Chapter 3

BORDER AREA DEVELOPMENT IN THE GMS: TURNING THE PERIPHERY INTO THE CENTER OF GROWTH

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ABSTRACT

Border area development is neither an original nor a brand new idea of the author. It has long been discussed in a variety of words including border industries, growth triangles, growth areas and economic corridors. The Greater Mekong Subregion (GMS) Economic Cooperation revitalized the border area development as a new development strategy for less developed countries such as Cambodia, Lao PDR and Myanmar. This chapter examined the location advantages of border areas, in particular of those between less developed regions and developed ones. They include complementary factor endowment, cross-border infrastructure services and the degree of economic integration and border barriers. The industry located in border areas has a growth potential, as it can exploit the location advantages of the abundant and cheap labor force in less developed regions, while avoiding high service link costs and unstable utility services that accrue from underdeveloped infrastructure in less developed regions, by utilizing cross-border infrastructure services. Special economic zones (SEZs) located in the border areas can effectively exploit such location advantages and contribute to the formation of industrial clusters in border areas.

INTRODUCTION

Three economic corridors in the Greater Mekong Subregion (GMS) are emerging as a multi-country transport artery across mainland Southeast Asia. The economic corridor approach was first discussed in the GMS programs in late 1998 as a key means of further developing cooperation in the GMS (ADB, 2001:xi). Three major routes were identified namely, North-South Economic Corridors, East-West Economic Corridors and South-South Economic Corridors. The infrastructure development of these economic corridors has steadily progressed. North-South Economic Corridors can connect Kunming to Bangkok if the remaining parts of Lao PDR and Myanmar are

completed. East-West Economic Corridors can connect almost all parts of the route except the Myanmar part of approximately 165 km long. Some logistics companies have also started commercial transport services through these economic corridors. For example, Dragon Logistics Co., Ltd., a Japanese-affiliated company, started its cross-border transport services for the route from Bangkok to Hanoi across the second Mekong Bridge connecting Mukdaharn in Thailand and Savannakhet in Lao PDR, taking four days. It also provides further transport services from Hanoi to Guangzhou and Hong Kong via Pingxiang-Lansong's Vietnam-China border gate. These two routes cover the four countries in the GMS.

However, the economic benefits arising from enhanced transport connectivity in the GMS may not be equally enjoyed by all the member countries, regions and cities. For example, increased cross-border traffic between Bangkok and Hanoi utilizing the EWEC may just pass through Lao PDR without bringing any meaningful economic benefit to this landlocked country. On the contrary, the increased traffic may become a burden on the Lao government due to the incurred road maintenance costs. Moreover, small and medium cities and towns may also face the possibility of being marginalized under the more integrated regional economy.

How to make the most of the economic corridors for the overall economic development in GMS countries remains an important task and challenge, particularly for least developed economies in the region, i.e., Cambodia, Lao PDR and Myanmar. The master plans of economic corridors included the so-called nodes development for industrial clusters as one of the effective measures for this purpose (See ADB's master plan, 2001). GMS countries, less developed regions in particular, will be able to tap the spillover effects of economic corridors into the rest of their economies through such nodes of industrial clusters.

Candidates of locations for nodes development include metropolitan cities such as national capitals, transport hubs and gateways such as sea ports and road and railway junctions, and border areas in the masterplan. It seems natural that metropolitan cities including national capitals and transport hubs and gateways are selected as candidate locations for potential nodes for industrial clusters.[1] However, why are border areas

[1] See Chapter 2 (Ishida) in this volume for details.

and/or towns selected as potential nodes of industrial clusters? What are the specific location advantages of border areas for industrial clusters? These are not self-evident.

Nevertheless, some GMS countries have already started to develop industrial clusters in the border areas. For example, the Cambodian government approved 18 special economic zones (SEZs) in the nation as of November 2007, and many of them are located along the border areas. Why do both policy makers and private entrepreneurs pay attention to border area development? What are the competitive edges and location advantages of border areas? This paper tries to investigate the source of competitiveness of border areas as industrial locations. Moreover, the author considers how to utilize such competitive edges of border areas for the development of less developed economies, i.e. CLMV, rather than the relatively developed ones such as Thailand and China.

The first section examines the concept of border area development from a historical viewpoint. Border area development has long been discussed in various words such as border industry and growth triangles. The GMS Economic Cooperation successfully revitalized such development and cooperation schemes in the 1990s, following the end of the Cold War. The second section examines the competitive edges of border industry from three viewpoints, i.e., complementary factor endowment, cross-border infrastructure services and balance between economic integration and border barriers. The third section provides two case studies of border industry: one is the garment industry in the Thai-Myanmar border areas and the other is the SEZs in Cambodia. The fourth section considers how to promote border industry on the less developed regions rather than on the more developed regions. In the last section, we will summarize the discussion and mention policy recommendations.

1. BORDER AREA DEVELOPMENT: NEW WINE IN OLD BOTTLES

Border area development is neither an original nor a brand new idea of the author. It has long been discussed in a variety of words including border industries, growth triangles, growth areas and economic corridors. They have different schemes and programs with diverse objectives. For example, Mexican border industrialization had often been discussed in the context of creating an economic fence that is expected to absorb the

potential migrants from Mexico to the Unites States (Rivera-Batiz, 1986:263). South Africa tried to promote border industries to reduce overconcentration in metropolitan areas (Best, 1971:329-330). In these examples, border area development serves more political and social objectives than economic ones.

On the contrary, growth triangles were conceptualized and proposed as a growth strategy of transnational regions. Growth triangles are probably most well-known sub-regional economic cooperation schemes including border area development. The term of growth triangle came into common use when then Deputy Prime Minister of Singapore, Goh Chok Tong, used it in December 1989 (Min Tang and Myo Thant, 1994:2). They are defined as transnational economic zones spread over well-defined, geographical proximate areas covering three or more countries such as Batam-Bintang-Karimn Growth Triangle, Southern China Growth Triangle, the Tunmen River Area Development Programme, Northern ASEAN Growth Triangle and Eastern ASEAN Growth Triangle. Growth triangles typically include the market economy and transitional economies that proceed from planning one to market-oriented one.

Just before the end of the Cold War, CLMV countries started to transform their socialist planning economies to market-oriented ones with open-door policy. The GMS Economic Cooperation, initiated by the ADB, grasped such an opportunity in the early 1990s and successfully revitalized a sub-regional economic cooperation in mainland Southeast Asia.

In the GMS, Thailand occupied the central part of the sub-region and recorded a relatively high economic and industrial growth. When CLMV countries opened the door to the regional markets, they had no option but to integrate themselves with the Thai economy. During the Cold War period, the cross-border economic activities between Thailand and CLMV countries and China had long been strictly restricted except for cross-border trades, which were often informal and illegal. After the end of the Cold War, however, the cross-border economic activities have become activated and border industry has begun to grow to form industrial clusters in border areas.

The GMS Economic Cooperation strongly promoted the regional integration between the CLMV economies and the Thai economy and later the Chinese one, and this was the key element of this regional cooperation schemes. Whatever the designations are, border area development has long been discussed in this region by policymakers,

economists and businessmen. Border area development has recently attracted more and more attention and been revitalized by the GMS Economic Cooperation.

2. COMPETITIVE EDGE OF BORDER INDUSTRY

Border industry[2] is one of the most important components of border area development. What factors promote or hinder border industry? There are three factors that influence the competitiveness of border industry, i.e., complementary factor endowment, availability of cross-border infrastructure, and balance between economic integration and border barriers.

2.1 Complementary Factor Endowment

From an economic point of view, a border is nothing but an impediment to free mobility of productive inputs, such as labor, capital, technology and information. As a result, a border creates differences in factor prices across the border, and complementary inputs become available alongside each other in border areas. Such complementary inputs can be easily transported across the border and combined for production on either side of the border. A border industry can also grow by exploiting the differences in the endowment of productive inputs across the border.

In the GMS, Thailand and China are relatively advanced economies, while CLM are still in their rudimentary development stage. On the other hand, Vietnam is apparently entering a more advanced stage of economic development. Border areas between relatively advanced and less developed economies offer their respective complementary location advantages. For example, CLM economies provide a labor force, while Thailand offers major inputs (materials, parts, and components), technology, and capital. In border areas, those complementary resources, which exist side by side across borders, are combined to produce cost-competitive products. Of course, some of these resources must be transported across the border to be utilized for production in a border town. Thus, a certain degree of cross-border mobility of productive inputs is required for the

[2] Border industry here is simply defined as industries located in border areas of two or more countries. This section is mainly drawn from Kudo and Kuroiwa (2009: forthcoming).

birth and growth of a border industry. The relations between degrees of economic integration and growth and decline of border industry will be examined later.

2.2 Cross-Border Infrastructure Services

In East Asia, service link costs—costs for connecting remotely located production blocks—have been reduced substantially. This made it possible for multinational corporations (MNCs) to aggressively exploit wage differences between developed and less developed economies in East Asia and to develop extensive production and distribution networks in the region.

However, CLM countries, less developed Southeast Asian economies, have yet to be integrated into such networks in spite of their abundant, reasonably well-educated and low-waged labor force. Underdeveloped infrastructure, notably in transportation and communication, hinders them from participating in production and distribution networks and, unless good infrastructure is developed, the savings in labor costs by relocating labor-intensive activities to less developed economies are more than offset by increases in service link costs and other costs (fixed costs of setting up new factories, high utility service costs, etc.). Particularly in labor-intensive export sectors, high transport costs could easily wipe out export profitability even if wage levels fell substantially (Fujimura, 2006:52). We should note that the industrial sector of CLM economies is, and will be for a foreseeable future, highly dependent on labor-intensive industries.

Here, a border industry could offer a solution for overcoming such a problem. Namely, a less developed economy in Southeast Asia can participate in the production network via border areas. The required infrastructure investment to connect its border areas with the existing infrastructure in neighboring countries may be far smaller than that for developing a nationwide infrastructure system. For example, it would be very costly to construct a deep-sea port somewhere on the Myanmar coast. Furthermore, the new port may not be fully utilized because of the weak agglomeration of industries, and it may lead to a shortage of cargoes and expensive shipping costs. Firms in Myanmar-Thai border areas, on the other hand, can gain access to the well-developed Bangkok Port and Laemg Chabang Port via well-connected road networks in Thailand.

In border areas, firms would also have better access to utility services such as electricity, water, and telecommunications that are provided by more advanced neighboring countries. Thus firms located in border areas can enjoy all the benefits of lower service link costs (i.e. lower transport and communication costs) and more reliable and cheaper utility services (especially electricity) as well as lower labor costs.

2.3 Economic Integration and Border Barriers

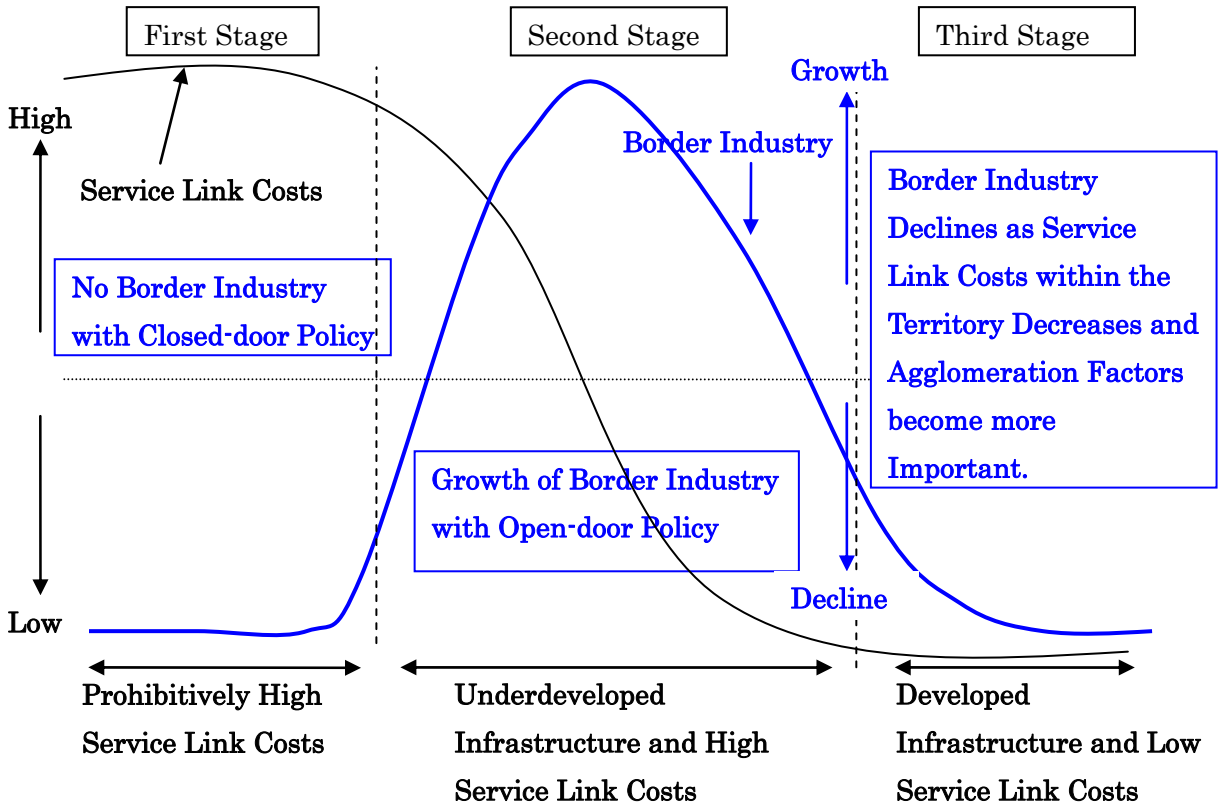
The above two production factors—lower service link costs and more reliable and cheaper utility services—provide location advantages of the border areas over other regions, including metropolitan areas and cities. Figure 1 shows the relationship between the service link costs and the growth of border industry. Initially, the borders of CLMV countries were closed for all practical purposes during the socialist period, and thus border industry could not emerge (the first stage). In this stage, only illegal, irregular and small-scale cross-border smuggling was conducted.

The open-door policy of CLMV and peace in the border areas following the end of the Cold War improved security and lowered border barriers, allowing a border industry to emerge and develop (the second stage). A border industry grows rapidly due to the location advantages mentioned above, i.e., lower service link costs, more reliable and cheaper utility services, and an abundant and cheap labor force.

However, as the infrastructure develops in a less developed economy, the location advantages of border areas (or the competitiveness of border industry) diminish (the third stage). This is because, on the one hand, the development of infrastructure, especially in transportation, telecommunications, electricity, and water, reduces the service link costs and utility service costs within the territory and therefore diminishes the cost advantages of border areas. At the same time, the advantages of other areas, especially metropolitan areas, may become more important at this stage. Metropolitan areas, for example, can provide a highly qualified labor force and specialized parts and service suppliers as well as lucrative local market. The metropolitan area can also furnish more frequent and cheaper transport services. Such agglomeration effects will become crucially important as the industrial activities in the area are upgraded, shifting from labor-intensive to capital- and/or knowledge-intensive activities. As a result of

lower service link and utility service costs, the economies of agglomeration in the metropolitan area will finally eclipse the initial location advantages of the border industry and eventually retard its growth.

Figure 1: A Relationship between Service Link Costs and Border Industry



(Source) The author.

3. CASE STUDIES OF BORDDER INDUSTRIES

As case studies, this section examines the garment industry in Mae Sot[3], which is an emerging border industry on the Thai-Myanmar border and SEZs in Cambodia. Based upon the discussion mentioned above, this section examines existing cases to see how the border industry exploits their location advantages.

[3] This case is based on Kudo (2007) and ERTC (2007).

3.1 Garment Industry in Thai-Myanmar Border Areas

Mae Sot is a small town in Tak Province north of Thailand.[4] A small river called the Moei separates Mae Sot and Myawaddy, a small town in Karen State in Myanmar. The two towns are also situated on the GMS's East-West Economic Corridor (EWEC) that connects Da Nang in Vietnam and Mawlamyine in Myanmar via Laos and Thailand.

According to the IDE-ERTC joint survey[5], the garment industry in Mae Sot is quite young. Six out of 10 garment firms surveyed were established after 2001, while two were set up in 1998, and one firm in 1990 and 1995, respectively. The average number of employees was 423. Workers from Myanmar comprised 86% of the total number of employees. The firms operated for 296 days in 2005, or 25 days per month on average.

Location Advantage (1): Availability of Myanmar Migrant Workers

An obvious location advantage of garment industry of Mae Sot is availability of Myanmar migrant workers. Tak Province is one of the places where abundant Myanmar labor is available and employable. In terms of the number of work permits issued to Myanmar nationals in 2004, Tak Province with 50,932 permits ranked third, followed by Bangkok with 98,308 and Samut Sakhon with 67,799 (Huguet and Punpuing, 2005:30-34).[6]

Out of 100 Myanmar workers interviewed, 61 were female. The average age of the workers was 27 years old, ranging from the youngest at 18 to the oldest at 36 years old. In terms of their hometowns, 23 were from Myawaddy; 20 were from Pa-an, the capital of Karen State; 11 were from Mawlamyine, the capital of Mon State; nine were from

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[4] The population of Mae Sot in 2000 was 106,413 according to Wikipedia (available at http://en.wikipedia.org/wiki/Mae_Sot), accessed on September 11, 2008.

[5] The Institute of Developing Economies (IDE-JETRO) conducted a joint study with the Economic Research and Training Center (ERTC) of Thammasat University on the economic and social aspects of migrant workers in the garment industry in the Thai-Myanmar border areas in August and September 2006. The study included a questionnaire survey covering 10 garment factories and 100 Myanmar migrant workers. See ERTC (2007) for details.

[6] The Thai government has responded to requests from employers to allow them to hire foreign workers to fill labor shortages in the industry in particular job areas commonly referred to as the "Three Ds", which stand for "difficult, dirty, and dangerous". Following a Thai Cabinet Decision in April 2004, the most comprehensive registration until then took place in that year when the Thai Ministry of the Interior registered 1,280,000 foreigners during the month of July. Of these, 814,000 had applied for work permits by mid-December. Of the 814,000 applicants, 610,000 or three-quarters were from Myanmar.

Yangon, the former national capital; six were from Thaton, the former center of the ancient Mon Kingdom; and four were from Bago, the capital of Bago Division.[7] Many of workers were understandably from nearby towns like Myawaddy and Pa-an. It is however notable that quite a few were from rather distant places like Yangon and Bago and, in terms of ethnicity, 96 workers were Burmese and the rest were Karen, Kachin and Akha. These facts imply that the labor market for the garment industry in Mae Sot encompasses quite a large geographical area along the main road that connects Myawaddy and Yangon.

Seventy-four out of 100 Myanmar workers migrated to Thailand after 2002. In the years 2004 and 2005 in particular, the entry of 25 and 27 persons, respectively, was recorded. Rapid increases in these two years may be related to the relaxation of the Thai government's policy on migrant workers. It may also be related to the collapse of Yangon's garment industry after the United States' sanctions of July 2003, which banned imports of made-in-Myanmar products to the United States. The garment factories in Yangon were closed and some of their workers came to the factories in Mae Sot.

Employees worked for eight hours a day, six days a week. Ninety-two workers earned only the minimum wage of 143 baht (equivalent to US$3.80 at the exchange rate of September 2006) a day, six workers earned 150 baht per day and two workers earned 160 baht or more per day. Their basic monthly wage amounted to 3,575 baht (143 baht/day x 25 days) or US$94, while garment workers in Yangon earned, on average, 17,800 kyat per month, equivalent to about US$20 per month in 2004 (Kudo, 2005). Most workers in Mae Sot also received overtime pay with the higher rates being 23-27 baht per hour (equivalent to 184-216 baht per day). Nominal wage differences between the garment industry in Yangon and in Mae Sot were almost five-fold, and this wage gap attracted workers from Myanmar even from distant places. This indicates that as long as there is a significant difference in wages, border areas will be able to attract workers from other areas and make up for the shortage of the labor force in the remote area. Thus, the availability of Myanmar migrant workers in Mae Sot is an obvious location advantages of border areas.

[7] Some places indicated by interviewees were not identified because of incorrect transliteration of the Myanmar language by Thai enumerators.

Location Advantages (2): Logistics

The garment industry in Mae Sot, and possibly Myawaddy in the future, has an advantage in logistics over Yangon. Let the author take an example case where a garment manufacturer in Mae Sot exports to Tokyo. The 490-kilometer road connecting Mae Sot and Bangkok is paved well, and vehicles can cover the distance in 12 hours at a cost of about US$290 (Table 1). In Bangkok and its suburbs, there are two major ports: one is Klong Toey Port and the other is Laem Chabang Port, the latter of which is one of Asia's leading ports and the most important commercial deep-sea port in Thailand. It takes eight to nine days from Laem Chabang Port to Tokyo/Yokohama Port and costs US$1,340 to ship a 40-foot container.[8] Products made in Mae Sot arrive in Tokyo in about 10 days at an approximate cost of US$1,630.

Table 1: Comparison between Road and Marine Transport

	Route	Distance (km)	Time (Hour)	Cost (US$)	Conditions
Road	1. Bangkok-Mae Sot	490	12 Hrs (1st Day)	290	Very Good
	2. Mae Sot-Kawkareik	75	4 Hrs (2nd Day)	440	Very Bad
	3. Kawkareik-Yangon	380	15 Hrs (3rd Day)		Good
	Total	945	3 Days	730	
Marine	1. Bangkok-Bangkok Port	20-30	1-2 Hrs	80	Very Good
	2. Bangkok Port-Yangon Port	approx. 4000	20 Days	1,000	-
	3. Yangon Port-Yangon	20-30	1-2 Hrs	50	Good
	Total	-	approx. 1 Month	1,130	

(Note) Costs for 20-foot container.

(Source) *JETRO Censor* in Japanese, February 2006, p.19.

Alternatively, let the author consider another example case where a garment manufacturer in Yangon exports to Tokyo. Most factories in Yangon have good access to Yangon Port, taking one or two hours, at an approximate cost of US$50. However, no vessels sail directly to Japan and cargoes have to be transshipped at Singapore Port. It takes four to five days and costs US$650 to ship a 40-foot container from Yangon Port to Singapore Port.[9] Moreover, only two vessels are available every three days, and transshipment takes at least another day. Shipment from Singapore to Tokyo/Yokohama

[8] Based on information from JETRO (2007).

[9] Interview with the MGMA chairman on September 4, 2007.

Port takes seven days and costs US$940. In total, it takes 13 days from Yangon to Tokyo and costs US $1,740, plus transshipment charges in Singapore Port.

It is obvious that the latter route takes more time and expense by a significant margin. Moreover, garment firms in Yangon need to apply for export and import licenses for each transaction and it requires them to travel all the way to Naypyidaw, the new capital of Myanmar, located about 300 kilometers north of Yangon. It usually takes about two weeks to obtain one export and/or import license, as the Trade Policy Council approves each license individually. At the same time, cargoes are often kept in port for a considerable time for inspection and customs clearance. On the other hand, Bangkok Port and Laem Chabang Port are said to provide much more efficient services.

The garment industry in Mae Sot also has an advantage in the procurement of raw materials. The survey shows that four out of the eight respondent firms used only Thai domestic raw materials. For one respondent, domestic materials accounted for 73% of materials with the remaining 27% imported, and three used imported materials only. Conversely, the garment industry in Yangon has been completely dependent on imported raw materials. Firms in the garment industry actually needed to import all materials—fabrics, accessories, thread, and even plastic bags—with the exception, perhaps, of cardboard boxes. Furthermore, it takes a lengthy period of time in Myanmar to import materials. Thus garment firms in Yangon need a longer lead time for production and the delivery of products. The longer lead time required hinders Myanmar's garment industry from sewing seasonal and/or fashion apparel items, which require quick responses. On the other hand, it is a strong advantage for garment factories in Mae Sot to be able to use both domestic and foreign raw materials.

Location Advantages (3): Cross-border Supply of Electricity

Myanmar has experienced a long-standing national power shortage since the late 1990s. Shortage of electricity is one of the most serious problems in the garment industry as well as in other manufacturing sectors in Myanmar. In a survey of the garment industry in Yangon conducted by the author in 2005, firms were asked to rate how severely the poor infrastructure services in telecommunications, transportation, and electricity affected their operations. Table 2 shows that electricity is regarded as a very severe problem in garment production. In the same survey, 69 firms among the 139

respondents answered that they had experienced power interruptions more than three times a day and that these had often lasted for more than three hours. Therefore, most manufacturers (134 out of 141 factories) had to use their own generators or share generators with other factories.

Table 2: Garment Factories' Ratings on Infrastructure Services in Yangon, 2005

	Very Severe Obstacle	Major Obstacle	Moderate Obstacle	Minor Obstacle	No Problem
Telecommunications	3	18	30	34	56
Electricity	53	55	17	8	8
Transportations	0	2	20	35	84

(Source) Kudo (2006: 113).

On the other hand, firms in Mae Sot are provided with power from a Thai company and therefore have a reliable electricity supply. Moreover, many households in Myawaddy already buy electricity from a Thai company in Mae Sot, which is however deemed illegal by the State-owned Economic Enterprises Law in 1989. The Myanmar consumers pay electricity charges in baht, the use of which is also illegal, as possession of foreign currency by Myanmar citizens is prohibited by law.

The provision of electricity to households in Myawaddy through the power grid in Mae Sot seems to be based on a mutual understanding between the regional authorities in both countries. Once legal and institutional arrangements have been made between the two governments, factories located in Myawaddy could be officially and regularly provided with electricity from the Thai side. The electricity supply from the Thai side to the Myanmar side shall be a significant location advantage of Myawaddy over major cities in Myanmar proper including Yangon.

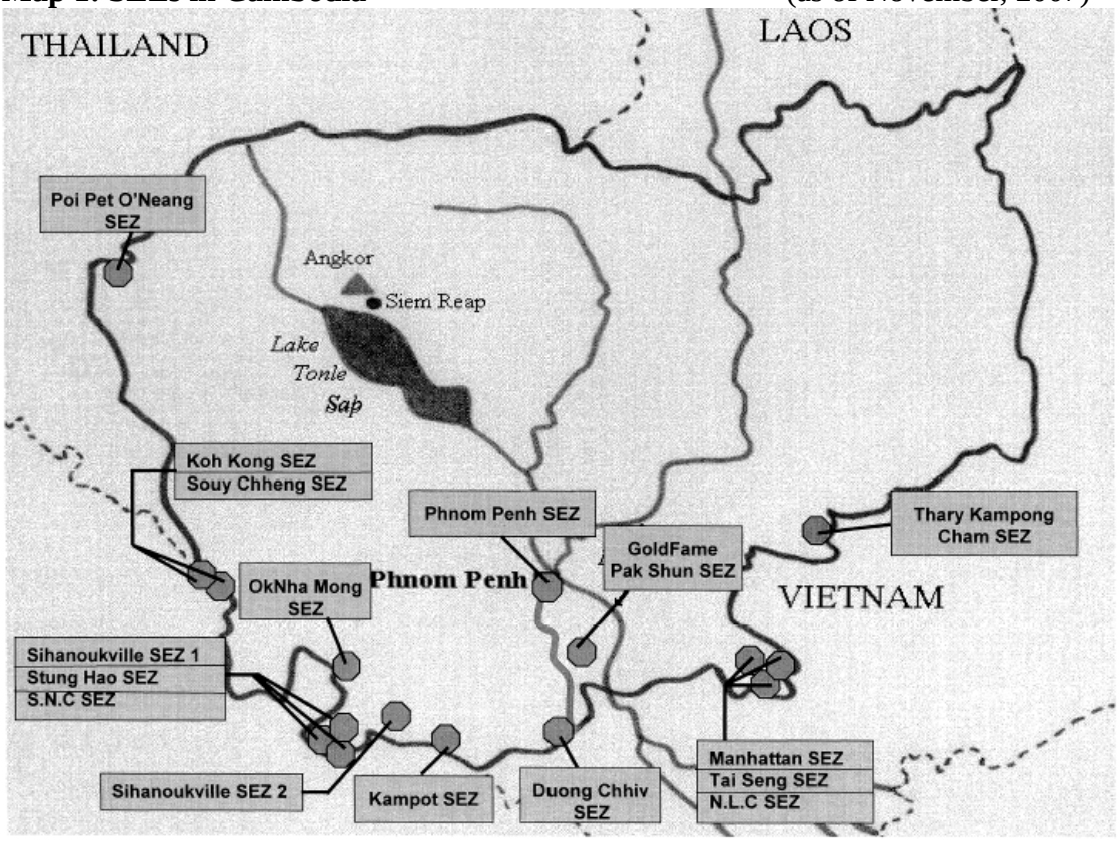
3.2 Manhattan SEZ in Cambodia

The Cambodian government approved 18 SEZs in the nation as of November 2007, and many of them are located along the border areas (See Map 1). One of the earliest established SEZs in Cambodia is Manhattan SEZ, which is located in a small border town called Bavet, opposite Moc Bai of Vietnam. The cross-border gate between Bavet

and Moc Bai is on the GMS's Southern Economic Corridor that connects Bangkok of Thailand and Ho Chi Minh of Vietnam through Phnom Phenh of Cambodia.

Two factories started to operate and export their products to the rest of the world through Vietnam. The factories can employ Cambodian workers with the minimum wage of US$ 50 per month, which is cheaper than that of Ho Chi Minh and its suburbs. On the other hand, electricity is supplied to the factories from the Vietnam grid, which is cheaper and more reliable than that of Cambodia. The products can be transported to Ho Chi Minh Port, which is located just 60 km away from the Bavet-Moc Bai border. Ho Chi Minh Port is one of the well-developed international ports and has a good access to the regional and global markets. The machineries and intermediate goods necessary for production also can be supplied from Ho Chi Minh and its suburbs, which have relatively thicker industrial clusters than Phnom Penh.

Map 1: SEZs in Cambodia (as of November, 2007)



(Note) In this map, only 16 SEZs are shown.
(Source) Documents obtained from the Cambodian SEZ Board (CSEZB) on November 16, 2007.

Thus, firms in Manhattan SEZ can make the most of its location advantages of border areas between the less developed region (Cambodia) and the more developed region (Southern Vietnam). It is noteworthy that most of SEZ developers in Cambodia are private companies, and present and potential investors in those SEZs are also private firms. The private sector and the public sector find business and investment opportunities in border areas, and regard border areas as a competitive location.

4. WHY IS BORDER INDUSTRY NOT LOCATED IN LESS DEVELOPED ECONOMIES?

The border industry is, in theory, expected to be geographically located in the less developed economy. In terms of physical service link costs that are largely determined by geographical distance, it makes no difference on which side of the border firms are located. Infrastructure services such as electricity, telecommunications, and access to international ports and airports can be provided from advanced neighbors. Access to intermediate goods is also provided by suppliers located in the neighbors.

However, a border industry could enjoy the benefits of lower labor costs much more if it is situated in the less developed economy. In the case of garment industry in Mae Sot, factories could employ more workers at lower wages on the Myanmar side of the border areas than on the Thai side, as they do not need to follow the minimum wage regulations and restrictive migrant worker policies established by the Thai government.

Nevertheless, it is particularly surprising that no border industry is located on the Myanmar side. In the case of the Thai-Myanmar border area, as we have examined, all factories are located on Thai soil, and Myanmar migrant laborers move to Thailand and work there. This is obviously due to insufficient investment and an inferior business environment in Myanmar where many restrictive regulations, both explicit and implicit, are imposed on foreign firms by the host government. For example, Myanmar's Foreign Investment Law sets the minimum capital investment at US$500,000 for manufacturing firms, and such an amount is often more than Thai small and medium-size enterprises (SMEs) can afford.

In addition to such an explicit regulation, lack of policy consistency and unpredictability of policy implementation and sporadic closure of border gates seriously

impede Thai firms from crossing the Moei River. The Myanmar government also strictly controls external trade, particularly cross-border trade, by means of export and import licenses, an export-first policy and trade bans on certain items. It also restricts foreign currency transactions, which then create significant disparities in exchange rates from the official rate of about six kyat to one US dollar to the market rate of about 1000 kyat as of February 2009.

The Myanmar government frequently changes rules and regulations without prior consultation with the business sector or even without prior notice and this attitude seriously undermines the stability and predictability of the business environment in Myanmar. Such unfavorable government policies increase the institution-wise service link costs across the Thai-Myanmar border. If enterprises were to move to the Myanmar side, Thai investors would face an extremely uncertain business environment. In the border areas, divisions are created not by the distance but by the impermeability of borders and differences in business and investment environments. Thus, Thai firms in the border area would not choose to move to Myanmar soil.

On the contrary, SEZs in the border areas of Cambodia are located on the Cambodian side rather than on the Thai or Vietnam side. This is probably because investment and business environment in Cambodia is relatively better than that of Myanmar. Moreover, regional economic cooperation schemes, such as the GMS, contribute to the development of the cross-border infrastructure, cross-border institutional frameworks such as the cross-border transport agreement (CBTA), single-window and single-stop services, and truck passports. These efforts will reduce the transport and transaction costs across the border and strengthen the location advantages of border areas on the side of less developed economies.

CONCLUSIONS AND POLICY RECOMMENDATIONS

This chapter examined the location advantages of border areas, in particular of those between less developed regions such as CLMV and developed regions such as Thailand and China. We identified several factors that promote location advantages of border areas and growth potential of border industry. The border industry has a growth

potential, as it can exploit the location advantages of the abundant and cheap labor force in less developed regions, while avoiding high service link costs and unstable utility services that accrue from underdeveloped infrastructure in less developed regions, by utilizing cross-border infrastructure services from the developed side.

What policy recommendations can we draw from the discussions above? The CLMV economies have not been deeply integrated into the East Asian production and distribution networks in spite of their various location advantages, notably abundant, reasonably well-educated and low-waged labor forces. Underdeveloped infrastructure, logistics in particular, and poor investment climate hinder them from participating in such networks in East Asia. Service link costs and other business costs in CLMV have not become low enough to realize total costs reduction. Such costs can easily offset the advantages of low-waged workers in CLMV countries.

Special economic zones (SEZs), including export processing zones (EPZs), could be a good policy tool to reduce such business and transaction costs embedded in the CLMV economies. SEZs will provide well-developed infrastructure with intensive capital investments in the demarcated production sites. SEZs will also provide efficient administrative procedures including single-stop and single-window services for export and import, business services such as offshore banking and logistics, and governmental supports for human resources development and technological transfer. All these efficient services will be made possible in SEZs by insulating them from the rest of the country, where investment climate is generally poor.

SEZs can be located in the border areas, since border industry can offer a solution on how to overcome high business and service-link costs in the CLMV economies. SEZs located in the border areas can connect themselves to the regional and global economy through their borders with neighboring countries, Thailand in particular, which have logistic hubs such as deep sea ports, airports, and trunk roads. Thus, firms including multi-national companies (MNCs) located in the border areas of CLMV can enjoy location advantages such as low-waged labor while realizing total cost reduction with lower service link costs. SEZs in the border areas also can provide efficient cross-border infrastructure and institutions, which eventually enhance the competitiveness of border areas.

In this way, border areas in CLMV are no longer backward regions that are dependent on assistance from the center. On the contrary, they are situated on the frontiers and are conduits which capture business opportunities originating from emerging countries such as Thailand and China, and pass them into the core of the CLMV economies. The governments of CLMV countries need to recognize the potential of border areas and to position border area development, including promotion of border industry, in their national industrial development strategy.

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