

## ANNEXURE 3 – DEVELOPMENT OF THAILAND’S SOUTHERN SEABOARD

Sumet Ongkittikul  
Thailand Development Research Institute

### A3.1 Background

The National Economic and Social Development Board (NESDB) is the main agency in pursuing the national economic and social development plan. The first National Economic Development Plan (NEDP) was prepared in 1961. Since then, these plans, now called National Economic and Social Development Plans (NESDPs), were continually updated. The current plan is the 10th NESDP, which is now in operation (from 2007 to 2011).

The key development in the early plans is the infrastructure development focus which was characterized by emphasis on the development of key economic areas such as the Eastern Seaboard and the key basic infrastructure such as highway and public utilities. Later, the plans focused on the social development and economic integration. Presently, the 10th NESDP focuses on social development, popular governance and economic competitiveness and management. A report of ADB and NESDB (ADB and NESDB, 2008) summarized four key goals of the 10th NESDP below.

**Goal 1:** Eliminate poverty through sustained and equitable economic growth. The plan is designed to strengthen the Thai society and local communities, promote indigenous wisdom and reform the economic structure for sustainable growth.

**Goal 2:** Enhance environmental security and sustainability. This involves promoting the “Green and Happiness Society” Program and increasing awareness among communities about the environment.

**Goal 3:** Create a knowledge-based society and social security. This will promote self-sufficiency at all levels of the society and business community, as well as quality of life of the people, for the society to become a knowledge based and life-long learning society.

**Goal 4:** Ensure good governance at all levels of society. The green and happiness society will be achieved by strengthening communities’ capabilities, promoting public and private governance, promoting distribution of wealth, balancing economic development and increasing access to education.

ADB and NESDB (2008) suggested that spatial planning remains a key function of the plans as manifested by the strategic policy of redistributing new industry away from the Eastern Seaboard, which is perceived as having limited capacity for future expansion, towards the south of Thailand. This major policy was endorsed by a cabinet resolution in February 2007 and a number of studies have since been undertaken by NESDB and other relevant ministries to identify opportunities for introducing new industrial development in areas outside the Eastern Seaboard, most notably including South Thailand. These include a number of sectoral studies that have focused on particular industries and economic sectors as well as different types of infrastructure needed to support any expansion in industrial development.

The background of the Southern Seaboard development plan was originally proposed in 1975. The first study was done by the Hunting Technical Service in 1975. In 1985, the Japan International Cooperation Agency (JICA) studies the development plan for the Southern Seaboard and there was a revised studied done by ADB in 1987. In 1989, NESDB proposed the southern region’s strategic development plan to the cabinet and the cabinet approved the ‘Land Bridge’ development plan that connected Andaman Sea and Thai Gulf. This plan consists of a multi-modal transport linkage, which combined road, railway, and pipeline in the corridor. This was regarded as a beginning of the Southern Seaboard Development Plan.

NESDB was assigned to conduct the master plan of the southern seaboard development plan. In 1991, NESDB appointed a consortium (Bechtel, Nippon Koei, AEC and SEATEC) to prepare the master plan and

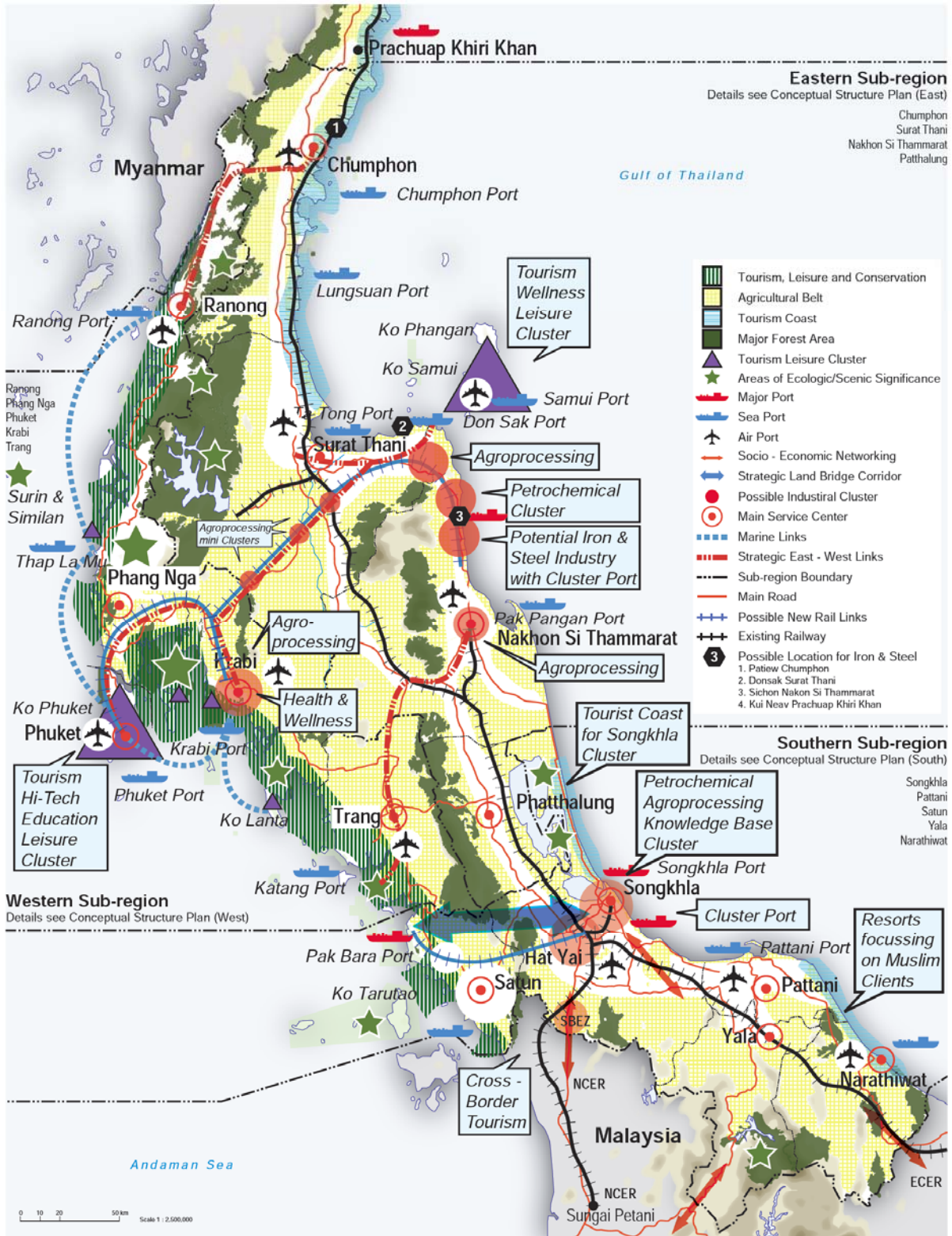
the plan was completed in 1992. The cabinet approved the master plan, in principle, also in 1993 and also approved several projects such as the construction of road between Krabi-Khanom. Later, the cabinet decided that the deep sea port development shall be in Satun province for Andaman Sea side and in Songkhla province for Thai Gulf side.

### **A3.2 Regional Development Concept**

The report of ADB and NESDB (2008) proposed a regional development concept which based on sectoral analysis which consists of five sectors namely; agriculture and fisheries; heavy industry and energy; tourism; knowledge based industry and leisure; and environment. The regional development concept for South Thailand is shown in Figure A3.1.

This spatial concept provides a clear separation between the east and west coasts in keeping with the geographical differences. On the western Andaman coast, a tourism/leisure corridor has been defined in which heavy industry and large ports are precluded with the exception of a strategic port serving a landbridge corridor to the Gulf of Thailand (proposed at Pak Bara in Satun Province). On the east coast a mix of industrial, agriculture and tourism development is advocated, each spatially confined to specific areas where conflicts between the sectors are avoided or minimised. The southern sub-region is assigned as a major growth pole, to benefit from both a possible eastwest land-bridge development (instigated by foreign investment) and the emergence of cross border trade as boosted by the SBEZ and the continuation of the ECER and NCER corridors towards Songkhla and Hat Yai via the southernmost provinces.

Map A3.1 Regional Development Concept



Sources: ADB and NESDB (2008)

The report also suggests four concepts of development as follows.

### **A3.3 Strategic East West Connections**

The preferred location for a strategic energy land-bridge, to provide port access from the Andaman Sea to the Gulf Coast of Thailand and which could allow raw materials and goods to be transported and processed along the way, is in the south of the region between Pak Bara and Songkhla. This would be a major economic corridor that would stimulate a variety of industries and commercial development, including the possibility of heavier industries on the east coast near Songkhla. Of the region's potential corridors identified, the southern corridor is preferred as:

- Port development can be more discreet and strategically isolated from the remainder of the Andaman coast;
- There is a larger critical mass of support services (urban development, education hub etc.) in the south;
- Cross-border opportunities are more abundant in the south;
- There are large hinterlands around Songkhla and Hat Yai; and,
- A southern land-bridge would be able to respond better to critical problems in the Deep South.

### **A3.4 Tourism and Leisure Corridor on the Andaman Coast**

The tourism/leisure corridor would develop as a world-renowned coast for tourism and complementary leisure/knowledge. It would extend from the Malaysian border to Ranong in the north, from which it can be linked to the east coast through the Isthmus of Kra to the designated Royal Coast.

The anchor and main activity node, from which such activities can gradually be expanded along the whole Andaman Coast, is Phuket, which is earmarked as a tourism, leisure/knowledge based node. It is already the main investment hub of the west coast. Here knowledge-based activities and tourism can be strengthened in the health and wellness, education and hi tech fields, as well as in specialist sports activities such as yachting. As recognised at the consultation workshops, the vast potential for Phuket in terms of new investments needs to be nurtured and properly structured.

A range of ecotourism and community based tourism (CBT) should be developed in the immediate hinterland of the coast, to spread tourism through such means as a tourism scenic drive, which would cover the whole coast. Greater use of marine cruises, within Phang Nga Bay and along the Andaman seaboard, could also be made to maximise the unique marine potential of the western region.

Behind the tourism/leisure corridor, the agricultural heartlands in Krabi and Trang (and to some extent Phang Nga) could be strengthened for agro-processing and the development of specialist foods (for example fruits) as higher value products, using the tourism coast as an initial market.

### **A3.5 Mixed Development on the East Coast**

The key to the successful co-habitation of industrial and tourism uses on the east coast is the careful location and clustering of activities and sound land use control to prevent sprawl, ad hoc development and conflicts in interests. The designated Royal Coast, which consists of a large stretch of mostly sandy bays stretching from Surat Thani in the south to Prachuap Khiri Khan in the north is where a range of beach tourism resorts could be planned. With the exception of the existing iron and steel works at Bang Saphan and areas devoted to fish-ponds (for example near to Chumphon) much of this coast can be devoted to tourism uses. Tourism should however be planned in a sustainable manner, with clearly contained resorts linked with CBT in the hinterland and separated by buffer zones.

An important tourism node on the east coast is Samui, which could form the southern limit of the tourism zone. It could specialise in health and wellness and sports such as yachting as well as general leisure and some ecotourism on the more remote parts of the archipelago. Links with Phuket and the Andaman coast by means of Route 44 can be encouraged. The area would also need to command important buffer zones to protect its visual integrity.

The east coast could also accommodate important clusters of heavy industry, on the condition that these be spatially contained and subject to the highest standards of environmental quality and community consultation and involvement. Ideally a grouping of industrial clusters (or the merging of a 'super cluster') should be considered. A total of four sites are proposed where iron and steel could be located. One of these is in Prachuap Khiri Khan, the three others are within the study area at: Patiew, Chumphon; Don Sak, Surat Thani; and Sichon, Nakhon Si Thammarat.

Key principles for locating a site for heavy industry is that it should be visually screened from the island of Samui (making locations south of Khanom Port appropriate for example) to avoid conflicts with tourism. Ideally the site should be close to existing service centres such as Nakhon Si Thammarat and Surat Thani from where housing and community support facilities (schools, hospitals, commercial services etc) can easily be made available and expanded. These centres would also draw on a more skilled labour force. Good access to the main north-south road artery, Route 4, as well as to the main rail line and airports is also a requirement.

The locations would need to be served by a new 'cluster port', linked to the strategic road network and also, ideally, to a rail spur from the main north-south line. The spur for a site near to Sichon could be looped to connect to Nakhon Si Thammarat city: the latter could act as a service centre for the industrial area as well as being an agricultural service centre. A separate industrial cluster is proposed as an agro-processing centre in Surat Thani, at the culmination of Route 44. This would serve the large agricultural heartlands to the south and west. Both the heavy industry and the agro-processing centre would benefit from large, sparsely populated hinterlands made up of plantations that are well contained by a range of hills.

### **A3.6 Southern Development Node**

The key catalyst to rejuvenate the whole of the southern sub-region, is the proposed land-bridge development between Satu (Pak Bara) and Songkhla. Pending such a development, a major growth node (in the form of a further cluster for education, R&D, agricultural processing and possibly petrochemicals) could be established in the south around Songkhla, with resulting spin off effects further south.

The southern land-bridge would be the main east-west connection, and have great strategic importance as it could bring major shipping lines to access directly the Gulf of Thailand from the Andaman Sea via the southern Sub-region. It would be necessary to use this investment wisely, as a means to instigate social and economic programmes in the sub-region, particularly those aimed at integrating the Deep South provinces within the expanded economy of South Thailand. Comprehensive and long term planning of the land-bridge, rather than a piecemeal approach is therefore required.

The southern part of the region would also build on the ECER and NCER links with Malaysia: the latter boosted by the proposed SBEZ and the former by specialist activities in Pattani (as a centre for halal food as well as a base for specialised resort tourism targeting the Middle East market) and Yala as an agricultural centre with close links with halal food. Narathiwat meanwhile can act as a service centre for the anticipated growth in cross border trade. Improvements in logistical services along the border, together with new cross border industries within the SBEZ, would be a key feature of the area in addition to the land-bridge.

### **A3.7 Infrastructure Support Framework**

The report of ADB and NESDB (2008) also suggested the infrastructure development program to support the southern seaboard development project. This framework aims to improve the region's competitiveness. These cover ports, roads, rail, and airports.

#### **A3.7.1 Ports**

In the future, the following should be undertaken to support seaport development in South Thailand:

- **Limit new ports.** The government should set out a strategic plan for port development in the region. It should focus on two aspects: (i) identifying key locations for new seaports (bulk and containers), and (ii) revitalizing existing ports. In the future, new seaports should be linked only with economic benefits to a larger community such as support to an industrial cluster. If this does not occur, seaports should not be permitted. In addition, plans for developing new cargo ports should only be accepted if the developer is able to bring shipping lines to the project.
- **Use ports as development stimulators.** Since ports will be developed in a more strategic manner in the future, they should also become more multi-purpose. Where possible, ports should be both container and general cargo and should incorporate cold storage, warehousing, break-bulk facilities etc, as well as link directly with economic zones or areas. Seaports have the potential of stimulating further economic development in a region. However, it is important to make sure that any new or expansion of existing seaports has call commitments from shipping lines (through MOUs), before construction is started.
- **Encourage the integration of ports with supporting infrastructure.** To allow the region to become competitive with Bangkok, it has to: (i) develop economies of scale around its industrial sector bases, (ii) integrate and upgrade its seaports, roads, airports, and rail connections and access to the hinterland, (iii) improve its e-technology for customs, and (iv) reduce its costs to the customer. This means that all future transportation planning for South Thailand must always keep this as its first priority.

### A3.7.2 Road Network

The strategic development plan for highways in South Thailand should be revised to support the specific needs of industrial clusters, as well as being properly integrated with rail, seaport and air linkages. Recommendations include:

- **Revise the transport network.** A re-assessment of the transport network in South Thailand to respond directly to future industrial cluster development will need to be undertaken. The purpose is to examine the transportation system in a pro-active manner. Prioritized infrastructure projects should be undertaken rather than piecemeal development.
- **Upgrade and link road infrastructure with areas of economic growth.** It will be important to improve capacity and upgrade the road network in a strategic manner in order to better link the highway system with new growth areas, as well as, with existing and future airports, rail corridors, and seaports.
- **Road projects should be prioritized.** Road projects should be prioritized and funded according to their economic benefit to the community and to the need of the industrial cluster.

### A3.7.3 Rail Transport

It will be important to reassess the rail network in South Thailand to support increased industrial development, clusters, and tourism. Recommendations include:

- **Re-examine the rail network in the region.** With new industry clusters and comprehensive development areas proposed, the rail network should be re-examined to see how it could best support and facilitate economic growth in the region. The intent is to try to improve the modal split and shift from road to rail and to increase track capacity to better support ports, airports, and cluster development, as well as, improve safety. Ideally, a fast train from Bangkok to new tourism and leisure hubs should be contemplated.
- **Prioritize infrastructure investment.** Rail infrastructure projects should be prioritized. The container yard proposed for Chumphon, which has a proposed budget of 81 million baht, should be put on hold until the industrial growth in the region occurs and there is a need for a container yard. When and if that need arises, the location of the yard should be strategically identified so that it can be integrated with other modes of transportation and can act as a regional inland container depot. If a land-bridge is developed, an inland container depot may be more appropriate in this area (i.e. around Songkhla). Portions of the rail line in South Thailand should be upgraded to a dual track system to support rapid transit to strategic development areas.
- **Where appropriate, provide rail spurs into seaports, industrial estates and industrial clusters to add-value.** To reduce transport costs and support a seamless, integrated transportation network, it will be important to promote rail spurs and direct connectivity from large-scale infrastructure such as seaports to investment and cluster locations and/or in the future to major tourism hubs.
- **Separate the passenger and cargo operations.** To be competitive with neighbouring countries, it may be advantageous to separate the management of the passenger and cargo operations. This would allow for greater efficiencies.

- **Improve network linkages and customs with neighboring countries.** It is anticipated that cross border trade will increase with the development of the growth areas in the region. Attention should be paid to improving linkages with Malaysia and Indonesia and further streamlining and harmonize the processes to remove all administrative barriers currently in existence.

#### A3.7.4 Airports

To support the development of the region, the following should be undertaken:

- **A strategic plan for regional airports should be prepared.** It is imperative that airports in the region are sustainable. Hence, lessons should be learned from the Chumphon airport. In order to safeguard future problems at other airports, a comprehensive review of the airports in the region should occur and a strategic development plan should be produced to mutually support airport and regional growth.
- **Airports in the region should plan to support economic development by providing enabling infrastructure.** In the future, the airports in the region should be strategically linked into the development plans within the region including neighbouring countries to further promote investment and tourism opportunities. Hence, if there is a need for air cargo or cold storage at an airport to support the local cluster, then this should be a priority so the infrastructure meets the demands of the region.
- **Flight routes should be re-aligned to support tourism needs.** With the strengthening of the tourism sector and an increase of tourism locations and cross-border activities, the flight routes, which connect tourism locations on the east and west coasts, as well as, with neighbouring countries should be re-assessed and re-aligned in some cases, to better support tourism. These routes should be heavily marketed to increase demand in order to support short flights for the airlines.

The report (ADB and NESDB, 2008) suggests the priority needs. A list of key infrastructure project that should be prioritized (some as short-term projects and some for possible longer-term implementation) are as follows:

- Comprehensive development of the land bridge-seaport project between Satun and Songkhla. This should be a comprehensive development area and special economic zone to optimize development opportunities in the region;
- Development of a fast train from Bangkok to South Thailand (with a Surat Thani spur to Phuket and Krabi in the longer term) pending feasibility studies;
- Development of an integrated infrastructure and utilities plan in the region to support new sectors and activities, as well as, increased industrial demand;
- Develop new ferry routes along the West Coast tourism and leisure corridor;
- Develop energy plan for medium and long-term growth of the steel and petroleum clusters;
- Develop a master plan for the upgrading of telecom infrastructure in the Phuket region;
- Develop water infrastructure to support key clusters;
- Develop an integrated airport master plan.

Finally, the report also stresses the importance of public participation. The recommendations for public participation are:

- A design study is needed to develop the details of the public participation framework in planning. It should be done in a participatory manner. It needs to consider a number of key factors including: policy, institutional framework, principles, strategies, processes and operational procedures.
- The framework should include the following key aspects:
  - Appropriate consultation processes that reach out to all stakeholders;
  - Multi-sector planning committees at each level of development;
  - Clear communication strategies and mechanisms such as websites that are transparent;
  - Formal approach and decision-making process that is recognized and accepted by all stakeholders;
  - An arbitration process to resolve disagreements between stakeholders.
- The strategies for the framework should include:
  - Policy statement with agreed upon principles, definitions of public participation and its various components such as information, consultation, negotiation and delegation;
  - Operational guidelines for implementing public participation;
  - Monitoring and quality assurance guidelines;
  - Implementation action plans with activities, timelines, responsible parties and budgets clearly identified.

- Training is recommended on public participation in planning for all stakeholders including government, community, civil society, private sector and media.

## **MEKONG-INDO ECONOMIC CORRIDOR AND SOUTHERN SEABOARD DEVELOPMENT PROJECT**

### **A3.8 MIEC and Southern Seaboard Development Project**

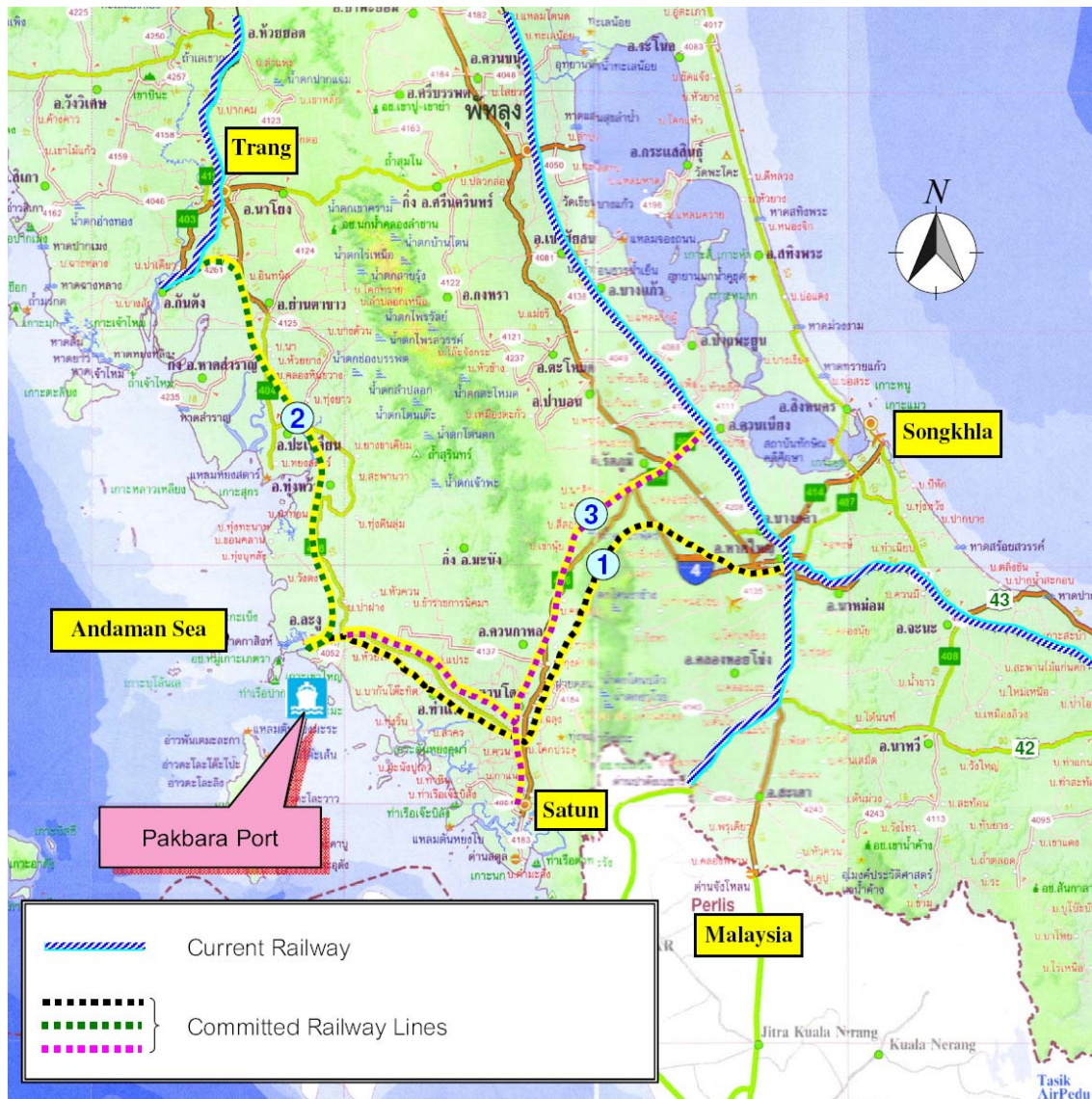
The possible connection between Mekong-Indo Economic Corridor (MIEC) and the Southern Seaboard Development Project (SSBD) is that SSBD offered an alternative route to the Andaman Sea for the MIEC.

The under-develop part of the Southern Corridor from Dawei-Bangkok-Phnom Penh-Ho Chi Minh City is the part from Thailand border to Dawei in Myanmar. However, ADB also identified in the GMS Transport Sector Strategy that there is a possible extension of the new corridor from Bangkok to the southern part of Thailand. As we discussed in previous section about the Land-Bridge project of the SSBD, the new corridor can easily integrate with the Land-Bridge between Satun and Songkhla.

Recently, the Ministry of Transport conducted a study on the possible trade lane on the North-South corridor, from Chiang Saen – Chiang Khong to Pak Bara port (TransConsult, 2009). It described the transport infrastructure development along the corridor which partially overlaps on the Bangkok – Pak Bara port corridor. The transport link between Bangkok and Pak Bara Port starts from Bangkok along Highway No. 4 through Provinces of Prachuab Khirikhan, Chumphon enter Highway No. 41 through Provinces of Nakhon Si Thammarat, Phatthalung enter Highway No. 4 at Rattaphumi District, Songkhla Province from their use Highway No. 406 until Satun Province, total distance around 970 kilometers. Presently, Department of Highways has developed and upgraded highway networks to support transportation of Thailand by implementing construction project main road to 4 lanes (Phase 1), which has completed construction total distance around 1,890 kilometers, comprising North Region distance: 650 kilometers and South Region distance: 870 kilometers. This project covers mostly the Highway No. 4. This can be seen that the transport link between Bangkok and Pak Bara via road transport is well connected.



Map A3.2 Rail - track extension corridor linking railway with Pak Bara Port



Source: TransConsults (2009)

The railway connection to Pak Bara port is a bit of problem. The main railway line to the Southern part of Thailand aligns on the East coast to Songkhla. The State Railway of Thailand (SRT) has projects to expand access routes to Pakbara Port area. It has laid out 3 preliminary approaches as follows:

1. **Hatyai-Satun Corridor Approach:** Starts from Station Junction Hat Yai through intersection between Highway No. 43 and Highway No. 4 from there cut straight to Rattaphume District and parallel with Highway No. 406 to Satun Province, total distance: 130 km.
2. **Trang-Pakbara Corridor Approach:** Starts from rail station in Trang Province area skirting Highway No. 404 and Highway No. 416 (some cutting across back and forth between the 2 highways) ending at Pakbara Port, total distance: 100 km.
3. **Khuan Niang-Satun-Pakbara Corridor Approach:** Split by train Bangkok-Hat Yai line at Station in Kuan Niang District skirting Highway No. 406 and Highway No. 416 to Pakbara Port, total distance: 110 km. There will be an exit to Satun City also.

The rail link between Pak Bara and railway in Songkhla is in line with the proposal of Land-Bridge of SSBD. In this case the possible link that should be promoted is the Hat Yai-Satun corridor approach.

We see that the transport link between the MIEC and SSBD can be promoted as Thai's Government has an idea of linking the Bangkok and the Southern part. However, the success of the corridor development cannot be complete only with public sector. The private participation is also very important in this context.

### A3.9 Role of Public Private Partnerships (PPP)

As discussed in ERIA report, the public private partnerships can be a successful factor in this context. One possibility for the PPP project is the multimodal logistics centre along the designated corridors. Vienna Consult (2008) gives an interesting practice for the PPP model as follows.

The region of Graz is one of the biggest economic areas in the South of Austria. The Cargo Centre Graz/Werndorf (CCG-terminal), which is situated in the South of Graz, is integrated into a network of block trains with central, north- and north-western Europe. CCG also connects Austria, particularly Graz, with the new EU member state Hungary and Slovenia as well as South-Eastern European states through modern block train services.

The rail operator for the terminal is the Styrian Railways Company which also has a license to operate throughout Austria. The access to the terminal is open according to the access conditions of the CCG (operating conditions and infrastructure usage charges).

Having the advantage of a direct connection to the rail and road networks, the CCG terminal is the perfect logistic hub for container, swap bodies and trailer traffic. The company's aim is to offer its customers an efficient logistic network of rail and road connections by using the latest IT-developments on the logistics sector including tracking and tracing and proactive customer information. The range of services comprises logistic consulting as well as the organization of pick-up and delivery services.

Services offered at the terminal:

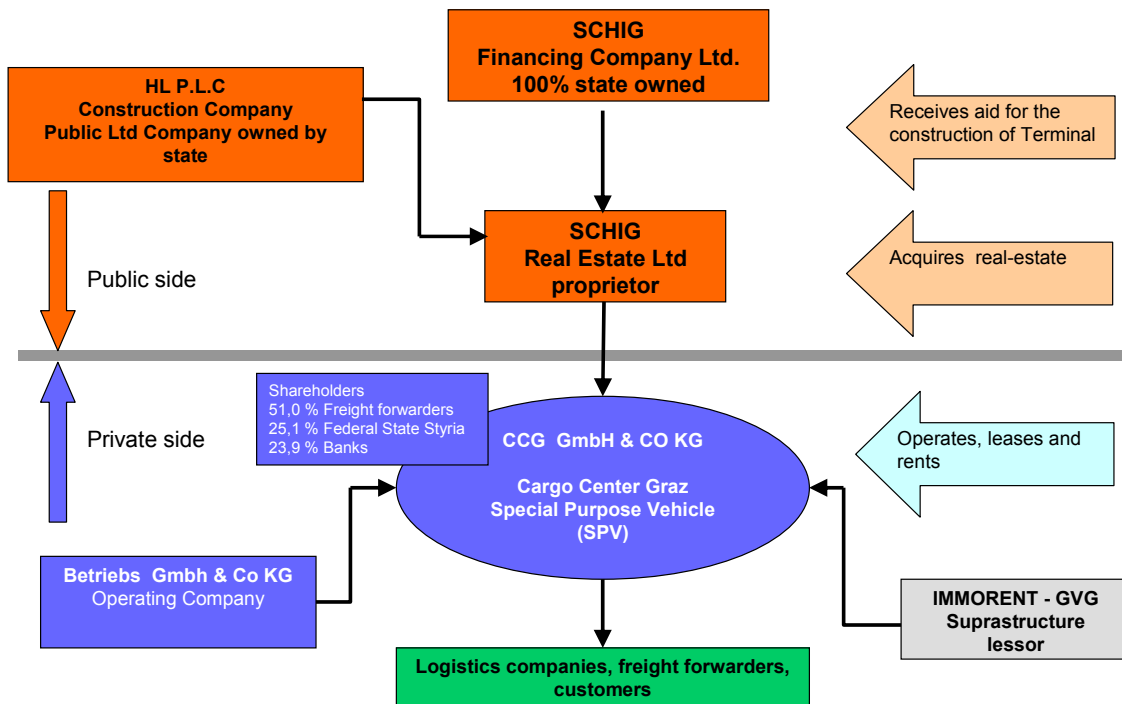
- Customs office
- Depot for empty containers for shipping companies
- Maintenance and repair service for containers of shipping companies
- Agency for operators
- Organization of pick-up and delivery services
- Rental of offices, halls and uncovered areas
- Logistics consulting

The CCG terminal was inaugurated in June 2003. The gantry trains presently take four minutes per lift (15 lifts per hour). When running at high capacity, 20-25 lifts per hour can be achieved. A gantry train reaches its breakeven point with 40,000 lifts per year.

The overall costs of 110 million Euros include investments in the rail infrastructure of approx. 67 million Euros and about 43 million Euros for hall and operating equipment. As a result of the good co-operation between public and private partners, the costs for the infrastructure could be reduced from the originally estimated 79 million Euros to 67 million Euros.

Cargo Centre Graz was the first public private partnership model for terminals in Austria. Figure 5.2 illustrates the main structure of the CCG:

Figure A3.1 The Structure of CCG



Source: Vienna Consult (2008)

The SCHIG (Schieneninfrastrukturgesellschaft) is a financing company, 100% owned by the Federal State of Austria, the aim of which is to finance all rail-bound infrastructure projects. SCHIG finances the public sector contribution.

For practical purposes, SCHIG has founded a real estate limited company the aim of which is to acquire the real estate. HL P.L.C. is a 100% state-owned company (Eisenbahn-Hochleistungsstrecken AG) the aim of which is to plan and construct (by means of subcontracting) important rail infrastructure projects. Due to the existence of the HL P.L.C., the state-owned Austrian Federal Railways do not get involved directly in the construction of new lines or new terminals. HL P.L.C. is in charge of constructing the infrastructure of the CCG using renowned construction companies as its subcontractors.

The CCG GmbH & Co KG is the core of the P.P.P. model. For taxation reasons, it is a limited partnership company (KG) where a company with limited liability (GmbH) is the partner with unlimited liability. Its partners are banks, the State of Styria and four regional freight forwarders.

Since the CCG, for reasons of risk evaluation, does not wish to invest its capital into the construction of the superstructure, an asset leasing company Immorent is the lessor of the superstructure.

For reasons of risk separation, CCG has founded an operating company (Betriebs-GmbH & Co KG) with the form of a limited liability company to carry out the operations of the terminal, i.e. the handling and movement of goods in the terminal.

The PPP model of CCG could be introduced in Thailand, possibly at the Land Bridge corridor. Furthermore, projects on MIEC could also use this model, especially for the multimodal nodes identified on the corridor.

### A3.10 CONCLUSION

Thailand has been actively involved in the economic integration in the East Asia region. There is a great potential that the integration of the GMS will create enormous benefits to each country in GMS. With Thailand being at a more advanced stage of development, the neighboring countries in the GMS can benefit from many economic spillovers through linkages with Thailand.

This report described the development of infrastructure in Thailand and the participation in the GMS initiative. Thailand plays an important role in the transport linkage in the East Asia region, especially in the GMS countries.

The most important aspect of the regional integration is the trade facilitation. In order to get the full potential of the economic integration from the economic corridor, the trade facilitation agreement must be promoted. The CBTA of GMS was signed but the implementation is very slow. The CBTA will be a bottleneck to the economic corridor if we were unable to implement it as quick as possible.

With respect to the MIEC, the Southern Seaboard Development Project can contribute to the MIEC as an alternative gateway to the Andaman Sea. However, a number of priorities projects still need to be introduced in order to make the corridor functioning properly.