## CHAPTER 8

# New Division of Labor between Japan and CLMV Countries: A View from Japan's Growth Strategy

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#### This chapter should be cited as:

MAKISHIMA, Minoru 2012. "New Division of Labor between Japan and CLMV Countries: A View from Japan's Growth Strategy" in *Industrial Readjustment in the Mekong River Basin Countries: Toward the AEC*, edited by Yasushi Ueki and Teerana Bhongmakapat, BRC Research Report No.7, Bangkok Research Center, IDE-JETRO, Bangkok, Thailand.

## CHAPTER 8 NEW DIVISION OF LABOR BETWEEN JAPAN AND CLMV COUNTRIES: A VIEW FROM JAPAN'S GROWTH STRATEGY

#### Minoru Makishima

#### INTRODUCTION

Japan has been held back by long-term stagnation since the collapse of the bubble economy in the early 1990s. Moreover, multiple factors, such as the yen's appreciation, the decrease of young workers, and the need to reduce labor costs, have accelerated the growth of overseas operations by small and medium-sized enterprises (SMEs) in Japan that might bring about the hollowing out of business in domestic firms.

To date, the overseas production of Japanese manufacturers is heading for expansion, primarily in Asia. In this situation, the Japanese government set forth the "New Growth Strategy Blue Print for Revitalizing" in June, 2010. Another program, "Realizing the New Growth Strategy," that aims at the revitalization of the Japanese economy was presented in January, 2011.

The New Growth Strategy aims to attain an average annual economic growth of over 3% in nominal terms and 2% in real terms by fiscal 2020. More than 20 national strategic projects are clarified in the following fields:

- (1) Environment and energy through a green revolution,
- (2) Medical, nursing care, and health-related services,
- (3) The Asian market,
- (4) Tourism-oriented locations and local revitalization,
- (5) Science and technology, and information and communication technology (ICT),
- (6) Employment and human resources,
- (7) The financial sector.

The Asian market is recognized as a group of Asian countries have rapidly grown supported by a large and diligent labor force. The outstanding growth of the middle class in Asia will be seen as a new market. Japan intends to promote industrial clusters in the region. For successful investment and entry into the Asian market, the deployment of integrated infrastructure systems overseas, global human resources, and highly skilled personnel will be required. In addition, Japan will contribute to selected issues of urbanization and environmental problems that the country has already faced and overcome, which will constitute major business activity in Asian countries. Japan will also have business opportunities for infrastructure, such as urban transportation, water supply, and energy. Additionally, "Cool Japan," such as Japanese content, design, fashion, cuisine, traditional culture, and media arts, is expected to expand Japanese market share through this strategy in harmony with the efforts of international standardization and protection of copyright and related rights.

In this paper, the author focuses on new division of labor between Japan and CLMV countries and new potential industries in CLMV countries, including the possibility of Japanese industrial involvement.

## 1. THE ECONOMIC RELATIONSHIP BETWEEN JAPAN AND CLMV COUNTRIES

Looking at Japanese foreign direct investment (FDI) during the period from 2005 to 2011, it is noted that FDI helped Asian countries attain remarkable results (Table 1). In 2010, Japan's FDI on a balance of payment basis fell by 23.3% over 2009 to USD 57,223 million. It declined for two consecutive years owing to a decrease in reinvestment earnings of Japanese overseas subsidiaries as operating profits went down. However, only Asia showed an increase in FDI, which expanded by 7.2% to USD 22.1 billion.

<b>2005</b> 16,188	<b>2006</b> 17,167	2007	2008	2009		2010		Jan	Oct., 2	2011
16,188			2008	2009						
-	17,167					Share	Growth Rate		Share	Growth Rate
	· ·	19,388	23,348	20,636	22,131	38.7	107.2	13,179	39.5	101.4
6,575	6,169	6,218	6,496	6,899	7,252	12.7	105.1	5,231	15.7	113.0
1,782	1,509	1,131	1,301	1,610	2,085	3.6	129.5	203	0.6	54.6
828	491	1,373	1,082	339	113	0.2	33.3	368	1.1	n.a.
1,736	1,517	1,302	2,369	1,077	1,085	1.9	100.7	1,183	3.5	197.6
557	375	2,233	1,089	2,881	3,845	6.7	133.5	702	2.1	42.4
4,276	6,038	5,007	4,043	3,540	4,310	7.5	121.8	3,943	11.8	184.8
2,125	1,984	2,608	2,016	1,632	2,248	3.9	137.7	1,115	3.3	13.0
1,185	744	1,030	731	483	490	0.9	101.4	1,761	5.3	n.a.
524	2,941	325	591	616	1,058	1.8	171.8	659	2.0	354.7
442	369	1,045	705	809	514	0.9	63.5	408	1.2	579.5
154	467	475	1,098	563	748	1.3	132.9	1,172	3.5	730.8
266	512	1,506	5,551	3,664	2,864	5.0	78.2	338	1.0	37.0
45,461	50,165	73,483	130,801	74,650	57,223	100.0	76.7	33,397	100.0	62.7
4	828 1,736 557 4,276 2,125 1,185 524 442 154 266 5,461	1,7821,5098284911,7361,5175573754,2766,0382,1251,9841,1857445242,9414423691544672665125,46150,165	1,7821,5091,1318284911,3731,7361,5171,3025573752,2334,2766,0385,0072,1251,9842,6081,1857441,0305242,9413254423691,0451544674752665121,5065,46150,16573,483	1,7821,5091,1311,3018284911,3731,0821,7361,5171,3022,3695573752,2331,0894,2766,0385,0074,0432,1251,9842,6082,0161,1857441,0307315242,9413255914423691,0457051544674751,0982665121,5065,5515,46150,16573,483130,801	1,782 $1,509$ $1,131$ $1,301$ $1,610$ $828$ $491$ $1,373$ $1,082$ $339$ $1,736$ $1,517$ $1,302$ $2,369$ $1,077$ $557$ $375$ $2,233$ $1,089$ $2,881$ $4,276$ $6,038$ $5,007$ $4,043$ $3,540$ $2,125$ $1,984$ $2,608$ $2,016$ $1,632$ $1,185$ $744$ $1,030$ $731$ $483$ $524$ $2,941$ $325$ $591$ $616$ $442$ $369$ $1,045$ $705$ $809$ $154$ $467$ $475$ $1,098$ $563$ $266$ $512$ $1,506$ $5,551$ $3,664$ $5,461$ $50,165$ $73,483$ $130,801$ $74,650$	1,7821,5091,1311,3011,6102,0858284911,3731,0823391131,7361,5171,3022,3691,0771,0855573752,2331,0892,8813,8454,2766,0385,0074,0433,5404,3102,1251,9842,6082,0161,6322,2481,1857441,0307314834905242,9413255916161,0584423691,0457058095141544674751,0985637482665121,5065,5513,6642,8645,46150,16573,483130,80174,65057,223	1,782 $1,509$ $1,131$ $1,301$ $1,610$ $2,085$ $3.6$ $828$ $491$ $1,373$ $1,082$ $339$ $113$ $0.2$ $1,736$ $1,517$ $1,302$ $2,369$ $1,077$ $1,085$ $1.9$ $557$ $375$ $2,233$ $1,089$ $2,881$ $3,845$ $6.7$ $4,276$ $6,038$ $5,007$ $4,043$ $3,540$ $4,310$ $7.5$ $2,125$ $1,984$ $2,608$ $2,016$ $1,632$ $2,248$ $3.9$ $1,185$ $744$ $1,030$ $731$ $483$ $490$ $0.9$ $524$ $2,941$ $325$ $591$ $616$ $1,058$ $1.8$ $442$ $369$ $1,045$ $705$ $809$ $514$ $0.9$ $154$ $467$ $475$ $1,098$ $563$ $748$ $1.3$ $266$ $512$ $1,506$ $5,551$ $3,664$ $2,864$ $5.0$ $5,461$ $50,165$ $73,483$ $130,801$ $74,650$ $57,223$ $100.0$	1,782 $1,509$ $1,131$ $1,301$ $1,610$ $2,085$ $3.6$ $129.5$ $828$ $491$ $1,373$ $1,082$ $339$ $113$ $0.2$ $33.3$ $1,736$ $1,517$ $1,302$ $2,369$ $1,077$ $1,085$ $1.9$ $100.7$ $557$ $375$ $2,233$ $1,089$ $2,881$ $3,845$ $6.7$ $133.5$ $4,276$ $6,038$ $5,007$ $4,043$ $3,540$ $4,310$ $7.5$ $121.8$ $2,125$ $1,984$ $2,608$ $2,016$ $1,632$ $2,248$ $3.9$ $137.7$ $1,185$ $744$ $1,030$ $731$ $483$ $490$ $0.9$ $101.4$ $524$ $2,941$ $325$ $591$ $616$ $1,058$ $1.8$ $171.8$ $442$ $369$ $1,045$ $705$ $809$ $514$ $0.9$ $63.5$ $154$ $467$ $475$ $1,098$ $563$ $748$ $1.3$ $132.9$ $266$ $512$ $1,506$ $5,551$ $3,664$ $2,864$ $5.0$ $78.2$	1,7821,5091,1311,3011,6102,0853.6129.52038284911,3731,0823391130.233.33681,7361,5171,3022,3691,0771,0851.9100.71,1835573752,2331,0892,8813,8456.7133.57024,2766,0385,0074,0433,5404,3107.5121.83,9432,1251,9842,6082,0161,6322,2483.9137.71,1151,1857441,0307314834900.9101.41,7615242,9413255916161,0581.8171.86594423691,0457058095140.963.54081544674751,0985637481.3132.91,1722665121,5065,5513,6642,8645.078.23385,46150,16573,483130,80174,65057,223100.076.733,397	1,7821,5091,1311,3011,6102,0853.6129.52030.68284911,3731,0823391130.233.33681.11,7361,5171,3022,3691,0771,0851.9100.71,1833.55573752,2331,0892,8813,8456.7133.57022.14,2766,0385,0074,0433,5404,3107.5121.83,94311.82,1251,9842,6082,0161,6322,2483.9137.71,1153.31,1857441,0307314834900.9101.41,7615.35242,9413255916161,0581.8171.86592.04423691,0457058095140.963.54081.21544674751,0985637481.3132.91,1723.52665121,5065,5513,6642,8645.078.23381.05,46150,16573,483130,80174,65057,223100.076.733,397100.0

 Table 1. Japan's FDI in Asia (Balance of Payment Base, Net, Flow)

Source: Ministry of Finance, JETRO.

Japan's FDI in Asia will be accelerated by the massive earthquake on 11 March 2011, which triggered the catastrophic tsunami wave and destroyed the Fukushima nuclear power plant. The disaster impacted the global supply chain, above all in Asia. The factories including SMEs in the affected area that produce a number of intermediate goods such as parts and materials for both domestic and overseas factories will cause the movement of production bases to elsewhere on that continent.

Among ASEAN countries, Thailand surpasses its neighbors with respect to Japanese FDI and also the number of overseas manufacturing industries. In 2010, Japan's FDI in Thailand on approval basis accounts for 35.9% of the total amount. As for the application base, it holds 40% of the total number. It is said that around 7,000 Japanese industries operate in Thailand, far exceeding 1,400 in Indonesia and 1,300 in Malaysia. This is attributed to favorable infrastructure, living environment, location advantage, and the existence of many supporting industries. Looking at the first half of 2011, Japanese FDI in Thailand increased to 56.4% in the share amount and 51.2% in

the number of applications.<sup>1</sup> By sector, the investment related to auto parts and metal processing is remarkable. Every Japanese car maker is represented in Thailand and a large number of supporting industries operate in nearby industrial zones. As a result, Thailand achieved the production of 1.65 million cars in 2010. As for other sectors, the investment in electronics, such as semiconductors and sensors, has been increasing as these products will be used for the car industry. It has been noted that Thailand has a number of industrial clusters for cars and related industries. Moreover, Thailand intends to become a core procurement center for intermediate goods in East Asia.

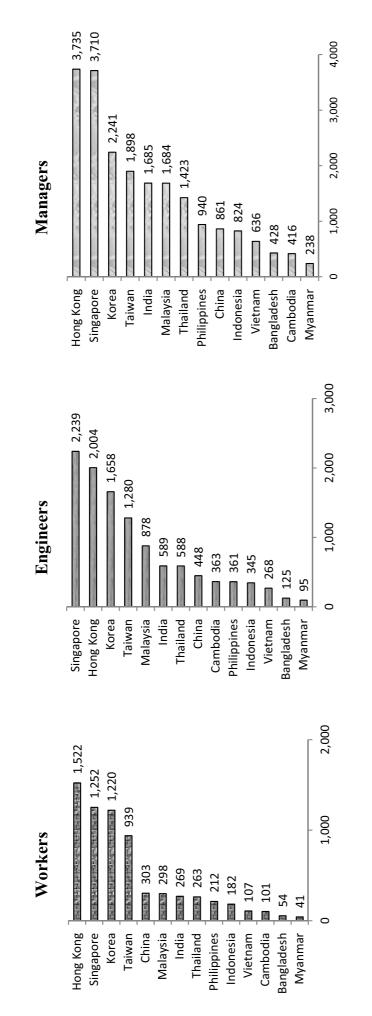
However, the massive flood in Thailand in the latter half of 2011 did considerable damage to overseas subsidiaries, above all, Japanese industries. Recently, the Thai government decided to substantially increase the minimum wage of workers.<sup>2</sup> Some Japanese industries may seek new, more suitable locations for overseas operations. In addition, the concern that Thailand may lose investment to neighboring countries will increase, particularly about keeping Japanese plants in Thailand. This situation may be a good opportunity for CLMV countries to attract firms and factories.

As Figure 1 indicates, monthly wages of the CLMV manufacturing industries is cheaper when compared to China and Thailand. However, Japan's FDI is concentrated in the more advanced ASEAN countries and Vietnam (Table 2 and Table 3).

The economic relationship between CLMV countries and Japan and the current situation will be described as follows:

<sup>&</sup>lt;sup>1</sup> Applications of Japanese investment after the earthquake do not reflect the number of the first half of 2011 because the Board of Investment (BOI) in Thailand takes time for the procedure of the approval.

 $<sup>^2</sup>$  The Thai government acknowledges raising the minimum wage of workers in Bangkok and vicinity (five provinces) to THB 300 from THB 215 in April, 2012. The other provinces are scheduled to offer the same pay rises in two years.



Notes: Workers: Full time employees who have around three-year business experience.

Engineers: Full time mid-level engineers who graduated a technical college or a university have around five years business experience. Mangers: Full time managers equivalent to managers of sales division who have around ten years business experience. Source: JETRO.

Figure 1. Monthly Wages of Manufacturing Industry (Base Pay, USD, As of August 2010)

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(1) Manufacturing

(Unit: 100 million yen)

Inductory	Total	ASFAN										China	China
			Brunei	Brunei Cambodia	Indonesia	Laos	Malaysia	Myanmar	Laos Malaysia Myanmar Philippines	Singapore	Thailand Vietnam	Vietnam	
Manufacturing	3,083,081	385,231	509	316	51,946	I	42,411	I	64,672	56,719	123,464	45,194	461,516
Food	825,735	61,861	I	6-	4,400	I	1,238	•	45,405	2,045	6,174	2,283	82,674
Textile	45,162	2,542	I	•	47	I	x	•	x	215	1,515	647	15,427
Lumber & Pulp	114,514	9,161	I	•	5,670	-	-192	-	-773	x	3,415	-3	45,534
Chemicals & Pharmaceuticals	683,134	37,091	509	1	17,744	-	1,006	-	1,563	11,983	5,138	-852	44,373
Petroleum	-3,484	11,762	I	•	2,863	-	5,660	-	•	344	I	х	444
Rubber & Leather	42,089	11,503	•		1,610	I	2	-	-195	-279	9,828	299	-639
Glass & Ceramics	192,638	5,982	-	-	-1,734	I	-5,608	-	357	4,070	9,739	717	11,912
Iron. Non-Ferrous & Metals	349,271	52,187	I	I	-249	-	10,760	I	9,230	78	16,430	15,938	33,652
General Machinery	411,382	32,293	•		2,981	I	7,461	-	158	1,181	15,210	5,301	61,670
Electric Machinery	242,021	61,904	ı	I	2,467	I	16,188	I	-2,446	29,075	1,988	8,632	58,273
Transportation Equipment	64,704	74,802	I	I	14,057	I	1,012	I	11,651	6,003	36,979	5,100	90,742
Precision Machinery	57,198	13,165	1	•	x		4,666	I	-525	546	6,304	1,929	8,474

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(2) Non-Manufacturing

(Unit: 100 million yen)

Industry	Total	ASEAN											China
			Brunei Cam		bodia Indonesia I	.aos ]	Malaysia	Laos Malaysia Myanmar	Philippines Singapore Thailand Vietnam	Singapore	Thailand	Vietnam	
Non-Manufacturing	3,906,487	273,449	929	45	-6,072	13	15,399	-121	12,657	213,922	28,816	7,860	187,690
Farming & Forestry	923	103	I	I	x	I	-	-	x	-	x	-	303
Fishery & Marine Products	3,421	551	I	I	1,374	I	-735	x	I	1	x	I	89
Mining	603,634	4,120	х	I	-25,632	I	1,722	1	10,677	15,763	811	-148	1
Construction	46,655	4,252	I	x	182	х	-954	-	316	5,471	-1,243	422	870
Transportation	270,743	137,636	I	I	-35	I	108	-	283	135,222	1,201	856	5,877
Communications	361,398	1,654	I	I	x	I	190	-	x	804	x	396	1,311
Wholesale & Retail	783,771	45,692	x	I	3,457	I	836	x	3,623	24,545	10,038	3,187	80,451
Finance & Insurance	1,456,423	54,509	I	I	7,642	I	13,409	1	-462	17,422	14,626	1,842	93,807
Real Estate	41,862	7,141	I	I	384	I	X	1	-2,117	9,017	x	X	-7,065
Service	205,387	6,472	-	I	6,931	I	-3	X	68-	-3,159	1,613	1,173	8,953
Total	6,989,569	658,679	1,438	360	45,874	13	57,810	-121	77,329	270,642	152,281	53,054	53,054 649,206
Notes: Balance of Payments Basis	Basis												

*Notes:* Balance of Payments Basis.

Data items with fewer than three reports are indicated as "X" for confidentiality.

No reports available are indicated as "-".

"Manufacturing" and "Non-Manufacturing" sub-totals are not necessarily equal to the sum of the figures on the table. They also include the undisclosed item "X" and "Other manufacturing / "Other non-manufacturing" respectively. The amount of Japan's FDI outflow is shown as "+" and that of inflow is shown as "-".

Source: Website of Ministry of Finance, Japan.

# Table 3. Japan's Investment in CLMV Countries(Accumulated and Approved Base, US million yen)

No.	Country	Amount
1	China	7,719
2	Korea	3,894
3	Malaysia	2,379
4	EU	1,402
5	U.S.	1,140
6	Taiwan	756
7	Thailand	746
8	Singapore	635
9	Vietnam	566
10	Hong Kong	310
11	Israel	304
12	Japan	148

#### Cambodia (1994 ~ 2010)

Source: Cambodian Investment Board (CIB).

#### Lao PDR (2000 ~ 2010)

No.	Country	Amount
1	Vietnam	2,772
2	China	2,716
3	Thailand	2,687
4	Korea	512
5	France	460
6	Japan	437
7	India	354
8	Australia	334
9	Malaysia	156
10	Singapore	118

Source: Ministry of Planning and Investment (MPI).

### Myanmar (1988 ~ 2010)

No.	Country	Amount
1	Thailand	10,367
2	China	6,428
3	Hong Kong	5,905
4	Korea	2,726
5	England	1,861
6	Singapore	1,515
7	Malaysia	898
8	France	470
9	USA	244
10	Indonesia	242
11	Holland	239
12	India	220
13	Japan	215

Note: Year 2010 is from April to December.

Source: Selected Monthly Economic Indicators December 2010.

#### Vietnam (1998 ~ 2010)

No.	Country	Amount
1	Taiwan	22,814
2	Korea	22,132
3	Singapore	21,723
4	Japan	20,836
5	Malaysia	18,345
6	British Virgin Islands	14,450
7	U.S.	13,076
8	Hong Kong	7,792
9	Cayman Islands	7,432
10	Thailand	5,811

*Source*: Vietnam Foreign Investment Agency, Ministry of Planning and Investment.

#### 1.1. Cambodia

With regard to the trade between Japan and Cambodia, neither exports nor imports are particularly significant. Japan's export share to Cambodia is just 1.6% of Cambodia's total imports. These export items include machinery, such as knitters, cranes, and ships (in 2009). Japanese imports from Cambodia, a mere 3.1% of Cambodia's total exports, mainly comprise garments, shoes, and so on. Major Japanese exports are machinery, ships, and vehicles. Most imported goods are footwear and apparel, products of labor-intensive industries (Table 4).

However, investment in Cambodia has begun to attract much interest among Japanese enterprises. At present, around 100 Japanese subsidiaries operate in Cambodia. The number is almost two times the total of the previous year. Most Japanese manufacturing industries are labor-intensive and involve such products as small motors, leather, shoes, gloves, heat-resistant sheets, and the sewing of kimonos.

So far, Japan has been the largest donor to Cambodia and cooperated to expand the Sihanoukville Port, the only deep-sea port in Cambodia, and the Sihanoukville Port SEZ that is going to be completed in early 2012.<sup>3</sup> On the other hand, international container terminals at Cai Mep-Thi Vai Port,<sup>4</sup> a deep-sea port in Vietnam, has been constructed by Japan's official development assistance (ODA). The terminal receives barges from Phnom Penh Port every week. Overseas industries in Cambodia may combine the use of Sihanoukville Port, Phnom Penh Port, and Cai Mep-Thi Vai Port.

The Phnom Penh Special Economic Zone (PPSEZ) is located in a central location. At present, 17 Japanese manufacturers operate there, sharing about 60% of the total number.<sup>5</sup> The concentration of Japanese companies at this location is due to favorable infrastructure, location, and support by a Japanese manager. Recently, Company A, a representative food manufacturer, and Company B, manufacturer of machinery components, started to operate factories at PPSEZ to expand their production from Thailand. In 2009, Company A began to import materials from factories in Thailand, Indonesia, and Brazil through Sihanoukville Port via Singapore. The machines were brought from Thailand. Only packing boxes are made in Cambodia. The general

<sup>&</sup>lt;sup>3</sup> Cambodia has 21 SEZs as of the end of 2011. China also established an SEZ in Sihanoukville in 2011.

<sup>&</sup>lt;sup>4</sup> It is located in Vun Tau Province, about 120 km south of Ho Chi Minh City. The first phase started operations in June, 2009 and is scheduled to be over in 2012. Mitsui O.S.K Lines started direct container routes of 6,350 TEUs to North America.

<sup>&</sup>lt;sup>5</sup> PPSEZ is located 8 km from the international airport and about 18 km from the center of the city.

manager of business and product management and his staff are Thais. The training of Cambodian middle-management staff is required. Company A has another factory in Vietnam, but there is no division of labor with the Cambodian factory. The factory in Cambodia is aimed at the domestic market.

In 2011, Company B began to import motor parts by road from Thai factories. The transit time is about 11 hours through the Southern Coastal Sub-corridor,<sup>6</sup> which passes through Trat in Thailand and Koh Kong in Cambodia. Finished products also are transported back by road and exported from Thailand. Company B intends to undergo scale expansion from the current 1,200 to 5,000 workers by 2013. At present, Chinese and Thai engineers provide technical support for production. The company plans to train electrical engineers in cooperation with the Engineering College in Cambodia. Cambodia may become a complementary production base of Thailand in labor-intensive industries such as motor parts, electronic parts, and auto parts. The SEZs at the border with Thailand or Vietnam may attract significant investment because cheaper electricity from Vietnam and Thailand is available<sup>7</sup>.

Among the important issues that Cambodia faces, the first to note is infrastructure development. Infrastructure, such as electricity, water supply, sewage, road paving and so on, needs to be urgently improved. Second, the development of higher education is needed to increase the number of skilled engineers and middle-management personnel.

Cambodia is favored with resources, including offshore oil, natural gas, and a young labor force. Labor-intensive industries, such as wire harnesses or auto parts, have received investments from Japanese companies to cope with the number of workers required for production. Both the ODA and the Japanese private sector should aggressively engage in infrastructure industries, such as energy, environment, water supply, and sewage.

<sup>&</sup>lt;sup>6</sup> It is part of the Southern Economic corridor that runs along the Gulf coast of Thailand to Cambodia and the southern border area of Nam Can in Vietnam.

<sup>&</sup>lt;sup>7</sup> The Cambodian electricity fee is two times that of Vietnam and 1.5 times that of Thailand.

#### Table 4-1. Japan's Exports to Cambodia

				(	Unit: US mill	ion dollar)
Items	2007	2008	2009	2010	Proportion (%)	Change (%)
Machinery	33.89	74.80	24.08	51.42	32.5	113.5
Ships and boats	18.16	28.24	37.78	33.70	21.3	-10.8
Vehicles (excluding railway)	26.95	39.89	22.29	27.43	17.3	23.1
Electric machinery	6.93	15.89	9.10	8.39	5.3	-7.8
Textile articles	1.63	2.23	2.99	5.29	3.3	76.9
Manmade fibers	1.68	2.32	3.73	3.37	2.1	-9.7
Rubber	1.31	2.82	1.44	1.67	1.1	16.0
Others	20.93	19.40	10.99	27.01	17.1	-36.7
Total	111.48	185.59	112.40	158.28	100	40.8

#### Table 4-2. Japan's Imports from Cambodia

				(	Unit: US mill	ion dollar)
Items	2007	2008	2009	2010	Proportion (%)	Change (%)
Footwears	121.15	99.21	95.51	118.99	56.9	24.6
Woven apparel	3.42	4.87	26.52	55.18	26.4	108.1
Knit apparel	11.16	13.93	18.39	28.56	13.7	55.3
Vehilces (excluding railway)	0.03	0.28	0.74	0.72	0.0	-2.7
Fish and sea foods	0.00	0.10	0.11	0.42	0.0	281.8
Woods	0.00	0.00	0.12	0.02	0.0	-0.8
Others	3.12	2.13	13.00	5.25	3.0	-0.6
Total	138.88	120.52	142.69	209.14	100	46.6

Source: Ministry of Commerce of Cambodia, JETRO.

#### 1.2. Lao PDR

Regarding the trade between Japan and the Lao PDR, Japan's exports to the Lao PDR are only 0.9% of the total amount and are composed primarily of machinery, cars and trucks, and auto parts. As for imports, Japan has just 0.9% of the total amount, composed of furniture, garments, and agricultural products like okra and coffee. As for both exports and imports, Thailand and Vietnam have greater shares. Japan ranks 11th in exports and 5th in imports in FY2008/2009 (Table 5).

In the Lao PDR, Vietnamese and Chinese investments in areas such as rubber plantations and the mining sector are considerable. Korea is well known for manufacturing the automobile called KOLAO. However, Japan's investment is relatively small scale. It is composed of investments in agricultural products, such as ginger, mushrooms, rice, and orchids, and, in the manufacturing sector, such items as auto parts, garments, shoes, charcoal, and wood processing, and so on.<sup>8</sup> In the southern region of the Lao PDR, one company grows herbs in Saravan Province.<sup>9</sup>

Men's wear manufacturer C is regarded as a secondary factory of the primary factory in Thailand. At the time of its establishment, around 60 Thai workers were sent to the factory in Vientiane to instruct Lao workers.<sup>10</sup> As for intermediate goods, about 80% of materials are imported from China and another 20% are from Indonesia, Malaysia, and Japan. Of the final products, 95% are exported to Japan, and the rest to the EU from Laem Chabang port in Thailand. It takes one day to transport goods from Vientiane to Laem Chabang by road. Due to road conditions and the ease of trade, most Lao industries prefer to export through Laem Chabang port rather than Da Nang port in Vietnam through East-West Corridor.

At present, the wages of workers in Vientiane are less than half of Thai workers. As mentioned before, the minimum wage in the Bangkok area will increase to about 40% from April, 2012. Regarding the electricity fee, it is about one-third that of Thailand. In addition, Thailand and the Lao PDR are linked with paved roads and bridges.<sup>11</sup> In the future, Japanese companies in Thailand may accelerate the pace of building complementary factories in the Lao PDR as well as Cambodia.

<sup>&</sup>lt;sup>8</sup> Only 30 companies are registered with the Japanese Chamber of Commerce in Vientiane as of December, 2011.

<sup>&</sup>lt;sup>9</sup> Tsumura deals with Chinese medicine.

<sup>&</sup>lt;sup>10</sup> At present, Japanese staff mainly trains Laotian workers.

<sup>&</sup>lt;sup>11</sup> The Second Thai-Lao Friendship Bridge was established to connect Mukdahan Province in Thailand with Savannakhet in Lao PDR in December 2012. The Third Bridge was built in November 2011, connecting Nakhon Phanom of Northeastern Thai province with Thakhek, Khammouane province.

				``````````````````````````````````````	million dollar)
COUNTRY	Export (	FOB)	COUNTRY	Import	(CIF)
COUNTRI	FY2008/2009	Ratio (%)	COUNTRI	FY2008/2009	Ratio (%)
Thailand	516.29	45.9	Thailand	747.35	70.1
Vietnam	152.74	13.6	Vietnam	139.35	13.1
Switzerland	98.72	8.8	China	107.39	10.1
Australia	93.38	8.3	Korea	21.79	2.0
China	62.61	5.6	Japan	9.10	0.9
England	50.98	4.5	India	6.75	0.6
Germany	42.86	3.8	Belgium	6.34	0.6
Korea	16.79	1.5	Singapore	5.90	0.6
Taiwan	16.64	1.5	Malaysia	3.36	0.3
Holland	12.13	1.1	Australia	3.16	0.3
Japan	10.46	0.9	Hong Kong	3.13	0.3
France	9.96	0.9	Taiwan	3.12	0.3
U.S.A.	5.75	0.5	Germany	2.20	0.2
Indonesia	4.69	0.4	U.S.A.	1.38	0.1
Malaysia	4.21	0.4	France	1.29	0.1
Italia	4.19	0.4	Italia	1.17	0.1
Others	22.00	2.0	Others	3.04	0.3
Total	1,124.40	100	Total	1,065.80	100

Table 5. Lao PDR's Exports and Imports by Country

Source: Ministry of Commerce and Industry, Lao PDR.

#### 1.3. Myanmar

Regarding the trade relationship between Japan and Myanmar, Japan's exports to Myanmar are approximately 2.7% of the total amount, composed of construction machinery, trucks, and so on. Imports from Myanmar are about 4.0% of the total and composed of garments, shoes, shrimp, sesame, and so on. Exports of construction machinery to Myanmar for infrastructure development have been increasing. Additionally, Japanese imports of clothing, Myanmar's main industry, have been increasing (Table 6).

Major Japanese FDI in Myanmar has not been made since FY2001. Only small projects have been undertaken. However, several investments through third countries, such as Thailand or Hong Kong, have been made. In particular, consigned garment production has been increasing in Myanmar. It is called the CMP (Cutting, Making, and Packing) contract business. In this case, Myanmar factories import raw materials

without import duties and make final garment products according to the client orders (appointed design). These products are ordinarily exported to the buyer's country in such places as the EU or Japan.

As for FDI, Japan has fallen behind China, Thailand, and Korea, and ranks 13th, owing to the regulation of trade and remittance and also the suspension of ODA on principle.

As of FY2010, approximately 50 companies are registered with the Japanese Chamber of Commerce in Yangon. Most factories in the manufacturing sector are labor intensive, such as garments and shoes, but there are some value added manufacturers that deal with digital camera lenses, medical equipment, and so on. Company D is a Japanese steel company that imports almost all of its required materials for producing corrugated iron roofs from Japan, India, and China. Final products are aimed at the domestic market, but they are not competitive in price with imported products from India. In addition, raising funds and remittances are restricted due to regulations.

Myanmar should undergo institutional reform, above all in trade and finance. Regarding the financial sector, the Myanmar Securities Exchange Centre Co. Ltd. (MSEC) was established under a joint venture with Daiwa Institute of Research in Japan and the Myanmar Economic Bank in 1996. Severely affected by the financial crisis in Asia, the stock market has been sluggish with few stock and national bond deals. Recently, the Japanese government has decided to lend support to the Myanmar stock market.

Myanmar has about 30 private industrial estates around Yangon. Mingaladon Industrial Park is the only developed estate geared for foreign enterprise investment. It is located 23 km north of Yangon and is managed by a Japanese real estate company.<sup>12</sup> However, only three Japanese companies operate among a total of eight companies involved in clothing, garments, and food. Recently, the establishment of the first SEZ in Thilawa, about 25 km South of Yangon, for promoting FDI from Japan, Korea, and other countries was announced. It is close to an international deep-sea port and the construction of an international airport is planned. Japan expressed a desire to cooperate

<sup>&</sup>lt;sup>12</sup> Mingaladon Industrial Park was established by joint investment of Mitsui Co. (60%) and the Housing Bureau, Ministry of Architecture (40%) in 1998. Currently, the Housing Bureau has a stock of 88.89%, and Kepventure Pte. Ltd (Singapore) has 11.1 % of the stock. The management is handled by Tokyo Enterprises.

with a feasibility study of Thilawa SEZ. It is expected to become a new base for overseas enterprises.

Although various issues exist, Myanmar has abundant attraction for Japan. Myanmar has a population of about 60 million and a young workforce. As for Japanese companies that operate in Thailand, Myanmar is very attractive for the expansion of production. At the border between Myanmar and Thailand, the utilization of cheaper Myanmar labor is expected.<sup>13</sup>

				(	Unit: US mill	ion dollar)
Items	2007	2008	2009	2010	Proportion (%)	Change (%)
Construction machines etc.	52.06	58.49	57.35	116.97	28.4	104.0
Truck etc.	72.21	65.14	87.27	53.30	17.7	-38.9
Fiver textiles (long sleeves)	7.02	8.00	8.67	15.08	11.4	73.9
Fiver textiles (short sleeves)	6.06	7.80	7.70	11.59	4.4	50.5
Electric equipment	6.01	7.39	6.65	11.39	3.7	71.5
Optical equipment	2.00	2.28	4.53	3.66	2.6	-19.3
Others	30.93	39.31	29.62	52.25	1.8	76.4
Total	176.29	188.42	201.79	262.24	100	30.9

#### Table 6-1. Japan's Export to Myanmar

#### Table 6-2. Japan's Import from Myanmar

				(	Unit: US milli	ion dollar)
Items	2007	2008	2009	2010	Proportion (%)	Change (%)
Clothes (fabric)	95.34	132.39	148.84	182.70	47.0	22.7
Foot wears	49.25	56.78	72.31	78.54	20.2	8.6
Shrimps, fishes etc.	70.79	63.68	59.47	57.90	14.9	-2.6
Sesames	26.21	21.95	21.65	24.79	6.4	14.5
Beans	8.64	11.66	8.58	13.15	3.4	53.3
Jewelry (pearl etc.)	12.97	9.76	6.88	7.53	1.9	9.5
Woods	15.77	8.39	8.35	6.26	1.6	-25.0
Clothes (Knit)	0.16	0.20	0.31	0.48	0.1	55.3
Others	17.65	12.72	14.00	16.98	4.4	21.3
Total	99.00	317.53	340.39	92.00	100.0	14.1

Source: World Trade Atlas of Japan's Custom, JETRO.

<sup>&</sup>lt;sup>13</sup> For example, Thai industries in Mae Sot employ Myanmar workers in Myawadi at the border.

At present, Myanmar seems to be making steady progress toward democracy and a market economy. A number of Japanese companies have been investigating the possibility of entering the Myanmar market. Japan should strengthen support of Japanese enterprise activities in Myanmar, along with a resumption of ODA, and also cooperate locally with infrastructure and human resource development.

#### 1.4. Vietnam

The trade relationship between Japan and Vietnam is very close. Vietnam's exports to Japan are 9.4% of the total volume, ranking second next to the U.S. in 2010. The main items include garments, seafood, wood, wood products, electronics, computers, and so on. Imports from Japan are 9.5% of the total volume, ranking 3rd behind China and Korea. Major imported items include computer parts and electronics, machinery equipment, spare parts, and scrap steel (Table 7).

In 2009 and 2010, Vietnam had trade deficits with Japan, but in 2008 Vietnam enjoyed a trade surplus. Trade figures indicate well-balanced trade relations between Japan and Vietnam. In addition, Vietnam has an important position as a recipient of Japanese investment. As Figure 2 illustrates, the investment rapidly increased between FY2006 and FY2008. This investment is thought to be causally related to an avoidance of over-concentration in China because of the rapid increase of wages, repeated strikes and demonstrations, and the noted appreciation of the Yuan. Thus, Vietnam has good investment conditions, such as a cheaper labor force, and has come to be regarded as China plus one as investment counterparts for Japanese investors. So far, Japan has been the largest donor to Vietnam and has also established the Economic Partnership Agreement in 2008. It may be added that Vietnam is favorable for Japanese corporations owing to general points such as political stability, geographical advantage, developed industrial estates, and its social and cultural background.

Looking at the accumulated accepted FDI, Japan ranks 4th behind Korea, Taiwan, and Malaysia. However, by the accumulated amount of implementation of FDI, Japan ranks first. Approximately 80% of this sector is composed of manufacturing, such as iron, non-ferrous metal, machines, electricity, and transportation.

At present, around 1,000 Japanese corporations operate in Vietnam. By region, the south has about half, but the north has been increasing its share with about 400 corporations. As for central Vietnam, about 50 corporations operate in Da Nang, which

has an international port that is located at a key point along the East-West Corridor. Today, the Vietnamese government is endeavoring to establish heavy industries in the central region. Japan intends to enter heavy industry with the production of petroleum refining.<sup>14</sup> This region is famous for its beautiful coast and world heritage sites, such as Hue, Hoi An, and My Son. Korea and Singapore have begun resort development in the area, but Japan is not yet active in that sector.

At present, there are more than 150 industrial estates in Vietnam. As for Japanese industrial estates in the north, a total of four estates are in operation and one has already been located in the area for a number of years.<sup>15</sup> However, there is not enough space to establish new factories and overseas industries are required to use rental factories. Corporations that hope to set up are obliged to move a little farther from Hanoi to areas such as Vinh Phuc Province in the northwest and Hai Duong Province in the east.

The establishment of large companies, such as Cannon and Brother, in North Vietnam brought the effect of attracting supporting industries. The improvement of the transportation access between China and Vietnam will be beneficial for the trade of intermediate goods or final products. Japanese companies in Hanoi or Haiphong will increase trade between Vietnam and China by road.

Regarding southern Vietnam, Ho Chi Minh City, the biggest commercial and industrial urban area, is the center of the region. About 60% of Japanese corporations operate around Ho Chi Minh City. Its population is more than 7 million, with higher incomes compared to other regions, and it is attractive due to its domestic market, too. It is easier to procure intermediate goods owing to good access to Thailand. However, new investment will be compelled to establish factories a little farther from Ho Chi Minh City owing to the limits of land and the shortage of workers.

As a whole, Vietnam is regarded as a comparatively attractive country for Japanese investment. Above all, central Vietnam, compared to the north or the south, will have enough land area to expand industrial production. As mentioned, large investments like oil and steel plants are expected to be established in the central region. Recently, big companies such as Kyocera, the ceramic producer, and Panasonic have decided to

<sup>&</sup>lt;sup>14</sup> For example, it is reported that Idemitsu Kosan Ltd. and Mitsui Chemical Ltd plan to join the construction complex of Nghi Son oil refineries, and Kobe Steel Ltd decided to construct a steelworks in the central region.

<sup>&</sup>lt;sup>15</sup> The Nomura Industrial Zone was established in 1994 in Haiphong.

operate in the north. This development may cause the growth of supporting industries from Japan. Vietnam may have much potential as a market as it does a production base for Japan. Japan will cooperate with infrastructure and ICT development through both the public and private sectors.

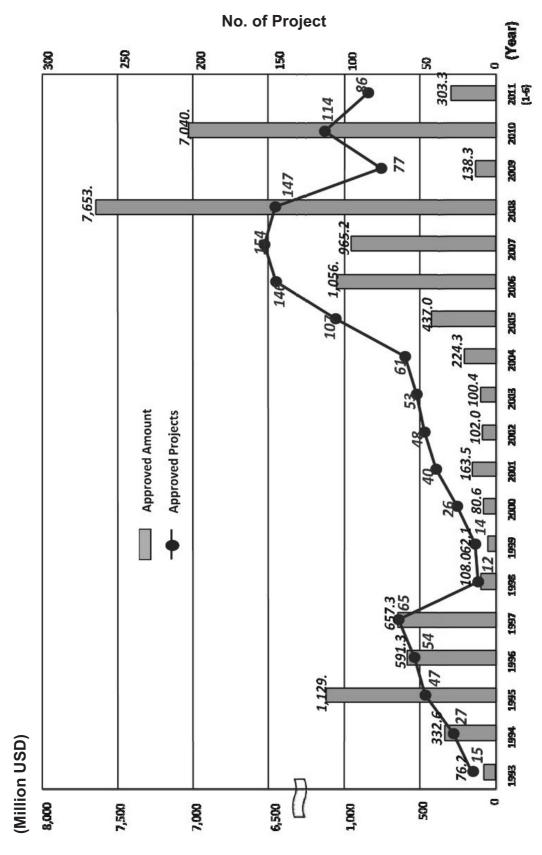
				(U	nit: US millio	on dollar)
Items	2007	2008	2009	2010	Proportion (%)	Change (%)
Machinery equipment spare parts	1,945.39	2,445	2,289.46	2,547.10	28.4	11.3
Steels and scraps of iron	655.09	1,042	1,094.40	159.04	17.7	45.3
Computer, electronic spare parts	592.49	929	839.38	1,024.50	11.4	22.1
Auto-parts	217.85	338	394.75	396.30	4.4	0.4
Cloth	327.43	355	333.71	335.60	3.7	0.6
Chemical products	110.39	154	155.51	231.92	2.6	49.1
Chemical	121.74	141	124.72	175.25	2.0	40.5
Automobile	91.20	144	176.05	162.85	1.8	-7.5
Textile, garment, leather materials	91.00	115	118.23	131.73	1.5	11.4
Others	2,025.12	257.73	1,941.88	2,402.46	26.5	23.7
Total	6,177.70	8,240.66	7,468.09	8,969.10	100	20.0

#### Table 7-1. Japan's Export Goods to Vietnam

#### Table 7-2. Japan's Import Goods from Vietnam

				J)	Jnit: US milli	on dollar)
Items	2007	2008	2009	2010	Proportion (%)	Change (%)
Garment	704.73	820.06	954.08	1,146.21	14.9	20.1
Seafood	753.59	830.15	760.73	891.94	11.6	17.2
Wood, Wood products	307.09	378.84	355.37	453.00	5.9	27.5
Electronics, computers	269.33	375.70	380.97	409.18	5.3	7.4
Plastic products	126.92	193.89	193.28	254.94	3.3	31.9
Coal	133.56	305.13	145.56	223.81	2.9	53.8
Crude oil	1,013.04	2,177.39	480.12	204.35	2.7	-57.4
Footwear	114.75	137.58	122.47	170.11	2.2	38.9
Coffee	76.42	127.43	90.31	84.87	1.1	-6.0
Rubber	26.81	34.55	15.90	34.36	0.5	116.1
Others	2,570.52	3,157.23	2,793.03	3,803.95	50.0	36.2
Total	6,096.76	8,537.94	6,291.81	7,676.74	100	22.0

Source: World Trade Atlas and JETRO.







## 2. POTENTIAL INDUSTRIES IN CLMV COUNTRIES AND JAPANESE INVOLVEMENT

As previously described, most Japanese companies in CLMV countries are labor intensive industries. Many cases of division of labor are found among Japanese overseas affiliates in Cambodia, Lao PDR, and Thailand in the procurement of intermediate goods. As it happens, both countries ordinarily play complementary roles in production in Thailand. However, overseas industries in Vietnam procure intermediate goods from Japan, China, and other trading partners. The number of Japanese industries has been increasing in Vietnam and there is potential to build another industrial cluster in addition to Thailand in the future. Moreover, Vietnam's domestic market is very attractive for Japanese companies. Regarding Myanmar, Japanese industries are not active owing to restrictive investment circumstances and political reasons. However, as the current democratic movement grows so will the investment interest of Japanese industries in Myanmar.

The new division of labor between Japan and CLMV countries and potential industries will be discussed below from the point of view of Japan's Growth Strategy.

#### 2.1. Medical Appliance Industries

As shown in Figure 3, the global market for medical appliances was USD 254.6 billion in 2010 and is expected to increase to USD 310.9 billion by 2015. The market in Asia will expand 1.7 times in five years, from USD 49.9 billion in 2015 from USD 28.8 billion in 2010. As shown in Figure 4, Japan is expected to have about a 10% share of the global market in 2015. In the Asian market, China will have 29.9% share, and Russia, Korea, the ASEAN countries, and India follow with smaller shares. The ASEAN share is expected to be 8.6% and it will be a good market as well as a production base.

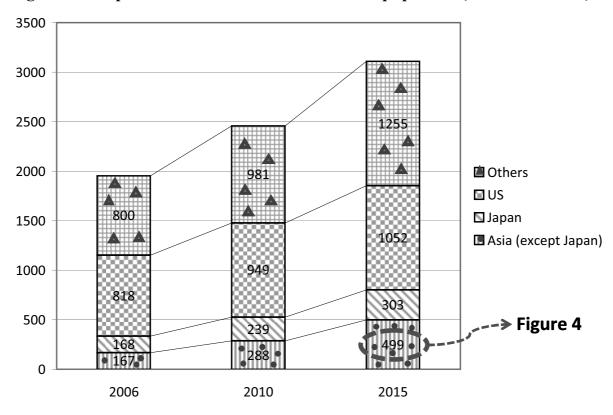
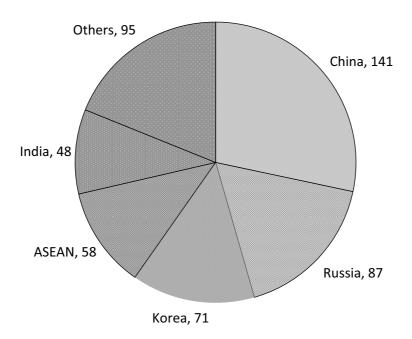


Figure 3. Prospect of World Market of Medical Equipments (US\$ 100 million)

Source: Espicom "Medistat Worldwide Medical Market Forecasts to 2015".

Figure 4. Market in Asia (2015) (except Japan, US\$ 100 million)



Source: Espicom "Medistat Worldwide Medical Market Forecasts to 2015".

Since 2008, Japan has seen a trade deficit in medical appliances with greater imports and decreasing exports. Japan has become internationally competitive in optical and diagnostic instruments, such as endoscopes, but the USA has a much greater advantage in the field of therapeutic apparatuses, such as pacemakers and artificial dialysis machines. In fact, the USA has more than three times the Japanese share. Japan has to look for a growth market to compete with the USA and European countries. The medical appliance market in Asia is predicted to expand nearly two times from USD 28.8 billion in 2010 to USD 49.9 billion in 2015. The Asian market is expected to grow rapidly owing to the improvement of medical care according to increased income and the availability of health insurance. The medical appliance industry requires supporting industries, such as those that manufacture precision equipment and lenses. It may be said that Asia, including the CLMV countries, is a potential production base and also a market (Figure 5).

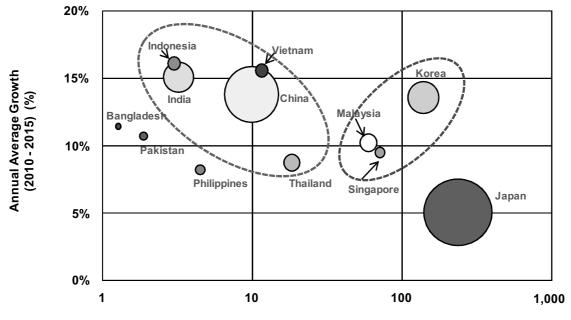


Figure 5. Medical Appliance Market in Asia

Expenditure to Medical Appliances per Person (2015) (US \$)

*Note*: Each circle means the scale of medical appliance market. *Source*: Medical - Engineering Technological Industrial Strategy Consortium. At present, more than 10 Japanese medical appliance subsidiaries operate in Vietnam. Moreover, drug company representatives operate there.<sup>16</sup> Vietnam may become a production base in and also an export base to Asian markets such as China, ASEAN, and India.

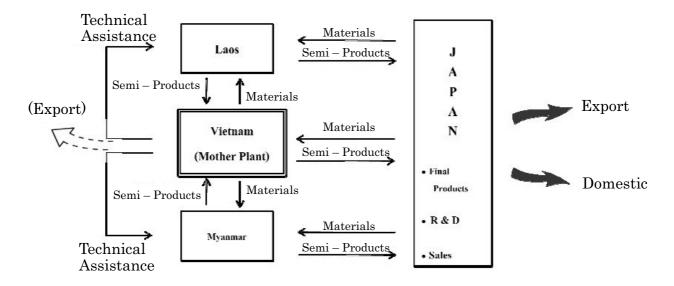
Medical appliance company E, established in Vietnam, has developed division of labor with the Lao PDR and Myanmar. Its main products are dental and ophthalmic implements such as dental and suture instruments. It was established as a joint venture in northern Vietnam in 1996. At present, it operates four factories in Song Cong and Hung Yen that are located 50-70 km from Hanoi and employ about 1,800 workers.

Most of the employees are females who commute from home and the turnover is quite low. A unique aspect is that the Japanese language is used for worker training. The employees are adept at tedious detailed work that requires patience, a situation that would be almost impossible to duplicate in Japan. It is noteworthy that the company has built factories in Vientiane in the Lao PDR and Yangon in Myanmar. As illustrated in Figure 6, the Vietnam factory is a base plant providing materials to those in the Lao PDR and Myanmar. Company E in Vietnam sends trainers to the Lao and Myanmar factories for technical support and does not dispatch trainers from Japan. The semi-finished products are sent to Vietnamese and Japanese factories to finish the end products for export or domestic customers. Currently, Vietnamese factories have been upgrading and expanding. It is expected that all of the semi-finished products from the Lao and Myanmar factories will become finished products in Vietnam and then directly exported to foreign countries.

Another company, F, produces vascular access medical devices and needles for artificial dialysis. The Japanese parent corporation sends all necessary parts and materials without any added cost. Next, a Vietnamese factory makes semi-finished products and receives processing fees. The products are then sent to Japan where they are sterilized and wrapped as final products for export to China, Hong Kong, Korea, and Europe. Recently, a new factory has been completed in Vietnam for the sterilization and wrapping processes. In the near future, the Vietnamese factory expects to export to mainly Asian countries. However, for the time being, the procurement of parts and materials will depend upon the parent company in Japan.

<sup>&</sup>lt;sup>16</sup> The drug companies comprise Taisho, Otsuka, Rohto, Okuno, and Hisamitu. Moreover, Nipro plans to produce generic drugs in Vietnam from 2015.

# Figure 6. International Division of Labour - The Case of a Japanese Medical Appliance Corp.-



Source: Hearing Survey by the Author.

The medical appliance industry is faced with the difficulty of recruiting young workers in Japan because the work requires patience and intensive eye-hand coordination. In order to compete effectively with international companies, such industries tend to shift work to Asian countries. In addition to medical appliance industry, the hospital and healthcare business is also expected to enter the Asian market. The establishment of Japanese hospitals or other medical facilities will generate a synergistic effect because countries in the area appreciate competent and professional medical services. A Japanese private hospital intends to establish a hospital in Phnom Penh. Many Lao PDR citizens go to Udon Thani, Thailand, which is close to Vientiane, in order to see a doctor there. Thus, a hospital in Udon Thani opened a clinic in Vientiane in 2011. A Japanese private hospital or clinic would be very welcome. A comprehensive strategy for the medical appliance industry, hospital, or healthcare business should be promoted in cooperation with both the public and private sectors as a growth strategy. As a first step, the establishment of a healthcare center for senior citizens will be considered in cooperation with hospitals in CLMV countries.<sup>17</sup> It will also offer services to Japanese or foreigners who work or stay for a long time in those countries.

<sup>&</sup>lt;sup>17</sup> In the case of Thailand, around 10 healthcare centers are operated by FDI.

It may be said that CLMV countries will have a great deal of potential as production bases for the medical appliance industries and as markets in related fields.

#### 2.2. Urban and Infrastructure Development

#### 2.2.1. New Town development

It has been mentioned that Japan, as part of a growth strategy, should work to build infrastructure, such as high-speed rail and urban transport, water supplies, and environmentally friendly energy production, in Asian countries. As shown in Table 8, the growth of urban areas has been greatly accelerating.<sup>18</sup>

The urbanization ratio of CLMV countries reached more than 20% in 2010. At present, the urbanization such as New Town development during the high-speed growth era of Japan,<sup>19</sup> has attracted much interest in those countries. Japan has an advantage concerning the development of urban areas in Asian countries in that it can create comfortable living through environmental technology. Urban development needs various industries with very broad bases. Forming an alliance of enterprises is required to secure the support of the public sector.

In order to cope with urbanization, the concept of "New Town Development," in harmony with the environment, has attracted attention. In 2011, the Tokyu Corporation signed an agreement with a Vietnamese developer regarding the urban development plan for Binh Duong New City, located about 30-40 km north of Ho Chi Minh City. Binh Duong Province has fertile farmland, a concentration of foreign investment from companies such as Nike and Adidas, and has been rapidly urbanized. Tokyu plans to develop 1,000 ha, about the one fourth of the total area. It is the biggest development plan for a southern satellite city in which 120 thousand people will live and to which 400 thousand will commute. In this case, development of Tokyo Tama Den-en Toshi, has become a model for the development of Binh Duong Province.

Tokyu is a Japanese conglomerate that operates railways, and freight and bus companies. It also undertakes construction and real estate development, focusing on the

<sup>&</sup>lt;sup>18</sup> The international urban-rural classification of population follows the national census definition which differs from one country or area to another. National definitions are usually based on criteria such as size of population in a locality, population density, distance between built-up areas, economic activities, and specific services and facilities.

<sup>&</sup>lt;sup>19</sup> This period is from the mid-fifties through the sixties in Japan.

areas along the railways. It owns hotels, department stores, supermarkets, and travel and leisure services companies. In the 1950s, Tokyu began the development of real estate along its own Den-en Toshi line in the west of Tokyo. Amenities such as shopping centers, hospitals, and public spaces were provided. In addition, attention was paid to environmental conservation. It grew over a 50 year period and the Tama Den-en Toshi, the center of the development, became a very popular city in Japan. Tokyu has applied this experience to overseas projects in cities such as Seattle, Washington DC, and Perth in Australia. Vietnam has become the first recipient in Asia. The company may expand such urban development to other areas, such as Hai Phon or BacNinh in northern Vietnam.

In Phnom Penh, also, an integrated New Town composed of a large Japanese shopping center, housing complex, community center, school, and hospital is scheduled to be built by 2014. It is expected to promote the urbanization of Phnom Penh City. Moreover, Japan has launched a joint development project for environmentally friendly model cities in the coastal areas of China.<sup>20</sup> The project is going to be undertaken in collaboration with the Chinese government and the Japanese Enterprise Association.<sup>21</sup> Plans call for the building of a housing complex, transport facilities, and a water and waste-recycling plant, utilizing Japanese energy conservation technology by the latter half of the 2010s. Japanese enterprises are expected to have a competitive advantage in this area.

Such urban development or selected environmental technology will spread to CLMV countries. The New Town development project may provide a spark for related industries, including housing, water and sewage, and environmental technology.

New Town developments can benefit from the Japanese experience where issues such as the decrepitude of buildings and the increase of elderly households became serious concerns in old housing complexes in Japan. Japan should put the lessons of its experience into New Town development in other countries.

<sup>&</sup>lt;sup>20</sup> Wenzhou City in Zhejiang Province and Dongying City in Shangdong Province are expected to be model cities.

<sup>&</sup>lt;sup>21</sup> It is reported that Hitachi, a comprehensive electronics manufacturer, Mitsui Real Estate, and Mitsubishi Estate will form a joint association. (Nikkei Newspaper on 24 July, 2011)

Year	China	Korea	Japan	Thailand	Cambodia	Laos	Myanmar	Vietnam
1985	23.0	64.9	60.4	28.1	12.6	13.8	24.2	19.6
1990	27.4	73.8	63.1	29.4	12.6	15.4	24.9	20.3
1995	31.4	78.2	64.6	30.3	14.2	17.4	26.1	22.2
2000	35.8	79.6	65.2	31.1	16.9	22.0	28.0	24.3
2005	40.5	80.8	65.7	32.5	19.7	27.4	30.6	26.4
2010	44.9	81.9	66.8	34.0	22.8	33.2	33.9	28.8
2015 E	49.2	83.1	68.2	36.2	26.1	38.9	37.4	31.6
2020 E	53.2	84.2	69.8	38.9	29.6	44.2	41.0	34.7
2025 E	56.9	85.2	71.7	42.2	33.2	49.0	44.6	38.1

Table 8. Comparison of Urbanization Trends (%)

Note: Years from 2015 to 2025 are estimated.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations.

#### 2.2.2. Water supply and sewage business

Due to the increase of the global population, urbanization, and industrialization, the water business market has been expanding. This global water market, valued at about 35 trillion yen in 2007, is expected to double in size to about 80 trillion yen in 2025. Leading water business companies include Veolia Environment and Suez Environment in France. Their share of the global market is about 20%. Those major companies provide total service that covers surveying, design, construction, and management. In Japan, on the other hand, the local government or a public utility ordinarily has the responsibility of water management after the completion of water projects.<sup>22</sup> There is no private company that has experience with total service in water projects in Japan. At present, the Japanese share of the global water business is less than 1%.

In order to enter the water market, it is necessary to have a joint organization composed of selected Japanese industries in cooperation with the public sector. At the implementation phase, experienced coordinators, such as a trading company or consultants specializing in the field, will play a key role in coordination.

The water business market in the Asia Pacific area is expected to be three times the amount in 2007 (about 10 trillion yen), growing to about 30 trillion yen in 2025, indicating a high growth rate. As Table 9 shows, China, Vietnam, Lao PDR, and India are required to improve the facilities of water supply and sewage.

<sup>&</sup>lt;sup>22</sup> The privatization of water management is legal in Japan, but it is entrusted to public organizations to ensure security and reliability.

Regarding the water supply and sewage system, Japan has world-leading technology in sludge disposal and drainage treatment.<sup>23</sup> As for industrial water supply and industrial drainage, the need will be much in demand following an increase of FDI in Asia.<sup>24</sup> It aims to expand elements of the water business such as water disposal, water, and sewage procurement, with factories based in Vietnam and India.

The supply chain for water projects will be manufactured in Asia as follows:

Materials & Equipment (Manufacturer of Water Disposal)
· · · · · · · · · · · · · · · · · · ·
$\downarrow$
Device design, Assembling & Construction (Engineering Company)
$\downarrow$
Operation, Maintenance, Management (Trading Company and so on)

Recently, a number of Japanese local governments have eagerly contacted cities within Asian countries. Osaka City exchanged an agreement with Ho Chi Minh City in 2011 to improve its sewage system. The agreement will be implemented through joint initiatives between the waterworks department of Osaka City and private companies, such as Mitsui and Toyo Engineering. In addition, Kitakyushu City accepted the consultation of a water plant design for the Cambodian government that was first initiated between municipalities.<sup>25</sup>

The Tokyo metropolitan government also intends to enter the international market for water and sewage. The increased competition from local governments may be effective to revitalize local prefectures. So far, the Japanese water business has been monopolized by the ODA of Japan, but business opportunities may increase on non-ODA projects concerning the water business. Japan should strengthen corporate consortiums in cooperation with the public sector in order to cope with competition from foreign companies.

<sup>&</sup>lt;sup>23</sup> The former representative company in Japan is Tsukishima Kikai, and the latter Tomoe Kogyo.

<sup>&</sup>lt;sup>24</sup> Kobelco Eco-Solutions, a group of Kobe Steel Ltd., is a leading company in Japan that deals with water and waste disposal-related matters.

<sup>&</sup>lt;sup>25</sup> It was an ODA project by JICA, but the consultation business was publicly offered.

#### 2.3. Housing and Related-Equipment Industries

The national statistics of Japan predict that the Japanese population, which peaked in 2004 at 127.87 million people will fall to 125.43 million in 2015. New home sales are estimated to fall to approximately 0.84 million in 2015 from 1.63 million in 1996.<sup>26</sup> To date, Japanese housing industries have been domestic demand-oriented, but have been urged to enter the international market, above all the Asian market that is expected to grow rapidly. The Asian population, especially the rate of those of productive age (15-64 years), is expected to increase for the next five years.<sup>27</sup> The development of urbanization may bring growth to the Asian housing market. Although Japan falls behind China and Korea in real estate investment, such as office buildings or resort hotels, its housing industries may have potential in a new area.

Recently, housing and related industries have set up operations in Asian countries, such as China, Thailand, and Vietnam. Sekisui House, a representative manufacturer of prefabricated housing, is going to set up a joint venture in Thailand that makes individual unit houses composed of uniform panels or modules. This is because such countries tend to prefer single family houses or town houses.

The company is expected to expand operations to neighboring countries from its main plant in Thailand. The housing industries are related to various other supporting fields. For example, Company F deals with manufacturers of building materials and housing equipments such as doors, kitchens, windows, shutters, and exterior paint. Washlet toilets, a Japanese brand, have become popular in Asia, especially in China.<sup>28</sup> Such modern and high-quality equipments will gradually become more popular, especially among the younger generation in Asia. In addition, a particle board factory was established in Vietnam in 2011 by Sumitomo Forestry, which produces a highly-regarded eco-wood product manufactured from wood chips and wood scrap.

Moreover, wood-processing materials will be brought to Vietnam by road from the Lao PDR. For example, Company G, a Japanese representative paper company, has undertaken joint management of a forest of 500 ha with the Lao PDR Government. Route 12 from Thakhek in Lao PDR to Vungang Port in Vietnam will be used for

<sup>&</sup>lt;sup>26</sup> Nomura Research Institute.

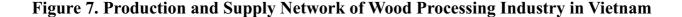
<sup>&</sup>lt;sup>27</sup> United Nations, World Population Prospects.

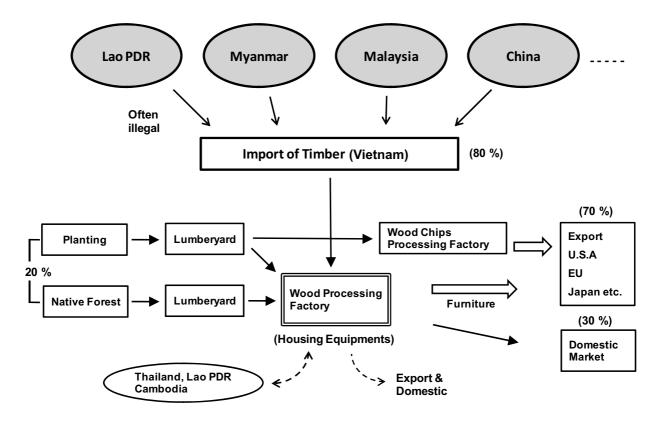
<sup>&</sup>lt;sup>28</sup> Washlet toilets are electric toilet seats with water spray features for washing. TOTO and INAX are representative Japanese companies that operate in Vietnam.

intermediate trade, although it is not yet greatly utilized. The forest will be used not only for paper materials, but also for materials for furniture and architecture as value added wood. The company has planted a forest in southern Vietnam and decided to develop another in central Vietnam.

As seen in Figure 7, Vietnam has a production base of furniture, importing the timber from Myanmar, the Lao PDR, Malaysia, and China. However, especially along the border with southern Laos, a great deal of timber is often smuggled because the export of unprocessed wood is prohibited by the Lao PDR Government owing to the desire for forestry preservation. Legitimate trade or the increase of processed wood exports from the Lao PDR is expected through the involvement of Japanese companies.

Vietnam will have much potential for housing industries, its equipment-related industries, and furniture. The division of labor may develop to include the Lao PDR, Cambodia, Thailand, Myanmar, China, and Japan.





Source: Based on the Foe Japan.

#### **3. CONCLUDING REMARKS**

At present, Japanese trade and investment has concentrated on Vietnam among CLMV countries. However, the investment climates of CLM (Cambodia, Lao PDR, and Myanmar) countries have been rapidly improving, along with their economic growth. Japan is required to deal with a new division of labor in CLMV countries.

According to Japan's Growth Strategy, the country is much involved in the Asian market and is eager to establish industrial clusters in the region. In CLMV countries, the major industries, such as auto parts, garments, shoes, and the processing of agricultural products are regarded as labor intensive. For example, Japan has an industrial cluster in the automobile industry, and has expanded the auto-part industries, like wire harnesses, to the CLMV countries for the division of labor. Following an increase in the minimum wage of workers in Thailand, the establishment of labor-intensive factories may be accelerated in other CLMV countries.

Not only intensive-labor industries, but other potential-growth industries are considered as follows from the standpoint of Japan's Growth Strategy. First, the medical appliance industry will be considered. The medical market has been expanding in Asian countries. As seen in the case of company E, Vietnam is expected to become a production base of the medical appliance industry, having a division of labor with CLM countries. Next, urban and infrastructure development will be discussed. The New Town development, water supply and sewage, and the housing industry are examples of association with that sector. New Town development planning will bring additional demand for water supply and sewage treatment plants. The projects on the outskirts of Ho Chi Minh City and Phnom Penh will be a model of New Town development. Japan will jointly develop an environmental model city in a coastal area of China. Urban development or environmental technology in the project will be extended to CLMV countries by Japanese industries in the field. Regarding ICT business, Myanmar has the greatest potential in the software-related area. The success of Japanese enterprise entry into the market will rely upon public and private cooperation.

As for housing and its equipment-related industries, Vietnam may have a primary role in the region, having a new division of labor with CLM countries, Thailand, China, and Japan. Such potential industries will lead to the improvement of living standards and value added industries in the CLMV countries. Japan will pave the way to attain a win-win outcome through new potential industries in the CLMV countries.

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