chiang Rai Province into a special economic zone, the government agencies should supervise and accelerate development there, taking such steps as announcing a specific town plan, building a transportation network to connect the border economic zone with other areas in Chiang Rai, and setting up comprehensive service centers at the three border trade stations in Chiang Rai. The zoning system should separate industrial plants, trade or business zones and the tourism sector, so there would be no conflicts between entrepreneurs in the special economic zone who conduct different types of businesses. This might be done in the form of a free zone or a trade zone, since it would be convenient for the entrepreneurs to carry on the border trade. This would solve the system-related problems and enable trade to proceed more efficiently.

2) Develop the Connected Transportation Systems to Be the Center for Goods Transportation

The government should push forward to make Mae Sai a center for trade and tourism, starting with the main routes to Myanmar, namely the route from Mae Sai District-Tachilek Border Port to Keng Tung, La Province in Myanmar and Xishuangbanna in China, and

the route from Mae Sai District-Tachilek Border Port to Keng Tung and Taunggi in Myanmar. The other route is from Taunggi to Mandalay, which is about 250 kilometers in length. If these routes were connected, trade and tourism promotion would be opened broadly, particularly the border trade which attracts more tourists each year.

3) Promote and Facilitate Trade

The main problems that obstruct trade and should be solved quickly, as the rules and regulations concerning the transportation of people, trucks and goods in Myanmar and the other GMS countries do not have the same standards, not to mention the existing trade barriers. The government should solve these problems by taking advantage of the trade arena to negotiate an easing of the import rules and regulations to facilitate exporters in the following ways:

(1) Actively establish trade relations and international relationships in order to open more permanent border stations, which would promote increased cross-border trade. There should be clear policies and responsible agencies, such as officers of the Ministry of Interior, the Department of Foreign Trade, the Ministry of Commerce, the Provincial Commerce office and nearby military units to solve the various problems.

(2) Promote trade and marketing with other countries by creating foreign relations agencies for the government and the private sector to promote trade and investment, and also continuously organize trade, investment and marketing campaigns with the neighboring countries.

(3) Promote the trade and investment by local small and medium entrepreneurs so that Chiang Rai can became a trade and export gateway and can steadily earn income for this zone.

4) Develop the Industry Sector

(1) Industry and the environment must be developed so that industrial plants will remain in the community for many years. Government agencies in charge of industrial plants should encourage the industrial sector to use resources efficiently and in balance with other sectors of the economy. Environmental management should have consistent standards, and the community should take part in solving problems and managing the community's resources and environment. Simultaneously, the industrial sector should be supported and encouraged to adjust manufacturing technology and machines to be up-to-date and environmentally friendly to the community so that they can all live together in harmony.

(2) The government needs to solve the problem of a labor shortage so that the industrial sector can have a sufficient and steady supply of labor for continuous production. Once the industrial sector has trained unskilled foreign laborers to do their job, government agencies

have an obligation to allow the industrial sector to sign 1-2 year contracts with their workers to alleviate the immigration problems.

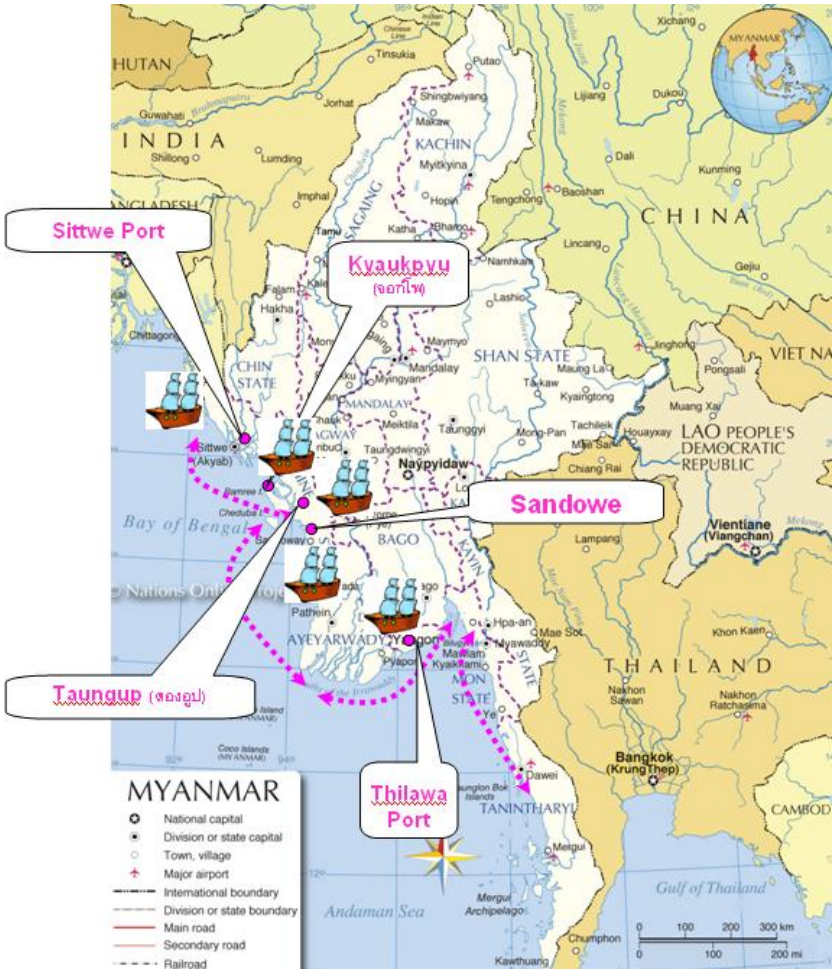
4.4 Target Industries for Thailand-Myanmar-India Industrial Cooperation development

4.4.1 Strategy for the Investment in Each Target Industry

1) Fishery Processing Industry

Country	Strategy	Target Area	Details	Responsible Agencies	Duration (year)
India	Distribution Center	Guwahati, Assam	(1) Set up a fishery distribution center for frozen products kept in a cold storage and also processed products to sell in the Northeast of India, other parts of India and for distribution to Nepal, Bhutan and Bangladesh.	BOI Ministry of Commerce (MOC) Thai Chamber of Commerce	1-2
		Imphal, Manipur	(2) Set up a sub trading hub as a sub unit to store and distribute products to border areas of India and for sale in Myanmar.		
	Promotion of Fishery Processing Investment	Guwahati, Assam	(1) Establish fishery processing plants by using raw fishery materials from Assam and from neighboring countries' ports, e.g.Chittagong Port of Bangladesh or Sittwe Seaport (under Kaladan Multiple River Project) of Myanmar, etc.	BOI Ministry of Industry (MOI) Federation of Thai Industries (F.T.I)	5
Myanmar	Fishery Processing Plants, using local raw materials	Yangon	(1) Set up fishery processing plants as Yangon is a center for international business and logistics system with all facilities and is near the sea, an important source of raw materials.	BOI Ministry of Industry (MOI) Federation of Thai Industries (F.T.I)	2-3
		Myeik	(2) Set up fishery processing plants by using local raw materials since Myeik is close to the Andaman Sea and the Myeik Industrial Zone has cold storage factories, allowing much raw material to be fed to the plants.		

Country	Strategy	Target Area	Details	Responsible Agencies	Duration (year)
	Distribution Center	Yangon	(1) Set up a fishery distribution center for sales in Myanmar, and in the future, the products can be exported to other countries through Yangon Port or Thilawa Port.	BOI Ministry of Industry (MOC) Thai Chamber of Commerce	1-2
		Mandalay	(2) Set up a distribution center for sales in Myanmar, and to export by land to the neighboring countries of India (Northeast) China, Bangladesh and Laos.		
		Dawei	(3) Form a sub distribution center by using Dawei Deep Seaport for exporting.		5-10



Suitable Areas for Fishery Sector

1. **Gulf of Martaban**

   This is a suitable area for fisheries because it is a fertile source of raw materials, with Thilawa Port, in Yangon, as a port for product distribution.

2. **Western Part of Myanmar**

   There are ports that have potential in transporting goods to India, Bangladesh and back to Myanmar to export to Thailand and other neighboring countries to the east. These ports are:

   - Taungup Port
   - Sandowe Port
   - Kyaukpyu Port
   - Sittwe Port

   Sittwe Port is also a main port of Kaladan Multiple River Project, which was established by Myanmar and India to facilitate ship-ping between Myanmar and northeastern India.

2) Fruit and Vegetable Processing Industry

Country	Strategy	Target Area	Details	Responsible Agencies	Duration (year)
India	Distribution Center	Guwahati, Assam	(1) Establish a distribution center for the sale of processed fruit and vegetables in the northeast and other parts of India including further distributing to Nepal, Bhutan and Bangladesh.	BOI MOC Thai Chamber of Commerce	1-2
		Imphal, Manipur	(2) Establish a sub-trading hub as a sub unit to store and distribute products to the border areas of India and export to Myanmar		
	Production Base for Processed Fruit and Vegetables	Guwahati, Assam	(1) Establish a fruit and vegetable processing plant to produce dried fruit and vegetables or other form of products.	BOI MOI F.T.I	3-5
		NER Areas (Assam, Manipur and Maghalaya)	(2) Business matching between Thai and Indian investors for a joint venture in the form of a joint production of processed fruit and vegetables or a joint venture in continuously constant input of raw materials to manufacturing plants continuously		

3) Rubber Industry

Country	Strategy	Target Area	Details	Responsible Agencies	Duration (year)
India	Para - rubber Processing Plant	Guwahati, Assam	(1) Establish a rubber processing plant because of the large scale of para rubber cultivation in Assam and increase popularity of Eco-Friendly Activity Projects. The products are: - Producing tyres to supply the car industry of India, particu-larly for Chennai where many car brands have invested. - Produce rubber sheets and	BOI MOI F.T.I	2-3

Country	Strategy	Target Area	Details	Responsible Agencies	Duration (year)
			block rubber to supply other industrial plants in India. (2) Make business matches between Thai investors who wish to invest in India and Indian businessmen to form joint ventures in pro-duction by providing plants with raw materials, producing rubber and selling the products to other industrial plants.		
	Para - rubber Wood Processin g Plant	Guwahati, Assam	(1) Establish a para rubber wood processing plant for furniture to sell to consumers in India. (2) Analyze the tastes of local consumers and future trends to produce products that meet the demand of consumers and the target group.	BOI MOI F.T.I	5-10
	Distributio n Center	Guwahati, Assam	(1) Establish a distribution center for para rubber wood furniture for sale in India, including its distribution to Nepal, Bhutan and Bangladesh.	BOI MOC Thai Chamber of Commerce	5-10
		Imphal, Manipur	(2) Establish a sub-trading hub to store and distribute products to the border areas of India and to export to Myanmar.		

4) Textile Industry

Country	Strategy	Target Area	Details	Responsible Agencies	Duration (year)
India	Thailand Fashion Center	Guwahati, Assam	(1) Establish a Thailand Fashion Center as source of wholesale and retail Thai textile products, from fabric to ready-made clothing.	MOC BOI Thai Chamber of Commerce	2-3
			(2) Serve as a fashion center for distributing Thai textile products to		

Country	Strategy	Target Area	Details	Responsible Agencies	Duration (year)
			other parts of India, as well as to Nepal, Bhutan and Bangladesh.		
		Guwahati, Assam and India	(3) Cooperate between the two countries in organizing Fashion Fairs to create opportunities for investors in the region to meet each other.		
		Imphal, Manipur	(4) Establish a Sub Fashion Center as a sub unit to distribute Thai textile products to the border areas of India and export them to Myanmar.		
Myanmar	Distribution Center	Mandalay	(1) Establish a National Distribution Center to sell products to consumers in Myanmar and to export to northeastern India by land transport through Tamu-Moreh Checkpoint.	BOI MOC Thai Chamber of Commerce	1-2
	Garment Factory	Myawaddy	(1) Establish a garment production factory in Myawaddy in order to use local labor with the low wage rate in hiring in Myanmar for production. (2) One portion of the finished products is to be sold in Myanmar and the rest returned to Thailand for export to other countries.	BOI MOI F.T.I	2-3

4.4.2 Strategy for Target Industry Support

1) Establish an Industrial Intelligence Center for BIMSTEC – GMS – ASEAN

Target Area	Details	Responsible Agencies	Duration (year)
BIMSTEC Member Countries	(1) Establish a counseling service center for Thai businessmen to invest in the BIMSTEC member countries, particularly in India and Myanmar. It should advise on trade and investment trends, rules and regulations of member counties, rules and regulations under the BIMSTEC, GMS and ASEAN Agreements, provide technical analysis of market trends, and organize forums for Thais to invest in other countries.	MOI BOI MOC	1-2

Target Area	Details	Responsible Agencies	Duration (year)
	(2) Prepare a Regional Supply Chain to analyze the patterns of international production connection, which will illustrate the links from the proportion of raw materials in production, if they are domestic or international (from which country and at what proportion), the supply to production process within the country (in which area), what is exported to which countries and by which methods – land, water transport or air.		
Myanmar	(3) Strengthen the relationships with neighboring countries, including a negotiation mechanism to solve problems of open – closed border trade checkpoints.	MFA MOC	1-2

2) Greater Perception (Know others, know ourself)

Target Area	Details	Responsible Agencies	Duration (year)
India, Myanmar	(1) Establish a neighbors' language center for Thai investors interested in neighboring countries to learn the basics of the neighbor's language. This would create a good atmosphere for investment and enhance communication for a better understanding in business. (2) Develop an industrial trade and investment course which covers general information, state policies, rules and regulations, opportunities and barriers in order to enable Thai investors' view to recognize and use opportunities from this region.	Educational Institutions BOI MOC Thai Chamber of Commerce F.T.I	1-2

3) Create Thai Industrial Professionals

Target Area	Details	Responsible Agencies	Duration (year)
BIMSTEC Member Countries	(1) Create and encourage Thai industrial professionals who are brave, patient and able to solve problems to adjust and adapt their business smoothly, as is appropriate to the situation. (2) Make a sincere effort for Thais to invest without aiming only to serve their own interests, which is a negative image foreign investors have towards Thailand. (3) Support Thai entrepreneurs to produce good quality	BOI Thai Chamber of Commerce F.T.I	1-2

Target Area	Details	Responsible Agencies	Duration (year)
	products to be approved by ASEAN and other countries. Arrange a platform where the investors can share their experiences to help entrepreneurs cope with and adjust their investment procedures and operate their businesses properly.		

4) International Transport Connectivity

Target Area	Details	Responsible Agencies	Duration (year)
Thailand-Myanmar-India	Build a Transportation Connectivity System between Thailand-Myanmar-India in four ways: (1) By road: push the Trilateral Highways which link the NER of India, Myanmar and Thailand (2) By air: push for flight routes between Guwahati-Mandalay-Yangon-Bangkok (3) By rail: develop the railway transportation systems between India-Bangladesh-Myanmar and between Guwahati-Moreh-Tamu (Myanmar) (4) By water: create opportunities from the links between Sittwe Port-Kyaukpyu Port-Kolkata Port	Ministry of Transport and Communication (MOT) Thai Customs Department	5-10

5) Support Construction of a Trade Gateway and Warehousing Center

Target Area	Details	Responsible Agencies	Duration (year)
India	(1) Construct a Thai Industrial Warehousing Center in India, which is the NER Hub (North East Region Hub) at Guwahati and the Sub Distribution Hub or Sub-Hub at Imphal in Manipur, and Dimarpur of Nagaland.	MOC Thai Chamber of Commerce F.T.I	3-5
Myanmar	(2) Construct a Thai Industrial Warehousing Center at Mandalay – some products are to be sold in Mandalay which is a suitable because it is a trade business center in the upper part of Myanmar and its landscape's suitability to conveniently distribute the products to neighboring countries, including Thailand, China, India, Laos and Bangladesh. It also has convenient transportation both by land and air. The road and airport are direct from Yangon		

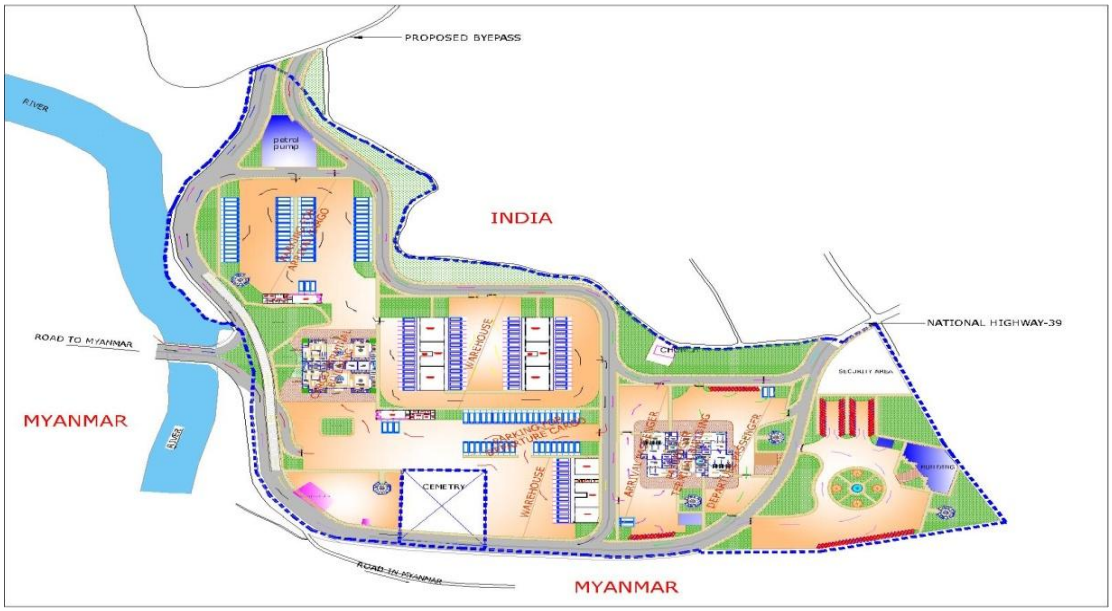
Target Area	Details	Responsible Agencies	Duration (year)
	to Mandalay and it takes only 8 hours (Map 2).		



Map 2: The Linkages between Mandalay in Myanmar and the Neighboring Countries

Target Area	Details	Responsible Agencies	Duration (year)
India, Myanmar	(1) The remaining products in the Thai Industrial Warehousing Center at Mandalay will be sold in Eight Sisters States of India (NER) through Tamu - Moreh Checkpoint. This is because India plans to build a Customs Duty Center, intending for the Tamu - Moreh Checkpoint to be the another Sub-Trading Hub. (Figure 3).	BOI MOC Thai Chamber of Commerce	3-5

Target Area	Details	Responsible Agencies	Duration (year)
	(2) Currently, trade at the Tamu - Moreh Checkpoint is still unofficial without any clear rules and regulations. Thailand, Myanmar and India should appoint a working group to make the Tamu-Moreh an international check-point, and to be the Tamu – Moreh Regional Trade and Investment Center.	MFA MOC Thai Customs Department	2-3



Map 3: The Construction Project of the Customs Duty Center at Moreh Checkpoint, India

6) The Joint Industrial Committee of India – Myanmar – Thailand – China

Target Area	Details	Responsible Agencies	Duration (year)
Myanmar	This strategy focuses on China, which has much influence on the region's development both in foreign affairs and the industrial economy. There needs to be a Joint Industrial Committee of India – Myanmar – Thailand – China (JIC). The Committee would monitor and specify measures to promote entrepreneurs in the areas of trade and investment.	MFA MOI BOI MOC	2-3

7) "Set One Business Card" among Thailand – Myanmar – India

Target Area	Details	Responsible Agencies	Duration (year)
Thailand-Myanmar-India	One Investor Card or Business Card should be issued to facilitate investors' travel in these three countries more conveniently and allowing them to travel for trade contacts and investment with agencies in the three member countries.	MFA MOI BOI	2-3

8) Establish Good Relations with Neighboring Countries (Vivid Imagination)

Target Area	Details	Responsible Agencies	Duration (year)
BIMSTEC Member Countries	Thailand's status as a provider needs to be adjusted by following the example of China in pursuit of the business interests in neighboring countries. China starts by building good relationships at all levels, both governmental and private, and operates by providing aid first and later beginning negotiations on investments.	MFA MOI BOI	1-2

9) Market Segmentation

Target Area	Details	Responsible Agencies	Duration (year)
India, Myanmar	A market survey should be conducted to discover and understand consumers' tastes in local areas and to determine the future trends of consumption changes in order to produce products for sale that meet the needs of the consumers.	MOI BOI MOC	2-3

5. Production Network and Logistic Route Connectivity among Thailand – Myanmar – India

The researcher considered the comparative advantages of the Production Nodes, facilities of Logistics Nodes and route linkages that connect those nodes. From the study, a document review and a field survey, it is possible to identify important joint nodes in the connectivity of the logistics routes of trade and investments of the production sectors among Thailand-Myanmar-India (as shown in Picture 4):

- Thailand
  1) Mae Sot District, Tak Province
  2) Mai Sai District, Chiang Rai

3) The main production sector area in the Central (Bangkok Municipality and Vicinity) and Eastern regions of the country

- Myanmar
  1) Yangon
  2) Mandalay
- Northeast India
  1) Assam
  2) Meghaloya
  3) Manipur
  4) Tripura



Map 4: Important Nodes of Production Network among Thailand – Myanmar – Northeast India

The relationship of these nodes is divided into two types: the Production Node as described above and the Logistics Node, composed of ports and border checkpoints. From the connectivity network among Thailand – Myanmar – North – East India, we can identify the

possible channels in connecting activities of the economy, trade, investment and industrial network as follows:

1) Linkages between the Thai production base in Bangkok Municipality and Vicinity, the East and Myanmar by ship transport from Bangkok Port/Laem Chabang Port, Thailand to Yangon Port. This provides distribution to the local market and possibly even to the Northeastern India market via Tamu – Moreh Port of Entry to Imphal, Manipur and other states in the regions.
2) Linkages of the Thai production base in Bangkok Municipality and Vicinity, the East and Mae Sot District, Tak Province to Yangon by road transport through the Mae Sot – Myawaddy border checkpoint.
3) Goods which are transported from Thailand through the Mae Sai District – Takilek border checkpoint to Mandalay or Yangon.
4) Linkages between the Thai production base in Bangkok Municipality and Vicinity, the East and Northeast India by shipping goods through Bangkok or Laem Chabang Port to Kolkata and other ports of India, such as Mumbai and Chennai, then by trucks to Guwahati, the main city of Assam, and continuing on to other states in the Northeast India region.
5) Linkages between the Thai production base in Bangkok Municipality and Vicinity, the East and Northeast India by shipping goods though Bangkok or Laem Chabang Port to Chittagong Port in Bangladesh and transporting them by road to Agartala, Tripura and on to Sirajganj in Assam, which is the joint node for distributing goods between Assam and Manipur.

The Linkages among the West Bengal, Myanmar and Mizoram under the Kaladan Multi – Modal Transport Project links various patterns of transport betweeen Kolkata Port in India, Sittwe Port in Myanmar, the land route and through Galadan River that passes Myanmar and Mizoram.

6. Analysis of Logistics System and Industrial Supply Chain that Link among Thailand – Myanmar and North – East India

6.1 Logistics route for goods transport among Thailand – Myanmar – Northeast India

6.1.1 Linkage route for land transport between Thailand – Myanmar

1. Bangkok – Mae Sot – Myawaddy – Yangon (AH1)

Asian Highway 1 has a total length of 20,557 kms. Starting from Tokyo (Japan), it then proceeds though Busan – Seoul (South Korea) – Payongyang (North Korea) – Beijing – Nanning (China) – Hanoi – Ho Chi Minh City (Vietnam) – Phnom Penh – Poipet (Cambodia) –

Aranyaprathet – Bangkok – Mae Sot (Thailand) – Myawaddy – Yangon – Mandalay – Tanu Kolkata – New Delhi (India) – Lahore – Rawalpindi – Islamabad (Pakistan) – Kabul (Afganistan) – Tehran (Iran) and finally to Ankara (Turkey)

2. Route of Mae Sai – Takilek – Yangon (AH2)

Asian Highway 2 has a total length of 13,177 kms. Starting from Denpasar, it proceeds to Surabaya (Indonesia) – Singapore – Kua La Lumpur (Malaysia) – Songkhla – Bangkok – Chiang Rai (Thailand) – Mandalay (Myanmar) – Dhaka (Bangladesh) – Varanasi – New Delhi (India) – Lahor (Pakistan) – Teharan (Iran) and finally to Bagdad (Iraq)

The important problems of goods transportation between Thailand and Myanmar on these routes are not simply the length and time of transportation, but they also include the safety of freight transported to Myanmar, since the roads in Myanmar are not up to standard. Moreover, some roads have not yet been completely constructed, which results in freight transport trucks being damaged and frequent accidents. This causes a high cost in maintenance and repairs. In addition to this, there have been incidents with freight trucks being hijacked on the way and the goods seized. Drivers and their companions have also been arrested, all of which make transport entrepreneurs unwilling to invest in Myanmar.



Source: ASEAN Logistics Network Map, 2008

Map 5: Asian Highway in Myanmar and Number of Traffic Lanes in Each Road

6.1.2 Route Linkages of Sea Transportation and Communication between Thailand and Myanmar

Myanmar has several important deep sea ports. One is Yangon Port, which handles 90% of Myanmar's sea freight. At present, Yangon Port has a continuous increase of the amount of freight transferred and can serve freighters having loading sections of 15,000 – 20,000 tons. In addition, it has set a goal of developing its potential to serve freighters with loading sections of 35,000 tons in the future.

Thilawa Port is located at the estuary of the Yangon River, approximately 25 kms from the city of Yangon. It is a multi-purpose container port operated by Hatchison Port Holdings (HPH), which is a Hong Kong registered private company.

Besides these, there are other important ports, including Sittewe Port in Rahine, Mawlamyine Port and Twai Port

1) Laem Chabang Port / Bangkok Port (through Singapore Port route) connects to Yangon Port.
2) Ranong Port trades with Yangon Port.

Table 4 Comparison of Land Transportation and Sea Transportation on the Bangkok – Yangon Route

Route – 4		Route	Length (kms.)	Time (hrs.)	Cost (US$/TEU)	Present Situation
	Road Transportation	Bangkok - Mae Sot	490	12 (1st day)	290	Very good
		Mae Sot – Korkareik	75	4 (2nd day)		Very poor
		Korkaeik – Yangon	380	15 (3rd day)	440	Good
		Total	945	3 days	730	
	Sea Transportation	Bangkok – Laun Chabang Port	20-30	1-2	80	Very good
		Laem Chabang Port – Yangon Port	Approx. 400	20	1,000	-
		Yangon Port – Yangon	20-30	1-2	50	Good
		Total	Approx. 450	Approx. 1 month	1,130	

Source: ASEAN Logistics Network Map, 2006

➢ Freight transport route in Myanmar

1) Newly constructed highway Yangon – Pyu – Naypindaw – Mandalay
2) Route of Mandalay – Monywa – Kelawa – Kalemyo – Tamu – Moreh

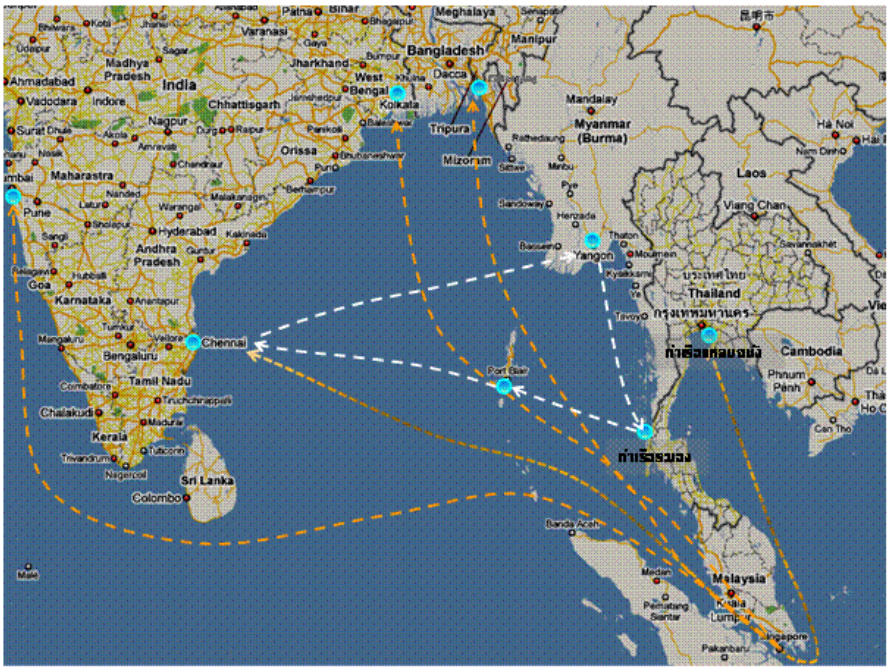


Map 6: Route Linkages between Mandalay – Tamu

➢ Sea freight transport route between Thailand – India

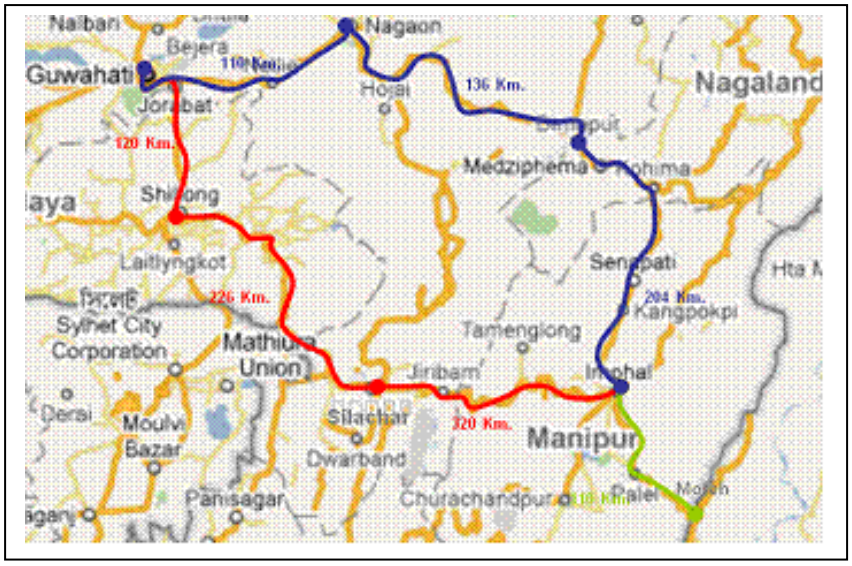
- Kolkata Port
- Mumbai Port
- Chennai Port

1) Laem Chabang Port / Bangkok (through Singapore Port) – Kolkata Port – Guwahati (Assam)
2) Laem Chabang Port (through Singapore Port) – Chennai Port – Guwahati (Assam)
3) Bangkok Port / Laem Chabang (through Singapore Port / central port) – Chittagong (Bangladesh) – Agarlata (Tripura)
4) Ranong Port – Bear Port – Chennai Port – Yangon Port



Map 7: Sea Freight Transport Route between Port of Thailand and Ports of India and Bangadesh

- Freight transport route in Northeast India
  1) Guwahait (Assam) – Shillong (Meghalaya) – Silchar – Silibam – Imphal (Manipur) – Moreh / Tamu Port of Entry
  2) Guwahati (Assam) – Nagoan – Dimapur (Nagaland) – Imphal (Manipur) – Moreh/Tamu Port of Entry
  3) Agarlata (Tripura) – Silchar – Silibam – Imphal (Manipur) – Moreh / Tanu Port of Entry



Map 8: Route Linkages between Guwahati (Assam) – and Imphal (Manipur)

➢ Travel to Tamu – Moreh Port of Entry

Road travel to Tamu – Moreh Port of Entry can be made from Imphal, Manipur of India via the National Highway 39 or NH 39, reaching the Port of Entry. Its length is approximately 110 kms and it takes about 4 hrs. This is because the first half of the National Highway is level, passing communities and paddy fields. The surface conditions of the highway are both smooth and rough, with potholes and shallow depressions. Some parts are still under construction to add more traffic lanes. The second half of the highway passes through over tall steep mountains, and the route is accordingly winding. The road surface of some portions of the highway is currently being improved, which means vehicle speed has to be reduced in those areas.

If the journey is undertaken from Myanmar, it can be made by using Asian Highway 1 or AH 1 from Mandalay to Tamu, with a total length of 467 kms:

- The Highway from Mandalay to Monywa, approximately 136 kms, consists of a two-lane asphalt road.
- Between Monywa and Kalemyo, for approximate length of 202 kms, it is only a one lane road. Some parts are surfaced with asphalt, while others are a rough laterite road.
- The Highway between Kalemyo to Tamu, approximately 129 kms, is concrete and two-lane.

If the journey continues to the Tamu – Moreh Port of Entry, there is another 3 kms of two-lane concrete road.



Map 9: Route from Mandalay to Tamu Port of Entry

- Project for the Development of Communication and Logistics Stuctures Related to Connectivity between Thailand, Myanmar and India
    1) Projects for the deep sea ports and Twai Industrial Zone
    2) Projects for the development of tri-party road route : Thailand – Myanmar – India
    3) Construction of the first and second Thailand–Myanmar Friendship Bridges across the Muew River at Mae Sot District, Tak Province
    4) A project to develop Kyauk Phyu Deep Sea Port, including crude oil and natural gas pipelines.
    5) Project for the Kaladan Multi – Modal Transportation