APPENDIX

1. Food Processing Industry in Thailand

Prior to 1980s, Thailand exported domestically produced agricultural and marine products, such as rice, potato and the like, mainly as unprocessed. And these natural unprocessed products composed the highest percentage of items exported by Thailand on those days. In the beginning of 1980s, she begun being industrialized rapidly and her export mainstay, agricultural and marine products, were replaced with industrial goods. With food processing techniques brought in Thailand by foreign capitals, marine product processing (shrimp freezing process) and livestock processing (broiler) and the like got advanced, leading to a significant increase in the exportation of processed foodstuffs. Though the data available are slightly old, the Thai food processing industry (including the beverage sector) had a production estimated at 230 billion bahts for 1998, thus growing enough to occupy 17% of the total production in all the manufacturing industries. According to the industry census in 1997, moreover, there were approximately 3,500 food processing companies with a workforce of 10 or more employees per company, occupying 15% of all the manufacturing sectors.

Foreign capitals in Thailand are diversified enough to include the Japanese (food processing companies and trading firms), Taiwanese/Chinese merchants, European and American capitals. And each of them has occupied approximately one-third of the production. For a Japanese capital, it seems that their deployment overseas has made a major stream as follows:

(1) Initially exported to the USA from Japan in the form of canned products.

(2) Subsequently Japanese technologies and capitals were transferred to Taiwan while seeking food materials and low-cost labor, leading to an increase in exportation to Japan and USA (especially freezing cultured shrimps).

(3) Seeking food materials and low-cost labor, moreover, Japanese capitals and Taiwanese/Chinese merchant capitals made inroads into Thailand, thereby increasing the exportation to Japan and USA. (With the shrimp culture taken for an opportunity, the exportation was subsequently diversified into various types of fried foodstuffs, Yakitori, Sushi materials and so on.)

In the food material procurement aspect, foreign capitals generally have no channel within the territory of Thailand. They have been deploying their business in the form of a joint venture (51% or more to the Thai side) with a Thai capital (belonging to a Thai financial combine). Through such joint venture/OEM operations, many Thai capitals have been

extending her food processing business in a great measure, including CP Group, Better Food group, Thai Union group and Malee. A Japanese capital in Thailand today, moreover, has often taken a form of consigned production with Taiwanese and Chinese merchant capitals rather than merely making capital inroads.

Samut Scaon area, located to the southwest of Bangkok is famous as the base where marine product processing enterprises have clustered. And a lot of related companies have located their operations in the area. The agriculture/stock-raising sector, on the other hand, will also have a significant merit if their operations are located around Bangkok, with such aspects as collecting food materials, exportation and labor availability taken into account. A concept, meanwhile, was envisaged to establish an industrial site for the exclusive use of food processing, but it has not been materialized so far. In Thailand, there are still a lot of people engaged in agriculture and fishery. And her export destinations conceivable are likely to be diversified into the countries within the ASEAN area, Middle East and China rather than being limited to Europe, America and Japan only. In addition, the technology transfer to some extent has been accomplished in Thailand while she remains still cost-competitive with labor available at low cost. The Thai Government, therefore, expects more than ever for the food processing industry to promote exportation. More specifically, the Thai Government's new investment incentive policy for 2000 has designated the food processing industry as one of her specific critical industries.

It may be safely said that the food materials domestically procured in Thailand have been relatively sufficient so far. With the shrimp culture fading away (inland operations prohibited), Thai products only is not always going to allow for an expansion. In response to the customer needs (Japanese, American and European buyers), therefore, Thailand is taking the form of importing and processing the food materials procured all over the world rather than her peripheral countries only. Myanmar significantly potential with agricultural and marine resources, therefore, has been being looked at with full interest by food-related Thai and Japanese enterprises.

(1) Milling

In the wheat milling business whose raw material or wheat is almost totally dependent on importation, eight companies, including 3 foreign capitals, have participated while continuing to keep an oversupply condition. The milled wheat flour is used in a wide variety of applications, bread, noodle, confectionery and so on, being consumed as the raw material for processed foodstuffs to be sold mainly on the domestic market.

(2) Canning

Making effective use of the resources abundantly available in the country, the canning sector has been growing into one of the main export industries in Thailand. With the industrial sector of canning positioned as a critical industry, the Thai Government has been supporting the sector for certification under HACCP and ISO through the newly established National Food Institute. On the other hand, the Thai private industrial sector of canning has been positively acting to explore markets overseas jointly with Thai Food Processors' Association, a non-profit-making organization.

In the marine products canned in Thailand, tuna is famous, which has occupied 20% of the total canned tuna production all over the world and 50% of the total export in Thailand. The Thai Union group has become the largest tuna canning vendor in Thailand by taking over a US canning enterprise. This group has been enthusiastically exploring the US market, on which, however, an import control has been often implemented for the purpose of protecting the US domestic industry. In the agricultural products canned in Thailand, pineapple has been exported in the largest quantity, which has occupied 40% of the total production and 50% of the total trade in the world. Thailand, moreover, has been actively tackling with the exportation of other canned fruits, vegetables, etc.

(3) Beverages

Beverages domestically sold in Thailand have a production size estimated at approximately 100 billion bahts a year, broken down into water drinks (10 billion bahts), lactic beverage (20 billion bahts), carbonic acid beverage (20 billion bahts) and so on. The 1997 currency economic crisis caused the Thai beverage industry to remain sluggish for several years. In line with the economic recovery, however, the demand for beverages is now showing a gradual recovery basically. Many famed foreign brands have made inroads on the Thai beverage market. Under such circumstances, some Thai domestic brands have been also putting up a good fight.

(4) Confectioneries and Snacks

Potato chips, biscuits, candies, chewing gums, chocolates and the like are being mainly produced for sales on the domestic market. Famous Japanese, American and European brands, such as Filltray (USA), NABISCO, Lotte, Calbee, etc. have made inroads in the Thai confectionery-snack sector. Their weight is rising with higher added-value products, with an income level upgraded on the backgrounds.

(5) Frozen Foodstuffs

Coupled with the frozen food processing technology and demand increased, those enterprises that are producing and processing fishery and livestock products into frozen foodstuffs have integrated in Thailand where both fishery and livestock resources may be secured while low-cost labor is available. Especially Japanese enterprises have made positive inroads in Thailand, where approximately 20 Japanese companies have currently participated in this industrial sector of Thailand.

The marine product processing sector comprises light shrimp-processed products, such as fried shrimp, shrimp flitter or the like, Sushi materials, such as shrimps, shellfishes or the like, and fish-paste products, etc. Thailand, however, is famous as the largest cultured black tiger producing country in the world. This sector, however, is now losing competitiveness, with her environments remarkably contaminated. Consequently, there is a more and more remarkable trend to seek food materials in neighboring countries. The livestock sector is composed mainly of raw material broiler. In the beginning, Thailand exported more products unprocessed. To raise the added-value, however, there has been an increase in percentage of raw materials for processed products, such as Yakitori (roast chicken) and fried products

(6) Precooked Noodles

In 1970s, precooked noodles began to be produced in Thailand. Principal brands, such as MaMa and YumYum, have had a major market share on the Tai market in this sector. In the precooked noodles, Chinese noodles have occupied 90% while the cupped noodles have had a weight remain around several percent. In line with the more and more diversified customer needs, there are possibilities that Thai capitals may take initiative in vigorously developing new products for a changeover from bagged to cupped noodles or the like.

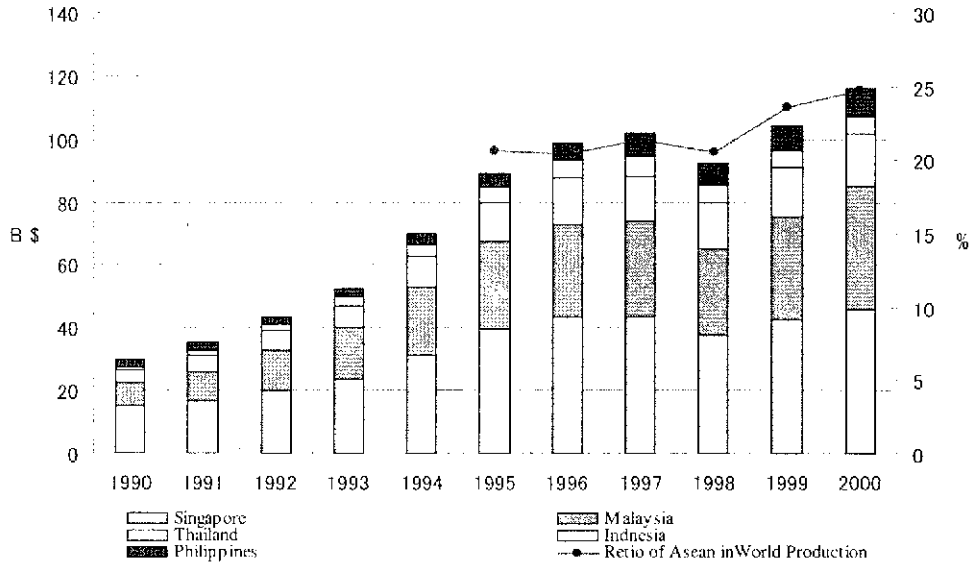
2. Division-of-Labor Structure in ASEAN Electronic Industry

(1) Overview

The electronic industry in the ASEAN member countries showed a growth at an annual rate of approximately 15% in 1990s and achieved a market size of 116 billion dollars in 2000. The production size in this area exceeded 50% of that in Japan, while getting larger than those in Korea, Taiwan and china. The Thai electronic industry met nearly 15% of the demand on the worldwide market. The currency economic crisis that had attacked this area in the second half of 1990s brought about a decrease in direct investment from outside the area due to the

declining demand inside the area and to such factors as increases in cost for imported parts and materials. In 1998, the ASEAN electronic industry was driven into a decrease in production. Nevertheless, the demand in Europe and America later steadily extended while the currency effect enhanced the export competitiveness. In addition, financial restructuring turned the intra-ASEAN market toward a recovering trend. Consequently, the production activities recovered the conventional level. In the beginning of 2000s, the ASEAN electronic industry has begun to be directed toward a new stage of growth.

Figure 3-52 A Time-Series of Changes in Production of Electronic Industry in Main ASEAN Member Countries



Source: Yearbook of World Electronics Data 2000 (Reed Electronics Research)

Table 3-19 Comparison of Main Electronic Products in Main ASEAN Member Countries

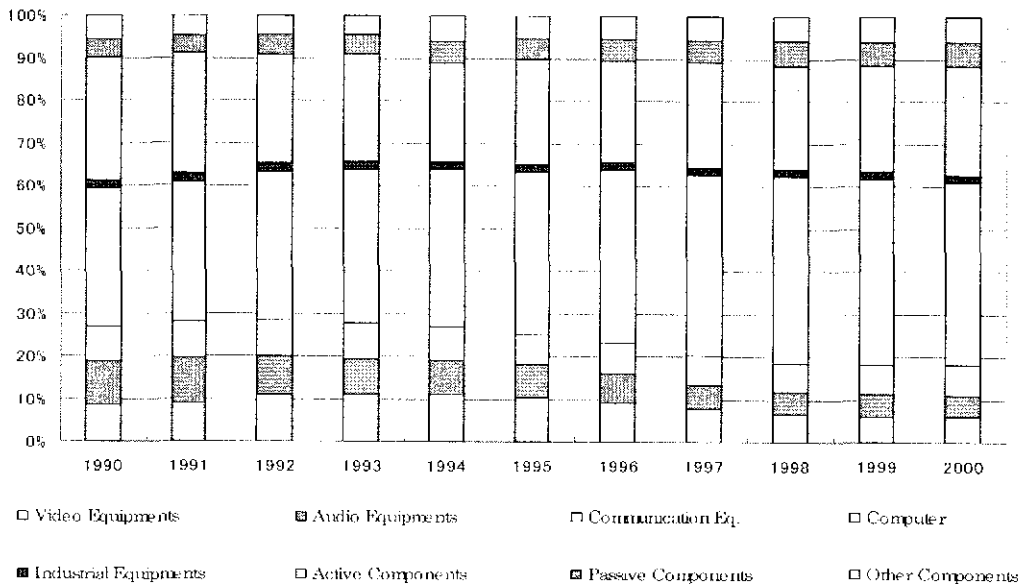
(Million sets)

	Singapore	Malaysia	Thailand	India	Philippines	ASEAN Total
Color TV sets	3.1	14.4	12.4	3.8	1.4	35.1
VTRs		12.3	5.2	8.7	0.1	26.3
Cam coders		0.8				0.8
DVD players		2.4				2.4
CD/MD players		14.5		5.5		19.9
Radio receivers		4.0		0.5		4.5
Radio receivers/cassette recorders		3.7	0.6	1.6		5.8
Stereo systems	2.7	17.8	0.5	3.2		24.2
Car stereo sets	1.5	9.0	7.5	4.1	1.6	23.7
Telephone sets in general	1.0	17.4	4.9	1.6	1.0	25.9
Mobile phones	11.4	9.5			1.7	22.6
Fax machines	0.8	4.6	3.3			8.7
PCs	5.3	1.2			1.0	7.4
Monitors		4.9	11.5	1.5		17.9
Hard disks	83.0	21.6	39.0		27.4	171.0
Floppy disks		42.6	9.0		54.0	105.6
Optical disk drives	0.5	27.6		16.8	15.0	59.9
Printers	11.4		16.5	4.8		32.7
Keyboards		14.4	27.0			41.4
Copiers			0.6			0.6

Source: Japan Electronic Machinery Manufacturers' Association (currently Electronic IT Industrialists' Association)

Figure 3-53 A Time-Series of Changes in ASEAN Electric/Electronic Industry Production

% Component by Sector

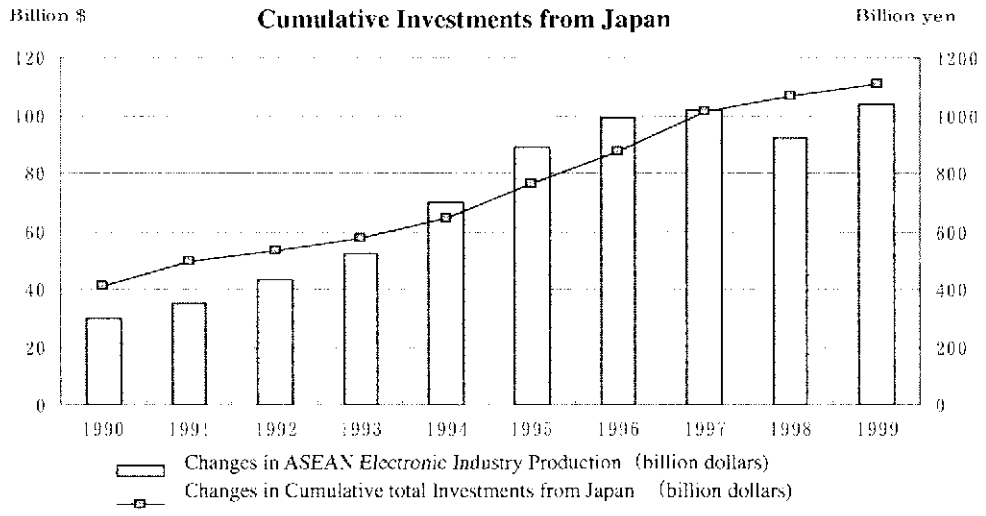


Source: Yearbook of World Electronics Data 2000 (Reed Electronics Research)

The ASEAN electronic industry has initially begun to develop by producing finished products and assembling parts in the socalled AV-related sector, that is TV sets, audio equipment and so on, including the semiconductor post-process assembly. Coupled with a subsequent increase in demand for parts within the ASEAN area, various part enterprises have progressively come to integrate. With the parts made readily available in the area on the backgrounds, furthermore, the electronic industry has come to have a significant weight occupied by manufacturing activities in the information communication sector mainly composed of PC-related peripheral products of higher added-value, such as hard and floppy disks.

Those international industrial capitals that supported the ASEAN electronic industry in both capital and technology aspects have been constructing full-scale export bases in Singapore, Malaysia and Thailand. Especially, these three countries have changed their policy to positively introduce foreign capitals since the middle of 1980s. Japanese enterprises, above all, have been continuously involved in a wide range of product fields and have made direct investments and re-investments, thereby contributing significantly to the development of the electronic industry in the ASEAN member countries. Full-scale inroad by Japanese enterprises began during the yen currency hiking period in the middle of 1980s. Subsequently, their investments and production have been being expanded favorably. Coping with the 1997 Asian currency economic crisis, they have been proceeding with an increase in added value of production items in the ASEAN area, with a reconstruction of manufacturing functions, with a buildup of design/development abilities, with a construction of new production bases and with a review of managerial organizational functions.

Figure 3-54 A Time-Series of Changes in Production of ASEAN Electric Industry and in Cumulative Investments from Japan



Source: Yearbook of World Electronics Data 2000/ Ministry of finance statistics monthly (Ministry of finance)

(2) Wide -Area Division-of-Labor Form

Initially, those relatively simple electronic product assembly processes were transferred to the ASEAN area to make effective use of ample low-cost labor available there. Later, however, an integration of both equipment and part enterprises made a step forward. With hikes in labor cost and secure improvements of engineering capabilities on the backgrounds, however, foreign capitals, including Japanese enterprises, etc., have diversified and upgraded their production forms by transferring them from the manual simple assembly operations to a system in which automated equipment and advanced inspection measuring systems have been introduced, and from the material processing to an integral part manufacturing form so as to enhance the export competitiveness all the more.

Under such changing circumstances, the ASEAN electronic industry has begun to show a change in their respective characteristic structures and a changeover to a wide-area division-of-labor. As a typical example of the division-of-labor system within the ASEAN area, the electronic industry has been deploying over to Penang, Johore (Malaysia) and Batam Island (Indonesia), with Singapore at the nucleus. In Malaysia, a deployment has extended to the post-running region, Sarawak. In Thailand, furthermore, the electronic industry has been extending from the periphery of Bangkok (Zone No. 1) to local Zones Nos. 2 and 3. Singapore, whose division of labor has had the longest history, has both national land and labor limited, having the most advanced division-of- labor structure, involving the peripheral countries. In the case of Malaysia that has the largest electronic industry integrated, on the other hand, is about to encounter with a limitation especially in supplying human resources. And it is predicted that Malaysia should have a significant focal point at establishing a division-of-labor system both domestically and within the ASEAN area.

(3) Part Industry Integration and Division-of-Labor Structure

Integrated within the ASEAN area are a lot of part assembly/processing enterprises that support the process of assembling various electronic equipments. Approximately 90% of the universal and exclusive parts required for equipment assembly may be procured inside the area. Most of the enterprises specializing part assembly/processing have been occupied by Japanese capitals, which are using the ASEAN as a base to supply parts outside the area as shown in Figure 3-55. Part assembly/processing is considered to require advanced automation technologies and machining skill, including engineering capabilities, such as element technologies and the like. Consequently, there have been few local capitals internationally competitive. Those members which are difficult to procure within the area, meanwhile, include special parts, such as analog ICs, sensors and the like, and various raw

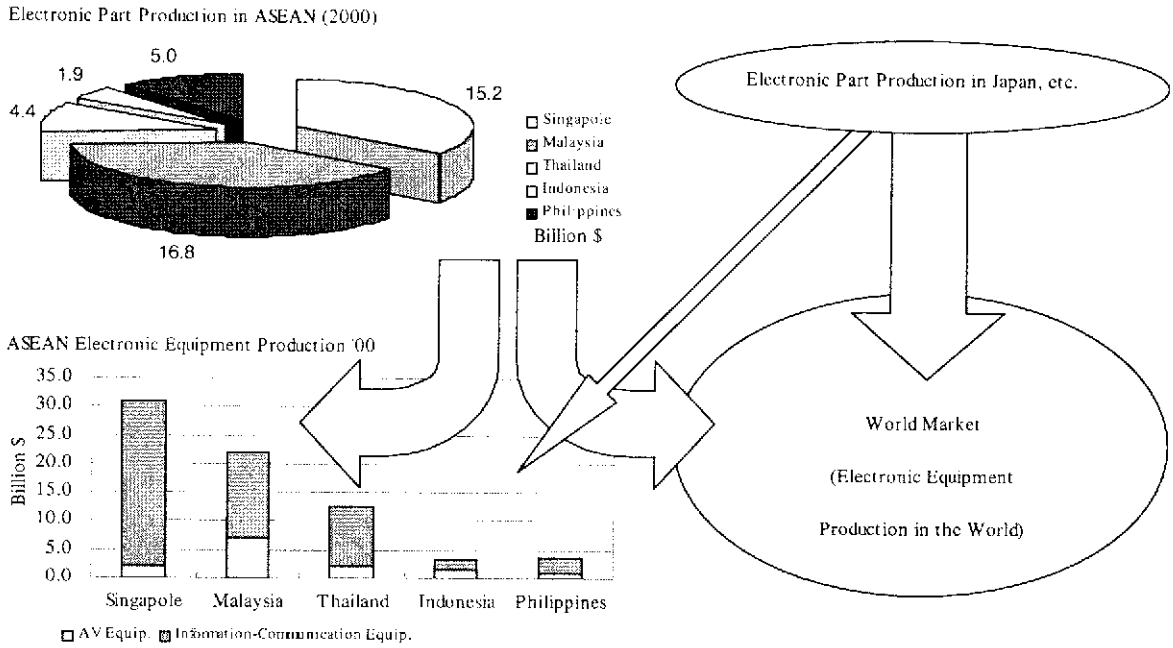
materials and production equipment required for part processing. Most of them have remained still dependent upon the importation from developed countries, including Japan.

The local part procurement has reached a high level while local engineers have improved their skill remarkably through long years' experience of operations inside the ASEAN area. With these facts taken into account, some leading Japanese enterprises, who are manufacturing the intelligent communication equipment technically matured to some extent while assembling and producing their unit parts, have been enhancing their local design functions by building up the local design staff and by transferring advanced design support systems, such as 3-dimensional CAD and the like. Such a trend is partially attributable to the backgrounds that it is getting more and more difficult for a Japanese enterprise to secure development engineers inside Japan especially in the overseas-shifted equipment field. Such local transfer of design functions might well be expected to achieve a short lead time and to contribute to an improvement of productivity through an appropriate response to the local market needs and through a prompt and appropriate product development, based on a faster response to the local market needs and on a local procurement of parts.

A component part manufacturing enterprise, on the other hand, shows a strong tendency to conduct on the design development operations centralizedly in Japan. In many cases, moreover, a line production in the ASEAN, if any, has not been transferred locally before getting the line production skill learned to some extent within Japan. With more labor-incentive parts, however, Japanese part enterprises made inroads in China, whose competitiveness has been enhanced in some cases. To enhance competitiveness, such as short lead-time, etc., it is desirable to start up a new product line production overseas promptly. Consequently, part enterprises have been striving to positively enhance the local engineering capabilities.

For the purpose of increasing the added-value in manufacturing operations and enhancing the cost competitiveness, equipment assembly enterprises have been tending more and more to aim at an in-house production of components and members. They relate to those machined parts and those involved in process, which it is difficult to procure from any local enterprise other than those affiliated with a Japanese capital. A movement toward the in-house production has been also seen in the plating process that involves difficulties in subcontracting a local enterprise, in addition to plastics molding, metal pressing and tooling.

Figure 3-55 Production of Electronic Equipment/Part Production in ASEAN and Flow of Supplies



Source: Yearbook of World Electronics Data 2000, etc.

With color TV sets taken up as an example, a division-of-labor structure in the ASEAN area is shown below. As shown in Table 3-20, TV sets were assembled in approximately 35 million units in 2000 in the ASEAN as a whole. Most of them are clustered in Malaysia and Thailand. A TV set is composed mainly of universal parts, such as CRT, semiconductor, PCB, resistor and capacitor, and exclusive parts, such as tuner, remote control and the like. Out of these necessary parts, those except for special parts, such as analog IC or the like, imported from Japan, have been being supplied by Japanese part enterprises mainly in Malaysia, Singapore, Thailand, etc. The most critical part, CRT, is produced by Japanese, Korean and Taiwanese specializing vendors mainly in Malaysia in a quantity enough to cover the production of TV sets within the area.

With audio devices other than TV sets, including intelligent communication equipment, parts are also procured similarly, with equipment mainly produced in Singapore, Malaysia and Thialnd. Parts, on the other hand, have been being supplied mainly by Malaysia and Singapore. In the middle of 1990s, Indonesia was about to be the base for labor-incentive equipment assembly and parts production at a low added value. Such a trend, however, has turned sluggish because of her recent unstable political situations. Philippines, moreover, is characterized by her specialization in assembling semiconductors and hard disks.

Consequently she shows a poor level of supplementary relations with other ASEAN member countries.

Table 3-20 Production of Color TV Sets/CRTs in ASEAN Member Countries (2000)

(Million sets)

	Singapore	Malaysia	Thailand	Indonesia	Philippines	ASEAN TOTAL
Color TV sets (including VTRs)	31	14.4	12.4	3.8	14	35.1
CRTs for TV sets	44	16.0	6.6	6.4	0.0	32.4

Source: Japan Electronic Machinery Manufacturers' Association (currently Electronic IT Industrialists' Association), etc.

(4) Cases of siting in Viet Nam by Japanese firms

Figure presents an outline of most of the Japanese EPZ (and some EPE) firms that moved into Viet Nam in the mid 1990s, along with a description of their business and the future outlook. Although Fujitsu's location is engaged in PCB packaging and substrate processing, the locations of the other firms are basically confined to assembly of simple components mainly by coiling, such as transformers, coils, and motors. As this suggests, the siting was motivated by use of the low-cost labor in Viet Nam.

These components fall in the category of simple assembly and require a large number of workers, but the work is not simple; on the contrary, it demands skills in the operation and maintenance of large amounts of automated machines, and Viet Nam is given high ratings in this aspect. While investing extensively in China, some firms want to disperse the investment risks and prefer siting in Viet Nam for assembly of components requiring considerable engineering capabilities and for early start-up of mass production of newly developed components. This is a big factor behind the development in parallel with siting in China.

EPZ (and EPE) firms may point out the irrationality and inefficiency typically found in procedures for customs and various applications in developing countries, but do not regard them as major problems. Indeed, they have a high opinion of the benefits in the form of the one-stop services offered by the EPZ authorities. These make for a big difference from the investment environment of the firms participating in the domestic market. The field of demand for many assembly components is information-communications equipment, which has good growth prospects, and the EPZ firms are generally planning to double the scale of their production in Viet Nam and switch to in-house processing (stamping, molding, etc.) in order to boost their cost competitiveness.

(5) Challenges

In the middle of 1990s, the ASEAN electronic industry was overheated, being supported by the growth of vigorous markets inside and outside the ASEAN area. This overheat, however, was quenched in a stroke by the currency economic crisis. The AFTA, moreover, has been implemented to aim at an intra-area common customs clearance system by the middle of 2000s. And the Chinese electronic industrial has increased the international competitiveness. To cope with these rapidly changing situations, international industrial capitals, including Japanese ones, are now pressed to reform the production structure inside the ASEAN area. The industrial structure, moreover, is called upon to attain a far more advancement by implementing such a wide-area division-of-labor system and development functions as already referred to, including the transfer of management functions to the locality.

As far as a transfer of management functions to the locality is concerned, many Japanese capitals have had local plants managed with the initiative taken by the personnel dispatched from Japan. And they mostly specialize in transferring the production known to a local plant. Nevertheless, they have brought in a management style similar that within Japan. Consequently, it is difficult for Japanese enterprises to recruit excellent manpower as compared with European and American capitals. A transfer by Japanese enterprises of their management to the locality, therefore, has not made any progress at all. To expand operations and divide the labor within the area promptly and appropriately in the future, it is necessary to transfer the management functions to the locality. Such steady efforts are essential to accelerating the rise of such a local capital capable of bearing the supporting industries lagged behind there.

Table 3-21 Profile of Japanese Component Firms in Viet Nam and Plans for the Future

Firms	Corporate profile	Business outline	Plans for the future
Tokin Electronics	Year of start-up : 1997 Capital composition : Tokin Electronics (100%) Number of employees : 650persons	* Assembly of TV noise filters and transformers *Tokin already has plants for the same components in Malaysia and China, but the one in Malaysia would be difficult to expand, and the one in China is to specialize in more labor-intensive components. The VN plant is built mainly for surface package components assembled by automatic units.	· As a second stage, the company is planning to commence assembly of speakers for cellular telephones and expand the overall scale of assembly. · The target third stage is in-house production of stamped and molded plastic components.
Mabuchi Motor	Year of start-up : 1997 Capital composition : Mabuchi Motor (100%) Number of employees : 5,000 persons	* Assembly of small motors for CD players and automobiles * In-house production of ferrite cores and stamped/molded plastic components * Siting in VN to disperse risks associated with extensive siting in China (Dalian, Jiangsu, Guangdong; VN was judged to be the best site outside China)	· Plans for a doubling of the number of employees and production volume relative to the present by 2002, for cost competitiveness to rival that of China (the Guangdong plant employs 50,000)
T.T.T.I.	Year of start-up : 1996 Capital composition : Todai Electric (72%) /Towa Denki (28%) Number of employees : 500 persons	* Assembly of TV noise filters, demagnetizing coils, etc. * In-house production of some molded plastic components * Siting in VN in association with the mother plant in Malaysia (avoidance of siting in China due to risks)	· The company has not made any concrete plans for expansion, but noted that its VN location would be the subject of any such expansion, which would be impossible at the Malaysian plant. - It regards the plant as capable of prompt mass production of all components soon after their development in Japan, thanks to the high level of workers and engineers.
Nidec Tosoku	Year of start-up : 1995 Capital composition : Nidec (40%)/Tosoku (60%) Number of employees : 1,600 persons (1,000 of whom work in the fan motor plant)	* Assembly of fan motors for PCs and peripherals (however, of the three plants, the remaining two assemble automotive components and process the related materials, respectively) * Nidec acquired the Nissan-affiliated firm Tosoku in Japan, and built a fan motor plant on the grounds of the existing Tosoku plant in VN. * Nidec also has a large fan motor plant in China (Dalian), but regards the one in VN as offering lower costs and better quality.	· The company is targeting an increase in monthly production from 2 million units at present to 5 million units in the near future. This will require construction of a new plant (there is still room for expansion on the grounds).
Nidec Copal	Year of start-up : 1999 Capital composition : Nidec (51%) /Nidec Copal (49%) Number of employees : 1,600 persons	* Assembly of oscillation motors for cellular telephones * Import of all materials from Japan and other countries * The company has plans for production of the same components in China and Thailand, but attaches importance to the one in VN because of the risk of leakage of know-how in the production in China (which is on a consigned basis) and the increase in personnel expenses in Thailand.	· Plans for a doubling of production volume by 2001 - Intention to shift to in-house production for certain stamped components by the spring of 2001.
Viet Shaing Electronics	Year of start-up : 1996 Capital composition : Huacheng Toko (100%) Number of employees : 800persons	* Assembly of coils and duplexers * Import of materials from Taiwan, etc. * Siting in VN to disperse risks associated with siting in China	· Possibility of an expansion of production through transfer from the Malaysian plant
Fujitsu	Year of start-up : 1995 Capital composition : Fujitsu (100%) Number of employees : 2,500 persons	* HDD-use PWB package assembly and substrate processing * Shipment mainly to Fujitsu HDD assembly plants in Thailand and the Philippines	· The company has already started up one plant for packaging and another for processing. The third plant (for packaging) was under construction as of June 1999, and a fourth plant (for processing) is planned for the future.

Source : Nomura Research Institute

3. FDI Trend for Japanese Electrical and Electronic Industry

Figure 3-56 FDI Distribution for Japanese Manufacturing Sector by Major Industry
(Accumulation until 2000 —> 34.2 Billion Yen)

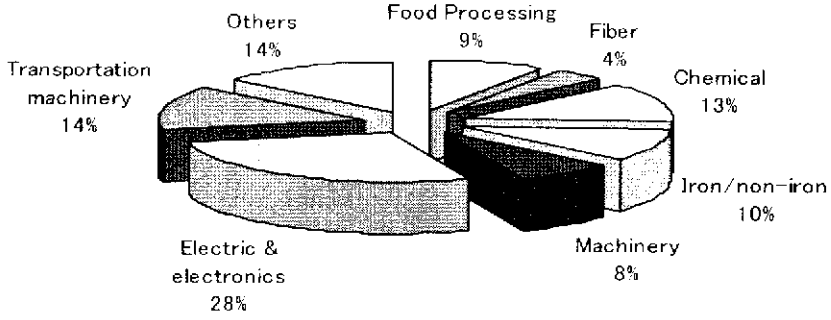


Figure 3-57 FDI Distribution for Japanese Electrical and Electronics Industry by Major Area
(Accumulation until 2000 —> 9.1 Billion Yen)

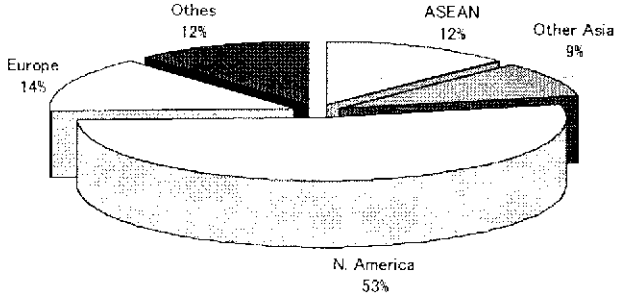


Table 3-22 FDI for ASEAN Countries in Japanese Electrical and Electronics Industry
(an Amount of Money, the Number)

(Billion Yen)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	~2000
Korea	0	0	2	2	1	2	7	2	4	6	5	16	150
Tiwan	0	0	8	3	5	8	15	14	20	9	17	29	237
HK	0	0	2	2	13	10	6	35	1	1	4	2	109
China	0	0	17	25	39	52	90	44	52	16	7	36	413
Singapore	12	8	7	5	7	10	21	21	30	3	26	13	244
Malaysia	36	39	39	14	16	17	17	21	20	11	9	3	307
Thailand	33	26	28	10	11	17	30	26	52	14	8	15	323
Indoneshia	2	1	12	7	3	9	24	19	9	10	10	5	160
Philipin	7	20	4	1	5	15	22	17	20	12	16	34	183
Viet-Nam	0	0	0	0	1	0	5	5	10	2	1	1	25
Total	90	94	119	69	100	139	237	203	217	84	104	155	2,150

(Number)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	~2000
Korea	13	3		3	5		2	1	5	7	6	16	366
Tiwan			15	6	7	9	11	10	18	7	9	16	525
HK	13	6	10	3	9	11	10	5	3	3	8	6	186
China	14	11	22	34	57	66	94	29	21	11	12	33	443
Singapore	9	4	5	3	5	5	12	9	8	3	5	3	338
Malaysia	40	39	27	21	15	15	16	17	9	9	11	7	384
Thailand	34	36	24	14	9	18	31	27	18	7	7	11	346
Indoneshia	6	3	9	9	4	9	17	12	8	10	10	7	148
Philipin	8	4	3	2	5	11	26	22	9	14	12	21	170
Viet-Nam					2	2	6	3	6	4	1	3	30
Total	137	106	115	95	118	146	225	135	105	75	81	123	2,936

Source : Ministry of Finance Statistics Monthly

4. Philippines "The Special Economic Zone Act of 1995"

5. Philippines PEZA (Philippine Economic Zone Authority)

PEZA : Government Corporation attached to the Department of Trade & Industry

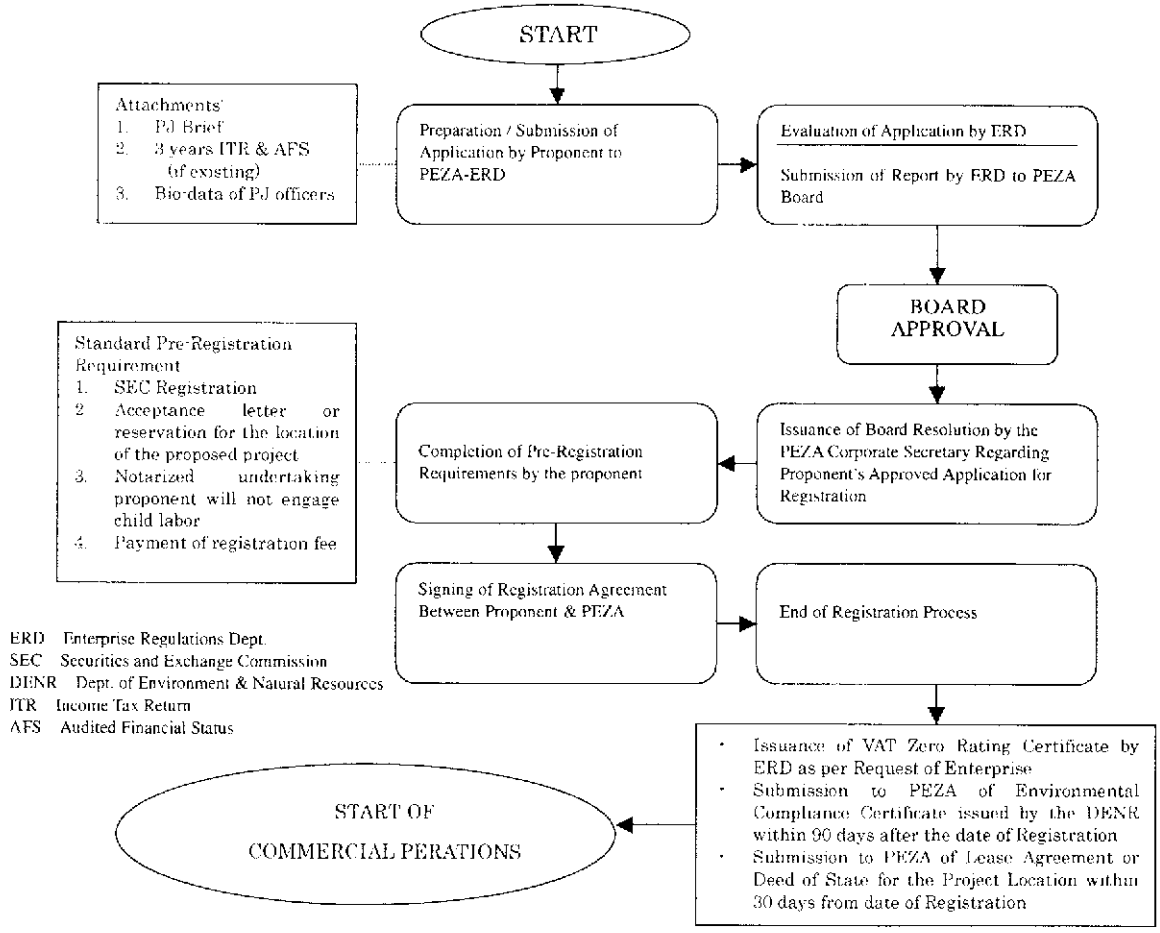
Board :

Chairman Secretary of the Department of Trade & Industry

Member(12)

- Undersecretaries of Department of Finance, Department of Labor & Employment, Department of Interior & Local Government, Department of Environment & Natural Resources, Department of Agriculture, Department of Public Works & Highways, Department of Science & Technology, Department of Energy
- Deputy Director General of the National Economic and Development Authority
- One(1) representative from the private sector
- One(1) representative from the investors/business sector in the economic zone

Figure 3-58 Company Registration Flow



Source: PEZA Material

Incentives for Economic Zone Export Enterprises

- Income Tax Holiday (ITH) or Exemption from Corporate Income Tax for four years, extendable to a maximum of eight years
- After the ITH period , a special 5% Tax on Gross Income, in lieu of all national and local taxes
- Exemption from duties and taxes on imported capital equipment, spare parts, supplies, raw materials
- Also breeding stocks and/or genetic materials or the equivalent tax credit on these items, when sourced locally
- Domestic sales allowance equivalent to 30% of total sales
- Exemption from export taxes, wharfage dues, imposts and fees
- Permanent resident status for foreign investors and immediate family members
- Employment of foreign nationals
- Simplified import and export procedures
- Other incentives under Executive Order 226(Omnibus Investment Code of 1987), as may be determined by the PEZA Board

Incentives for Economic Zone Developers

- Income Tax Holiday
- Incentives under the Build-Operate-Transfer Law, which includes government support for accessing Official Development Assistance and other sources of financing
- Provision of vital off-site infrastructure facilities
- Special 5% Tax on Gross Income, in lieu of all national and local taxes
- Permanent resident status for foreign investors and immediate family members
- Employment of foreign nationals
- Assistance in the promotion of economic zonesto local and foreign locator enterprises
- Other incentives under Executive Order 226(Omnibus Investment Code of 1987), as may be determined by the PEZA Board

6. Overview of "VSIP" in Vietnam

The Vietnam-Singapore Industrial Park "VSIP" began with the agreement made by and between Singaporean Prime Minister Goh Chok Tong visited Vietnam and met (then) Vietnamese Prime Minister Vo Van Kiet in 1994 when the former visited Vietnam. And it was agreed upon to study the feasibility of developing an industrial park as a recipient of private investments in Vietnam from overseas. In 1997, it started operating. At present, more than fifty enterprises have decided to enter the industrial park.

To make this project successful, a consortium has been organized by those private enterprises that have ample experience while enjoying international creditability. Under the full-fledged support of this consortium and both Vietnamese and Singaporean governments, it is committed that foreign enterprises trying to make inroads in the VSIP will operate smoothly there.

<Strategic Location>

- Access to principal points:

	Distance	Time Required (by car)
Urban centers, Ho Chin Minh	17 kilometers	35 minutes
Port of Saigon	18 kilometers	40 minutes
New Port of Saigon	16 kilometers	30 minutes
International Airport, Tang Song Nyat	15 kilometers	25 minutes

<Self-contained Highly Reliable Infrastructure >

Electricity:

- Stable power supply with an independent power plant
- Transformer facility intended to supply the power at high and low voltages
- Equipment constantly maintained
- 24-hour scheme in preparation for emergency

Water:

- Quality water supply through underground aqueduct,
- City water supply meeting WHO standards,
- Water tank provided in preparation for emergency

Waste Water/Sewer Treatment Facility:

- "Environment-friendly" industrial park provided with a waste water/sewer treatment facility
- Facility to dispose of sewer and non-chemical (non-toxic) water

Communications:

- Stable and reliable communication network provided,

- Public and private telephone lines arranged for international telephony, fax and Internet
- Line installable within 10 days

Drainageway:

Coping with rainfalls in the rainy season by means of a 1 meter deep drainageway located inside the industrial park

Road:

The roadway within the industrial park is broad enough for 20-foot and 40-foot containers to pass. Route 13, which faces the industrial park, is now being extended under the support of the Ministry. It is planned to allow for easier access to Hanoi and Thailand in the future as well as to the city of Ho Chin Minh.

<Land and Plant Offered according to Demand>

Land and standard plants (terrace type with an area of 1000 m^2 and independent type with 2000 m^2) are optionally available according to the production activities and schedules of a tenant.

<Advantages of VSIP - Software>

Management Board (MB)

Based on the decision made by the prime minister of Vietnam, the VSIP Management Board was organized within the industrial park. This board is an independent organ of Vietnamese authorities (those concerned with the Government. ministries and agencies) for the exclusive use of VSIP tenants. And the following proceedings may go through centralizedly there:

- Examine an investment permit application filed by a tenant and issue such permit, including the examination and permission on a future correction of such application (authority to permit an investment limited to an amount of up to 40 million US dollars).
- Issue various types of permits required for operations in the industrial park (building permit and export/import license)
- Apply for immigration of foreign employees and for their visa.
- Cooperate in recruiting employees and obtain permits required therefor.

Intra-Park Customs Clearance Office

A customs clearance office is located within the industrial park. Any cargo that has arrived at a port or airport may be carried directly in the industrial park. A customhouse officer resident in the VSIP would allow customs clearance proceedings to go through smoothly. The staff in the customs clearance office has been adopted by the VSIP after interviewed. They are responding collaboratively, constructively and friendly. It is possible to go through the customs clearance proceedings within one day for airfreight and within three days for

ocean freight.

Vietnam-Singapore Technical Training Center (VSTTC)

Under the support of both Vietnamese and Singaporean Governments, approximately 10 million US dollars was invested in establishing the Vietnam-Singapore Technical Training Center (VSTTC) at a site adjacent to the VSIP. Four courses are provided: Electric Maintenance Course, Mechanical Maintenance Course, Electric Engineering Course and Mechanical Engineering Course to cultivate engineers for the VSIP tenants. This center is managed in accordance with the Industrial Technology Education (ITE) curriculum in Singapore. And Vietnamese instructors have receive semiannual training The graduates who have completed half a year's training in the VSIP are offered good offices with priority to join a VSIP tenant enterprise.

Customer Service (CS) Team

The existing CS team is essential to the operations for VSIP tenants. It is supporting them with an appropriate and timely advice and/or guidance in various aspects of operations, including the proceedings for export/import and customs clearance. The CS team staff are aiming at those environments where tenants may are able to concentrate on production activities.

<Incentives for Investors>

Table 3-23 Incentives for Enterprises Inside the Industrial Park

Legal Person Tax	Export Ratio			Service Industry
	≧80%	<80% ≥50%	<50%	
Tax-exempt Term (from the first year for which a profit was made)	4 years	2 years	2 years	1 year
50% Tax-reduced Term (after the tax exempt term)	4 years	3 years	none	2 years
Special Legal Person Tax Rate	10%	15%	15%	20%
Exempt from Import Duties	1) Equipment and machinery accounted for fixed assets of an enterprise 2) Parts, spare parts, etc.			
Except from Added-value Tax	An Export Processing Enterprise (EPE) is entitled to be exempt from the added-value tax to procure materials domestically. An ordinary manufacturing enterprise should pay the added-value tax (basically 10%) first and will receive a refund later.			

Souece: VSIP Material

<Principal Enterprises that have made Inroads in the VSIP>

- Nitto Denko (flexible PCBs, Japan)
- Rohto Pharmaceuticals (pharmaceuticals, Japan)

- Japan Parkerizing (metal corrosion protection, Japan)
- Nihon Denchi, (exclusive cells, Japan)
- Fujikura (optical cabling, Japan)
- Konica (film cutting and packaging, Japan)
- Kimberly Clark (disposable napkin, USA)
- Diethelm (pharmaceutical commodity distribution, Switzerland)
- Schneider (circuit breakers, France)
- F&N (beverages, Singapore)

7. Vietnam HEPZA (HCHC Export Processing Zone Authority)

: A committee to manage an HCHC export processing zone and an industrial park)

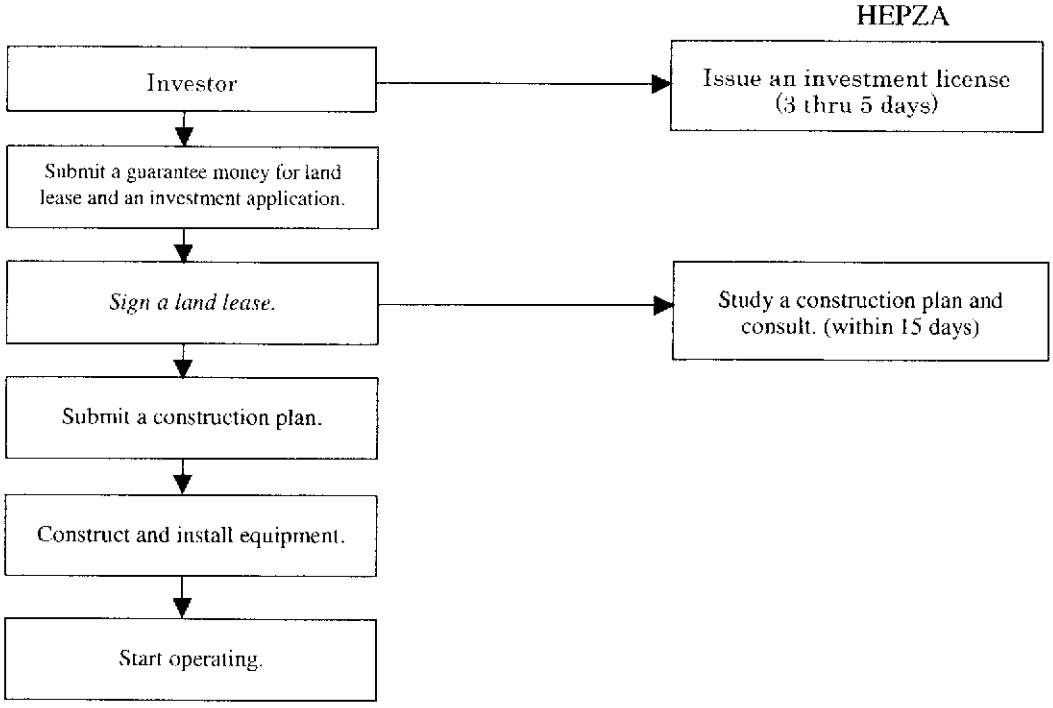
(1) Objects in which an investment plan is implemented within the industrial park and/or export
processing zone:
Foreign investors, Vietnamese economic units and foreign capitals

(2) A classification of enterprises making investments in the industrial park and/or export processing zone
- Vietnamese enterprises,
- Foreign capitals (100% foreign capital and their joint venture)
- Co-management defined under the Foreign Investment Act

(3) Lines of business for which an investment license is obtainable in the industrial park and/or export
processing zone:
1) Key facility construction.
2) Lines of business relating to the licenses on production, processing and assembly of industrial products for exportation overseas and for domestic consumption (sales) in Vietnam,
3) Activities to apply the research, science and technologies to promote the new product development and the product quality improvement and
4) Industry-assisting services.

(4) Lines of business not permitted
1) Any project that may affect the security, defense and/or public interest of Vietnam,
2) Any project that may affect the culture and historic relics and traditional habits in Vietnam,
3) Any project that may be harmful on the ecological environments and that may relate to the disposal of a poison from a foreign county, and
4) Any project relating to those chemical substances whose production or use is prohibited under the international law.

Figure 3-59 An Illustrative Procedure for Obtaining an Investment Permit when Making an Investment in the Industrial Park and in the Export Processing Zone



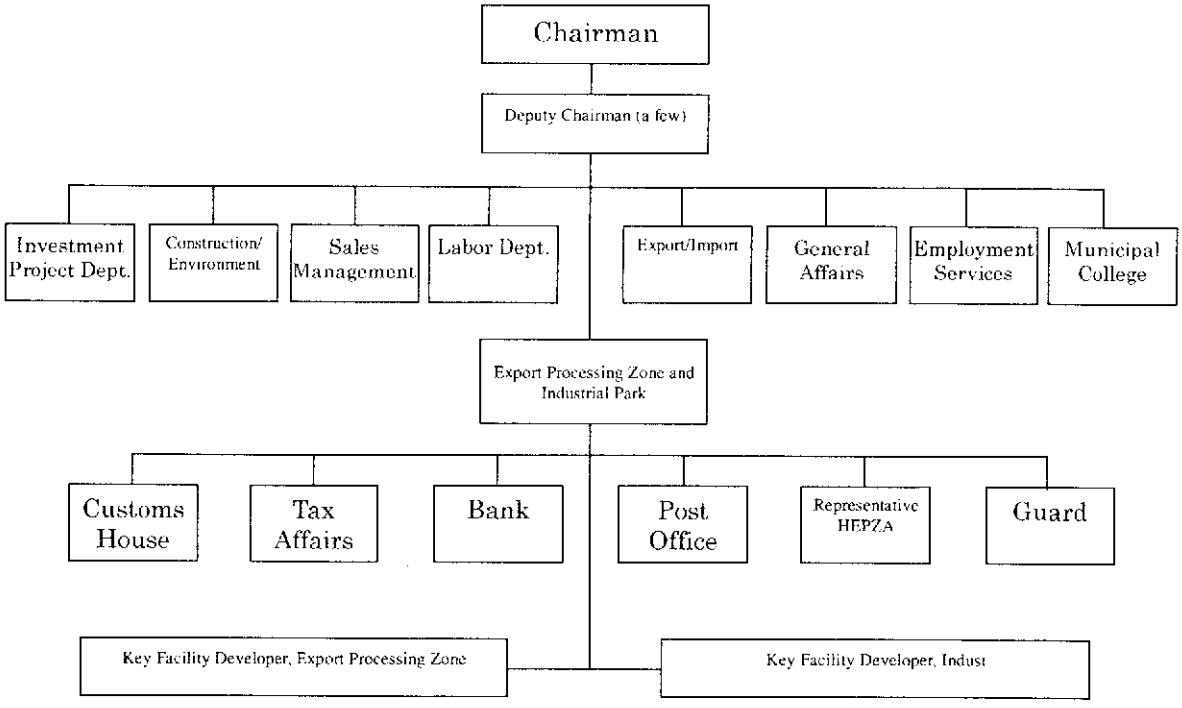
Source: HEPZA Material

(5) Industrial Park/Export Processing Zone Management Committee (HEPZA)

- Based on the prime minister's decision literature (No. 731/TTg/OCT/03/96), this committee was organized to serve as an organ in charge of managing the industrial park/export processing zone, following the "one window" rule (that is, this organ only will allow every proceeding to be gone through completely) as the administrative organization for the industrial park/export processing zone.
- Principal dusities and Authorities
  - Map out a plan to execute and evolve the develoment, buildup and construction of the industrial park/export processing zone, establish sales regulations and be in charge of the activities to collect investements in the industrial park/export processing zone.
  - Be in charge of issuing, amending and recovering various licenses (permits)
    Example: investment permit, construction lincense, annual export/import permit, foreigner working permit, etc.)
  - Manage, inspect and audit the activities in accordance with varius licenses and contracts and arbitate any economic conflicts among enterprises existing in the industrial park/export procesing zone.
  - Audit and control the works to construct industrial parks and export processing zones.

Figure 3-60 HEPZA Management Mechanism

(Enterprises in Industrial Park/Export Processing Zone)

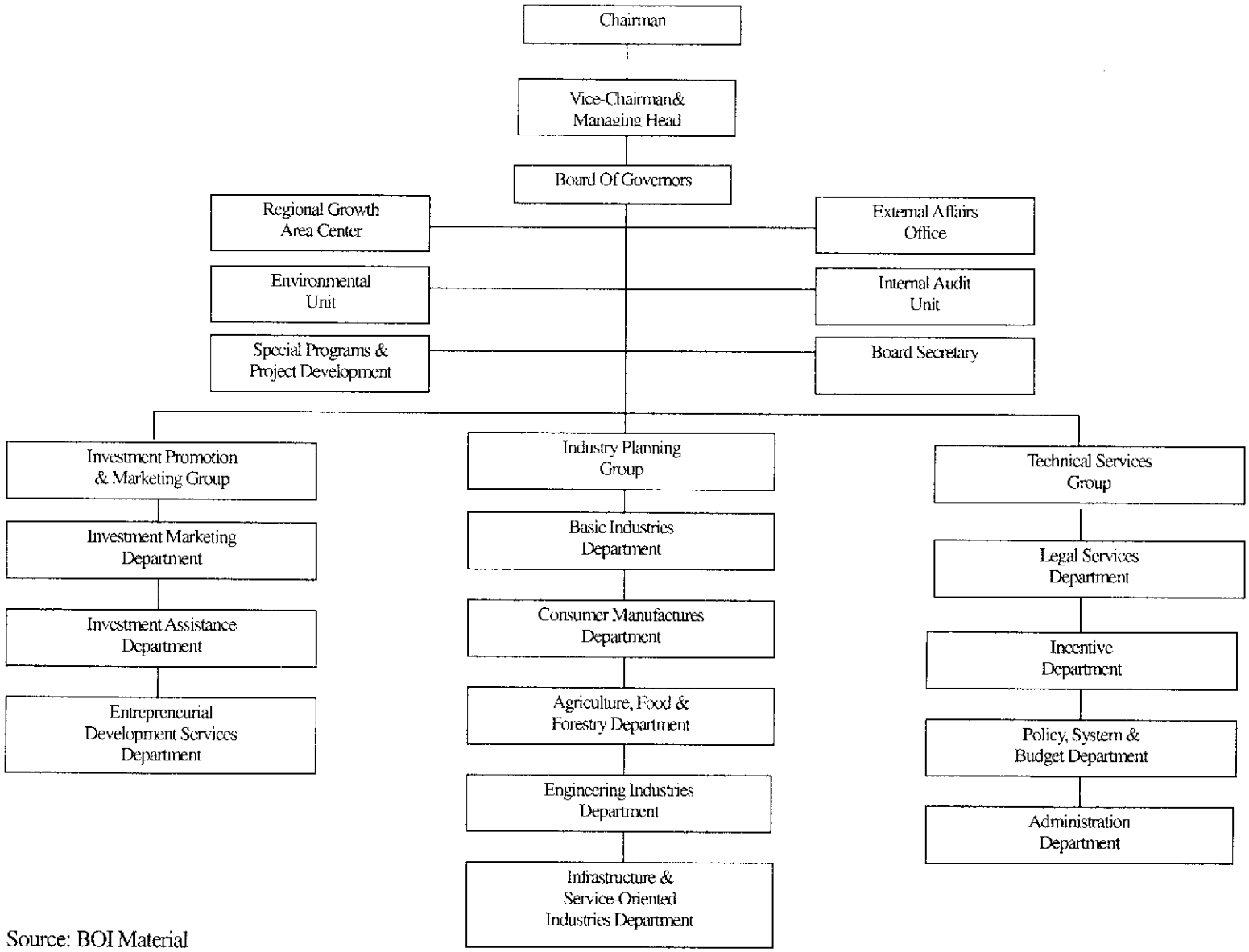


Source: HEPZA Material

HEPZA-affiliated IZ/EPZ (12 locations around HCHC)

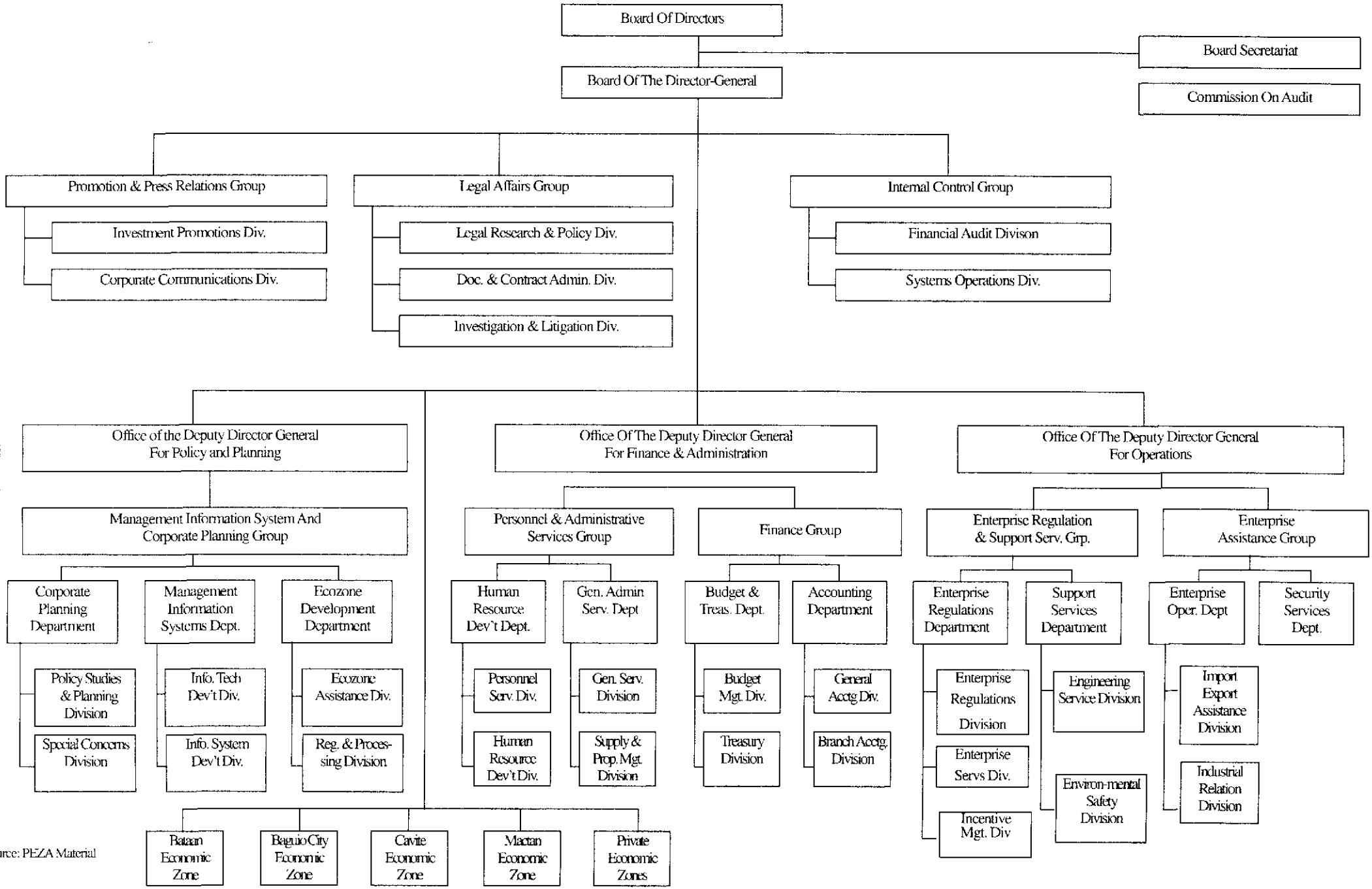
Tan Thuan(300), Hiep Phuoc(332), Cat Lai(127), Linh Trung(62), Binh Chieu(27), Linh Trung2(62), Tan Binh(250), Tan Tao(422), Vinh Loc(200), Le Minh Xuan(100), Tan Thoi Hiep(215), Tay Bac Cu Chi(220)

Figure 3-61 The BOI Organizational Structure in Philippines



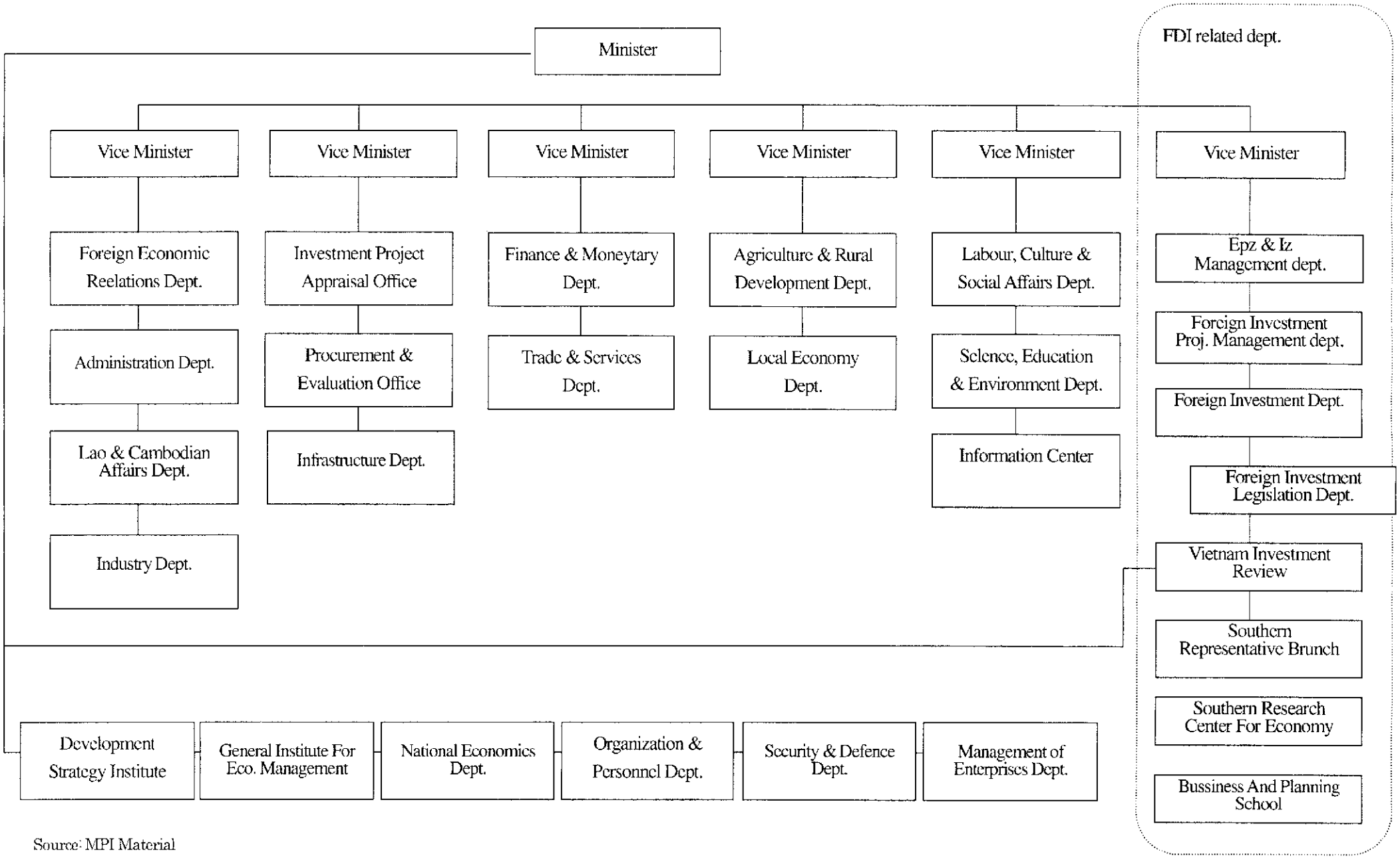
Source: BOI Material

Figure 3-62 The Philippine Economic Zone Authority



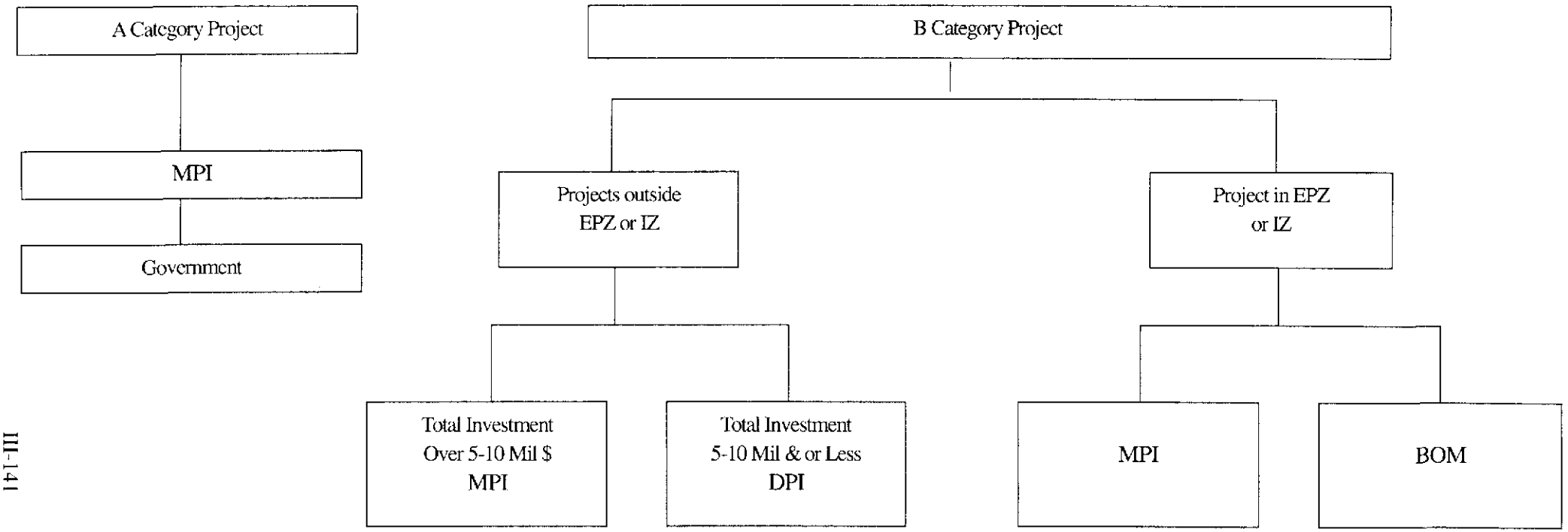
Source: PEZA Material

Figure 3-63 Mnistry of Planning and Investment Organizational Structure in Vietnam



Source: MPI Material

Figure 3-64 Process for an Investment Lisence in Vietnam



Note : A Category Project → Development of Infrastructure and natural resources, Postal and Telecommunication Services, Finance, Others
B Category Project → Manufacturing, Others

Source: MPI Material

Chapter 4

Master Plan for Export Promotion

4. Master Plan for Export Promotion

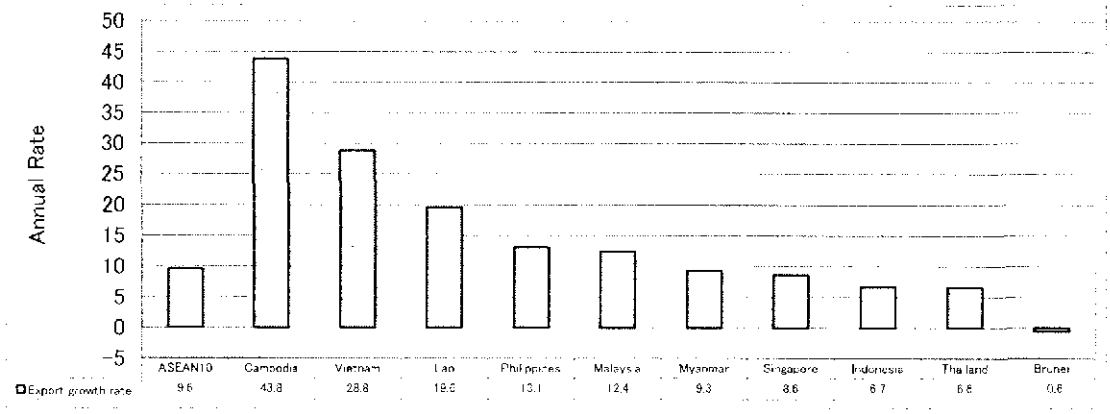
(Summary)

The importance of promoting export has been explained in previous materials. This chapter proposes a master plan for export promotion. It begins with a profile of the trend of export and major tasks for its promotion in Myanmar, followed by analyses and proposals focusing on the policy aspect in Section (1), and the analytical results and policy recommendations derived from them for individual export items in Section (2).

According to trade statistics of the International Monetary Fund (IMF), worldwide export on the free-on-board (FOB) basis reached 6.4 trillion dollars in 2000 and increased at an annual average rate of 6.5 percent during the 1990s. In the Asian region, the corresponding figures were 1.5 trillion dollars and 8.6 percent. Owing to the economic turmoil triggered by the Asian currency crisis, the share of global trade occupied by the region, which had been in a rising trend and hit 24.4 percent in 1996, fell back to 19.9 percent in 1998 due to a decline in the increase rate following the crisis. Subsequently, a moderate recovery brought the share to 22.9 percent in 2000.

Within Asia itself, there is a trend toward dispersion in this respect. Because the rate of increase in export from Japan has fallen relative to China/Hong Kong and the ASEAN 10, the share of all Asian export occupied by Japan has been lower than the shares of the former since 1993. Although this change is partly due to the shift toward offshore production in Asia outside Japan among manufacturers headquartered in Japan and other developed countries, the underlying factors are a rise in productivity and increase in cost competitiveness in the global context.

Figure 4-1 Export Growth Rates in ASEAN 10 for 1990s



Source: Prepared by the JICA Study Team based on data from the World Bank and other sources

Throughout the 1990s, extremely high rates of export growth were posted by the three Indonesian countries of Cambodia, Vietnam, Laos. Although this was because of the low trade volume in the early part of the decade in the case of Cambodia, for example, there was

nevertheless a jump in export on the part of countries that were newly incorporated into the ASEAN economy as compared to those such as Thailand, Indonesia, and Singapore, which had driven it in the past. These countries are clearly cost-competitive, and could very well achieve economic advancement on a par with the forerunning ASEAN countries once they have made the right provisions for export promotion.

Although Myanmar export grew at a corresponding rate of 9.3 percent, this was still less than half as high as the rates for other less-developed ASEAN countries such as Cambodia, Vietnam, and Laos. This is thought to be caused mainly by the underconditioning of the export climate in Myanmar, and calls for urgent measures of correction to promote export.

From 1886 to 1948, Myanmar was in British territory. Since those days, Myanmar has been exporting natural resources, such as rice, freshwater fish, shrimps, marine products, beans, sesame, jute, hardwood, such as teak or the like, bamboo, rubber, precious stone and minerals, such as copper, lead, tin, etc. In addition, she has two major markets: People's Republic of China to the north and India to the west. And they were large food and wood markets.

In 1962, Myanmar became a socialist state, where self-sufficiency-oriented economic policies were taken on a centrally planned economy basis.

In 1988, the administration drifted to the current scheme, in which an "open-door policy" and a "market-oriented economy" were introduced in Myanmar. And the following fourteen items were implemented as economic policies to reform her economy:

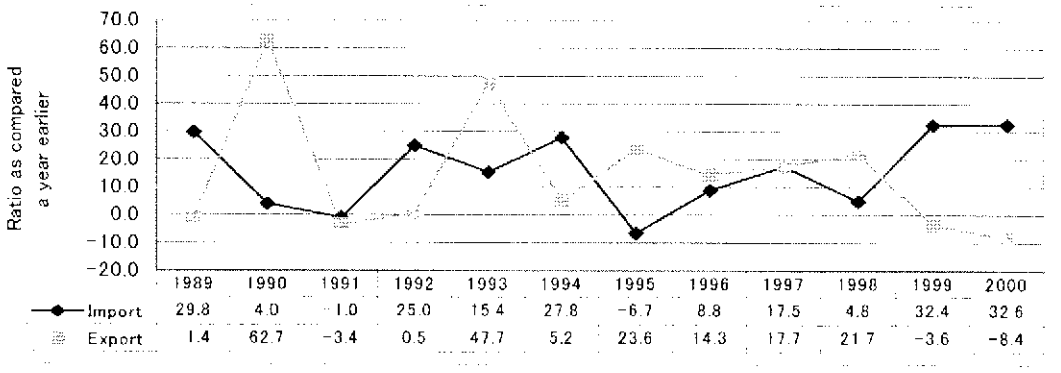
Out of the measures enumerated above, the reform directly related with exportation is 14.Promoting exportation by making the existing export proceedings more efficiency while diversifying a range of export goods by developing new products

As a result of taking such policies, Myanmar increased her exports at an annual rate of 15% on a Kyat basis from 1998 to 2000, coupled with the economic growth in Asian (an annual growth rate of 9.3% from 1990 to 2000 on a US dollar basis according to the IMF statistics already referred to). This growth rate exceeded an annual export growth at 13%. Nevertheless, the trade deficit continued and amounted to 3,036 million Kyat in 2000. For 1990 and 1991, Myanmar had the trade deficit exceed the total export value because of the "import first policy" and of an increase in importation of machinery and raw materials. In addition, her trade deficiency from 1995 to 1998 was also larger than the total export because of a rapid increase in importation, coupled with the growing economy overheated on those days when Vietnam and Myanmar enjoyed a boom. As referred to later, Myanmar has not built up export environments fully while showing a strong demand for importation. Besides, her import substitute industries have not developed sufficiently yet. Consequently, Myanmar has a strong inclination to have a trade deficit.

There has been a major change in the composition of Myanmar trade (export and import) by partner region. As compared to that for 1980, the composition for 1999 exhibits three key differences: 1) a sharp increase in import from other Southeast Asian countries, 2) an increase in export to Asian countries outside Southeast Asia, and 3) a steep drop in trade with

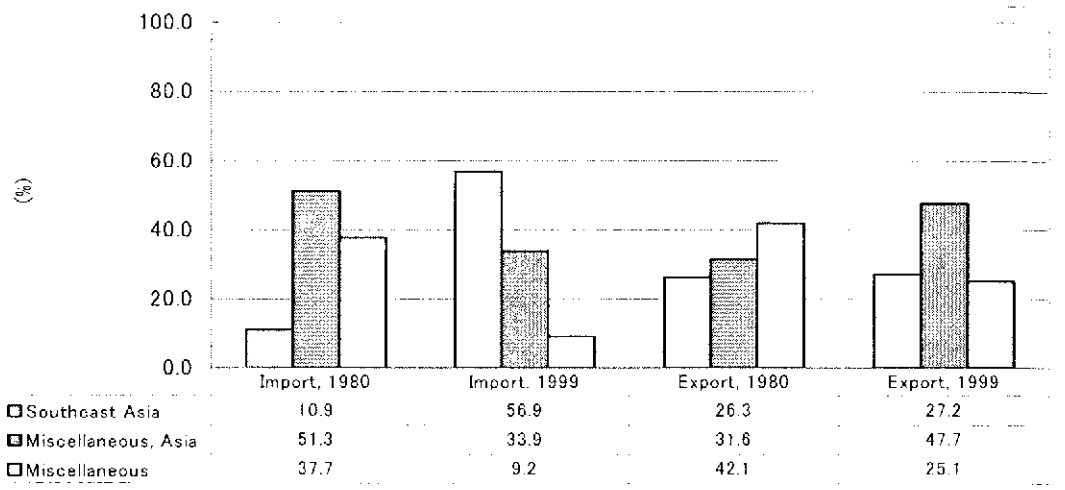
regions other than Asia. In reality, the current trends are being carried on a flow of regional economic integration rather than globalization. A region with a poor suite of export means, like Myanmar, has difficulties in improving the trade balance, because a rather significant acceptance of imports from neighboring countries would not always be accompanied by the proportional exportation. An adverse balance of trade, therefore, would not improve with ease. Main export items have also changed in a great measure between 1980s and 1990s. In 1980s, Myanmar mainly exported rice and rice products, which occupied 42% of her total export, followed by wood-related products, ores and beans. These four items occupied approximately 80%. In 1999, the rice ranked so far always at the top showed a significant decrease in the main export items, occupying 0.7% only while timber dropped from 25% to less than 10% and ores from 6% to 3%. Beans and marine products, on the other hand, showed a slight increase in component ratio of Myanmar's total exports. And the clothes that had counted at zero in 1980 occupied 9% of her total exports for 1999. There has also been an increased export of goods that have not been major export items in the past. The decline in export of items for which Myanmar has a strong export competitiveness, i.e., rice and sesame, is directly linked to a worsening of the trade balance. Although it is important to develop export of new items, it is also crucial for Myanmar to revitalize its export of what have been the major items so far.

Figure 4-2 Export and Import Growth Rates in Myanmar



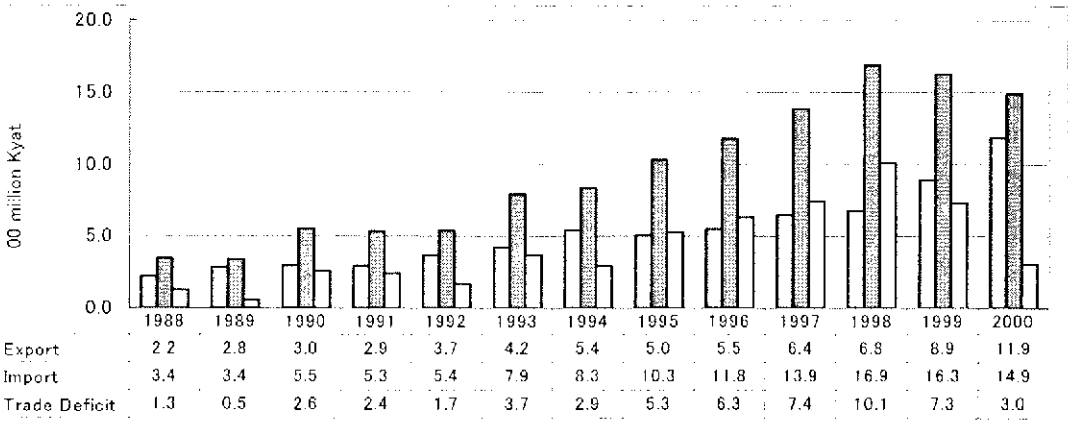
Source: prepared by the JICA study team, based on the data available in the World Bank, etc.

Figure 4-3 Regional Changes by Export/Import Opponent for Myanmar



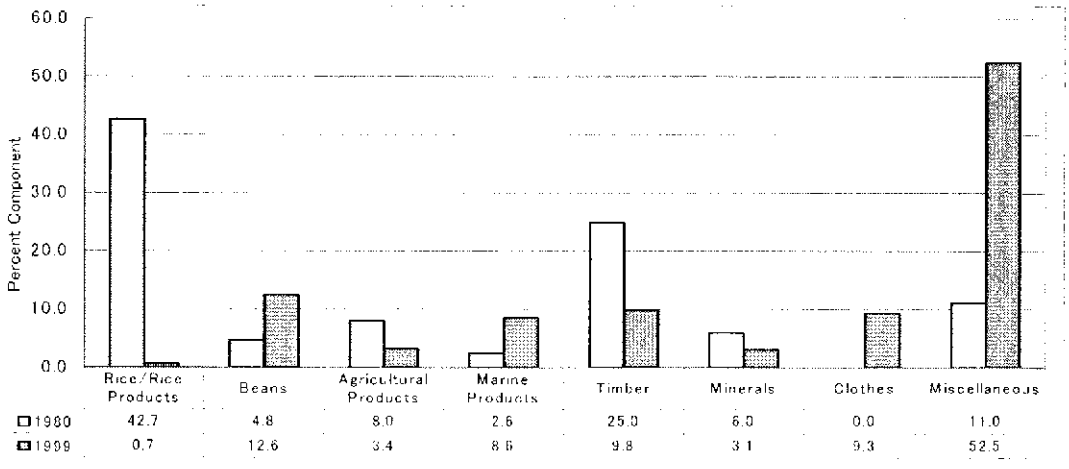
Source: prepared by the JICA study team, based on the data available in the World Bank, Asian Development Bank, etc.

Figure 4-4 Trade Balance Trends



Source: prepared by the JICA study team, based on the data available in the Myanmar Government, etc.

Figure 4-5 A Time-Series of Changes in Principal Export Items in Myanmar



Source: prepared by the JICA study team, based on the data available in the Myanmar Government

(1) Analysis and Proposals for Promotion of Export in the Institutional and Policy Aspect

1) Basic trade policy in Myanmar

The major measures in Myanmar trade policy are shown below. These measures hinder the smooth conduct of export and import work and the promotion of related business as needed for prompt adaptation to changes in the surrounding circumstances.

i) The backbones of Myanmar trade policy are replacement of import and encouragement of export.

ii) Private enterprises are allowed to engage in trade business in accordance with the rules and regulations related to export and import.

iii) The "export first" principle is applied to private enterprises. More specifically, private enterprises are allowed to import within the scope of the dollars earned through export. The government allows export of all goods except the 32 items placed under controls with a view mainly to managing the domestic supply of food, including rice and rice products (generally, 31 items plus 1 item of transborder trade; these items can be exported only by state enterprises).

iv) Exporters and importers must obtain a license for each occasion of export and import business.

v) The top-priority items of import (essential goods) are agricultural machinery, agricultural implements, fertilizer, edible oils, industrial materials, machinery/equipment, construction goods, and construction materials.

vi) In the case of private enterprises, essential goods must make up at least 80 percent of each occasion of import.

Besides the above, there are additional issues, as follows.

i) The so-called export tax of 10 percent (consisting of the 8-percent commercial tax plus the 2-percent income tax) is levied on the dollar basis.

ii) The constraints on travel overseas and collection of information on other countries impede trade business.

iii) There are many low-quality processed goods that do not have export competitiveness.

2) Basic tasks for promotion of export in Myanmar

Efforts to promote export must be grounded in provisions for smooth performance of export business and assurance of gain (profit) from it. At present, there remain many obstacles to smooth performance of and profit from export business in Myanmar. The elimination of these obstacles is the substance of the tasks for promotion of export. The table

below shows the advisable order of priority for these tasks as viewed from the standpoint of the underlying causes of the problem.

It is true that lack of overseas information is a problem of export promotion. However, private exporters can't export the products unless the exporters can get the export license even though exporters can gather overseas information. Lack of overseas information should be given the lower priority than getting the export license. After improvement of the licensing system and regulation of export items to private sector, lack of overseas information would be given the higher priority than now.

After improvement of the licensing system and lowering of export controls, the focus should shift to provisions for gathering information on foreign markets. In Vietnam, for example, Vietrade was established after the removal of regulations related to export and import licensing.

It is also true that export incentives should be introduced. However, private exporters can't export the products unless the exporters can get the export license even though exporters can enjoy lots of export incentives. Lack of export incentives should be given the lower priority than getting the export license now in Myanmar.

The tasks of high priority should be implemented over the short term. To be more specific, the first-priority ones are to be implemented within the next two or three years, and the second- and third-priority ones, over the medium and long terms, respectively.

Table 4-1 Priority Tasks for Export Promotion

Major issues	Major measures	Order of priority 1) First priority 2) Second priority 3) Third priority	Public and private roles
1. Lack of overseas information and means of accessing such information	* Establishment of an export-promoting center (Myanmar External Trade Organization; METRO) integrating a center of trade-related information and a trade service center furnishing services in credit information provision and export assistance * Grooming of human resources in the field of trade business	3) No direct impact on the business foundation, but needed for promotion of export	Such a center could be established and operated through collaboration by the authorities (MOC, etc.) and private-sector parties such as the UMFCCI
2. Difficulties in obtaining a business passport and rigid entrance and exit requirements	* Prompt issuance of business passports on a priority basis	3) No direct impact on the business foundation, but needed for promotion of export	- Need for relaxation of regulations by the authorities and observance of rules by private firms

3. Shortage of human resources versed in trade business	* Preparation of trade training programs through public-private collaboration * Establishment of a trade training center like those in Thailand and the Philippines	1) Human resources should be developed together with steady relaxation of export restrictions	- Such a center could be established and operated through collaboration by the authorities (MOC, etc.) and private-sector parties such as the UMFCCI
4. Items of export regulation limiting the business activities of private firms	* Steady relaxation of export restrictions for items whose export was restricted in recent years, items of export promotion, and industries with promising export prospects undergoing separate study * Privatization in the concerned fields	1) Constraints on the business foundation; urgent need for revision	- Easing of regulations by the authorities and development of business in items of export promotion by private firms
5. Decline in export competitiveness and profit due to the export taxation (8-percent commercial tax plus 2-percent income tax)	* Reduction of export duties on items of export promotion and items in industries with promising export prospects undergoing separate study * Reinforcement of import tariffs * Establishment of a special export zone * Import tariff in dollar to cover losses of abolition of export tax	1) Direct impact on business profit and international competitiveness	- Revision of tax/tariff rates and reinforcement of surveillance and penalties for illicit private-sector practices such as under-valuation by the authorities, and observance of rules by private firms
6. Import restriction items and quantities	* Shift from quantity-based control to higher tariff rates for import of non-essential goods or import tax in dollars for non-essential goods	1) Large impact on the business foundation, and needed for more efficient trade business	- Need for relaxation of regulations by the authorities and observance of rules by private firms

7. Frequent policy and institutional changes and sudden notifications	* Establishment of an official export promotion steering committee convened on a regular basis with private- and public-sector membership * Revision of the current institutions related to export * Preparation of mutually consistent export promotion programs * Reinforcement of public-private interchange and expansion of private-sector networks by the UMFCCI * Fuller compilation of statistics for major products	1) The problems are linked to an inability to prepare business plans and loss of external credibility; need for urgent improvement	- Promotion of public-private interchange under the leadership of the authorities and expansion of private-sector networks under the leadership of the UMFCCI
8. Rigid customs clearance process and encouragement of black-market transactions due to the recorded price system	* Abolition of the recorded price system in customs duties * Spot inspections and tougher penalties to prevent illicit declarations	2) Constraints on the business foundation; urgent need for revision	- Need for relaxation of regulations by the authorities and observance of rules by private firms
9. Complex, inefficient import-export procedures	* Switch to a more export-oriented system in customs clearance procedures for items not subject to import-export restrictions * Implementation of trade business process reengineering (BPR) to streamline the process of import-export licensing and customs clearance	2) No direct impact on the business foundation, but needed for more efficient export business	- Improvement of the business process under the leadership of the authorities
10. Inefficient, inconsistent inspection and clearance procedures	* Fuller instruction and training for customs personnel * Installation of an innovative evaluation system for administrative services, degree of user satisfaction, etc. * Improvement of port and harbor facilities in the Yangon area and others in accordance with infrastructure plan	2) No direct impact on the business foundation, but needed for more efficient export business	- Improvement of the business process under the leadership of the authorities

11. Inefficient import-export financing and lack of related services Insufficient export incentives	* Resumption of provision of import-export financial services at private-sector financial institutions together with dollar control measures * Instruction and training for staff at the MFTB and MICB, MEB * Duty process improvement and computerization at the MFTB and MICB, MEB * Installation of export financing services	2) No direct impact on the business foundation, but needed for more efficient export business	- Improvement of the business process under the leadership of the authorities and easing of regulations
12. Insufficient export incentives	* Installation of export financing services * Bonus system for model firms	3) No direct impact on the business foundation, but needed for promotion of export	- Improvement of the business process under the leadership of the authorities and easing of regulations
13. Level of quality not acceptable in Japan and other developed countries (processed lumber and food products, etc.) * Low-value-added products * Lack of technology and market	* Expansion of training opportunities for improvement of the quality of items for export promotion and products with promising export prospects (establishment of a training center for improvement of the technical level of export products) * Financial support for the import of production facilities and equipment * Attraction of FDI	1) Direct impact on the business foundation; one of the key factors for promotion of export	- Integrated measures for technical improvement through public-private collaboration
14. Lots of regulatory issues, Complicated procedures	* Designation of a special export zone for leading incorporation of more efficient inspection and clearance procedures	1) Direct impact on the urgent export foundation; one of the key ideas for promotion of export	- Need for relaxation of regulations by the authorities as a sort of test in order to make a successful case
15. Lots of regulatory issues, Complicated procedures	* Designation of export promotion items that producers and exporters can enjoy efficient trade value chain	1) Direct impact on the urgent export foundation; one of the key ideas for promotion of export	- Need for relaxation of regulations by the authorities as a sort of test in order to make a successful case

Source: prepared by the JICA study team

3) Specific plans for measures to promote export over the short term

Over the short term, the important thing is for the government to present policy explicitly proclaiming promotion of trade liberalization to all parties inside and outside Myanmar, and to send a clear signal about emphasis on export. Because it would not be practicable for Myanmar to promote export with reliance on financial resources at present, the government should accord top priority to elimination of the disincentives as its direction for lessening the burden on the export industry. In sum, the key tasks over the short term are to send out a clear signal of trade liberalization as a general rule and to instate regulations for exceptional items on a negative list.

i) Establishment of a public-private joint committee for promotion of export chaired by the head of state

Myanmar should establish a joint committee, composed of representatives of both the public and private sectors, and chaired by the head of state, for export promotion chaired, along the lines of the supreme trade conferences in Japan and Korea, the conference for exchange of opinion on export promotion in Vietnam, and the export steering committee in Thailand.

The prospective membership is as follows. Secretary 1, Secretary 2, Secretary 3, Minister of Commerce, Minister of Finance, Minister of National Planning and Economic Development, Minister of Industry 1, Minister of Industry 2, Ministry of Agriculture, Ministry of Forestry, UMFCCI Chairman, UMFCCI member in charge of trade, (Foreign chambers of commerce and industry, if necessary)

The immediate task is determination of the specifics for implementation of the short-term export promotion measures described below. In this project, it will be assumed that the joint committee will hold its first meeting in 2003.

ii) Abolition of the so-called "export tax" (commercial tax and income tax), and provisional instatement of an import surcharge and special account for it

The so-called "export tax" is one of the burdens on export business mentioned by private companies. While its removal is important for increasing the competitiveness of and promoting export, the export tax is also a major source of foreign-currency income as far as the government is concerned. Therefore, the situation demands an alternative source of such income to replace it. Meanwhile, Myanmar does not have sufficient income from import duties. This is because the duties are held on very low levels for adaptation to the provisions of the ASEAN Free Trade Area (AFTA) and other schemes. It is also due to the exchange rate applied to the assessment of customs duties, which is much lower than the market rate.

Considered this circumstance in conjunction with the dollar-based export tax, policy could be regarded as, in effect, encouraging import more than export. It therefore lacks balance as viewed from the standpoint of export promotion. In light of the critical situation of the Myanmar economy at present, measures must be urgently taken to correct this defect.

The results indicate that a dollar-based import surcharge averaging 5 percent would be required to collect revenue on a par with the current export tax. On the other hand, if an import surcharge is applied at a uniform rate of 5 percent, there would be no need to collect the export tax. Uniform application of the surcharge is also recommended; a lack of uniformity could breed graft and lessen the desired effect.

In addition, the revenue collected from the import surcharges should be managed in a special account with clear stipulations for its use.

Initially, these measures should be instated on a provisional basis for a term of from three to five years. The rate should be gradually lowered and finally phased out upon the expiration of this term. (Prospective course of action:- FY2003: deliberation of specifics,- 04: import surcharge rate of 5%,- 05: rate of 3%,- 06: rate of 1%,- 07: 0%)

iii) Opening up of export business to the private sector, beginning with sesame

At present, the Ministry of Commerce (MOC) is encouraging export of the following items.

(1) Rice & Rice products, (2) Pulses & Beans, (3) Marines & Fisheries, (4) Value Added Timber Products, (5) Handicrafts, (6) Jade, Gems & Jewelry, (7) Garment & Textile, (8) Household Goods, (9) Furniture made of timber and cane

In addition, items of the following types with export-competitiveness must be designated for encouragement of export under private-sector leadership. (10) Agricultural Products (Sesame Seeds, Sesame Oils, Cotton and Cotton Products, Kenaf), (11) Minerals (Copper cathodes) (12) Industrial products (Castings) (13) Teak

The items noted above have export competitiveness and good prospects for expanded export. They also could be expected to have a big effect for improving the trade balance as a result.

Private firms are allowed to export pulses and beans, for which Myanmar has among the largest export of all countries worldwide. This export should continue to expand, and is projected to grow at annual rates averaging 8 percent into the long term.

Table 4-2 Future Outlook for Production and Export of Beans and Pulses

	2001	2005	2020
Production (tens of thousands of tons)	103	140	440
Export (hundreds of millions of dollars)	2.8	3.8	12

Source: Prepared by the JICA Study Team based on data from the Myanmar Government and other sources

Like beans and pulses, rice and sesame also have export competitiveness, and definitely could become major export items as in the past.

The government should immediately throw export of rice and sesame open to the private sector and thereby send a clear message about its new policy. The promotion of export in this field could greatly improve the trade balance. As has been mentioned previously, the controls on export of sesame were imposed for production of sesame seed oil to replace import of palm oil.

However, these controls are doing immense damage to export, as follows.

a) Import price of palm oil: US$400 per ton
b) Export price of sesame seeds: US$500 per ton
c) Revenue from export of the two tons of sesame seed needed for production of one ton of sesame oil: US$1,000

In other words, the domestic production of sesame oil to replace one ton of imported palm oil results in an export loss of 600 dollars per ton. Myanmar is neglecting to obtain 1,000 dollars through export of the two tons of sesame seeds and payment of 400 dollars to import one ton of palm oil, thereby realizing a profit of 600 dollars. In 1999, Myanmar produced 250,000 tons of sesame seeds. Assuming that the entire amount had been exported, this would have brought earnings of 125 million dollars, or about 8 percent of the entire 1999 export earnings. Supposing that the entire volume had been used to produce sesame oil for replacement of imported palm oil, the production would have come to the equivalent of 12.5 tons in imported palm oil and resulted in an export loss of 75 million dollars.

With promotion of its export, sesame is thought capable of making a contribution of 8 percent to export and 10 percent to improvement of the trade balance. Similar effects could be induced through export of rice, for example. Although there must be some adjustment in light of the need to assure the food supply, Myanmar should promote export by drawing on the experience of countries that are major rice exporters.

Table 4-3 Trade Balance in Sesame and Palm

Sesame		Palm oil	
1999 sesame production	250,000 tons	1999 palm oil import equivalent to the amount replaceable by sesame oil	125,000 tons
Amount of export in the case of export of the entire production	125 million dollars	Amount of palm oil import equivalent	50 million dollars

1999 export (dollar basis)	1.505 billion dollars
1999 import (dollar basis)	2.443 billion dollars
1999 trade balance (dollar basis)	-938 million dollars
Sesame contribution to export (Amount of possible sesame export / (amount of export + amount of possible sesame export)	1.25/(15.05 + 1.25) = 8%
Sesame contribution to the trade balance (Amount of possible sesame export - amount of palm oil import equivalent / ((amount of export + amount of possible sesame export) - (amount of import - amount of palm oil import equivalent))	(1.25 - 0.5)/((15.05 + 1.25) - (24.43 - 0.5)) = 10%

Source: JICA Study Team

Trade business requires information on both the domestic and foreign markets. Myanmar firms, both private and state-run, presumably do not have better capabilities for gathering information on external products and markets than multinational firms. As such, trade business, which is now licensed to Myanmar firms, should be liberalized to permit use of the networks of multinationals.

The government should open up sesame export to private participation and trade business to foreign firms (while imposing limits on their interest) in fiscal 2003, and open up export of the products noted above from 2004 to 2005.

iv) Abolition of export-import licensing and instatement of an exceptional negative list

The prevailing requirement to obtain a license for each occasion of export or import makes trade business more complicated and inefficient. While some think it is necessary for control of dollars, which are in short supply, the current export-import procedures must be improved.

A switch from licensing for each occasion to approval of yearly export-import plans would make procedures much smoother for both the government and private firms. This switch could be made merely by compressing the current procedural work. It would also enable estimate of the yearly demand for dollars and therefore assist control of dollars. For private firms, it would bring a reduction of the procedural work load and have few negative aspects. In the event of a major departure from yearly plans due to factors such as change in the product supply-demand situation, the initial plans would have to be modified, and arrangements therefore could be made for planning reviews and adjustments once every quarter. Furthermore, the government could present a negative list containing items whose export must remain regulated for reasons such as social justice or preservation of endangered resources. The general rule should be that items not on this list of exceptions may be freely exported.

The government should embark on preparations for the switch to a scheme of approval of yearly export plans and instatement of the negative list in 2003, and initiate the institutional reform in 2004.

These measures would be no more than provisional ones; the government should aim for the total phase-out of export-import licenses over a period of from three to five years. The officials now engaged in work related to export-import licensing should be reassigned to control of illegal practices.

v) Abolition of the import dollar account and instatement of a provisional scheme for foreign currency allocation under the principle of "trade first" instead of "export first" or "import first"

In its policy on trade before the Asian currency crisis, the government of Myanmar took an "import first" policy in line with a view to encouraging import that would ultimately raise funds for export. This was done in order to resolve the shortage of funds among export businesses. Instated for the purpose of raising funds for export among private firms, the scheme was premised on the sequence of import of goods by Myanmar firms, sales of these goods in the domestic market, purchase of domestically-produced goods with the revenue from these sales, and export of these goods to foreign companies. The firms were given six months to perform the export, and the government recognized the establishment of up to three simultaneous projects by a single firm. In reality, however, the export of goods did not go as smoothly as had been planned, and the revenue from domestic sales was remitted overseas in many cases. In addition, the limitation of up to three projects by a single firm led to the establishment of "dummy companies" for import business in certain cases. As it turned out, the scheme did not act to promote export.

In response, the government switched to an "export-first" policy, under which licenses were issued for import within the account (quota) of dollars earned through export. Because of the multi-tiered exchange-rate structure, however, this scheme had the effect of inducing a

shift toward import.

At present, firms are not permitted to convert the dollars gained through export directly into kyat; they must convert them into FEC, and use the FEC directly or convert them into kyat. The official rate applied in this conversion is 450 kyat to the dollar, but the corresponding rate in the market is 775 kyat to the dollar. For every 100 dollars earned through export, for example, this makes for a difference of between 45,000 and 77,500 kyat. It might also be noted that the corresponding FEC market rate yields 735 kyat to the dollar. However, the latter is strictly the black-market rate, and detection would result in penalties for the offending firms. In use of the export-based dollar account to perform import, although the same firm would not be permitted to direct all of the dollar account to import, it could probably make sales worth more than 77,500 kyat (based on the market rate), provided that there is no particular problem with the imported products. In import agency business, the amount could be anywhere from 79,000 to 81,000 kyat. For income, this business would take a service fee of at least 2,000 kyat.

Under this structure, the "export first" policy may be regarded as causing a shift to import.

Table 4-4 Comparison of Use of the Export Dollar Account (without Consideration of the Profit Rate)

Conversion of the dollar account into kyat	Import within the dollar account
1. Export dollar account: US$100	1. Import using US$100
2. Conversion into FEC: $100	2. Sale of US$100 worth of imported products at market prices; prospects for earnings of over 75,000 kyat (legitimate). - Import tariffs are low overall.
3. Conversion into kyat at the official FEC rate: 45,000 kyat	3. Agency business for import of US$100 worth of products, for earnings of from 79,000 to over 81,000 kyat (also legitimate).
4. Conversion into kyat at the market FEC rate: 73,500 kyat (black-market trading at risk of detection and penalization)	
5. Conversion into kyat at the dollar cash rate: 77,500 kyat	

Source: prepared by the JICA study team based on interview data

The lesson from this experience is that both the import-first and export-first lines are not linked to promotion of export.

The greatest problem currently faced by Myanmar in this respect is the deficit in the trade balance, in spite of the export-first line of recognizing import only within the quota of dollars from export.

Myanmar possesses items that are competitive in export markets. It is critical for the country to actively develop their export through vigorous use of overseas networks. Similarly, the materials required for this purpose must be actively imported. It is only natural

for temporal (time-sequence) gaps to open up between export and import. It also should be noted that nonessentials and other items will not be required at the same rate on a continuous basis.

Management of trade (export and import) and dollars is thought to require the instatement of a provisional scheme of foreign currency allocations and phased abolition of that of import dollar accounts.

In Japan, too, a scheme of foreign currency allocations was applied in the postwar period until the phase of high-level economic growth. It was used for priority allocation of foreign currency to the energy and material resources needed for life necessities and industrial activities. In Myanmar, it would be similarly used for priority allocation of foreign currency to those items whose import deserves precedence (such as life necessities and other such goods on the current list of essentials) and those items required for production of goods for export. The government should determine plans for the allocations at the start of the year and revise them six months later. Upon acquisition of sufficient foreign currency through these measures, the scheme of import dollar accounts should be abolished.

vi) Instatement of advance special export processing zones

Various privileges and incentives are provided to export-oriented firms sited in the special economic zones established in the Philippines and other Southeast Asian countries. For example, the following provisions are offered to firms licensed by the Philippine Export Zone Authority (PEZA).

a) Exemption from duties on import of capital goods, components, and materials
b) Exemption from income tax
c) Exemption from wharf dues, export tax, customs dues, and procedural taxes
d) Tax deductions for domestically-procured capital goods
e) Tax deductions for expenditures on education and training
f) Carry-over privilege for loss
g) Employment of foreign nationals
h) Granting of permanent residence status to foreign-national investors and their families
j) Permission for external remittance of profit without the approval of the central bank
k) Simplification of clearance procedures

In Myanmar's case, the following measures are thought to be important.

a) Exemption from application of export-import licensing requirements
b) Assurance of immediate effect by designation of the existing industrial estates in Mingaladon, etc. as special export processing zones.

As shown here, the government should guarantee the free flow of human, material, and financial resources in order to promote export by export-oriented firms.

This report envisions instatement of an application system patterned after that of PEZA

in the Philippines.

i) Parties desiring to avail themselves of the aforementioned incentives must be sited in the special export processing zone and register with the zone authority (hereinafter referred to as "MEZA," i.e., the "Myanmar Economic Zone Authority"). In so doing, the party must submit documents for the following items to MEZA in addition to the prescribed triplicate application form.

* Project feasibility study report
* Transcription of the basic and ancillary articles of incorporation
* Resolution of the board of directors in favor of making application, and list of the members of the board, major executives, and major shareholders (including career profiles)
* List of facilities (machinery and equipment) to be used (with clear notation of capacity, ownership, and method of procurement)
* Profile of the company and photo of the product(s) (or one of these, whichever is more relevant)
* Other incidental documents, materials, and licenses required by MEZA in correspondence with the character of the business and type of organization of the applicant

ii) The registration procedure would be as follows.

*1. Filing of the application to MEZA with payment of a prescribed application fee
*2. Decision on approval of the application upon deliberation by the MEZA board of directors
*3. Issuance of a registration certificate upon conclusion of a registration agreement between MEZA and the applicant, in accordance with the following conditions.

a. Satisfaction of all registration prerequisites by the applicant
b. Performance (submission) of the registration procedures no more than 20 (calendar) days after receipt of the notice of application approval and formal acceptance of the draft registration conditions
c. Payment of the registration fee

While some are of the opinion that such special measures hold little in the way of return to the community, such return depends on the setup for cooperation between the host-country firms and the foreign firms.

It goes without saying that the export-oriented tenants would create many job opportunities and also generate demand associated with physical distribution and infrastructure. In addition, an increase in the local contents of the production assumes increasing importance for the foreign firms, which consequently consider provisions for more extensive local sourcing. Although assembly-base manufacturers could not be expected to

develop local sources for key components initially, the pursuit of a higher local contents leads to interaction with local industries in supply of repair components, maintenance parts, tools, and expendables. It is therefore vital to effect a gradual rise in the level of technical capabilities, beginning with these fields.

Bonded warehouses should also be established in inland areas.
Because of the risk of bribery in connection with vested rights, management of the special export processing zones and bonded warehouses must include permanently stationed customs officers and guards. The guards must independently control the entry and exit of goods.

The schedule envisages the selection of candidate sites and performance of feasibility studies in 2003, execution of the requisite systemic changes in 2004, and establishment of the first such zone in 2005.

(2) Analysis of Export Items and Proposal of Measures for Export Expansion

To promote export, the government in 1988 allowed private enterprises and cooperatives to participate in external trade in items which it had dominated up to that time. With certain designated exceptions such as rice, teak, crude oil, natural gas, pearls, and gems, the private sector was permitted to trade freely in all items. As such, the share of such trade handled by private companies rose.

As early as fiscal 2000/2001, export by private companies came to 8.7 billion kyat (or 69.7 percent of the total), higher than the corresponding 3.8 billion kyat (30.3 percent) for the national government. Today, the quickening of private-sector activities in a wider range of areas along with the shift to a market economy is therefore also reflected in the private-sector export share, which is significantly higher than that of SOEs.

However, the questionnaire survey with 36 export-oriented private companies found that most (of the trading companies) are small operations with from just a few to about 20 employees (these companies do not release figures on the sales and profit). Among private firms in the fields of garment-manufacturing, industrial goods, woodworking, and agricultural products, some are big operations (these numbered 12 and employed about 630 on average), but only four had yearly sales of at least 100 million kyat. This finding, too, shows how small transaction amounts are among Myanmar firms at present.

1) Selection and features of promising items for expanded export

As part of the formulation of the master plan for future Myanmar export, it was decided to select five or six items considered to have good possibilities for expanded export over a relatively short term, identify current export-related issues for each, and determine prerequisites for their expanded export (i.e., all types of official support, points of current measures needing improvement, and steps for increasing Myanmar's export competitiveness).

However, it was no simple task to select the few most promising entries from the long list of export items. As a result, in the actual course of the study, the team strove to select about ten, partly also to explore the prospects for expanded export over a scope that was wider, if only a little. It was also decided to select about five items which are already major export items and have good prospects for expanded export (i.e., existing export items), and five which have little or no export dimension at present but should be the subject of efforts to develop and expand export (i.e., new export items). The standards of selection were basically as follows.

* Conformance with opinions and desires expressed by UMFCCI (a taskforce member) and other parties on the Myanmar side (consultation by the UMFCCI with governmental institutions regarding the selection)
* Items which are thought to have good prospects for export growth/expansion, items for which there is a certain level (volume) of export at present (existing export items), and items thought to be promising for effective use of natural/human resources within Myanmar (new export items)
* Possibility of expanding export to Japan within a fairly short time

The selection was first narrowed down to 24 items by application of the following six criteria.

* High (monetary) value of actual export over a period of about ten years
* Long-standing export
* Good prospects as regards growth, scale, and competitiveness
* Preexisting routes for easy acquisition of quality goods even within Myanmar
* Handling experience among Myanmar people
* Latent promise as new export items

The selection was then narrowed down to ten items through application of the following criteria.

* High (monetary) value
* Good future growth prospects
* Possibility of export sustained long into the future
* A certain level of requisite technology within Myanmar
* At least one major item from every field, if possible

Table 4-5 Ranking of Export Items by Priority

(Million Kyat)

Ranking	Item	Average export over the last five years (FY95 - 99)	Export in FY1999/00	Degree of promise	Growth	Scale	Competi -tiveness
1	Beans and pulses	1,269.4	1,179	◎	A	A	A
2	Garment	497.2	877	◎	B	A	A
3	Teak	764.6	727	○	C	B	A
4	Shrimp	524.8	529	◎	A	A	A
5	Refined copper	0	289	◎	A	A	A
6	Fish	240.6	229	○	B	C	A
7	Gems and pearls	174.2	217	○	A	A	A
8	Plywood	62.2	101		C	D	C
9	Sesame	159.8	82	○	A	B	A
10	Rubber	132.0	75		C	C	B
11	Footwear	0.0	69	◎	A	B	A
12	Rice	167.2	65	○	A	A	D

A. Extremely high B. High C. Medium D. Low

Source: Prepared by the JICA Study Team based on data from the Myanmar Government and JETRO

The double circles mark the five existing export items which are to be the subjects of in-depth study in the future (i.e., shrimp, refined copper, footwear, beans/pulses, and apparel). Although its average annual export growth rate over the five years in question was basically flat, shrimp was nevertheless chosen in light of the large scale of export and the good prospects for growth in the demand for natural foodstuffs. About 75 percent of the export of these five items is directed to Japan.

The procedure for selection of new export items was as follows.

Besides the existing items, Myanmar has prospects for export of items such as sugar, syrup, tea, coffee, pickles, ginger, green soybeans, devil's tongue, beer, buckwheat, dried/frozen vegetables, processed vegetables, turmeric, molasses, rice flour, edible vinegar, rattan, and vegetable dyes. Based on the findings of surveys with Myanmar state enterprises and private companies, the following four points were emphasized as selection criteria.

* Availability of raw materials within Myanmar
* Underdeveloped as an industry
* No need for large-scale investment
* Prospects for a yearly export of at least 1 million dollars

This led to selection of the following five items.

1. Kenaf

2. Cast-metal parts
3. Projects using old rubber trees
4. Laminated wood
5. Electronic component assembly

The following figure plots the relative positions of the five promising existing export items, the five promising new export items, and some additional items with a large-scale export, with reference to the growth in export to Japan and the export nature (leadership by the private sector versus official intervention). The horizontal axis indicates the growth rate for export to Japan over the last five years. Although it lacks numerical values and is somewhat conceptual, the vertical axis expresses the degree of governmental involvement as gauged from the findings of the interview surveys. The figure suggests that there is a trade-off relationship between export growth and governmental involvement. In other words, there is a substantial gap in respect of growth between items whose export is led by the private sector and those whose export is a subject of official intervention.

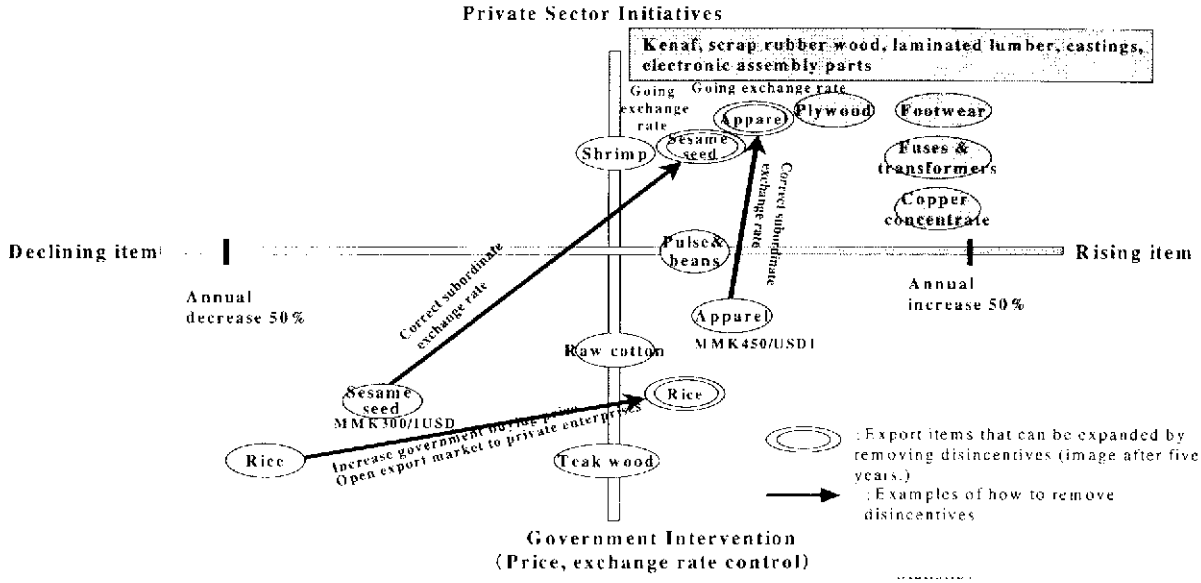
Official intervention takes forms such as export restrictions, price controls, and exchange regulations. With correction of the exchange regulations (i.e., removal of export disincentives as viewed from the standpoint of exporters), sesame and apparel would have excellent prospects for expanded export.

The figure also implies that, to promote export from Myanmar, the government should consider an increase in the items for export led by the private sector and decrease in those involving official intervention.

The table presents export disincentives and possible policy options to remove them in the case of the three items of apparel, rice, and sesame.

Garment manufacturing is thought to be an industry of strategic importance for Myanmar in the future. Besides heightening exporter incentive by correcting the exchange rate situation, it would be vital for the government to take steps such as lowering the degree of dependence on the United States, developing a more diversified mix of export markets, and further cultivating the industry's growth. In more concrete terms, it would be important to build up orders not only from dealers in Taiwan but also from those in Hong Kong (which have extensive transactions with the European market) and Singapore, as well as to raise levels of quality as needed for expanded export to Japan. In this connection, the key tasks in the institutional aspect are establishment of a technical training center and development of a scheme of support for prime contractors.

Figure 4-6 "Trade-off" Relationship between Private Sector Initiatives and Government Intervention (Myanmar's Exports to Japan in the Past Five Years)



Source: Japanese Custom Statistics

Table 4-6 Examples of Disincentive in Export Political Options to Minimize Disincentives

Items	Examples of Issues	Political Options
Apparel Garment	• From August 2001 subordinated exchange rate (MMK450/USD1) is applied to foreign currencies gained from CMP export. Resulted in 30% exchange loss. • Orders from the US declined significantly due to deliberation of bill to ban exports from Myanmar.	• Lower dependence on the US (currently approx. 80%) which has placed economic sanction on Myanmar. Diversify export market. Establish relationships with Hong Kong and Singaporean dealers who have access to European markets and not focus only on Taiwanese dealers who specialize only in the US market. In order to enter Japanese market, technologies to meet Japanese consumers' needs must be acquired. Developing technical training centers and principal contractor system will be effective.
Rice	• Government buying price of rice has remained low and barely covers farmers' production cost. Domestic retail price is also low. • Government dominates profits from export (Buying price is USD20/ton and exports for USD120/ton.)	• Increase government buying and loans to farmers for purchasing farming machines and fertilizers (currently loan limit is USD30 for one farmer for six month) in order to gradually minimize fertilizer differences among farmers. • Import hybrid seeds or establish joint venture in order to improve productivity. • Open export market to private sector
Sesame Seed	• Since 1999, subordinate exchange rate (MMK300/USD1) has been applied to private enterprises' foreign revenue from sesame seed export, in order to export refined sesame oil. Resulted in 50% exchange loss. Sesame oil refining business is not profitable, either.	• Open sesame seed export market to private sector. • Sesame oil pressing business seems difficult to launch full operation because of extraction rate issues and aging facilities.

Source: JICA Study Team

2) Measures for expanded export of each item

A separate report sets forth the situation for each item in question as regards export, trend of export markets, conditions for export expansion, and measures for expanded export. Please see this report for the details in this aspect.

Many items share a need for implementation of various measures, such as simplification of procedures for obtaining export licenses, resolution of export disincentives (most importantly, the so called export tax), and improvement of foreign currency regulations

applied in import of raw materials. Because these shared tasks are presented in the separate report, the table below lists the measures for expanded export that are relatively distinct to the item in question.

Table 4-7 Measures for Expanded Export of Each Item

	Basic strategy	Measures
Beans & pulses	· Reinforcement of export competitiveness relative to China · Cultivation of abilities for collection of market information and corresponding adaptation	· Improvement of quality, increase in yield, incorporation of screen sorting technology · Expanded production of SQ products for the Japanese market · Abilities for collection and analysis of mainly overseas information on items such as trends in external markets, activities of competitors, and price trends
Sesame	· Relaxation of regulations on export by private companies	· Renewal of facilities and increase in yield (sesame oil)
Shrimp	· Strategy to bring the distinctive features of natural and cultured Myanmar-produced shrimp to the attention of consumers · Improvement of the safety of cultured shrimp and stable supply of the same	· Measures to heighten recognition in the Japanese market · Information networking linking consumers, shrimp farms, and processors, and stable supply · Publicity about safety in the market · Investment for enlargement of shrimp farms
Copper cathodes	· High competitiveness already achieved with the current SX-EW production; conformance with international standards of quality · Expanded export to Japan and neighboring countries	· Dependence on the supply capacity for electric power · Large-scale investment for expansion of production capacity
Kenaf	· Promotion of the current five-year plan · Promotion of applied development for use as material in automobile interiors, etc.	· Invitation to technicians from other countries · Construction of small kenaf plants followed by steady enlargement
Metal castings	· Expanded export to Japan	· Partial rehabilitation of production facilities · Need for mold fabrication equipment to achieve higher VA levels (wooden molds, aluminum molds, etc.)
Laminated wood	· Collection of information on the teak market in countries with a large demand for Myanmar teak (Thailand and Singapore), and an increase in the VA level of Myanmar teak · Establishment of the woodworking technology center and other steps to reinforce education	· Strengthening of abilities for collection of information · Input of processing technology and facilities from other countries · Cultivation of the growth of new laminated wood processing firms based on JVs with foreign firms
Old rubber trees	· Development of export as materials for laminated wood (to Malaysia, Thailand, and Vietnam)	· Setup for assurance of quality and on-time delivery · Investment in facilities and technical education

Source: Prepared by the JICA Study Team

3) Action plan for expanded export of two items

The JICA Study Team formulated a plan of action over the short term for expanded export of two of the ten promising items, i.e., beans and pulses as representative of existing export items, and laminated wood as a new export item. The plan for the latter is premised on development of the industry with a view to increasing the value added level of processing for teak and other types of lumber. This section profiles the plan for these two items.

i) Action plan for expanded export of pulses and beans

Export of pulses and beans has rapidly expanded since the permission for private-sector participation in it. In fiscal 2001-02, it passed the 1-million-ton mark and reached 1.03 million tons. Myanmar ranked first in the world for export of matpe and overtook Australia to rank second, behind Canada, for beans and pulses as a whole. The government has already posted increased production and export of beans and pulses as one of its policy objectives. In spite of the various factors impeding this export (to be described below), there are good prospects for its further expansion with the improvement of official measures, in light of the potential deriving from features such as the climatic conditions adapted to cultivation of all sorts of various species in addition to the large store of land resources, plentiful water, and labor force.

Note: In connection with agricultural products, the government has instated policy for increased production of rice, attainment of a self-sufficient supply of edible oil, and increased production and export of beans and pulses. By the same token, for the purpose of food management, it has placed restrictions on export of rice, white sugar, brown sugar unrefined sugar, peanuts, peanut oil, sesame, sesame oil, raw cotton, and cotton yarn; pulses and beans can be freely traded.

At present, there are about 20 private-sector companies in Myanmar engaged in export of beans and pulses that handle more than 10,000 tons a year. The main export destination is India, and the products directed to that country are of fair average quality (FAQ) or below. Export to Japan must be of special quality (SQ; large-sized matpe left after sorting with a 3.5-mm-mesh screen). The companies handling export to Japan therefore possess sorting facilities for this purpose.

Table 4-8 Trend of Production and Export of Beans and Pulses

(Q'ty : Ton in Thousand)

Item		85/86	96/97	97/98	98/99	99/00	00/01
Matpe	Production	93	323	413	437	421	523
	Export	0	209	308	279	235	274
Green soybeans	Production	30	328	442	457	471	511
	Export	0	128	121	174	145	186
Other beans and pulses	Production	491	658	686	704	823	1078
	Export	89	258	340	169	181	371
Total	Production	614	1309	1641	1598	1715	2112
	Export	89	595	769	622	561	831

Source: Prepared by the JICA Study Team based on data from Myanmar Government

In fiscal 2001-02, this export came to 280 million dollars and 1.03 million tons. As a destination, India received the majority at about 800,000 tons or 77.4 percent in quantitative terms and 210 million dollars or 74.7 percent in monetary terms. It was followed in order by Pakistan, Indonesia, Singapore, and Japan. The export to Japan consisted of 4,818 tons of matpe (down 11.1 percent from the previous year) and 8,952 tons in butter beans and other beans and pulses (down 16.4 percent), for a total of 13,740 tons (down 15.0 percent).

a) Basic policy for expanded export

Reinforcement of competitiveness relative to Chinese-grown beans and pulses is of primary importance.

- Chinese-grown green beans account for more than 80 percent of Japan's import of matpe, and are superior to the Myanmar and Thai varieties in point of quality and yield. In recent years, the Chinese share of this import has been rising. To increase its share, Myanmar should quickly deploy strategy to improve quality and yield in order to boost its share. More specifically, it must take steps to enlarge and build up bean sorting plants, and to improve breeds.
- In the category of miscellaneous beans and pulses, there is always concern about the problem of cyanide contamination of butter beans shipped to Japan (for use in production of white bean paste). The Myanmar side must constantly pay attention to and control production to keep the content below the absolute control standard (500 ppm; shipments exceeding this standard are dumped). Recently, there has been a rapid increase in export of red bean paste from China to Japan. An outbreak of a cyanide problem could bring a halt to the export from Myanmar and cause its share of this import to plunge.

As another task, Myanmar must construct a system for the collection and disclosure of information on overseas (export) markets.

- Establishment of the Agricultural Marketing Office (tentative name)

  The fluctuation of prices and demand in external markets has an immediate and substantial impact on domestic transactions as well. Many traders and large farms are keenly interested in the matters such as the possibility of export, the trend of prices and demand in neighboring countries, the trend of margins, wholesale prices at the crop exchange centres in Yangon and Mandalay, and official policy (e.g., export bans and policy on transborder trade). In many cases, however, policy changes are not conveyed to the private sector and cause major difficulties. Information on such changes ought to be immediately reported to the general public by means such as radio and TV broadcasts as well as newspapers and official gazettes. The government should establish the Agricultural Marketing Office (tentative name) as an institution for unified collection and provision of information of external markets to the private sector in the Ministry of Agriculture and Irrigation (the Office would also be equipped with the ability to make proposals for development of the market for agricultural produce and trade policy to the government). The government would also have to construct an up-to-date information system with provisions for access by the Internet. The staff could include members of the UMFCCI and experts from the private sector.

- Establishment of an institution for trade promotion and information

  The government should also establish an institution whose major duties would consist of referral in response to transaction inquiries, marketing studies and exchange of information, promotion of participation in trade fairs inside and outside Myanmar, exchange of credit information on transaction partners, and referral to new export destinations. The institution would have offices in both Tokyo and Yangon.

b) Targets and action plan for expanded export

The following table shows the attainable export targets. The measures to attain them are noted in the second table.

Table 4-9 Targets for Expanded Export

	2001/02	2005/06	2020/21
Production (millions of tons)	1.03	1.4	4.4
Export (hundreds of millions of dollars)	280	380	1,200

Note: Conversion at the official rate of 6.6 kyat to the US dollar

Source: Prepared by the JICA Study Team

Table 4-10 Urgent Measures Over the Short Term (2003 - 2005)

(with an emphasis on expansion of export to Japan)

	Basic tasks	Basic measures (proposals for the government)
1	Improvement of quality and yield	Financial aid for the enlargement and build-up of sorting plants, and purchase of facilities and equipment
2	Collection and disclosure of information on external markets	1) Establishment of the Agricultural Marketing Office Collection and disclosure of information on external markets, and promotion of public-private collaboration 2) Establishment of an institution for trade promotion and information
3	Export incentives	Designation of beans and pulses as an item for national encouragement of export, and instatement of an export tax reduction for exporting parties
4	Establishment of a special export processing zone	Emergence of new products based on FDI (e.g., organic cultivation)
5	Lifting of the ban on trade by foreign-affiliated firms	Prompt removal of the ban
6	Clear statement of commercial policy (transparency) and simplification of procedures for licensing, approval, and trade	Improvement of policies and measures
7	Instatement of export financing services	Expansion of the account for provision of funds to farmers by the Agricultural and Regional Development Bank and permission for low-interest funding programs at private banks
8	Issuance of business passports	Priority issuance for private-sector business persons

Source: Prepared by the JICA Study Team

Table 4-11 Measures Over the Medium and Long Terms (2006 - 2020)

	Basic tasks	Basic measures
1	Resolution of the various problems related to trade-encouraging and -discouraging in deployment of the short-term measures	Follow-up on short-term measures
2	Privatization of SOEs	Study and promotion of privatization and transformation into independent joint-stock companies

Source: Prepared by the JICA Study Team

The targets would be an annual export on the order of 1.4 million tons over the short term (2003 - 05), and continued growth in both production and export through promotion of the measures over the medium and long terms, to boost export to the level of 4.4 million tons a year in fiscal 2020.

ii) Action plan for development of laminated wood industry and expanded export of its products

Myanmar produces three major types of timber: teak, other hardwood, and softwood.

Teak has excellent features in the aspects of durability, strength, and beauty. It also has good processing characteristics, and is in use as a deluxe type of wood in the fields of buildings, shipping, and furniture. Myanmar-grown teak is known around the world and is the only Myanmar forestry product that dominates external markets.

The varieties of other hardwood include Pyinkadou, Padauk, and Tamalan. Each has its own particular advantages and is in use like teak, but is not rated as highly as teak in the quality aspect. Softwood is not suitable for use as structural members for buildings because of its low strength and vulnerability to discoloration and rot. It is currently in use for applications that do not require much strength, such as plywood and crating materials. However, the cost of logging (felling and hauling) is the same as for teak, and it is difficult for processing to add much value to the wood. The material (crude/raw) wood cost is consequently viewed as excessive and prevents softwood from finding fuller use.

Recently, Myanmar's timber processing industry has been faced with a shortage of teak in particular. While the major reason is an increase in export of logs, the domestic industry does not possess the technology to prevent this. The shortage of processing technology is resulting in the expanded export in log form. The Myanmar timber processing industry cannot look forward to expansion of its export in the future either unless it incorporates high-performance processing facilities to increase the level of its processing technology, and uses it to improve its quality and yield while turning out high-value added products.

In light of the current circumstances in the timber processing industry, measure to these ends must be taken at an early date. Considering factors such as the scale of investment and marketability of the processed products, the incorporation of processing for laminated wood is thought to be the best plan for concrete action. Furthermore, such processing would be linked to development of the softwood timber. Some private companies are aware of this situation and planning to introduce installations for processing laminated wood. Similarly, the Myanmar Timber Enterprise (MTE), too, recognizes the need for incorporation of such processing.

a) Current status of laminated wood processing in Myanmar

The following table summarizes the results of an interview survey conducted with five major firms about the current status of laminated wood processing and the advantages of the

business.

Table 4-12 Current Status of Laminated Wood Processing in Myanmar

・Production items	Flooring (over 80%), ship decks, counters (top boards, furnishing laminated wood, furniture	
・Export items	Flooring (over 90%), ship decks, half-finished furniture products, etc.	
・Export markets	France, Italy, Germany, United States, Korea, Japan, others	
・Sales (monthly average per firm)	Export (86.3%)	About US$200,000 (100,000 - 500,000)
	Domestic (13.7%)	US$30,000 (5,000～100,000)
	total (100.0%)	US$230,000 (100,000～600,000)
・Current status	・Laminated wood processing performed by a combination of manual installations and manual processing ・One firm has already placed an order for laminated wood processing installations and is awaiting delivery (used facilities from Japan)	
・Business orientation	・Reinforcement of installations for laminated wood ・Development of softwood products ・Establishment of joint ventures with foreign counterparts for introduction of such installations ・Development of uses for timber from teak thinning	
・Problems	・Shortage of technology ・Shortage of funds ・Jump in the cost of material wood ・Shortage of power ・Difficulty of obtaining export licenses ・Export tax (need for abolition)	

Source: JICA Study Team

Table 4-13 Effects of Development of Laminated Wood Processing Business in Myanmar

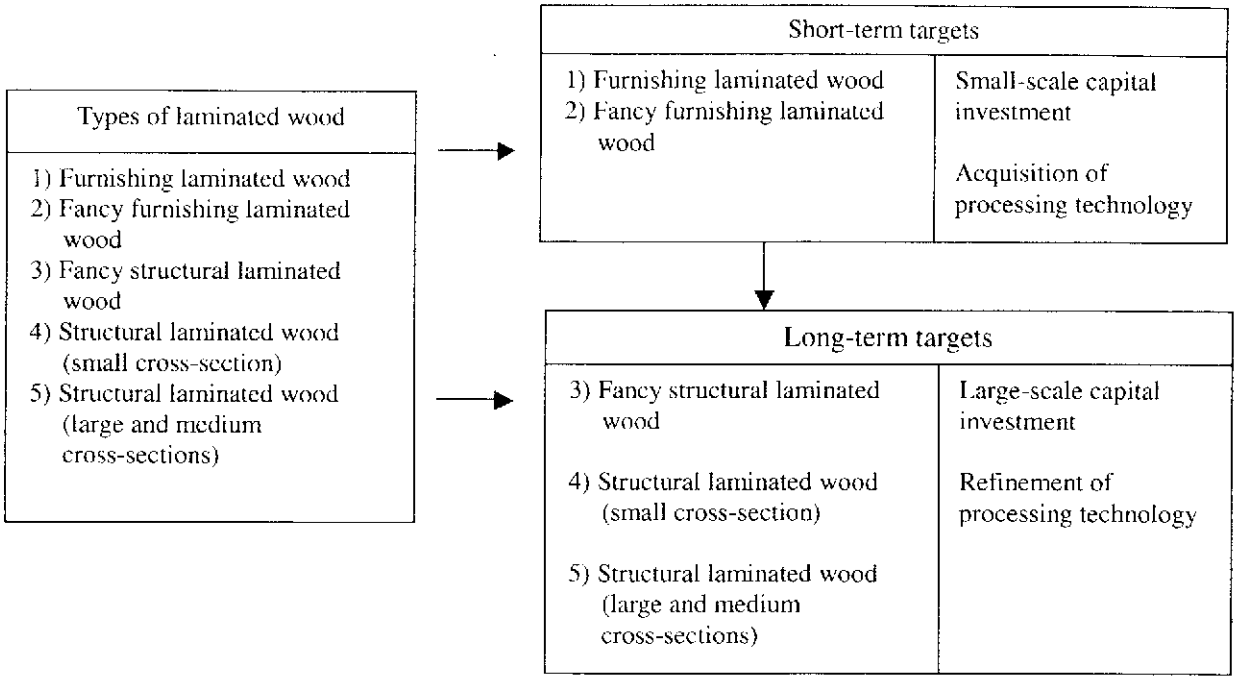
Expansion of export and increase in profitability	・Increase in value added levels	Expansion of the assortment of teakwood products Production of large timber More extensive use of softwood Production of timber without warps and cracks
	・Increase in yield	Active use of ends (measuring at least 2 cm x 5 cm x 30 cm)
	・Improvement of production control technology	Quality, processing technology, quantities/delivery deadlines, materials, installations, labor, prime cost
	・Active use of currently unused timber	Use of combinations of teak and other hardwood Use of softwood for production of laminated wood
	・Active use of timber from teak thinning	Prevention of warping of timber from teak thinning Use in combination with other types of wood

Source: JICA Study Team

b) Basic perspectives on expanded export through laminated wood processing

This section sets forth the types of laminated wood, the approaches to expanded export, the current status, a plan of action over the short term, targets for expansion over the long term, and key factors for expanded export.

Figure 4-7 Classification and Short-Long Term Objectives for Laminated Wood



Current status	Short-term action plan	Long-term expansion targets
• Lack of extensive laminated wood processing at present • Combination of manual installations and manual processing, and inability to export • Placement of an order for one line of laminated wood installations by only one firm • Increased interest in laminated wood processing by export-oriented firms	1) Preparation of the industrial foundation for furnishing laminated wood 2) Development of a Myanmar brand of laminated wood 3) Combination of teak and other wood 4) Incorporation of installations at a small capital investment 5) Increase in yield 6) Investment target in the initial year - 1.2 billion yen total for three lines in three plants 7) Two plants in Yangon and one in Mandalay 8) Export expansion - Initial year: US$2,200,000 - Third year: US$6,500,000 - Tenth year: US$13,000,000	1) Expanded production of furnishing laminated wood 2) Expansion of the types of wood used 3) Refinement of technology 4) Acquisition of capital 5) Start of processing of structural laminated wood 6) Development of application of wood from teak thinning and softwood for laminated wood 7) Export expansion - Third year: US$5,000,000 - Tenth year: US$20,000,000

Source: Prepared by the JICA Study Team based on data from Japanese Agricultural Standard and other sources

Figure 4-8 Key Factors for Expanded Export

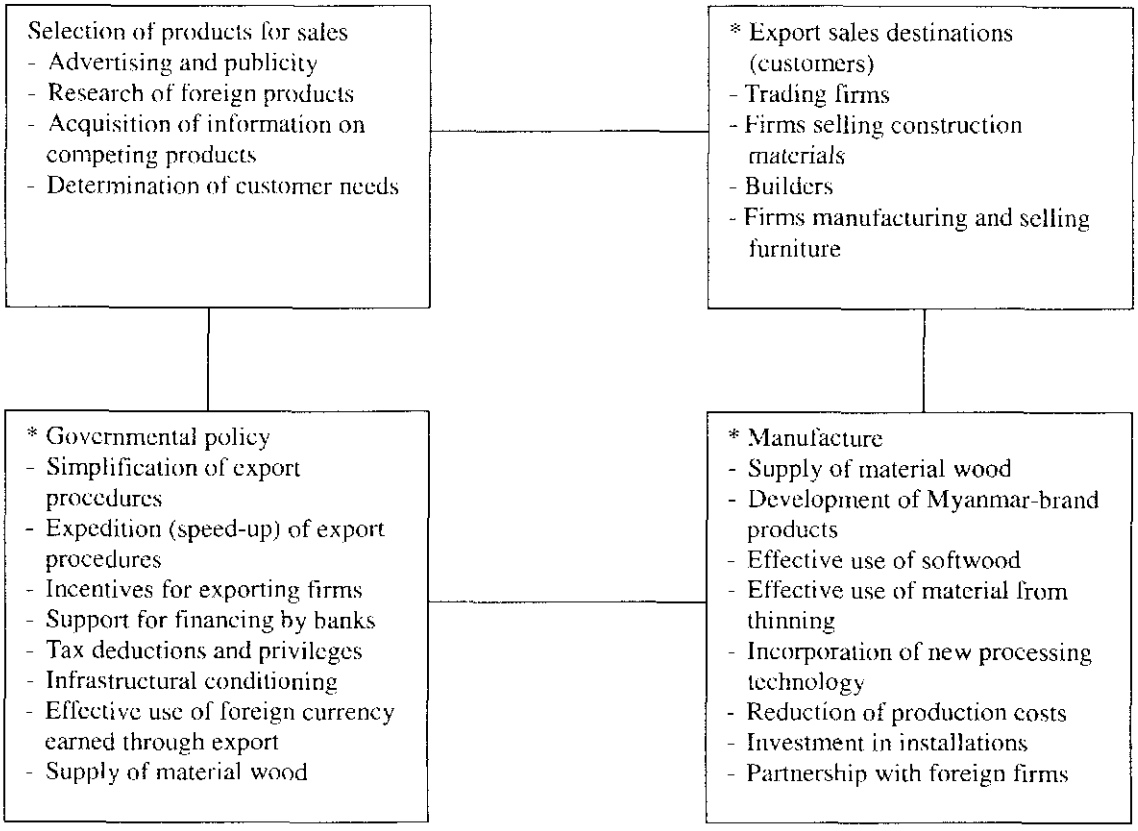


Table 4-14 *Division of Roles in Execution of the Plans*

Private firms	- Improvement of quality and yield - Increase in the level of processing and control technology - Collection of information on and cultivation of export markets - Development of new products
Chambers of commerce and industry, forestry associations, etc.	- Establishment of facilities for related human resource development - Proxy submission of requests to and parley with the government - Staging of product exhibits and events with invitations to buyers, and dispatch of missions for tours of overseas exhibitions
Government	- Relaxation/removal of export and import regulations and procedural requirements - Currency stabilization - Implementation of measures to encourage export - Stable supply of material wood - Improvement of the power supply

Source: JICA Study Team

c) Action plan for expanded export through production of laminated wood (for furnishing laminated wood)

* Items of production
  - Furnishing laminated wood: staircase railings, frames, counters (top boards), etc.
  - Fancy furnishing laminated wood: frames, counters (top boards), thresholds (doorsills), lintels, pillars (post), etc.

* Wood used
  - Teak
  - Other hardwood
  - Softwood
  - Teak from thinning

* Sales prices
  - Sales prices are a major means of competition, and their determination is based either on the total cost to the manufacturer or on prices of competing products (with an emphasis on the market). In the current situation, Myanmar would have to select the latter option. Judging from the market prices for non-structural materials such as counters in Japan, the target FOB price from Yangon would be about 180,000 yen per cubic ton.

* Customers
  - Expanded export requires information on products, customers, and competition. As primary necessities, it is essential to obtain a lot of information and to select customers with a view to acquiring new information quickly.

* Export destinations (countries)
  - Japan, countries re-exporting teak products from Thailand (i.e., Denmark, France, and the United Kingdom), United States, and big importers of logs from Myanmar (India, Thailand, and Singapore).

* Production plans
  - Monthly production of 120 cubic meter x three plants = 360 cubic meter/month

* Plans for investment in equipment and machinery
  - Initial year investment targets: two plants for production of furnishing laminated wood and fancy structural laminated wood, for a total of three

The following table presents rough estimates for this investment

Table 4-15 Investment Plan for Laminated Wood Plants

(US$)

	Amount per plant	Amount for three plants
	US$	US$
Equipment and machinery	(2,775,000)	8,325,000
Buildings and power facilities	(558,000)	1,675,000
Total	(3,333,000)	10,000,000

1. Estimates of the plant lot and building area; Lot area: 15,000 m2, Plant and product warehouse building (one): 2,500 m2, Office and cafeteria building (one): 600 m2, Boiler room, dust collection room, transformer room, auxiliary supply storeroom (one): 500 m2

Source: JICA Study Team

Table 4-16 P/L Estimate of Wood Working Plants
(One Factory, upon Establishment of the Setup for Production Control and Sales)

Item	Amount (thousands of dollars)	Share (as percentage of total)	Estimate assumptions
Total production and sales	180.0	100.0	Production of 120 cubic meter selling for US$1,500 per cubic meter
Major material cost	73.3	40.7	Material cost of US$611 per cubic meter, yield of 55%
Auxiliary material cost	5.2	2.9	Use of urea resin for glue; based on data from "Mokuzai no Jissai Chishiki" (Actual Knowledge of Lumber), by Takeshi Uemura
Electrical power	6.1	3.4	Supply of 650 kW to machinery and equipment at 8.3 cents per kWh
Packing and shipping	6.0	3.3	Based on cases at woodworking plants
Personnel expenses	1.6	0.9	Pay of 10,000 kyat for 80 workers, 50,000 kyat for 17 sales managers, and 200,000 kyat for three executives
Depreciation cost	16.8	9.3	Payment in fixed installments for 16 years for installations and 20 years for buildings; Myanmar law
Interest	24.3	13.5	3.3 million dollars for installations and buildings, and 0.8 million dollars for operating funds; annual interest of 7%
Land leasing fees	3.8	2.1	US$3/m2 per year for 15,000 m2
Other costs	11.9	6.6	Based on cases at woodworking plants (including both fluctuating and fixed costs)
Total prime cost	148.9	82.7	
Profit	31.1	17.3	
Export tax	(18)	(10.0)	10% of the sales price * Not applied in domestic sales
Final profit	(13)	(7.3)	

Source: JICA Study Team