

ASEAN-India Connectivity: The Comprehensive Asia Development Plan (CADP), Phase 2

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1-1. Introduction: ERIA, CADP, and MPAC

- ERIA is an international organization established in 2008 based on the agreement in the East Asia Summit (EAS), to conduct policy research for the region related to (1) deepening economic integration, (2) narrowing development gaps, and (3) sustainable economic development.
- One of the most important mandates of ERIA is to support ASEAN in its endeavor towards the ASEAN Community building, as ASEAN has been serving as the hub of economic integration in East Asia.
- ERIA's report on the Comprehensive Asia Development Plan (CADP), submitted to EAS in October 2010, provides a theoretical and empirical basis on the importance of physical and institutional connectivity in the region.
- ERIA supported STOM/ATM(ASEAN Transport Ministers Meeting) in drafting the Brunei Action Plan (BAP): 2011-2015, the five-year plan of ASEAN transport cooperation, which was adopted in ATM in November 2010.
- Based on these research experiences, ERIA was invited to provide a conceptual framework and to draft 2 chapters in MPAC since the first High Level Task Force (HLTF) on ASEAN Connectivity in March 2010.
 - *Chapter 2. Achievements of, and Challenges and Impediments to ASEAN Connectivity*
 - *Chapter 3. Key Strategies for Enhanced ASEAN Connectivity*
- ERIA is listed as one of the funding sources for technical assistance for the implementation of MPAC (Table 4.1).

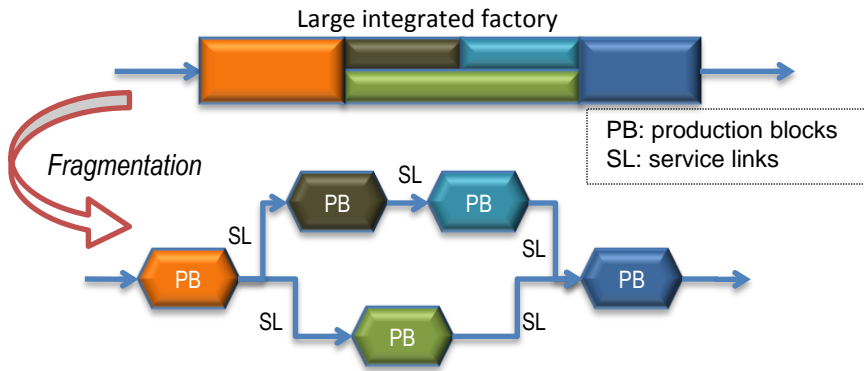
1-2. Introduction: Scope of CADP2

- **ASEAN-India connectivity** was selected as the main theme of the 2nd phase of the CADP, because of the growing importance of the issue amidst the ongoing restructuring of economic activities. Although both China and India are emerging economic superpowers in the region and the immediate neighbors to ASEAN, the extents of the connectivity with ASEAN differ significantly. With the strong supports of the government and the business activities of the private sector, China has been aggressively penetrating into ASEAN. In comparison, the exposure of India in ASEAN is rather limited.
- The concept of the **Mekong-India Economic Corridor (MIEC)** is one of the examples. Although the validity of MIEC was also demonstrated in the CADP, there remain significant missing links, including the lack of the gateway port in Dawei (Myanmar). In addition, the connectivity between Thailand and Myanmar should be enhanced through the construction of a highway between Dawei and Thai border (physical connectivity) and various trade and transport facilitation measures (institutional connectivity).
- Another major route to enhance ASEAN-India connectivity can be developed by upgrading road infrastructure of the Thailand-Myanmar-India section of Asian Highway No.1, which has also been identified as the **Trilateral Highway** in the cooperation among these three countries. As the road infrastructure in Thailand is already well developed, the remaining issues are the sections in Myanmar and the Northeast India.

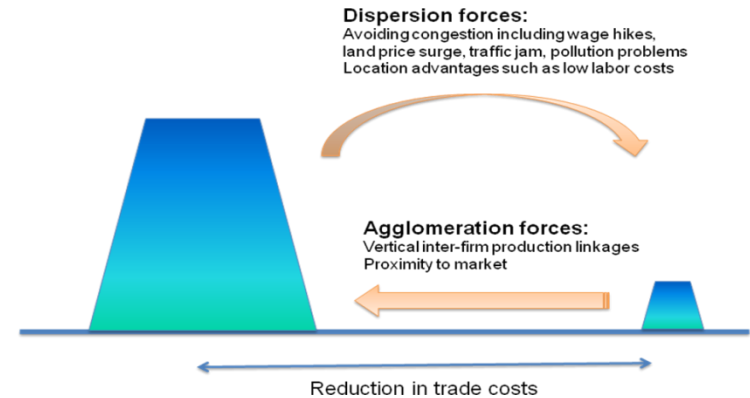
2-1. Conceptual framework of CADP

- ❑ **CADP** provides a grand spatial design of economic infrastructure and industrial placement, applying a novel analytical approach based on the fragmentation theory and new economic geography, in order to pursue both “deepening economic integration” and “narrowing development gaps” at the same time.

➤ The fragmentation theory



➤ Agglomeration and dispersion in new economic geography

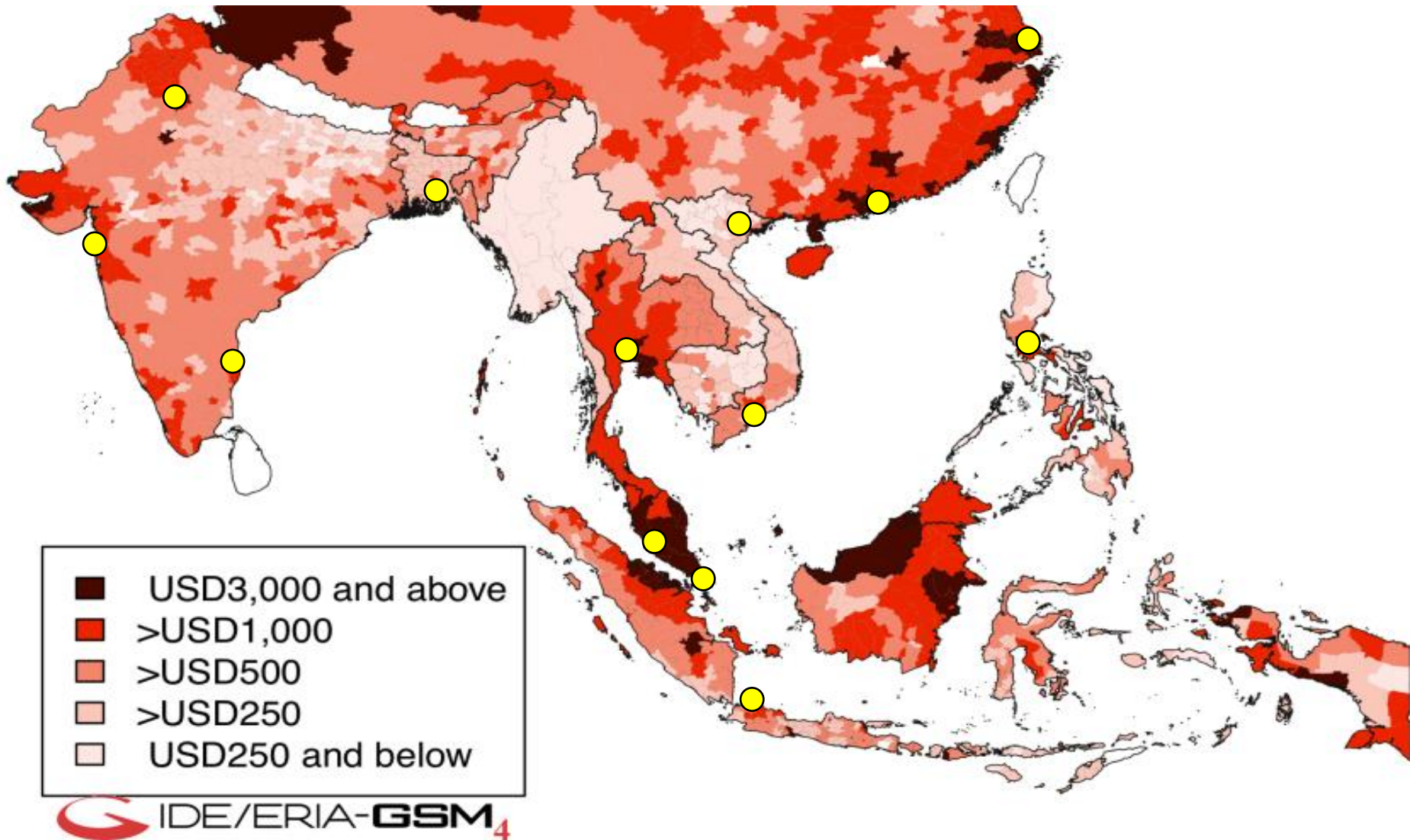


- ❑ Specify **three sub-regions (Mekong, IMT+, and BIMP+)**, which include multiple industrial corridors connecting countries/regions at different development stages in order to effectively utilize economic dynamism.

- ❑ Propose **three tiers of development strategies.**

- **Tier 1:** middle-income countries/regions → Innovative and value-added cluster (Less congestion and better business environment.)
- **Tier 2:** countries/regions close to industrial agglomerations → Push out the frontier of production networks (Creation of new dev. center)
- **Tier 3:** remote countries/regions yet to start development process → Employ logistics infrastructure as a trigger for a new perspective of industrial development. (Create critical mass of economic activity)

2-2. Nominal GDP per capita (2005)



Source: Kumagai and Isono (2011)

3-1. ASEAN-India trade relationship

- During the first decade in the 21st century, **India has emerged as one of the key players in the global economy.** India's merchandise trade increased from US\$ 93.0 in 2000 to US\$ 422.9 in 2009, with a high compound average growth rate (CAGR) of 18.3%. During the same period, merchandise trade between ASEAN and India also recorded a significant increase from US\$ 7.1 billion in 2000 to US\$ 41.3 billion in 2009, with a CAGR of 21.6%.
- For ASEAN, India's share as the destination of merchandise export and as the origin of merchandise import **doubled** from 1.6% and 1.0% in 2000 to 3.3% and 2.1% in 2009, respectively, **but still limited.**
- For India, ASEAN's share as the destination of merchandise export increased rapidly from 6.5% in 2000 to 10.6% in 2009, whereas ASEAN's share as the origin of merchandise import recorded a slight decline from 11.0% in 2000 to 9.1% in 2009, indicating **the slow progress of ASEAN in penetrating into Indian market.**
- Considering the growth performance and the geographical adjacency, the **trade relationship between ASEAN and India is still limited.**
- As De (2011) concluded, "(o)ne of the major obstacles to the expansion of trade between India and ASEAN is **the high cost of moving goods across the borders**" **reflecting insufficient infrastructure for physical connectivity.**

3-2-1. Myanmar's trade with neighbours

- During the last two decades, Myanmar's export increased from US\$ 466 million in FY1991/92 to US\$ 8,864 million in FY2010/11 with a CAGR of 16.8%, and Myanmar's import increased from US\$ 851 million in FY1991/92 to US\$ 6,415 million in FY2010/11 with a CAGR of 11.2%.
- **The high export growth was not severely affected by the import ban imposed by the United States in 2003, mainly because of the rapid expansion of trade with two neighbouring countries, Thailand and China.**
- The share of Thailand in Myanmar's trade (export + import) doubled from 15.2% in FY2000/01 to 30.4% in FY2009/10, reflecting the increase of Myanmar's export of natural gas to Thailand through pipelines. The comparable figures for China expanded more than a double from 12.0% to 24.2.
- **In contrast, Myanmar's trade with other neighbouring countries has been sluggish** during the last decade. The share of India in Myanmar's trade marked a rather slow expansion from 8.9% in FY2000/01 to 10.3% in FY2009/10. As for Bangladesh, the share was halved during the same period from 1.4% to 0.7% .

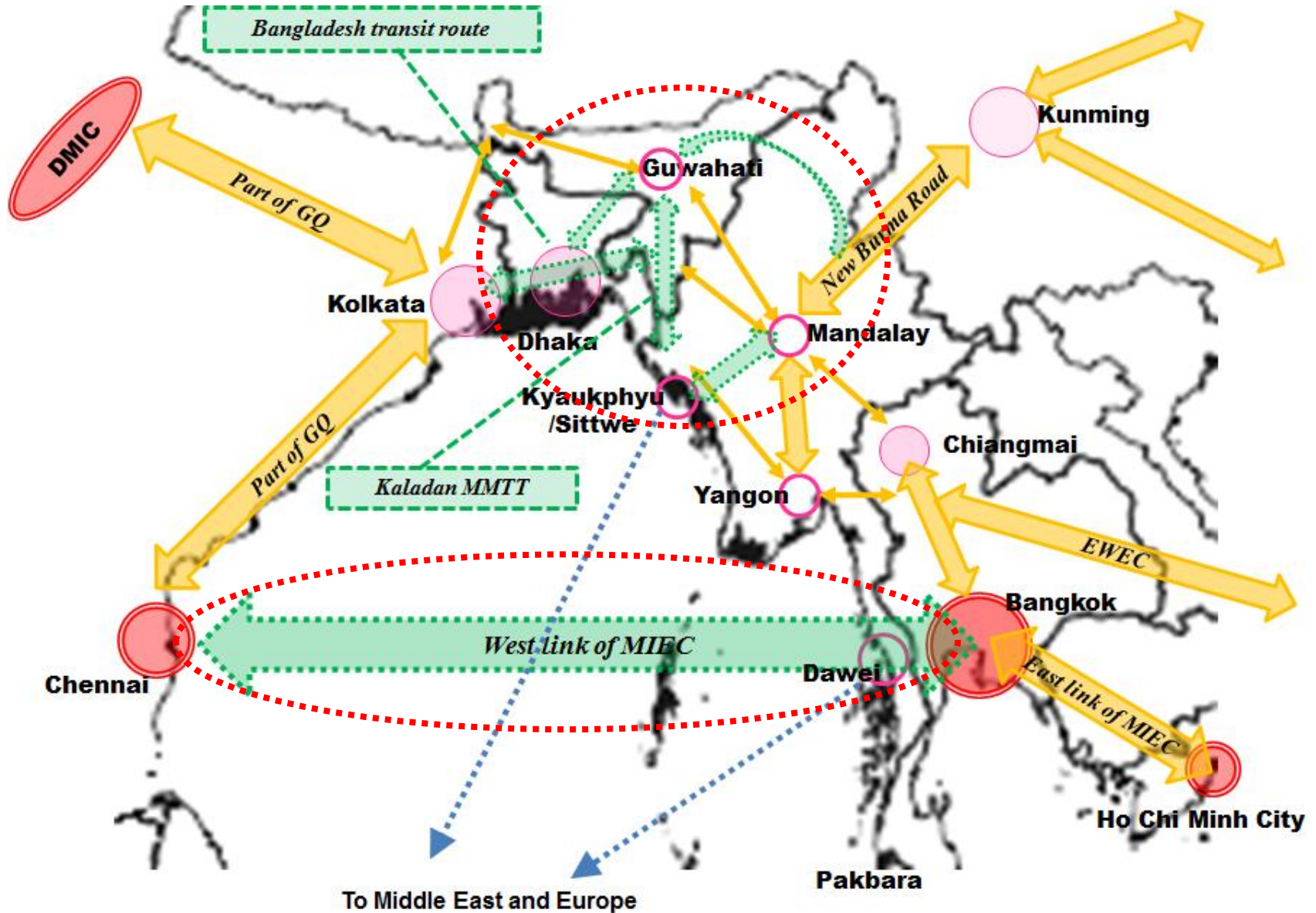
3-2-2. Myanmar's border trade

- Myanmar shares national borders with China (2,204km), Thailand (2,107km), India (1,643km), Bangladesh (271km), and Lao PDR (238km). Border trade with neighbouring countries shared around 8% of Myanmar's total trade in the end of the 1990s, but the share gradually increased to 13.9% in FY2010/11.
- In FY1997/98, the shares of China and Thailand in Myanmar's border trade (export + import) were 56.7% and 32.6% respectively, followed by India (8.7%). The corresponding shares of the three countries has become 77.9%, 19.9%, and 1.0%, respectively.
- Muse (105 mile), located between Muse in Myanmar and Ruili, Yunnan Province of China, has been the largest border check point in Myanmar, with a distinctive share of 65.4% in FY2006/07, followed by three border check points along the Thai border namely Myawaddy (14.3%), Kawthaung (7.2%), and Myeik (4.1%).
- **Myanmar's border trade with India has been slow as compared to those with China and Thailand.** Along the national border with India, there are two border check points in Tamu and Rhee, shares of which in Myanmar's border trade were 0.9% and 0.6 % respectively in FY 2006/07. The border areas are mountainous, and the road infrastructure is generally insufficient to accommodate a large amount of international trade.

3-3. Emerging nodes for ASEAN-India connectivity

- **The characteristics of Myanmar in ASEAN and those of Northeast India in India are similar in various aspects.** Myanmar locates on the west end of ASEAN, having China on the north, and is the lowest income country in ASEAN with the weakest connectivity with other ASEAN Member States. Similarly, Northeast India locates on the northeast end of India, having China on the northeast beyond Myanmar the immediate neighbor, and is among the poorest regions in India with the weakest connectivity with other parts of India. The main economic activity is agriculture, and both have some natural resources.
- The connectivity between Myanmar and Northeast India is still very weak, although they share a 1,643km long national border.
- On the other hand, **Myanmar and Northeast India, surrounded by all three of the most vigorous economies in the world, namely, China, India, and (other part of) ASEAN, are expected to play a very important role as the connecting nodes to physically connect these economies.** In this broader perspective, Myanmar and Northeast India are no longer at one end of the region to which they belong. Taking this strategic role into consideration, **development strategies for Myanmar and Northeast India can be the core of the regional strategy to enhance ASEAN-India connectivity.**

4-1. A regional framework



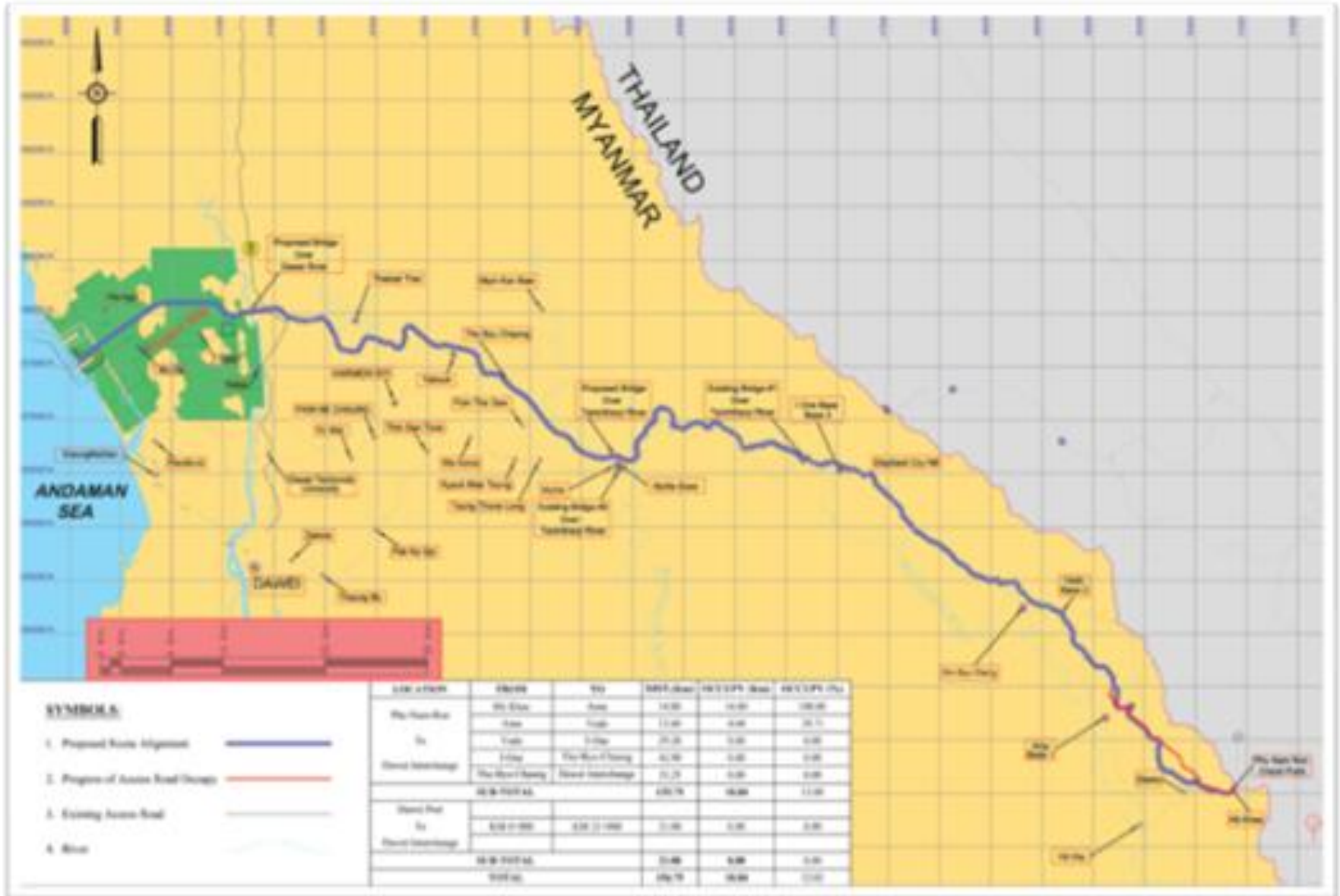
4-2-1. Mekong India Economic Corridor: Background

- CADP recommended to promote the Mekong-India Economic Corridor (MIEC), which enhances the connectivity between Ho Chi Minh City, Phnom Penh, Bangkok, and Dawei by road, and further to Chennai in India by sea route. According to the simulation in CADP, the percentage increases in real GDP in 2020 vis-à-vis the baseline scenario are 0.32% for EWEC, 0.14% for NSEC, and 1.19% for MIEC, and the percentage reductions in the Gini coefficients are 0.07% for EWEC, 0.13% for NSEC, and 0.23% for MIEC.
- **ASEAN Leaders adopted the promotion of MIEC as one of the key actions in the Master Plan on ASEAN Connectivity (MPAC) in October 2010.**
- Japan's recent decision to provide ODA to Cambodia for the construction of a Mekong Bridge in Neak Leoung, despite the difficulties due to from the bad fiscal position of the country, is another major and welcome development.
- Given this significant step made in Cambodia, the remaining and more important issue is to establish the new linkage between Bangkok and Chennai.
- In particular, a deep sea port in Dawei will provide vast opportunities for the firms operating in Bangkok metropolitan area and the region along MIEC by opening up a new shipping route to India, the Middle East, and Europe. On the other hand, firms in India, particularly those in Chennai, are expected to have less costly and alternative access to ASEAN. In addition, this development is expected to reduce congestion in the Malacca Strait.

4-2-2. Dawei development project (1)

- Myanmar Port Authority (MPA) which provides port services conducted preliminary study and sites selections for deep seaport by taking into consideration of natural and technical condition. The appropriate sites are earmarked for construction of deep sea ports along the coastline of Myanmar; such as Kyaukpyu in Rakhine State, Kalegawk in Mon State, Dawei and Bokpyin in Tanintharyi Region.
- In July 1996, an MOU was signed between MPA and Italian Thai Development Public Company Limited (ITD) to execute feasibility study for Dawei deep sea port and integrated development plan. The scope of project included construction of highway road and development of deep sea port to accommodate 50,000 DWT and 300,000 DWT general/container vessels and break bulk vessels respectively.
- An MOU on the Dawei deep sea port and industrial estate project between MPA and ITD was signed on 6 December 2008 and the Framework Agreement signed on 2 November 2010. ITD has been granted the right from the Myanmar Government to develop the Dawei Project covering the area of 250 km², over 75 years project period, for the development of a deep sea port, industrial estate, and trans-border corridor link.
- The total project cost is estimated to be US\$80 billion.

4-2-2. Dawei development project (2)



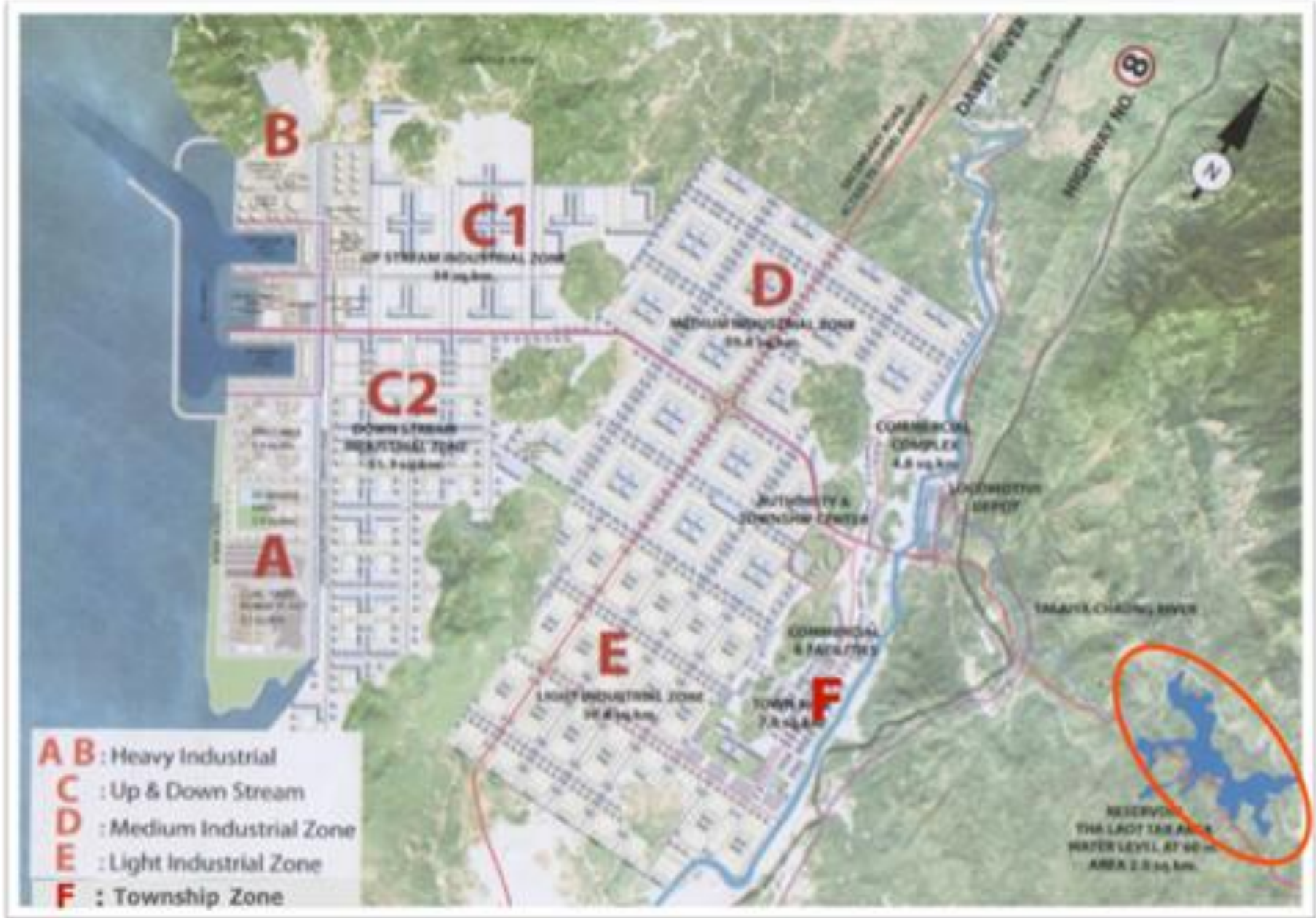
4-2-2-(1). Dawei deep sea port

- Three proposed deep sea ports with the maximum draft of -20m Chart Datum are planned with the capacity of over 200 MT per annum for services of liquid cargo, general cargo, containers and bulk cargo. Dawei Deep Sea Port will be integrated with road and rail transportation right up to the port terminals. In addition, the sea ports will be equipped with a shipbuilding facility capable of providing building and maintenance services for large vessels.
- Port development project has two port areas as follows:
 - a. Deep sea port (North) - Port area is 2.7 km² and 1.5 km² cargo yard and 1.4 km² ship building yard are included.
 - b. Deep sea port (South) - Port area is 3 km² and 1.5 km² ship agriculture yard is included.
- The Dawei Port facilities and industries are well linked. The steel industry will be supported by the bulk port, requiring throughput of iron ore, coal and other materials, and will export its owned finished products totaling 40 million tons a year. The Dawei Port will handle 5 million tons of agricultural produce like rice, sugar, corn, tapioca and other grains a year. The import of coal will be 25 million tons a year. The Dawei Port will handle 3.2 million TEU a year, which is equivalent to 45 million to 50 million ton of general cargo, 35 million tons of chemical and petrochemical, and 36 million tons of crude oil. The handling capacity of the Dawei Port is up to 200 million ton a year.

4-2-2-(2). Dawei industrial estate

- The integrated industrial estate offers a consolidated one-stop industrial production base, consisting of upstream to downstream products in five different zones as follows:
 - ❑ Zone A: Heavy industry zone (38.3 km²) includes coal fired power plant, steel mill, fertilizer, ship building and cargo yards and deep sea port;
 - ❑ Zone B: Heavy industry zone for oil and gas storage, oil refinery, gas separation plant and compound circled power plant;
 - ❑ Zone C: Medium and heavy industry zone (44.7 km²) for upstream and downstream petroleum industry;
 - ❑ Zone D: Medium industry zone (58.6 km²);
 - ❑ Zone E : Light industry zone (43 km²); and
 - ❑ Public area (13.5 km²) for commercial complex, authority center and township and district offices.
- The industrial estate will need at least 300,000 m³ of water per day. A reservoir will be built to provide 100 million m³ to the industrial estate during the four month of dry season.

4-2-2-(2). Dawei industrial estate: Layout plan



4-2-2-(3). Dawei Special Economic Zone

- In order to enhance the Dawei Deep Sea Port and Industrial Estate Project, the previous military government enacted Dawei Special Economic Zone Law as Law No (17/2011) on 27 January 2011.
- The objectives of this law are as follows:
 - a. to implement the Dawei Special Economic Zone by the supervision of the Central Body in accord with the objectives contained in section 3 of the Myanmar Special Economic Zone;
 - b. to emerge as the pivotal place for the trade and transportation of South East Asian Region;
 - c. to develop the businesses of the Dawei Special Economic Zone;
 - d. to create more employment opportunities for the public within the Dawei Special Economic Zone; and
 - e. to develop the infrastructures within the Dawei Special Economic Zone.

4-2-3-(1). Opportunities

- According to a simulation analysis by Kumagai and Isono (2011):
 - (1) MIEC has the largest impacts on Cambodia, followed by Myanmar, Thailand, and Lao PDR;
 - (2) Tanintharyi, where Dawei is located, enjoys the largest impact, equivalent to 9.5% vis-a-vis the baseline scenario;
 - (3) allowing the transit transport in Myanmar is critical for countries other than Myanmar, especially for Thailand;
 - (4) Dawei project has larger impact than Pak Bara project for Thailand, and there is almost no additional impact when we compare Dawei project only and both Dawei and Pak Bara projects;
 - (5) West Bengal and Tamil Nadu have positive impacts while others see slight negative impacts, and the total impacts on India as a whole, in terms of the percentage change in RGDP, is limited, mainly due to the fact that India has higher preference for domestic products.
- **Dawei project will enhance connectivity between Bangkok and Chennai, which can open wide opportunities for the private sector to optimize their production activities in ASEAN and India (through fragmentation and reviewing supply chains).**
- **Having an alternative route, in addition to the existing route via Singapore, would enhance the resilience of regional production networks.**
- Dawei project may provide an attractive industrial location for private firms and factories that are currently located in Thailand and the neighboring countries, including Japanese affiliates, to relocate to.

4-2-3-(1). Challenges

- **Funding problem**: ITD has established a special purpose company (Dawei Development Corporation: DDC), which is wholly owned by ITD. Although ITD has been looking for investors for up to 49% share of DDC, it has long had difficulty in finding partners, mainly because Myanmar has long been under the Western, the US's in particular, sanctions. Large MNCs were thus far reluctant to invest and do businesses in Myanmar, since they are afraid of damaging their reputation in the international community.
- However, the new government of Myanmar, which was established 30 March 2011, is apparently moving forward to political and economic reforms, including the dialogue with Aung San Suu Kyi, the leader of democratic forces, the release of quite a number of political prisoners, relaxing media control and internet access, the consultation with the IMF to restructure the country's highly distorted exchange rate system, and so forth.
- Based on these changes, the US started to talk intensively with the Myanmar government, and people think that the sanctions imposed by them may soon be relaxed, or lifted in due time. The next ASEAN Summit in mid-November will reward Myanmar by allowing it to take a role of ASEAN Chair in 2014. Accordingly, the large MNCs started to pay more attention to Myanmar.
- **Small population in Dawei.**

4-3. Connectivity between Myanmar and Northeast India

- **The weak physical connectivity between Myanmar and North India has been one of the major bottlenecks to enhance the border trade between the two countries.**
- Out of the eight states in Northeast India, four states, namely Arunachal Pradesh, Nagaland, Manipur, and Mizoram, share national borders with Myanmar, and the total length stretches to 1,643km. Along the national border, four land customs stations (LCSs) in (1) Moreh in Manipur / Tamu in Sagaing, (2) Zolkawtar in Mizoram / Rihkhawdar (Chin), (4) Avakhung in Nagaland / Layshi in Sagaing, and (4) Nampong in Arunachal Pradesh / Pangsau in Sagain, have been identified to serve the border trade with Myanmar.
- Out of these, **Moreh LCS has been the busiest, handling almost 99% of the regions' trade with Myanmar, although Northeast India's trade with Myanmar has always remained less than a percent of India's total trade with Myanmar since the opening of Moreh LCS in 1995** (De, 2011).

4-3-1. Moreh/Tamu route (1)

- Moreh (Manipur) and Tamu (Sagain) has been the main gate for the border trade between India and Myanmar.
- The road from Imphal to Palel (49km) is largely 2 lanes, flat terrain, and the surface is fairly paved and maintained. In contrast, the road from Palel to Moreh (60km) is single-lane and mostly mountainous. The surface is paved but not maintained, therefore a number of sections between Palel and Moreh need to be repaired .
- On the Myanmar side, a 150 km road from Tamu, Kalewa, to Kalemmyo and a 10 km road from Kyigone to Kalemmyo were constructed by the Border Road Organization (BRO) of India by 2001, and named as a friendship road.
- The road from Imphal, Palel, to Moreh, and the friendship road from Tamu, Kalewa, to Kalemmyo are integral parts of the Trilateral Highway project under the Mekong-Ganga Cooperation.

4-3-1. Moreh/Tamu route (2)

- The bilateral agreement between Myanmar and India limits the number of tradable items for the border trade to 40, and only in terms of barter trade. Trade imbalance needs to be settled by reverse trade within 6 months, instead of financial settlement, and there's no "formal" foreign exchange facility in the border area. Due to these restrictions, official border trade has not been growing. According to the statistics of Moreh LCS, in FY2010/11, India's export to Myanmar was Rs. 2.6 million of cumin seed, and India's import from Myanmar was Rs. 32 million of betel nuts and Rs 4 million of dry ginger.
- Instead, informal border trade has been growing. As referred in De (2011), the total trade at Moreh including informal volume is estimated at Rs. 2,800 million, which is far more than the official trade statistics, Rs. 150 million, indicating **a significant amount of informal trade across the border, backed by a strong demand in the market.**
- **From the viewpoint of India, there is a fear of possible influx of Chinese products into the domestic market. A proper management of the country of origin by Myanmar government would be of crucial importance, to keep the trade flows under control.**
- Another direction for India and Myanmar might be to consider transit transport agreements involving China and Thailand.

4-3-2. Zolkawtar/Rhee route

- Zolkawtar (Mizoram) and Rihkhawdar (Rhee, Chin) have been the secondary gate for the border trade between India and Myanmar.
- Zolkawtar is 225 km away from Aizawl, the capital city of Mizoram State. The whole stretch from Aizawl to Zolkawtar is largely 2 lanes and highly mountainous terrain, although the surface is paved and fairly maintained as compared to the section between Palel and Moreh in Manipur. Reflecting the better security condition, there is no security checkpoint (Assam Rifles) along the route from Aizawl to Zolkawtar.
- The regulation on border trade is the same with those for Moreh/Tamu border. In Zolkawtar, physical border facilities such as land customs station (LCS), post office, and a bank (State Bank of India) are already developed, and ready to operate. However, the development of “official” border trade is much slower than Moreh/Tamu border.
- If the route from Aizawl to Agartala is improved, and the transit trade through Bangladesh is realized, this route will become the shortest land route connecting Myanmar and Kolkata via Northeast India and Bangladesh.

4-3-2. Nampong/Pangsu route: Stilwell road

- **Ledo road** was constructed during the World War II by the US army to establish a new strategic route connecting between Ledo in Arunachal Pradesh and Bhamo in Kachin to provide the necessary supplies to China and resistance group against Japanese army in the region. Later, Ledo Road was renamed as **Stilwell Road** by Chiang Kai-Shek to praise the achievement of General Joseph W. Stilwell, who conducted the operation.
- Stilwell road passes India/Myanmar border in Nampong/Pangsu, where the bilateral agreement was made to establish border check points. As of today, however, Nampong LCS has not started its operation, and the border is not yet opened for official border trade.
- Reactivation of Stilwell road, including the operationalization of border checkpoints in Nampong and Pangsu, could open wide opportunities for India, Myanmar, and China to explore the full potentials of sub-regional economic integration, together with existing domestic road and rail infrastructure.
- This can be a practical way to materialize its “Look East Policy” for India, and to explore the full benefits of MPAC for ASEAN, Myanmar in particular. And for East Asia as a whole, this is a promising way to pursue deepening economic integration and narrowing development gaps, as the enhanced connectivity among Northeast India, Myanmar, and Yunnan would mitigate geographical disadvantages of, and open new opportunities for the region.

4-4-1. Kaladan Multimodal Transit Transport project

- Kaladan Multimodal Transit Transport (KMTT) Project aims to provide an alternative route that connects Northeast India and the mainland India, Kolkata in particular, through Chin and Rakhine in Myanmar .
- KMTT project includes following infrastructure development: (1) expansion of Sittwe port from the maximum capacity of 4,000 to 7,000 ton; (2) construction of river port in Paletwa; (3) channel dredging of Kaladan River from Sittwe to Paletwa; (4) road construction from Paletwa to Myeikwa at Myanmar-India border (129km) .
- The government of India provided US\$ 76 million for KMTT project, although this does not include the cost for the road construction between Paletwa and Myeikwa.
- KMTT project has already commenced, and planned to be completed within a few years to come. As this project is strongly promoted by India, there is no funding problem. Although the size of the project is much smaller than the mega project in Kyaukphyu supported by China, it seems to be adequate considering the size and scope of economic activity in the neighboring region. In addition, a synergy with Kyaukphyu project is expected.
- Economic viability of the project is still unclear, probably because the project has been driven primarily by political and strategic motives of India and Myanmar.

4-4-2. Bangladesh transit route

- The dependence on “chicken neck” and the expectation on KMTT project in connecting Northeast and the mainland India have roots in the strained relationship between India and Bangladesh. If the transit trade through Bangladesh were allowed with a reasonable level of efficiency, the landscape of this issue would be changed dramatically. Indeed, India and Bangladesh have already reached to an agreement on transit trade through inland waterway (Ganga) in Bangladesh.
- In order to facilitate the border trade between Northeast India and Bangladesh, India has established 26 LCSs along the border, of which 20 are already in operation (De, 2011).
- Among the four states sharing national borders with Bangladesh, namely Assam, Meghalaya, Tripura and Mizoram, Meghalaya is the largest gateway.
- Northeast India’s export to Bangladesh is dominated by raw materials such as coal, limestone, boulders, and agro-horticultural products, while the North India’s import from Bangladesh is largely finished products such as cement, synthetic fabric, readymade garments, and processed foods.
- The enhanced connectivity between India and Bangladesh, both in terms of physical and institutional, could boost the border trade and open new opportunities for Northeast India to invite some of the production processes related to the manufacturing activity in Bangladesh.

4-5-1. Kyaukphyu project: Outline

- Kyaukphyu Deep Seaport, with 91 berths will be built to cover for 11 containers, 19 cargo vessels, 39 petrol chemical carriers, 8 repairing ships, 2 cruise liners and 12 service ships, is under construction near the town in the Than Zit River on Made Island.
- The natural gas produced under the Shwe project will be sold to the affiliate of China National Petroleum Corporation (CNPC), and sent to China via a pipeline that will run across Myanmar. The project was started in 2009. Onshore Gas Terminal (OGT) is being constructed near Kyaukphyu. The construction of OGT was started in 2009 and will be completed in 2013.
- Kyaukphyu-Kunming Oil Pipeline, the Natural Gas Pipeline and the China-Myanmar Economic Corridor are under the arrangement to carry out simultaneously with the deep seaport project.
- An industrial estate will be constructed together with Kyaukphyu Deep Seaport, but the location is still unknown to the public as of today.
- The project of Kyaukphyu - Kunming Railroad is estimated to finish in 2015. The route will pass through the Rakhine, Magway, Mandalay, and Shan. The railroad is divided into 4 sections: (1) from Kyaukphyu, Ann to Minbu. (2) from Minbu to Magway to Mandalay; (3) from Mandalay to Lashio to Muse; and (4) from Muse to Jijo in Myanmar-China border area. The construction of the railroad project has not started yet in Kyaukphyu as of October 2011.

4-5-2. Kyaukphyu project: Opportunities

1. The natural gas and oil pipeline project will bring another large amount of foreign currency to Myanmar. Myanmar currently exports natural gas to Thailand, which accounts for 40-50% of Myanmar's total exports. Myanmar will have another source of foreign currency earnings. The fees for usage of oil pipeline will also bring a considerable amount of foreign exchanges to Myanmar.
2. China can secure natural gas, which is much needed for its rapidly growing economy. The oil pipeline can reduce China's dependence on the Malacca Straits for its importing oil, and diversify its route of sourcing oil from the Middle East and Africa.
3. The construction of deep seaport will provide an opportunity for Kyaukphyu to develop its own industrial cluster. This possible cluster will be enhanced by better connectivity between Kyaukphyu and Muse, the border town of Yunnan Province of China, by road and railway. China may use this corridor to export its goods to India, the Middle East and Europe via Kyaukphyu Deep Seaport.

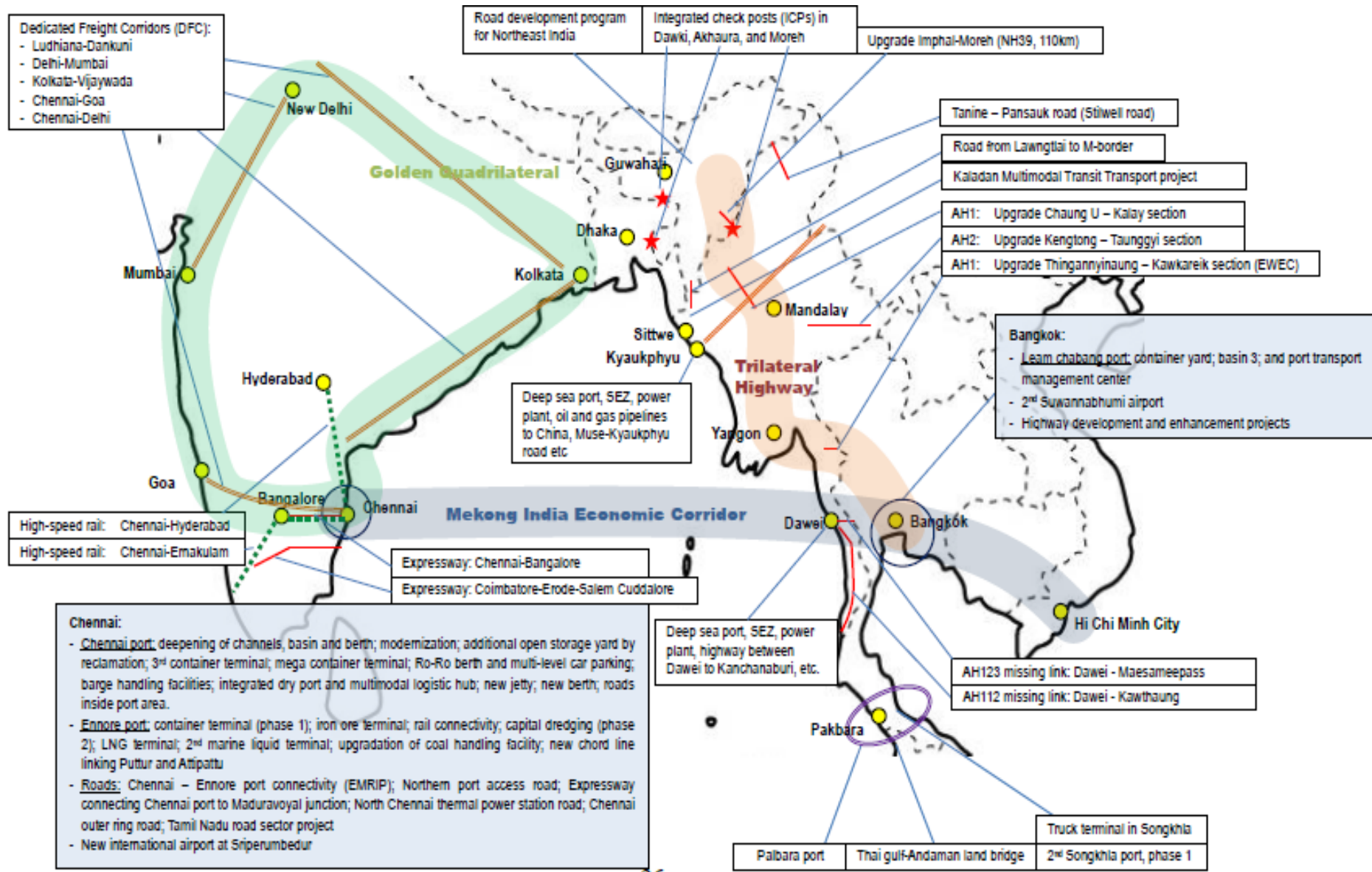
4-5-3. Kyaukphyu project: Challenges

1. The impact of the Shwe natural gas on the Chinese economy and the impact of the oil import through the pipeline to China may be limited, because China's energy demand is huge as compared to the supply capacity of natural gas and imported oil via Kyaukphyu Deep Seaport and pipeline.
2. The gas and oil pipelines run through some part where ethnic insurgencies are rampant. The pipelines can be a good target of the ethnic armed groups. The Myanmar military have to tighten the security along the pipelines and this will cost a lot. Moreover, such an action of the Myanmar army may promote militarization in the regions, which may cause human rights abuses.
3. The proposed industrial estate has less prospects to succeed thus far. The Kyaukphyu area is remote, rural, and less connected with other parts of Myanmar. The deep seaport is not sufficient to create an industrial cluster. How to attract potential investors is a big challenge for the Myanmar government.
4. There exists anti-Chinese sentiment among Myanmar local people. This may be related to the way of implementation of big projects of Chinese companies financed by the Chinese government. It is often said that the Chinese companies do everything by their own resources including laborers, and the local firms and people cannot enjoy the related works. Information of the projects is not well disclosed, and so forth. How to cooperate with Myanmar firms and people to implement the big projects is also important for China.

5-1. A regional framework

- Multi-modal approach
 - Maritime: Dawei, Kyaukphyu, Sittwe, etc
 - Inland waterways: Kaladan, Ganga delta
 - Land: NH network, AH1, Stilwell Rd., new Burma Rd., etc.
 - Air: ASEAN-India Air Transport Agreement, emerging LCC network
 - Connectivity among these different modes of transportation.
- Multi-functional approach
 - Physical connectivity: roads, ports, SEZs, gas pipelines, etc.
 - Institutional connectivity: trade facilitation, trade and transit trade agreement, etc.
 - People-to-people connectivity: ethnic groups
- Multi-tier approach: Conceptual framework of CADP
 - Tier 1: Bangkok, Chennai, Delhi, etc
 - Tier 2 (existing): Kolkata, Dhaka, Kunming, etc
 - Tier 2 (emerging): Yangon, Mandalay, Dawei, Kyaukphyu, etc
 - Tier 3: others

5-2. Key infrastructure projects (1)



5-3. Key infrastructure projects (2)

- There are two main routes, namely **the sea route along MIEC** and **the land route along the Trilateral Highway**. Although the designed route of Trilateral Highway ends at Kohima in Northeast India, it is expected to connect to mainland India through the existing national highway network in India via “chicken neck,” through the multimodal transport corridor being developed under the Kaladan Multimodal Transit Transport project, or through Bangladesh using its highway network or inland waterway.
- **Development projects in Dawei are of the primal importance for the successful completion of MIEC.** Although there is a comprehensive plan including a deep sea port, a special economic zone, highway to Thai border, a power plant, and so on, the actual construction work has just started and will take several years for completion. In addition, there are a lot of challenges to explore the full potentials of the plan, particularly in inviting foreign investment in Dawei. Furthermore, it is important to establish an effective and efficient institutional arrangement to allow transit transport in Myanmar part of MIEC, that is, between Maesameepass (Thai border) and Dawei. ASEAN’s three framework agreements on transport facilitation are to be implemented by the year 2015, with emphasis on the designated transit transport routes (TTRs). The route connecting Kanchanaburi and Dawei (AH123) is not included in the “designated” TTRs. **As the completion of MIEC is already agreed as one of the strategic actions in MPAC, this route should be included in the designated TTRs.**

5-3. Key infrastructure projects (3)

- **Chennai and surrounding areas have a number of infrastructure projects as well, particularly to expand the capacity of ports and airport, and to enhance the road and rail networks connecting Chennai with other parts of India.** Indeed, reflecting the rapid growth of Chennai and surrounding areas, the capacity of Chennai port, including the backyard space, and the access to the port have been identified as key bottlenecks for further development of the region. This problem is well addressed by the planned expansion of ports of Ennore as well as Chennai, and the plan to enhance the connectivity between the two ports. In addition, as Chennai is a growing hub of automotive industry, the planned construction of a Ro-Ro (roll-on, roll-off) berth and a multi-level car parking is expected to have a major impact. With all these infrastructure projects, Chennai and surrounding areas will be well prepared as the gateway connecting ASEAN and India.
- Trilateral Highway is from Bangkok to Mae Sot in Thailand, from Myawaddy,, Mandalay, Kaleymyo, to Tamu in Myanmar, and from Moleh, Imphal, and to Kohima in India, tracing the Asian (and ASEAN) Highway No.1. As the routes in Thailand and India are already well developed, with an exception that a mountainous section between Moreh and Palel would need moderate repair or upgrading works, the remaining issues are to upgrade physical road infrastructure in Myanmar and to establish effective and efficient institutional arrangement to facilitate cross border trade and transportation.

Thank you very much for your attention.

Comments welcome

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