Chapter 2

Industrial Vision and Development Strategy

2. Industrial Vision and Development Strategy for Myanmar

2.1 Industrial Vision and Development Strategy for Myanmar

Introduction

Creating an industrial vision and development strategy is timely for Myanmar as the country's industrial development has been slow and remains at a substantially lower level than that of other developing economies in the ASEAN region despite its possession of enough human as well as natural resources for industrial development. Moreover, Myanmar's industrial development is trapped in a vicious cycle as we elaborate later, and unless this situation is reversed, the gap with other ASEAN economies is likely to widen. Myanmar needs accelerated industrialization to raise the standard of living of its population and to catch up with neighboring countries. While economic sanctions by the West work as a constraint for full realization of its potential, Myanmar should be able to achieve respectable industrial development with the application of adequate policies. An industrial vision and development strategy could become the foundation for establishing a comprehensive and transparent industrial policy in Myanmar. The provision of such an industrial vision will also contribute to a better understanding of future industrial development by domestic as well as foreign investors, thus reducing their perceived risk in investing in Myanmar. We sincerely hope that this joint attempt to create an industrial vision and development strategy will serve as a step toward a promising future.

2.1.1 Industrial Vision

We will describe an industrial vision of Myanmar for 2020 based on an analysis of factor conditions, current industrial structure, policy factors, and external economies that will be discussed in section 2.1.1.2 Since, we think, Myanmar's industrial vision for 2020 will depend significantly on policy and external factors, we will consider three scenarios with differing assumptions about these factors.

2.1.1.1 Scenarios for Myanmar's Industrial Development

We offer the following three scenarios, which involve differences in the timing of the change in policy framework and of the lifting of economic sanctions.

Scenario 1 assumes:

- Policy reform for a market economy and outward looking policies are adopted shortly
- Economic sanctions are lifted within three years

Scenario 2 assumes:

- Policy reform for a market economy and outward looking policies are adopted shortly
- Economic sanctions are lifted in 5 to 10 years

Scenario 3 assumes:

- Current policy framework continues
- Economic sanctions remain in place

Under Scenario 1, Myanmar will gain early and full access to markets in advanced countries and will enjoy a significant inflow of foreign direct investment (FDI) and ODA from advanced countries. Industrial development will accelerate and Myanmar will come within close range of closing the gap with the average ASEAN countries - Thailand, the Philippine, and Indonesia.

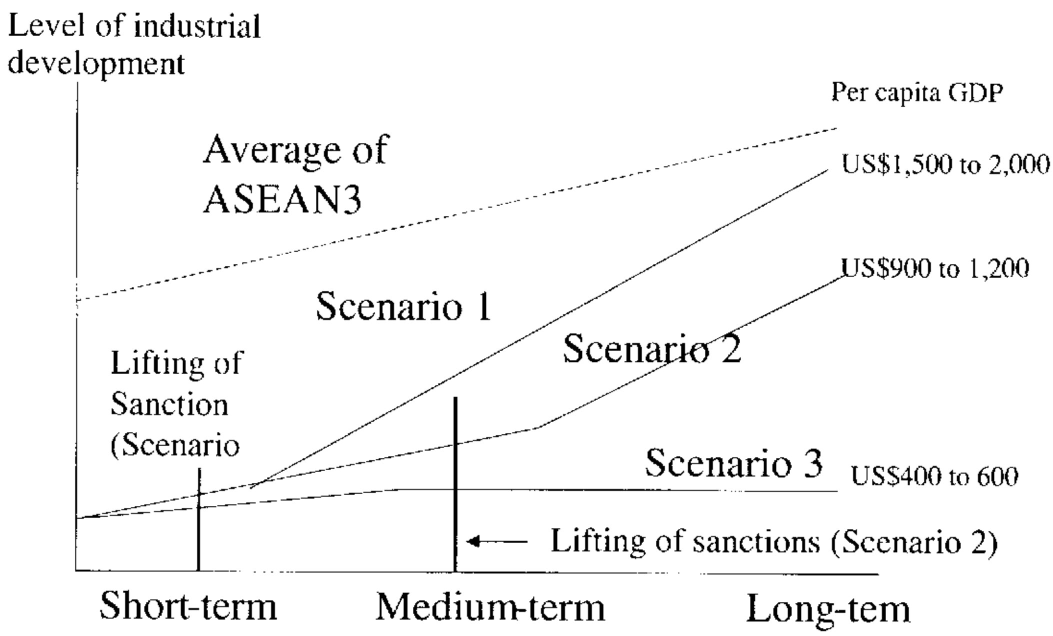
Under Scenario 2, catching up with the ASEAN average will be delayed. Since Myanmar will not enjoy the benefit of economic integration with advanced countries and external economic integration will be limited to neighboring countries, industrial development will be delayed substantially. The gap in industrial development with the average ASEAN countries will have not shrunk noticeably by 2020.

Scenario 3 would continue the vicious cycle of Myanmar's industrial development, which we explain later, and would result in prolonged stagnancy and possibly an economic crisis. Myanmar has the option to avoid this scenario and therefore we will not pursue it.

Scenarios 1 and 2 are each likely. While the specific industrial vision for 2020, or the achievable goals, will vary significantly under each scenario, the direction of the industrial development strategies is similar for both scenarios. We will deal with Scenario 1 as the main scenario and complement it by touching on the distinct aspects of the vision and development strategy for Scenario 2.

The range of Myanmar's economic performance envisioned under these three scenarios is illustrated in Figure 2-1.

Figure 2-1 Three Scenarios



Note: AEAN3 is Thailand, the Philippines and Indonesia.
Source: JICA Study Team

2.1.1.2 Industrial Vision

Based on the assumptions of Scenario 1, we offer an industrial vision of Myanmar for the year 2020, as summarized in Figure 2-2. The numerical targets are calculated based on the comparison of the current condition of Myanmar and the ASEAN3, as will be shown in Section 2.1.2.3.

Figure 2-2 Industrial Vision for Myanmar 2020 (Scenario 1)

Emerging as a Newly Industrialized Economy

- Myanmar will have mostly caught up with the ASEAN3—Thailand, the Philippines, and Indonesia—in terms of per capita income as a result of significant industrialization
  - Industry/GDP: over 35% (currently about 10%)
  - Per capita GDP: US$1,500～2,000 (currently US$200～400 according to various estimates)
- Myanmar will have high export dependency with diversified manufactured products and markets
  - Manufactured exports/total exports: over 60%
  - Exports/GDP: over 40%
- Myanmar will have developed a diversified industrial structure consisting of:
  - Export industries with international competitiveness
  - Efficient domestically oriented industries
- Myanmar will have developed high levels of competitive advantage as an industrial location
  - Human resources, infrastructure, industrial clusters, and capital resources all near the levels of newly industrializing economies (NIEs)
- Myanmar will have preserved the environment and its social integration

Source: JICA Study Team

Under Scenario 2 with delayed lifting of economic sanctions and prompt policy reforms, industrial development will accelerate moderately and it will pick up even more after the sanctions are lifted, but Myanmar's level of industrial development in 2020 will remain below the current average level of the ASEAN-3. The main difference from Scenario 1 is caused by the lack of economic integration with advanced countries and dependence on economic integration with neighboring countries.

2.1.2 Elements for Creating an Industrial Vision

In constructing an industrial vision and development strategy, we took into account four categories of factors: social and economic goals, the condition of factors of production, policy factor, and developments in the external environment as illustrated in Figure 2-3. We describe each category as follows:

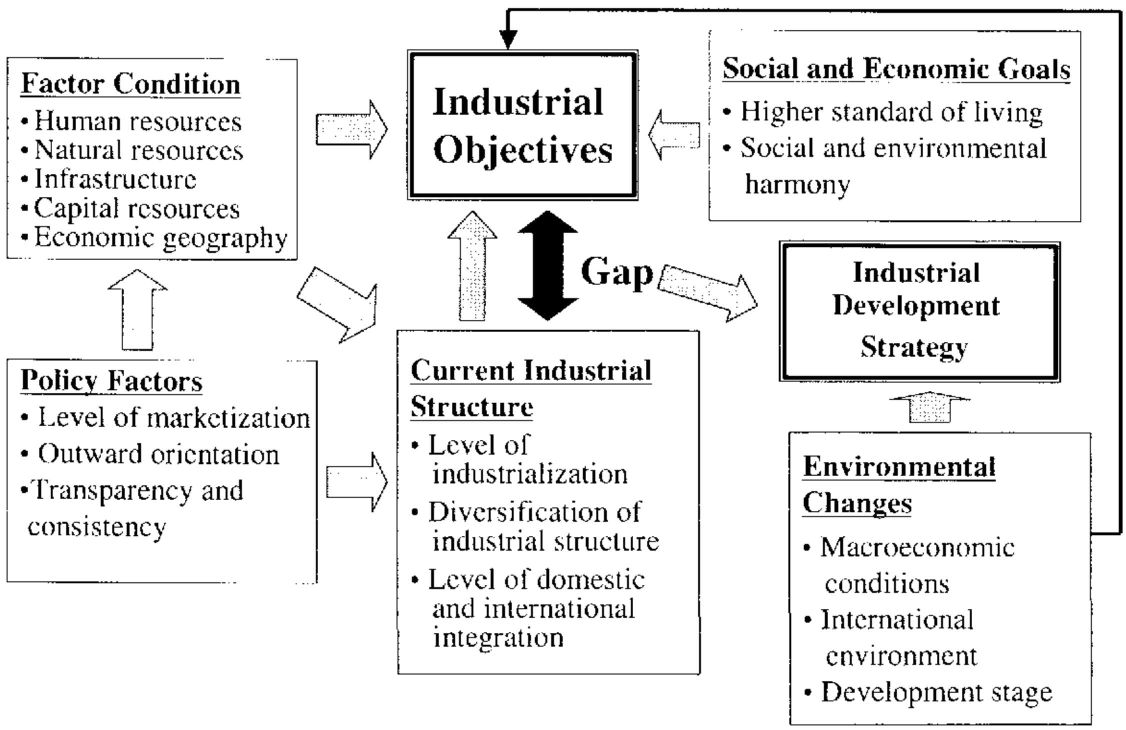
2.1.2.1 Social and Economic Goals

We assume that Myanmar's social and economic goals are: an increase in income and reduction in poverty based on sustained economic growth, the modernization of the economy and society, and economic development with the maintenance of racial harmony.

2.1.2.2 Condition of Production Factors

The condition of the factors of production, such as human and knowledge resources, natural, agricultural, and tourism resources, economic geography, infrastructure, and capital resources determines Myanmar's potential for industrial development. These factors form the basis of a nation's comparative advantage and their condition tends to be stratified. As the economy develops and as policy efforts are put into them the condition of these factors improves from a lower level to a higher level. The comparative advantages of developing economies generally lie in lower-level production factors such as unskilled labor and natural and agricultural resources. As the economy advances to higher stages of development, its comparative advantages shift to higher levels of production factors such as skilled and knowledge workers, infrastructure, and capital resources.

Figure 2-3 Framework for Creating Industrial Vision and Development Strategy



Source: JICA Study Team

Myanmar is well endowed with natural and agricultural resources and an advantageous economic geography, which are factors that are relatively independent of development stage. On the other hand, the condition of such factors as human resources, infrastructure, and capital resources is at the lower level of competitive advantage, reflecting Myanmar's less advanced stage of economic development. Thus, Myanmar industry is currently based on production factors with lower levels of competitive advantage such as unskilled workers and natural and agricultural resources. A short-term agenda item for development should be how to complement these domestic factors with the knowledge and capital resources of foreign economics by mobilizing FDI. A long-term item should be how to raise the level of Myanmar's competitive advantage in those production factors.
Each category of production factors in Myanmar will be examined as follows:

Human and Knowledge Resources

Myanmar's population was 48.1 million in 1999. Growing at the rate of 1.8% per annum it is expected to reach about 70 million in 2020. This is comparable to the population of many large advanced economies and assures ample labor supply for the industrial sector and for development of the agriculture sector as well as a considerably large domestic market as the economy grows. While the rates of literacy and primary education enrollment in Myanmar are comparable to those in neighboring economics that have achieved higher levels of industrial development, wages are lower (Table 2-1 and Table 2-2). Myanmar's labor resources are currently cost competitive and should be able to support the development of labor-intensive industries.

Table 2-1 Adult Illiteracy Rate in 1997

	Males	Females
Myanmar	11	21
China	9	25
Vietnam	5	11
Indonesia	9	20
Philippines	5	6
Thailand	3	7
Malaysia	10	19

Note: % of population 15 years and above.
Source: World Bank, World Development Report, 1999/2000.

Table 2-2 Net Enrollment Ratios

	Primary		Secondary		Tertiary	
	1980	1996	1980	1996	1980	1996
Myanmar	92	--	--	--	--	--
China	109	102	45	--	1	4
Vietnam	95	--	--	--	2	2
Indonesia	88	87	--	42	--	10
Philippines	94	101	45	60	25	26
Thailand	98	97	29	37	13	19
Malaysia	92	102	48	58	4	--

Note: Figures in italics are for years other than those specified. Net enrollment ratios exceeding 100 indicate discrepancies between estimates of the school-age population and reported enrollment data. For countries that have no data for the population age group in total but do have data by sex, the average of female and male enrollment ratios is used.

Source: World Bank, World Development Report, 1996 and 1999/2000.

But Myanmar is not as heavily populated as neighboring economies such as China, Indonesia, the Philippines, and Thailand, and it has less surplus labor in the agricultural sector (Table 2-3). This suggests that scope for development of labor-intensive industries is more limited and therefore Myanmar should follow a development pattern more oriented toward agriculture. The small surplus of labor in the agricultural sector is the other side of the coin of Myanmar's low agricultural productivity. If agriculture productivity improves in the long run, Myanmar will have sufficient labor to develop the industrial sector. There should be enough scope for the development of labor-intensive industries in populated areas such as Yangon.

On the other hand, Myanmar currently has only a limited supply of skilled and knowledge workers and their quality needs improvement. There are only 25,000 to 30,000 engineers with degrees above a bachelor's. While the education system has been reformed to increase the supply of engineers substantially, the quality of higher education has much room for improvement and the composition of majors does not adequately reflect industry's needs. Moreover, technical high schools to train skilled workers were upgraded to technical colleges or abolished by the ministry concerned, resulting in a severe shortage of skilled workers. The scarcity of skilled and knowledge workers will constrain not only the development of domestic industries but also transfer of management and technology by foreign enterprises in Myanmar. It will also constrain FDI in the high-tech sector.

A significant hindrance to economic development and to improving human and knowledge resources in Myanmar is the lack of access to economic and industrial information. In particular, the low level of trade and FDI under the inward-looking economic policy limited access to foreign knowledge and constrained the improvement of human and knowledge resources.

Table 2-3 Comparison of Population Densities in Asian Countries

	Population	Surface area	Population density
	Millions	000 sq. km	People per sq. km
	1998	1996	1998
Myanmar	44	677	68
China	1,239	9,597	133
Vietnam	78	332	238
Indonesia	204	1,905	112
Philippines	75	300	252
Thailand	61	513	120
Malaysia	22	330	68

Source: World Bank, World Development Report 1999/2000.

Natural, Agriculture, Fishery and Forestry, and Tourism Resources

Reflecting its land/population ratio as well as climatic conditions, Myanmar is well endowed with natural, agriculture, fishery and forestry resources, and it also has significant tourism resources. This implies that Myanmar has greater opportunity than neighboring states to utilize such resources for industrial development. Particularly, as it will take years for Myanmar to attain higher levels of comparative advantage such as well-developed human and knowledge resources, infrastructure, and industrial clusters, it will be strategically important in the short- and medium-term to develop resource-based industries.

Myanmar's agriculture sector holds great promise due to vast areas of uncultivated arable land. Relatively untapped forestry and fishery resources are also substantial. With the high land-to-population ratio, Myanmar has the potential to expand the area under cultivation. Moreover, the variation in climate, from the tropical rainforests in the south to temperate areas in the north, means that Myanmar can produce a diversity of crops. This resource endowment combined with the delayed development of the industrial sector means that agriculture is a dominant economic sector, comprising 35% of GDP and 62% of employment in 1997 and 28% of exports in 1999. With the agriculture sector dominating the economy, the industrial structure is heavily agriculture-based at present and future industrial development will also be agriculture-based to a large extent, at least in the near term. Realizing Myanmar's potential to develop agriculture-based industries will require a substantial improvement in agriculture productivity, perhaps by extensive commercialization and internationalization of the agricultural sector.

Myanmar has significant forestry resources. Forests cover about half the land area. The ones in the north central part produce hard woods including teak of the best quality. Wood exports accounted for 23% of Myanmar's total exports in 1996. The richness of forestry resources offers the possibility of developing forestry-based industries such as woodcraft. Myanmar also has rich natural fishing grounds in the Bay of Bengal and the Andaman Sea with a coastline more than 2,800 km long, creating the potential. In addition it has good potential for fish farming, providing the opportunity for Myanmar to develop fishery-based industries such as food processing.

Myanmar also has various unexploited resources in energy. It has a huge potential to generate hydroelectric power and produces crude oil and natural gas in the area northeast of Yangon and along the coasts. It has started commercial exports of natural gas to Thailand from the Yadana field in 1998 and from the Yetagun field in 2002. Both fields are located offshore in the Andaman Sea. Moreover, Myanmar has large mineral resources of precious stones, such as jade, ruby, and sapphire. is also These rich jewelry resources of Myanmar are now processed more in Thailand. There are also lead, zinc, silver, tungsten and tin reserves. Those mineral reserves have not been developed enough because of the lack of transportation infrastructure.

Myanmar's resource-extraction industries, which should be the basis for resource-intensive processing industries, lag in development themselves, and they generally have low productivity. To prepare the way for developing resource extraction industries, we propose that the country invite experts from Japan to produce a detailed geological profile of Myanmar by transferring high-level technologies.

Furthermore, Pagan, Mandalay, Inlay Lake, and many scenic unpolluted beaches represent substantial resources for tourism in Myanmar. These tourism resources are also relatively untapped.

Industrial Infrastructure

Myanmar's industrial infrastructure is extremely underdeveloped, with infrastructure facilities per capita about one-twentieth of the average for Asian countries. While physical infrastructure related to tourism, such as airports and hotels, is relatively ample, infrastructure more directly related to industrial activity, such as electric power, industrial estates, roads, railroads, and ports, is lacking and this constrains industrial development. Myanmar cannot compete with other Asian countries in such areas as the stable supply of electricity, the quality of industrial estates, and the cost of international telecommunications. This is a serious handicap to attracting FDI.

In particular, Myanmar has an extreme shortage of electricity because of the underdevelopment of power generation infrastructure. The shortage is especially hard on private enterprises, which have less access than state economic enterprises (SOEs) to the heavily subsidized public supply of electricity and have to resort to expensive in-house generators. One reason for the shortage of electricity is the secular decline since the middle of the 1990s in the onshore production of natural gas, while the capacity of natural gas-based gas turbine and combined cycle power generation accounts for almost 60% of the total capacity of Myanmar's power generation. .

Myanmar has a fair number of industrial estates—18 industrial zones were developed under the direction of Myanmar Industrial Development Committee (MIDC)—but their quality needs to be improved substantially to reach international levels. The transportation system also leaves much to be desired. Many roads are not paved. Because of the underdeveloped transportation system it is difficult to export products from the interior and to cultivate domestic markets. In particular, lack of transportation infrastructure has prevented Myanmar's industry from taking advantage of its strategic location bordering high-growth economies such as China, India, and Thailand.

The effect of the economic sanctions on the flow of ODA to Myanmar limited the financial resources to support infrastructure development unlike in neighboring countries. This means that a major agenda item for developing infrastructure in Myanmar is to use private sector finance effectively, while an increase in ODA will be particularly beneficial. Currently, the legal system for private sector finance such as BOT and BOO is not well developed. Two more fundamental factors that contributed to Myanmar's lack of physical infrastructure are the price controls, which keep electricity prices below market rates, and the weak fiscal balance.

Capital Resources

Myanmar's capital resources are limited because per capita income is low and the domestic financial sector is underdeveloped, although there has been substantial improvement since the reform such as the enactment of the Financial Institutions Law in 1992. Scarcity of capital has particularly handicapped private enterprises. The reform was instrumental in the creation of twenty-two private banks, but many restrictions still remain. The utilization of bank finance is extremely low compared with other East Asian countries. In addition, the flow of foreign capital, which should complement domestic capital resources, is limited because the economic sanctions reduced the inflow of FDI and ODA. As long as the sanctions continue as a constraint, an agenda item for industrial development in Myanmar is how to utilize overseas workers and FDI in addition to mobilizing domestic savings for financing private enterprises.

Economic Geography

Five features of the economic geography of Myanmar are noteworthy. First, long borders with China to the north, Thailand and Laos to the east, and India and Bangladesh to the west give Myanmar some characteristics of an inland economy. This implies that economic integration with these economies through such mechanisms as border trade is important. However, as the border areas are mountainous, Myanmar needs substantial investment in transportation infrastructure to take full advantage of this strategic location. Second, at the same time, the Bay of Bengal and Andaman Sea to the south give Myanmar the character of a maritime economy. Currently, the Yangon area is the main beneficiary of this geographic character.

Third, development of inland shipping infrastructure on the Ayerwaddy River, which runs from north to south through the middle of the country, will integrate the maritime and inland economies together with the road and rail transportation systems. The Ayerwaddy

River is a great transportation resource for Myanmar. In the rainy season 5,000-ton class vessels can travel up-river as far as Mandalay, which is located 1,000-km inland. Mandalay has traditionally been the logistics center for distribution of agricultural products and also a base for cross-border trade and investment with China, which is less than 300 km away. The construction of dams and some waterway development would enable ocean-going ships to navigate the river throughout the year. This inland waterway makes it possible to transport heavy and bulky products such as crops, minerals, coal, and oil cost-effectively within the country. Such development will offer the western part of China access to the ocean, for instance.

Fourth, the strategic location of Myanmar at the crossroads of three large, growing economies, China, India, and ASEAN, makes regionalization a particularly important aspect of Myanmar's industrialization strategy. Fifth, ethnic minorities, which have strong desire for autonomy, live mainly in border areas and pose a challenge for integrating Myanmar's economy.

These characteristics of economic geography present Myanmar with the opportunities and challenges for regional economic integration with ASEAN countries, regional economic integration beyond ASEAN with such economies such as China and India, and integration between Myanmar's maritime and interior economies including areas populated by ethnic minorities through the development of inland transportation infrastructure.

2.1.2.3 Existing Industrial Structure

Myanmar's current industrial structure is characterized by (a) a much lower level of industrial development than in other Asian countries, (b) insufficient spatial concentration of industries, (c) weak functioning of the market economy mechanism with the strong position of SOEs and price and other controls, and (d) a relative lack of international economic integration with low dependence on trade and inward FDI.

Low Level of Industrialization

At only around 10% of GNP, the industrial sector's share in Myanmar is well below that in neighboring Thailand (40%), Malaysia (48%), or Indonesia (43%) (Table 2-4). Not only is the level of industrialization low in Myanmar, but also industry is concentrated in only a few sectors, with food processing accounting for 82.1% of manufacturing production in 1997. The food processing industry mainly consists of small-scale firms with limited added value. The low level of industrialization is partly due to the small size of the domestic market, which has limited the development of import substitution industries. However, as we explain later, we think it has more to do with policy factors such as the lack of market- and outward orientation, which resulted in the low utilization of FDI.

Table 2-4 Low Level of Industrialization

	Composition of GDP %			
	Industry		Manufacturing	
	1980	1998	1980	1998
Myanmar	13	10	10	7
China	49	49	41	37
Vietnam	--	31	--	--
Indonesia	42	43	13	26
Philippines	39	32	26	22
Thailand	29	40	22	29
Malaysia	38	48	21	34

Source: World Bank, World Development Report 1999/2000.

Lack of Geographical Concentration

Generally speaking, industry in Myanmar is broadly dispersed around the country, although there is some degree of concentration in the Yangon and Mandalay areas. As a result, industrial clusters, which are essential for industrial upgrading, are not well developed. This pattern limits the benefits from agglomeration economies.

Export-processing factories for garments, footwear, woodcrafts, and electronic parts are mostly located in the Yangon area because of the availability of port facilities. Northern areas including Mandalay lack access to nearby international ports. Factories of import-substitution industries such as corrugated roofing sheets, soft drinks, light vehicles, and consumer electronics are also mostly located in the Yangon area. Household enterprises and small and medium-scale enterprises (SMEs) involved in rice milling, vegetable oils, food processing, handicrafts, household necessities, sawing and woodcrafts, and jewelry processing are diversified in Yangon, Mandalay, and other midsize cities. They cater mostly to local or regional markets. The factories of state enterprises in such industries as automobiles, electric and agricultural machinery, pulp and paper, cotton spinning, cotton weaving, silk weaving, garment manufacturing, pharmaceuticals, steel, ceramics, and food processing including beer are located mainly in Yangon and Mandalay. However, factories of machinery industries such as automobiles, agricultural machinery, and pumps are located in Bago and Migway, which are situated between Yangon and Manadalay. Oil refineries, nitrogen fertilizer plants, methanol, and LPG plants are located along the Ayerwaddy River.

Lack of industrial concentration is explained by the facts that underdeveloped transportation infrastructure keeps domestic markets segmented and the location of SOEs is not based on economic reasoning. This implies that future industrial concentration will take place mainly in the Yangon and Mandalay areas, particularly the former because of its access to ocean traffic if economic logic is allowed to function.

Extensive State Involvement

Another characteristic of Myanmar's industrial structure is the extent of state involvement in industrial activity through the operation of state economic enterprises (SOEs) and exercise of regulatory authority, including direct involvement in industrial activities. The legacy of subsidies from the socialist era has created serious price distortions. The multi-layered exchange rate system distorts prices further. Moreover, institutional infrastructure of the market economy is underdeveloped. As a result, the market economy in Myanmar is functioning inadequately and the private sector is underdeveloped. According to the experience of other transition economies such as China, planned economies are not as efficient as market economies.

The continued dominance of SOEs, in particular, has been a pervasive constraint on the functioning of the market economy, which is conditioned on vigorous competition among enterprises. State-owned enterprises are not as efficient as private enterprises because they lack budgetary discipline and good governance. Moreover, according to experience around the world, substantial competition, particularly among domestic private enterprises, is a necessary condition for industrial development. In Myanmar, however, the dominance of SOEs and the lack of a level playing field between SOEs and private enterprises have restrained competition.

The SOE sector accounts for too large a share, around 40%, of total industrial production, in Myanmar. The energy sector is almost completely dominated by the state, while private enterprises are more prominent in manufacturing. State and private enterprises have about equal shares in the construction industry. The private sector has grown significantly, increasing its share of GDP from 68% in fiscal 1986 to 75% in fiscal 1997 (Table 2-5). Moreover, the private sector's share of manufacturing production rose from 52% to 76% over the same period. However, the growth of the private sector seems to be mostly due to the decreased share of cooperatives, from 6.8 % in fiscal 1986 to 2.1 % in fiscal 1997, and the SOE sector still dominates in large-scale enterprises. In fiscal 1997, 78% of factories employing more than 100 persons were SOEs.

Table 2-5 Share of GDP by Ownership (1985 prices)

(Unit: %)

	Fiscal 1986			Fiscal 1997(Preliminary)		
	SEEs	Cooperatives	Private	SEEs	Cooperatives	Private
Agriculture	0.1	6.4	93.4	0.2	2.1	97.7
Livestock and fishery	1.3	2.6	96.2	0.3	1.4	98.3
Forestry	38.0	4.4	57.6	43.6	0.7	55.7
Mines	89.8	2.2	8.0	37.8	0.8	61.4
Manufacturing	41.6	4.2	54.2	26.9	0.9	72.2
Electric power	100.0	0.0	-	99.9	0.1	-
Construction	88.3	1.0	10.8	68.4	0.2	31.4
Transportation	36.0	4.9	59.0	33.1	1.4	65.5
Telecommunication	100.0	-	-	100.0	-	-
Finance	98.9	1.1	-	58.9	18.4	22.7
Commerce	33.9	13.5	52.6	21.6	2.4	76.0
Total	24.6	6.8	68.6	22.5	2.1	75.4

Source: Ministry of National Planning and Economic Development, Review of the Financial, Econo and Social Conditions

SOEs enjoy preferential treatment such as the right to import at the official exchange rate of about 6 kyats/US dollar, while the private sector suffers from unequal competition. Moreover, SOEs receive electricity 24 hours a day at low-cost, their wage costs are reduced by government subsidies, and they have access to cheap distribution channels. Some foreign and domestic private corporations are said to benefit from these privileges indirectly through joint ventures or other cooperative relationships with SOEs.

While SOEs enjoy a dominant position in Myanmar's industry, the government has not paid enough attention in their efficiency. In other words, the reform of SOEs has not proceeded sufficiently. The management of Myanmar's SOEs lacks autonomy, which is essential for improved corporate efficiency. In the old days, each ministry had a foreign currency account and held some managerial authority, but since the policy change by the new government in 1989, SOEs must contribute 100% of profits to the Union Consolidation Fund. The also lack flexibility in setting prices. Moreover, the majority of top management of SOEs is non-technical personnel.

Myanmar's marketization lags far behind former planned economies such as Russia, China, and Vietnam. These three countries have mostly liberalized prices although Vietnam still maintains price controls in key commodities such as gasoline. The three have pursued privatization at different speeds, but all of them have progressed much further in privatization than Myanmar.

Limited Integration with International Economies

Furthermore, Myanmar's industry is not sufficiently integrated with external economies in comparison with the industries of neighboring countries. In 2000 Myanmar's exports totaled only US$1.3 billion, compared to Vietnam's US$14.3 billion and Thailand's US$68.9

billion. Most export items are products of the primary industries – agriculture, fishery, and forestry (Table 2-6). Among agricultural products, pulses account for a lion's share. Nevertheless, manufacturing content in the form of light industries appears to have been increasing. The high proportion of 'other commodities' in recent years is because of the inclusion of garment exports under a CMP (cutting making packing) formula, which expanded rapidly. Under this formula, foreign firms entrust domestic firms to produce under specification by bringing raw materials and receive all the products for export from Myanmar

Table 2-6 Composition of Export Items

	1985-86	19990-91	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
1. Agricultural products	43.9%	31.9%	36.6%	32.1%	45.8%	46.1%	36.1%	30.3%	28.1%	22.7%
Rice and rice products	29.7%	5.8%	7.0%	6.3%	21.6%	8.7%	2.3%	0.6%	2.5%	0.9%
Pulses	9.3%	17.4%	18.8%	17.1%	14.8%	27.0%	23.2%	21.8%	16.9%	16.7%
Maize	0.6%	0.4%	0.8%	0.7%	0.9%	0.9%	1.9%	0.7%	1.7%	0.8%
Raw rubber	2.2%	0.1%	2.0%	2.2%	2.3%	3.6%	3.1%	2.1%	1.5%	1.1%
2. Marine products	3.7%	5.6%	7.3%	8.7%	11.4%	12.2%	16.2%	14.7%	14.0%	11.5%
Fish	0.5%	1.2%	1.2%	0.5%	3.9%	3.2%	4.0%	4.5%	4.6%	3.3%
Prawn	3.0%	3.9%	5.4%	6.2%	6.4%	8.1%	10.2%	8.7%	8.5%	7.5%
3. Timber	40.8%	33.8%	26.7%	29.4%	19.6%	20.8%	17.9%	13.2%	11.7%	13.1%
Teak	38.3%	25.1%	17.7%	17.5%	17.6%	17.9%	15.6%	10.8%	9.5%	10.3%
Hardwood	2.5%	8.8%	9.0%	11.8%	2.0%	2.9%	2.4%	2.4%	2.2%	2.8%
4. Base metals and ores	4.4%	2.4%	0.8%	0.7%	1.1%	1.4%	0.6%	0.5%	1.1%	4.1%
5. Precious and semi-precious metals	2.9%	2.9%	3.0%	3.9%	1.9%	2.7%	2.9%	3.2%	2.2%	3.1%
Precious stones and pearls	2.4%	2.7%	3.0%	3.9%	1.9%	2.6%	2.9%	3.2%	2.2%	3.1%
6. Garments	0.2%	0.3%	2.7%	5.2%	6.3%	6.0%	7.7%	6.8%	7.0%	12.5%
7. Other commodities	4.1%	23.1%	24.1%	20.0%	13.7%	10.8%	19.0%	31.4%	35.9%	33.0%

Note: Figures for fiscal 1999-2000 are preliminary.
Source: Ministry of National Planning and Economic Development.

Manufactured goods classified chiefly by materials and miscellaneous manufactured articles have been increasing as a proportion of domestic exports, particularly since the mid 1990s (Table 2-7). An export-oriented textile and garment industry is emerging comprised of private and joint venture (JV) firms. Large firms are mostly Hong Kong and South Korean JVs. Their exports are mostly conducted under a CMP formula.

Table 2-7 Composition of Domestic Exports by Commodity Classification (%)

	1985 -86	1990 -91	1995 -96	1996 -97	1997 -98	1998 -99	1999 -2000
Food	45.1	29.4	51.0	44.6	39.2	37.8	31.8
Crude materials, inedible, except fuel	47.5	43.0	30.0	29.6	20.2	18.3	25.8
Manufactured goods classified chiefly by material	4.1	7.0	6.9	7.0	6.9	10.3	8.5
Machinery and transportation equip't	--	--	1.0	1.1	1.1	0.8	4.0
Misc. manufactured articles	0.4	0.5	6.5	7.8	7.8	7.8	15.0
Misc. transactions and commodities	1.2	19.1	4.0	9.3	24.4	24.7	13.9
Total	100	100	100	100	100	100	100

Note: The figures for 1999-2000 are preliminary.

Source: Ministry of National Planning and Economic Development, Statistical Yearbook 2000.

Myanmar's exports are small. The reason is because exports are mostly limited to agriculture and forestry and fishery products and exports of manufactured goods are small, unlike in neighboring countries.

The major reason for Myanmar's low level of manufactured exports is the small inflow of FDI. Inward FDI has been substantially below the amounts attracted by neighboring countries. Although inward FDI sharply increased after the promulgation of the Foreign Capital Law of 1988, it decreased after the imposition of economic sanctions1 and the occurrence of the Asian Financial Crisis of 1997-98. The accumulated FDI from 1989 to 2000 was only US$ 7.1.

Asian economies are the destination for the preponderance of Myanmar's exports and those economies that share borders with Myanmar – India, China, Thailand, and Bangladesh - are particularly important export destinations (Table 2-8). This high dependence on trade with neighboring countries has kept Myanmar from realizing the full benefits of international trade. This is because Myanmar's trade with advanced countries is significantly different from that with neighboring countries.

On the import side, capital and intermediate goods account for about 65% and consumer goods account for about 35% (Table 2-9). While the opening of border trade in 1988 was followed by increased imports of consumer goods, this impact has tapered off, probably because of the shortage of foreign exchange. The share of imports from advanced economies has decreased and the share of imports from ASEAN and Korea increased steadily (Table 2-10). Among advanced countries, the decline in the share of imports from Japan is conspicuous. This share declined from 43.6% in 1985-86 to 16.3% in 1990-91; it rose to 24.3% in 1995-96, and then fell to 11.1% in 1999-2000, probably along with the decline of

[1] The US government banned new investments by US enterprises in April 1997 and extended the economic sanctions in May 1999.

ODA-related activities. The share of imports from Southeast Asia increased from 11.2% in 1985-86 to 27.0% in 1990-91 and then to 53.4% in 1999-2000. Among ASEAN countries, imports from Singapore dominate, accounting for 28% of total trade. China's share rose from 3.7% in 1985-86 to 13.9% in 1995-96 and then fell to 9.6% in 1999-2000.

Table 2-8 Share of total Export by Destination Country

(%)

	19985-86	1990-91	1995-96	1996-97	1997-98	1998-99	1999-00
1. Southeast Asia	28.0	43.0	41.7	37.6	28.8	26.2	27.2
Singapore	13.3	28.7	19.6	18.3	12.9	10.4	11.4
Malaysia	3.5	1.4	2.9	5.6	2.6	3.7	4.7
Indonesia	0.0	..	5.9	2.6	1.8	3.0	2.6
Thailand	5.1	13.1	10.6	9.9	11.2	8.4	7.8
2. Rest of Asia	39.9	50.6	42.1	42.7	54.4	55.5	47.7
China	6.2	13.4	3.9	6.1	13.0	8.5	11.9
Hong Kong	12.4	8.4	7.1	7.5	5.6	5.2	6.0
India	7.1	17.7	20.6	16.9	22.1	15.4	18.9
Bangladesh	1.8	..	1.1	2.0	7.1	18.3	3.4
Japan	7.5	7.5	5.1	6.8	3.7	4.4	5.1
3. America	1.9	0.6	5.2	5.8	4.3	3.9	8.8
US	0.8	0.1	4.3	4.7	3.4	3.3	7.9
4. Europe	13.4	3.1	4.3	5.3	5.4	7.1	6.1
France	0.1	0.0	0.6	0.9	1.5	2.4	2.0
5. Others	17.7	2.6	7.1	8.6	6.1	5.6	8.5
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Ministry of National Planning and Economic Development, *Statistical Yearbook 2000.*

Table 2-9 Composition of Import by Commodity

	1985-86	1990-91	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000 p.a. (1)
1. CAPITAL GOODS	57.1%	34.5%	32.6%	35.1%	35.0%	353.3%	40.0%	43.0%	43.6%	32.8%
Building materials	10.5%	9.0%	11.0%	6.4%	5.7%	103.5%	11.8%	12.2%	13.0%	10.4%
Machinery	37.3%	16.7%	7.4%	10.4%	13.2%	77.3%	12.6%	17.7%	17.2%	13.7%
Transport equipment	6.3%	7.2%	13.5%	17.2%	15.0%	157.7%	14.3%	10.7%	12 1%	7.4%
2. INTERMEDIATE GOODS	30.9%	3.0%	21.0%	26.9%	22.3%	230.4%	25.9%	23.3%	24.7%	31.6%
Raw materials	20.4%	19.3%	14.2%	22.9%	18.6%	195.3%	22.5%	19.8%	19.3%	26.2%
Tools and spares	10.5%	10.7%	6.8%	3.9%	3.6%	34.7%	3.4%	3.5%	5.4%	5.3%
3. CONSUMER GOODS	12.0%	35.4%	46.4%	38.1%	42.8%	414.9%	34.1%	33.7%	31.7%	35.6%
Durables	5.7%	4.2%	4.3%	3.0%	4.1%	71.3%	6.3%	4.3%	5.6%	6.8%
Food	1.3%	2.0%	11.4%	10.6%	14.3%	155.5%	6.4%	10.5%	6.2%	5.8%
Textiles	1.3%	0.6%	1.0%	2.1%	3.7%	28.5%	3.8%	5.2%	7.9%	9.9%
Medicines	2.5%	1.7%	0.3%	0.3%	0.2%	2.0%	1.3%	1.3%	1.4%	1.9%
Others (2)	1.2%	26.9%	29.3%	22.0%	20.5%	157.7%	16.3%	12.4%	10.5%	11.3%
GRAND TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Notes:
(1) provisional actual data.
(2) From 1988-89 onward. data include border trade.
Source: Statistical Year Book 2000.

Table 2-10 Composition of Import by Country

	1985-86	1990-91	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000 p.a. (1)
1. SOUTHEAST ASIA(2)	11.2%	27.0%	32.1%	32.7%	38.1%	40.0%	42.5%	52.0%	57.8%	53.4%
Singapore	9.2%	9.6%	10.7%	10.4%	14.6%	17.7%	23.7%	30.9%	30.7%	28.0%
Thailand (2)	0.5%	10.0%	13.0%	10.9%	10.0%	12.8%	10.1%	9.2%	12.2%	13.3%
Indonesia	0.5%	0.3%	2.2%	4.1%	3.8%	3.4%	2.7%	4.7%	7.5%	4.0%
Malaysia	1.1%	6.9%	6.1%	7.2%	9.4%	6.0%	5.9%	6.9%	7.1%	7.4%
2. REST OF ASIA(2)	51.6%	43.2%	53.8%	54.0%	49.1%	48.4%	43.7%	39.5%	36.1%	38.0%
Japan	43.6%	16.3%	28.6%	25.5%	23.6%	24.3%	20.9%	15.2%	12.8%	11.1%
China(2)	3.7%	21.8%	17.6%	15.9%	12.2%	13.9%	9.5%	10.6%	10.3%	9.6%
Korea	1.8%	3.6%	3.3%	3.7%	4.7%	3.9%	3.7%	5.5%	5.2%	9.1%
Hong Kong	1.3%	0.6%	0.7%	1.7%	3.0%	1.6%	2.7%	2.6%	3.3%	3.4%
India(2)	0.1%	0.7%	2.3%	3.6%	3.7%	3.3%	5.1%	4.5%	2.6%	2.8%
3. AMERICA	2.2%	12.6%	4.5%	3.9%	1.7%	3.6%	7.9%	2.4%	1.3%	3.6%
4. EUROPE	31.6%	13.9%	7.4%	7.0%	6.0%	7.3%	5.2%	4.8%	3.8%	4.0%
5. OTHERS	3.4%	3.4%	2.2%	2.4%	5.1%	0.7%	0.8%	1.4%	1.0%	1.0%
GRAND TOTAL(2)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Notes:
(1) provisional actual data.
(2) From 1988-89 onward, data include border trade.
Source: Statistical Year Book 2000.

Thus, Myanmar's trade structure with neighboring countries is significantly different from that with advanced countries. We would like to analyze Myanmar's trade structure from this perspective by using trade data from Myanmar's trading partners.

First, we analyze the structure of Myanmar's trade with advanced countries using trade statistics in the Supplement to the World Trade Annual published by the Statistics Division of the United Nations. This data is collected from 24 advanced countries: Australia, Austria, Belgium-Luxembourg, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States. Table 2-11 shows Myanmar's aggregate trade with these countries as well as the weights of major export and import items.

Myanmar's exports to advanced countries expanded rapidly from US$277.9 million in 1995 to US$617.0 in 1999. On the other hand, imports increased from US$351.1 in 1995 to US$504.2 but then declined to US$335.2 in 1999. Thus, Myanmar's balance of trade with the advanced countries improved significantly from a deficit of US$73.2 million in 1995 to a surplus of US$281.8 in 1999. This dramatic improvement in the balance of trade was the result of rapid expansion of clothing exports, which accounted for 60% of Myanmar's total exports to these countries. Myanmar's clothing exports go primarily to the markets of advanced countries, mostly produced under the CMP scheme, while imports of raw materials, mostly cloth, come mostly from NIEs such as Taiwan and Korea. In other words, the trade surplus thus gained with advanced countries is offset bay deficits in trade with NIEs. Main import items from advanced countries are machinery, road vehicles, and power generating equipment.

Table 2-11 Myanmar's Trade with Advanced Countries

	1995	1996	1997	1998	1999
Overall Trade (US$ million)					
Expoert	277.9	351.8	404.9	465.1	617.0
Import	351.1	504.2	440.2	356.6	335.2
Balance	-73.2	-152.4	-35.3	108.5	281.8
Weight of Major Export Items (%)					
Clothing & accessories	35.2	41.5	49.5	54.9	60.3
Fish & preparations	24.5	27.1	23.9	18.8	12.5
Cork & wood	16.1	11.5	9.1	8.9	7.6
Weight of Major Import Items (%)					
Machineries for special industries	11.0	21.9	12.9	9.5	16.5
Road vehicles	15.3	19.9	22.1	11.1	12.3
General industrial machinery necessities	6.1	7.8	10.3	15.6	10.3
Power generating equipment	14.1	4.3	4.9	11.9	6.5
Iron & steel	2.4	7.0	3.7	4.0	4.4

Source: United Nations, Supplement to the World Trade Annual

Next we analyze the structure of Myanmar's trade with ASEAN (excluding the Philippines and Brunei), Korea, and China using the trading partners' data. The data for Malaysia are available only for 1997 to 2000 and import data for Thailand are lacking for 1999. With such limitation, the constructed tables for Myanmar's trade are shown (Table 2-12, Table 2-13 and Table 2-14).

Table 2-12 Myanmar's Trade with ASEAN, Korea and China

(US$ mil)

	1996	1997	1998	1999	2000	AVG
Exports	520.2	428.0	324.3	405.7	583.8	452.4
Imports	1,748.0	2,307.0	1,792.2	1,276.0	1,971.3	1,818.9

Source: Compiled from data of Bureau of Commercial Information Administration with Cooperation of the Thai Customs Department, The Trade Development Board of Singapore, Statistics Indonesia, Department of Statistics, Malaysia, Korea Trade Statistics and China Trade Statistics.

As Table 2-12 shows, Myanmar's trade with those countries is heavily in deficit, offsetting the surplus in trade with advanced countries. This is because Myanmar tends to import raw materials from those countries and export manufactured goods mainly to advanced countries. Moreover, Myanmar imports most consumer goods from the neighboring countries.

Table 2-13 summarizes the recent development of Myanmar's exports to ASEAN, Korea, and China by product for items whose share was in excess of 1% in 2000. Exports to these countries consist mostly of food items such as fish, edible vegetables and cereals, wood products, and energy (mineral fuels). Wood products, mineral fuels and fish accounted for

33.3%, 20.5% and 10.4% respectively of total export to this area in 2000. The sudden surge of the export of mineral fuels in 2000 must reflect the start of natural gas exports to Thailand.

Table 2-14 summarizes the recent changes in the composition of Myanmar's imports from ASEAN, Korea and China by product. Energy products (mineral fuels), food, textiles, power equipment (nuclear reactors, boilers in the statistics), and metals are major items or groups of items, accounting for 19.0%, 14.1%, 13.4%, 10.1% and 8.7% respectively in 2000. This structure seems to show that Myanmar satisfies its demand for the relatively basic production inputs and consumption from imports from neighboring countries. Imports of textile products are used as raw inputs for producing apparel, which is exported to advanced countries in the CMP formula.

Table 2-13 Myanmar's Exports to ASEAN, Korea and China by Commodity

Major export items	Share of the total export					Value (US$ mil.)	Average share
HS 2-digit	1996	1997	1998	1999	2000	2000	96-00
01 Live Animals	0.3%	0.3%	2.2%	3.5%	1.7%	10.0	1.6%
03 Fish & Crustaceans	12.8%	17.3%	17.1%	10.6%	10.4%	60.6	13.6%
05 Product of animal origin	2.7%	0.0%	0.0%	0.0%	0.0%	0.1	0.6%
07 Edible Vegetables	4.3%	11.2%	15.1%	7.7%	7.1%	41.4	9.1%
08 Edible Fruits & Nuts	0.2%	0.7%	0.1%	0.8%	1.7%	10.0	0.7%
10 Creals	2.2%	1.6%	1.7%	3.3%	1.0%	5.8	2.0%
12 Oil Seed	0.7%	4.9%	4.8%	1.7%	2.1%	12.5	2.9%
22 Beverages & Spirits	3.1%	1.2%	0.2%	0.3%	0.4%	2.1	1.0%
23 Residues & waste from food industries	4.4%	0.1%	0.4%	0.3%	0.4%	2.4	1.1%
24 Tobscco	8.9%	0.2%	0.0%	0.0%	0.0%	0.1	1.8%
25 Salt,sulphur, cement	0.0%	3.1%	5.0%	4.6%	1.9%	11.3	2.9%
26 Ores,slag	2.4%	0.8%	1.7%	1.4%	1.0%	5.8	1.5%
27 Mineral fuels,mineral oils	0.0%	0.0%	0.0%	0.5%	20.5%	119.8	4.2%
39 Plastics and articles thereof	0.0%	3.8%	2.5%	1.7%	1.8%	10.4	1.9%
40 Rubber and articles thereof	0.2%	4.5%	3.1%	1.7%	1.0%	5.8	2.1%
43 Furskins	0.0%	3.5%	3.3%	4.0%	2.1%	12.0	2.6%
44 Wood & articles of wood	31.2%	28.0%	22.8%	35.0%	33.3%	194.4	30.1%
61 Articles of apparel, knitted or	0.0%	2.1%	2.3%	2.1%	3.5%	20.4	2.0%
71 Natural or cultured pearls, precious or semi-precious stones	9.2%	7.0%	4.3%	8.2%	1.7%	10.2	6.1%
85 Electric machinery & Equipments	0.9%	2.3%	2.7%	2.7%	2.0%	12.0	2.1%

Source: Source: Compiled from data of Bureau of Commercial Information Administration with Cooperation of the Thai Customs Department, The Trade Development Board of Singapore, Statistics Indonesia, Department of Statis Malaysia, Korea Trade Statistics and China Trade Statistics.

Table 2-14 Myanmar's Imports from ASEAN, Korea and China

Major import items	Share of total import					Value (US$ mil.)	Average
HS 2-digit	1996	1997	1998	1999	2000	2000	96-00
01-25 Food items	18.1%	21.0%	17.7%	13.1%	14.1%	277.0	16.8%
27 Mineral fuels and oils	0.8%	10.5%	10.8%	18.8%	19.0%	375.2	12.0%
28-29 Chemicals	2.3%	2.5%	2.3%	1.2%	2.7%	54.0	2.2%
30 Pharmaceutical products	0.7%	0.9%	1.1%	1.3%	1.5%	30.6	1.1%
31 Fertilizers	1.7%	1.3%	0.1%	0.9%	1.0%	19.3	1.0%
39 Plastics products	1.9%	2.9%	3.3%	3.3%	4.6%	90.5	3.2%
40 Rubber products	1.0%	1.8%	1.8%	1.3%	1.2%	23.3	1.4%
48 Paper & Paperboard	0.6%	1.0%	1.3%	2.6%	2.2%	44.0	1.5%
50-63 Textiles	12.9%	7.6%	9.4%	13.1%	13.4%	263.9	11.3%
72-81 Metals	17.1%	14.4%	11.9%	9.0%	8.7%	170.8	12.2%
84 Nuclear reactors, boilers	5.8%	12.9%	17.2%	12.5%	10.1%	198.9	11.7%
85 Electric machinery & Equipment	4.3%	6.7%	6.8%	8.3%	7.1%	139.2	6.6%
87 Vechiles other than railway	4.8%	4.2%	2.9%	2.4%	2.9%	57.6	3.5%
89 Ships	3.9%	2.6%	1.4%	2.1%	2.0%	39.4	2.4%

Source: Source: Compiled from data of Bureau of Commercial Information Administration with Cooperation of Thai Customs Department, The Trade Development Board of Singapore, Statistics Indonesia, Department of Statistics, Malaysia, Korea Trade Statistics and China Trade Statistics.

Table 2-15 FDI and Manufactured Exports

	FDI		Exports of goods and nonfactor services		Manufacture exports	
	US$ million		Share of GDP (%)		Share of total exports (%)	
	1990	1997	1980	1998	1980	1998
Myanmar	161	80	9	1	6	..
China	3,487	44,236	6	22	48	85
Vietnam	16	1,800	..	46	..	..
Indonesia	1,093	4,677	34	28	2	42
Philippines	530	1,222	24	56	37	85
Thailand	2,444	3,745	24	47	28	71
Malaysia	2,333	5,106	58	118	19	76

Source: World Bank, World Development Report 1999/2000.

With a much smaller inflow of FDI than other Asian economies Myanmar did not establish export industries the way they did. Furthermore, because it lacked sufficient FDI to expand export industries rapidly, Myanmar ran into a balance of payments problem which the other Asian economies avoided. The lack of FDI in labor-intensive industries also limited growth of industrial employment. Evidence of the employment-generating effect of FDI in labor-intensive industries is the fact that CMP exports, which are similar to FDIs in relying on foreign firms' capabilities in marketing and technology, are said to have generated 150,000 jobs in Myanmar. Finally, Myanmar's relative lack of integration with external economies undermined industrialization by limiting domestic enterprises' access to international best practices.

The major factor in Myanmar's lack of international integration has been its inward-looking economic policies as well as the economic sanctions. The latter have restricted the access of Myanmar's industries to the markets of advanced countries and constrained the flow of FDI from large firms in advanced countries. As a result, about 50% of Myanmar's total inward FDI comes from close-by ASEAN economies.

In order to offset its lack of trade and other exchanges with advanced economies, Myanmar has promoted cross-border trade with neighboring countries such as China, Thailand, and India. Cross-border trade now accounts for about one-third of total trade. China accounts for 60-70% of Myanmar's total cross-border exports and 80-90% of total cross-border imports. Moreover, cross-border smuggling is believed to be substantial. A two-tiered trade structure has emerged in Myanmar, consisting of non-border trade with substantial trade barriers and cross-border trade with relatively low trade barriers. The inflow of low price imports through cross-border trade has constrained the development of import substitution industries.

Cross-border trade increased rapidly after its formalization in 1988 until about 1994, but it has since stopped growing. We can observe this development in the statistics of cross-border trade with China (Table 2-16). The slowdown seems to be due to Myanmar's lack of export capacity and the deterioration of its balance of payments situation, which forced the government to tighten import controls.

Table 2-16 Cross-border Trade with China

(US$ million)

Fiscal Year	Export	Share of China (%)	Import	Shae of China (%)	Total	Balance
1995/96	22.0	51.0	229.3	78.3	251.3	-207.3
1996/97	30.0	51.5	158.4	53.0	188.4	-128.4
1997/98	86.4	55.8	59.4	58.2	145.8	27.0
1998/99	104.1	71.1	126.9	82.4	231.0	-22.8
1999/2000	108.9	55.5	130.5	88.2	239.4	-21.6
2000/2001 (Plan)	136.8	64.2	173.5	88.3	310.3	-36.7
2000/2001 (Actual; Through Muse only)	130.0		114.5		244.5	15.5

Source) NAKATHA, Dept. of Border Trade, Myanmar

Myanmar's low level of internationalization is believed to be one of the main reasons for Myanmar's lack of industrialization. As we discuss below, international integration in terms of trade and FDI contributed greatly to the rapid industrialization of neighboring countries. In addition to the benefits from international division of labor, international integration with external economies brings valuable information for industrial development, such as worldwide market and technology trends and best management practices.

2.1.2.4 External Environment and Policy Factors Constrain Myanmar's Industrialization

Next, we will examine the external environment and policy factors that affect industrial vision and development strategy. Here, it is important to recognize that developments in the external environment, i.e., economic sanctions, and domestic policy factors, created a vicious cycle which caused Myanmar's industrialization to stagnate.

Developments in the External Environment

General economic conditions, both within Myanmar and in the world at large, comprise the external environment for Myanmar's industry. We discuss how the macro-economy and the international environment will affect Myanmar's industrialization.

Macro-economic conditions

The macro-economic conditions that loom largest for Myanmar are the foreign exchange and budgetary constraints. Black market exchange rates have been declining for many years as a result of high inflation rates and balance of payment problems. In the second half of 2002, black market exchange rates fell below 1,000 kyats/US$, widening the gap with the official exchange rate of around 6 kyats/US$. Government revenue has been declining in proportion to GDP to reach a low level and SOEs have become a drain on the budget. The direct financing burden imposed by SOEs on the budget, which can be regarded as the cost of not privatizing them, has been estimated for 1997/98 at 40 billion kyats constituting some 60% of the budgetary deficit (Myat Thein 1999, p.33).

Because of the budget and foreign exchange constraints, the government has not spent adequately on building infrastructure and it has adopted ad hoc policies to limit the import of industrial supplies, both of which adversely affected industrial development. This situation suggests that Myanmar's development strategy will have to focus on saving and generating foreign exchange, the reform and privatization of SOEs, and infrastructure development financed by the private and foreign sectors.

International environment

The international environment is changing as illustrated in Figure 2-4.

Figure 2-4 Evolution of International Environment

- Trend toward economic liberalization
  - –Global trend toward economic liberalization ⇔ Economic sanctions
    - WTO
  - –Trend toward integration in the region, such as AFTA, FTA between AFTA and China, etc.
    - Infrastructure development ASEAN-wide and to connect ASEAN and China
  - –Emergence of China as a regional economic superpower
  - –Innovation in IT, biotechnology, nano-technology, etc.

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IMPACTS

- Industrial reorganization based on comparative advantage
- Formation of pan-ASEAN production networks linked with production networks in China
- Shift of investment away from ASEAN to China and necessity for a division of labor with China and cultivation of China's market
- Regional integration will precede global integration for Myanmar depending on the timing of the lifting of economic sanctions
- Shift toward knowledge-based economy in the region; possibility of missing opportunities as well as of leapfrogging

Source: JICA Study Team

First, there are both global and regional trends toward economic liberalization. There is a worldwide trend toward liberalization in trade and investment. Since it is commonly recognized that liberalization has rendered many economic benefits to advanced as well as developing economies, there is a wide support for liberalization. Global liberalization has been emanating from the WTO system under the leadership of the United States. While this development has caused some destabilizations such as the Asian Financial Crisis, it has benefited many developing economies, particularly East Asian economies, through increased trade with and investment from economies worldwide, particularly advanced economies and NIEs. Currently, Myanmar is not benefiting from globalization sufficiently because of the economic sanctions imposed by the United States and European countries. The sanctions have obstructed Myanmar's integration with the global economy. New investments in Myanmar, particularly of large firms from advanced economies, have stagnated and the access of Myanmar products to the markets of advanced economies is restricted.

In addition, there is an accelerating trend toward regional economic integration, both among ASEAN members through AFTA and between ASEAN and China through an agreement to create a FTA by 2012. Japan and the United States have also intensified their efforts to establish FTAs with ASEAN and countries in the area.

Under the AFTA framework, the six members of ASEAN have committed to lower tariffs to member countries to less than 5% by 2003 and Vietnam has committed to do the same by 2006. Myanmar joined ASEAN together with Laos in July 1997 and has made a commitment to lower most tariffs to no more than 5% by 2008 (For more detailed explanation of the AFTA, see appendix 1). The implementation of the commitment has progressed relatively smoothly except for some retrogressive developments such as Malaysia's postponement of tariff reductions on automobiles and the Philippine's raising tariff barriers in some products.

China and ASEAN recently agreed to form an FTA within ten years. Concessions offered by the Chinese side facilitated the ASEAN member countries acceptance of the initiative. The concessions included a.) accelerated liberalization of Chinese imports in the agricultural sector (the Early Harvest) and b.) postponement for another five years of the completion date for trade liberalization by the less-developed ASEAN countries, i.e., Vietnam, Laos, Cambodia and Myanmar. The Economic Ministers Meeting in September 2002 agreed that concrete items for the Early Harvest will be determined in 2003 with a move toward full implementation starting in 2004. If this FTA materializes, Myanmar's integration with China will proceed further.

A second change in the international environment is the emergence of China as a major regional economic power as a result of its rapid economic growth. The entry of China to the WTO at the end of 2001 will increase its position further by increasing imports to China and improving the efficiency of Chinese industry.

The emergence of China is taking place in the context of the trend of regional economic integration mentioned above, and economic relations with China will loom greater for ASEAN including Myanmar. Moreover, China's regional economic strategy seems to involve greater integration with Myanmar. It has traditionally sought gateways to the ASEAN region and the Indian Ocean. The relevance of Myanmar to China in this sense has increased with the Chinese central government's recent push for a Great Western Development. China has become the largest donor of ODA to Myanmar, with an emphasis on developing transportation infrastructure linking Yunnan Province with Myanmar. Moreover, China has developed transportation routes between industrial areas such as Shanghai and Guandong and the Yunnan Province. Kunming, the capital of Yunnan, is now reachable by truck from Shanghai in three days. It takes another ten hours from Kunming to Ruili, a border town. Thus, if the transportation infrastructure between the Myanmar-China border and seaports in Myanmar improves, Myanmar could become a gateway to the west for China. If negotiations on the container shipment project through the Ayerwaddy River are concluded, a substantial part of China's import and export trade with Europe and Southeast Asia will go through Myanmar bringing royalty revenues for Myanmar and Myanmar-China trade will increase. China has provided loans to industrial projects such as sugar refineries. Chinese products' penetration of Myanmar markets is much higher than otherwise because they can be exported through border trade, policy loans are available, and foreign currency-short Myanmar industries cannot afford to import expensive machinery and intermediate products from more advanced economies.

A third change is the worldwide technological innovation in such areas as IT, biotechnology, and nano-technology. In particular, the IT revolution facilitates the development of international production networks and leads economies, especially more advanced ones including NIEs in Asia, to become more knowledge-based.

Each of these trends in the international environment will affect the conditions for Myanmar's industrial development. First, global and regional economic integration will lower import barriers and facilitate the development of an international division of labor, which will increase the pressure in ASEAN economies including Myanmar to base their domestic industrial structures more on comparative advantage. This will facilitate the development of industries based on comparative advantage while it will threaten the viability of import substitution industries, which have been protected by high import barriers. Since SOEs in Myanmar are mainly in import substitution industries, their consolidation will become a major agenda item in the long run. In the case of AFTA, however, the impact will be relatively limited for some years because AFTA lacks enforcement capability and Myanmar's imports are effectively controlled not by tariffs but by non-tariff barriers (NTBs) such as the extensive use of import licenses. Promotion of Myanmar's exports to ASEAN members will be an agenda item. In the long run, Myanmar will feel the impact of AFTA heavily, once it has substantially reduced its NTBs. Myanmar will need to facilitate industrial restructuring towards a greater share of industries with comparative advantage and the consolidation of non-viable import-substitution industries.

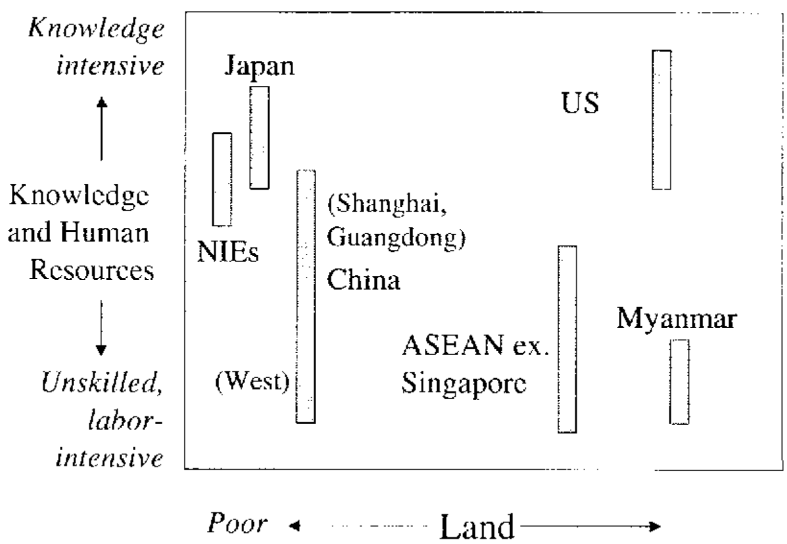
Second, globalization and progress of information technology are supporting the formation of extensive international production networks with multinational corporations playing the connecting role. The ASEAN region is a substantial part of such networks, particularly ones involving IT products. But this role is increasingly threatened by China, which offers a deeper pool of low-cost labor and also better-developed industrial clusters. Within the ASEAN region, sub-regional production networks are also developing linking lower income economies such as Indonesia and Vietnam with more advanced economies such as Singapore, Malaysia, and Thailand through investments and subcontracting in labor-intensive industries. Some mature industries in the more developed parts of ASEAN are eying investments in less-developed parts of ASEAN such as Myanmar. These developments offer a low-income economy such as Myanmar the opportunity to link with international production networks by inviting investment and subcontracting, particularly from neighboring economies, in labor-intensive industries. They also indicate the necessity for an economy like Myanmar to prepare to upgrade these industries in the long run for sustaining growth.

Third, the rapid growth of China's economy and trade liberalization, which will accelerate with China's accession to the WTO, represent opportunities for Myanmar to increase exports of industrial and especially agricultural products to China. There is concern that Myanmar will not be able to cash in on this chance, however, because its industrial and agricultural sectors lack international competitiveness. Moreover, as the already rapidly growing Chinese industries become more efficient, they will put increasing competitive pressure on industries in ASEAN countries including Myanmar. The development of a regional market through AFTA will also create important economic opportunities for member ASEAN countries including Myanmar as they re-orient their development more toward internal markets. In addition, the formation of an ASEAN-China FTA will enhance involvement of Myanmar and other ASEAN countries in production networks with China and it will facilitate their cultivation of markets in China.

At the same time, the rise of China as a market and a production base has already caused a shift of FDI from ASEAN to China. Myanmar's future share of FDI inflows may be limited because of competition from China.

The effect of increasing regional integration with ASEAN economies and China needs to be analyzed with the perspective of complementary and competing relationships. There is a much greater economic benefit from complementary relationships between economies with comparative advantages in different products than from competing economic relationships between economies with comparative advantages in similar products. Roughly speaking, there is a complementary relationship between an economy with comparative advantage in knowledge-intensive industries and another economy with comparative advantage in unskilled labor-intensive industries, and between a land-rich economy and a land-poor economy. The relationships among Myanmar, ASEAN excluding Singapore and perhaps also Malaysia, China, the US and Japan are illustrated in Figure 2-5.

Figure 2-5 Complementary Relationships



Source: JICA Study Team

Complementarity is strong between Myanmar, which is rich in unskilled labor and land

and Japan and the NIEs, which are rich in knowledge workers and poor in land. The relationship between Myanmar and the United States is also complementary in terms of knowledge and human resources although not so in terms of the richness of land. Myanmar will benefit from inviting FDI from these economies in labor- and resource-intensive industries such as garment manufacturing, electronics assembly and food processing and exporting those products. ASEAN and China have the same kind of complementary relationships with Japan, the NIEs, and the United States and they benefited from FDI from and export to these economies. Myanmar can also export agricultural products subject to some protective barriers to land-poor Japan and the NIEs.

The benefit from regional integration is not as clear although this is the main avenue for Myanmar because of economic sanctions. Since neither ASEAN economies nor China are rich in knowledge workers, they do not have as strong a complementary relationship with Myanmar in this vector. Opportunities for attracting FDI and exporting products of labor-, agricultural- and natural resource-intensive industries from these economies are limited.

As far as Myanmar's relationship with China is concerned, it will become increasingly complementary with China's advanced coastal cities, which are closing the gap with NIEs in terms of knowledge-intensiveness, while the relationship with the western part of China will remain competing for many years. Since China is generally land-poor, there will be a great potential in the long run for a complementary relationship in the agricultural sector, as Chinese consumption of food increases along with its rapid economic development. China is a potential market for Myanmar's agricultural exports, and integration with China supports the strategy of agro-based industrialization for Myanmar.

Fourth, the timing of the lifting of the economic sanctions will affect the way Myanmar benefits from economic integration. If the sanctions are lifted soon, Myanmar will benefit from greater access to markets in advanced countries and greater inflows of FDI and ODA funds from advanced countries in addition to closer integration with the economies in the Asia region. However, if the sanctions are kept in place longer into the future, economic integration for Myanmar will be confined mostly to the region and its benefits will be much smaller in the absence of the links with advanced countries.

Fifth, while it is necessary for a developing economy such as Myanmar to position itself to benefit from greater global trade and investment, it is also necessary to protect itself from destabilizing effects of globalization. The destabilizing effects come mostly from liberalization of capital flows and the financial sector before domestic competition and necessary regulatory regime are in place.

Sixth, with the IT revolution, a latecomer such as Myanmar has the opportunity to leapfrog more advanced economies by quickly adapting to the new technology and inviting FDI in IT equipment manufacturing or by developing its own software industry. At the same time, Myanmar faces a risk of isolation from international production networks or international knowledge flows if it does not promptly develop a telecommunications system and IT workers.

Policy Factors

The aspects of Myanmar's domestic policy environment that will affect industrialization are the progress in correcting the weak market economy system, the inward looking economic policies, and the lack of transparency and consistency and government efficiency.

Weakness in market economy structure

State intervention in industrial activities with such measures as price controls, export and import controls, and the SOE system has constrained the market mechanism, as explained in section 2.1.2.3. The weakness in the market economy structure has distorted the allocation of resources, prevented the development of the private sector, which should be the basis for industrial activity, and restrained the inflow of FDI. Price controls in electricity and gasoline with extensive government subsidies have caused excessive consumption. Price controls have contributed to the shortages of these critical inputs to industrial production as well as to a budgetary burden and a balance of payment problem. Moreover, since Myanmar's SOEs are mostly in import-substitution industries, the general preferential treatment of SOEs amplified the bias toward imports. Privatization and SOE reform have been much slower in Myanmar than in other transition economies such as China and Vietnam.

SOE reform is very limited. In 1989 the new government changed the policy on retained profits, requiring them to contribute 100% of profits to the Union Consolidation Fund. This requirement reduced the incentive for better management of SOEs by reducing management autonomy. This is a marked difference from China where managers of state enterprises have been given greater autonomy with such mechanisms as the contract management system. The fact that the majority of top management of Myanmar's SOEs are former members of the military, who do not necessarily have business training, also affects the quality of management. Although state owned enterprises in China and Vietnam share the problem of bureaucratic appointment of management, they do not suffer the appointment of military personnel to the same extent.

Privatization is thought to be a means to solve these problems, but Myanmar has not progressed very far in this area. Although a Privatization Commission was established in January 1995 to coordinate the privatization process, no significant development has taken place so far. While the share of SOEs has declined somewhat and the share of private enterprises has increased to some extent, the gain of the private sector has been mostly at the expense of cooperatives, not the SOEs. On one hand there is a call for privatization but at the same time, SOEs are allowed to build new factories.

Inward-looking Economic Policies with a Bias to Imports

Myanmar's trade and FDI policies are inward-looking. Myanmar has not implemented policies to liberalize trade and invite FDI as aggressively as most other ASEAN countries did quite successfully. This policy framework has deprived industry in Myanmar of the externality benefits of links with foreign economies through the expansion of exports, acceptance of FDI, and also the associated inflow of knowledge.

Moreover, some policies actually stimulate imports and suppress exports. The system allowing SOEs to trade at artificially strong exchange rates including the official rate of about 6 kyats per dollar gives them incentive to import and discourages them from exporting, although imports are limited by extensive quantity controls. Moreover, the system of three exchange rates, 100, 150 and 250 kyats per U.S. dollar, used to assess import duties encourages imports by significantly reducing duty in real terms. Also, domestic energy prices, such as rates on electricity and diesel fuel that are controlled below international levels encourage higher energy consumption than under international prices and increase imports of energy products.

At the same time, the government implemented extensive measures to control imports, such as import licenses and foreign exchange quotas, to alleviate the balance of payment problems. These import control policies contradict the other policies that stimulate imports, and the direct controls have undermined the mechanism of the market economy.

Myanmar has also implemented a number of policies that suppress exports. First, exporters are charged 10% of export revenues payable in U.S. dollars. Not only do these charges impose a financial cost, but also the time and workload required to assess them jeopardizes export delivery. This system could be a serious obstacle to the development of an electronic parts industry, for example, which targets to export to assembly plants in neighboring ASEAN countries such as Singapore, Malaysia, and Thailand. The CMP formula is said to be popular because exporters do not have to pay export charges. Thus, the imposition of export charges discourages not only exports in general but also value addition in Myanmar. Second, government-instituted impediments exist at each node in the trade chain, such as overseas marketing, negotiations of trade conditions, contract processes, export procedures, customs clearance, and shipping and payment processes. Third, the state has a monopoly on export of rice, teak, petroleum products, natural gas, pearls, jewelry and other mineral products. Involvement of the private sector in some of these products should increase exports. Finally, the recent restriction on imports and exports by foreign firms has undermined Myanmar's capacity to export as well as import.

Myanmar's less-than-aggressive efforts to attract FDI have prevented it from building export industries as neighboring countries did. Economic sanctions have certainly contributed, but the lack of transparency and consistency in FDI-related policies and the lack of aggressive government efforts to attract FDI seem to be the main reasons for the low level of FDI.

While Myanmar put more effort into inviting FDI after the enactment of the Foreign Capital Law in 1988, the posture has turned less active recently. Myanmar is not as positive toward FDI as Malaysia or China, for example. The legal and regulatory systems are inconsistent and opaque and administrative procedures concerning FDI are cumbersome and time-consuming. Moreover, various regulations emanating from the shortage of foreign exchange, such as regulations on overseas remittances, import controls on various capital and production goods, and regulations on foreign currency funding, have restricted the freedom of business operations and worsened the investment environment. So have the underdeveloped infrastructure in electric power and the low quality of industrial estates

The notion of self-reliance seems to have influenced government policy to be inward-looking. While self-reliance is a plausible goal, the current policy framework is not the way to achieve it. Rather than autarky, what is important is increasing autonomy while benefiting from a large volume of trade and investment. In other words, the objective target should be to ensure that a large number of decisions about industrial activities should be made in Myanmar rather than abroad. Expanding and deepening industrial clusters and domestic innovation systems are the ways to achieve this.

Lack of Transparency and Inconsistency in Government Policies

International and domestic investors generally perceive the lack of transparency and consistency in government policies as one of the most serious obstacles to investing in Myanmar. Myanmar has not firmly established economic policies of a market economy and an outward perspective, which are widely adopted in most Asian countries. Ad hoc policies adopted by the government in response to the shortage of foreign exchange have created the perception among domestic and foreign firms that Myanmar's policies lack transparency and consistency. Laws and regulations have not been sufficiently developed and they are not available in written documents for the private and foreign business communities. Frequent policy changes have increased investment risk and discouraged FDI.

Governments play a major role in improving the conditions of an economy's production factors such as human and knowledge resources, capital resources, and infrastructure in order to upgrade its competitive advantages. The Myanmar government has not been sufficiently involved in this role, perhaps because the notion of international competition in government efficiency is not generally recognized under the inward-looking policy framework.

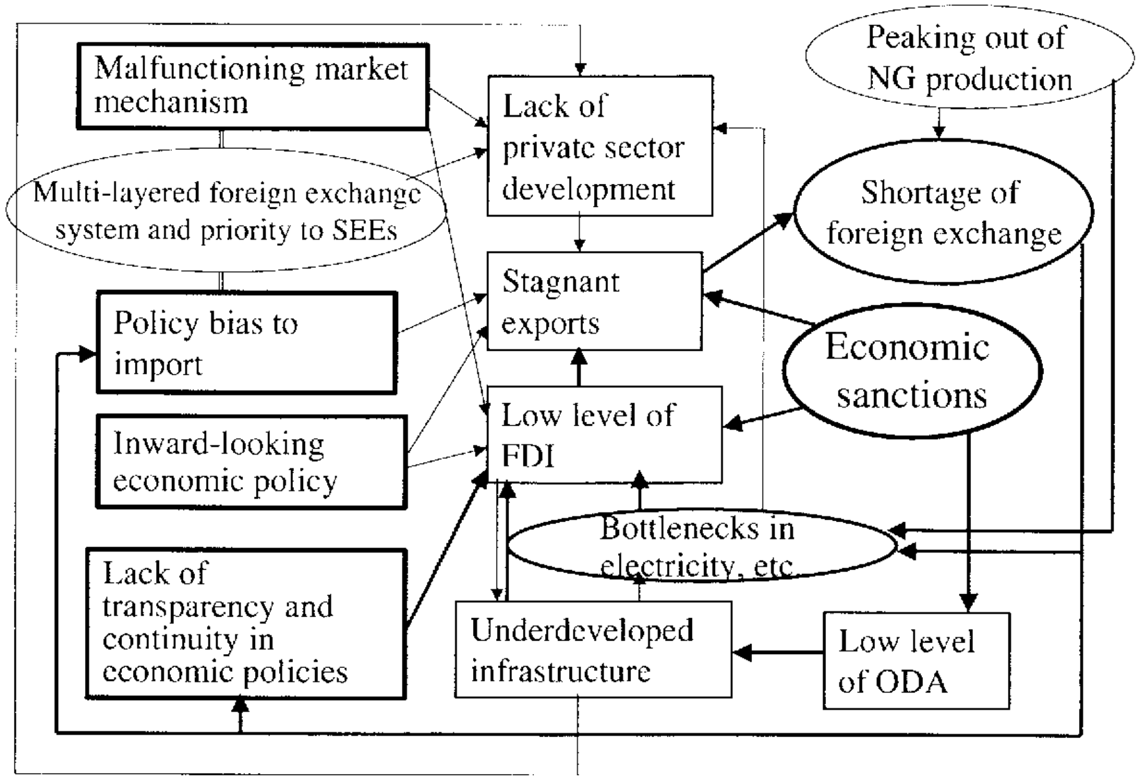
Necessary Shift from a Vicious Cycle to a Virtuous Cycle

The existence of a vicious cycle of industrial stagnancy in Myanmar and the experience of a successful shift from a vicious to a virtuous cycle in other Asian countries with a change in the policy framework suggest that Myanmar will need a development policy similar to other Asian countries' for generating a virtuous cycle.

Vicious Cycle Continues

The vicious cycle was created by four major policy choices by the government - suppression of the market mechanism, bias toward imports, inward looking economic policy, and low emphasis on policy transparency and consistency—as indicated in Figure 2-6.

Figure 2-6 Framework of a Vicious Cycle



Source: JICA Study Team

The multi-layered exchange rate system and policy preference toward SOEs, in particular, suppressed the market mechanism and had an import bias. In combination, these factors resulted in weak export performance and excessive import of inputs such as parts, raw materials, and machinery in the import-substitution sector with a lack of FDI, and an underdeveloped private sector. These developments, in turn, led to serious foreign exchange and budgetary constraints for Myanmar. And measures adopted in reaction to these constraints, such as price controls and restrictions on energy and raw materials imports, have created a shortage of critical inputs, particularly electricity, even for foreign-currency generating export industries, and discouraged foreign investment. The peaking out of natural gas production aggravated the shortage of electricity. These developments have weakened export performance even further. Thus, a vicious cycle has formed.

The economic sanctions have worsened this vicious cycle by limiting access to overseas markets and the inflow of FDI and ODA. The lack of ODA has constrained the development of physical infrastructure, which has contributed to the shortage of electricity and the lack of industrial estates.

Legacy from the Socialist Era

The vicious cycle mentioned above is not a recent creation but reflects a legacy from the Socialist era. The Burmese Way to Socialism, which was introduced by Ne Win's

Revolutionary Council in 1962, held economic development as well as industrialization in Myanmar hostage. During the socialist period, inward-looking growth strategy with import substitution and government intervention in economic and industrial affairs was pursued (Kudo). Public investment was concentrated in import-substitution industries, which were protected by high tariffs and quantitative controls. On the other hand, agricultural development was thwarted by a soviet-style compulsory delivery system. The chronology of policies concerning Myanmar's industrialization is summarized in Table 2-17. The long period of the planned economy means that now Myanmar's economic policy makers and those who implement these policies must make a major change in philosophy and undergo a fairly long and extensive learning process.

Table 2-17 A Brief Chronology of Political Economy of Industrialization in Myanmar

Period	Political Sysytem	Economic System	Industrial Strategy	Results
1886–1948	Colonialism	Laisses-faire Policy	Export-propelled "Agriculturization"	Foreign-dominated Industrial Sector Poor-spread Effect for Nation-wide Industrial Development
1948–1962	Parliamentary Democracy	Moderate Economic Nationalism in the Framework of Market Mechanism	Raw Material-oriented Import Substitution Industrialization	Moderate Industrial Performance Foreign-dominated Industrial Sector
1962–1974	Military Rule (Burmese Way to Socialism)	Command Economy, Radical Nationalism, Burmanization and Stern Isolation	Import Substitution Industrialization Self-reliance	Burmanization of Economy and Industry Poor Economic and Industrial Performance Import-dependent Industries
1974–1988	BSPP Rule (Burmese Way to Socialism)	Centralized Planning Inward-looking Policy with the exception of ODA Acceptance	Import Substitution Industrialization Agro-based Industries Inflows of ODA (mostly from Japan)	Poor Economic and Industrial Performance Import-dependent Industries

Source: Toshihiro Kudo (2001)

Outward-looking Development Model in East Asia

In contrast to Myanmar, East Asian economies industrialized rapidly by shifting from import substitution policies to outward-looking policies over the postwar years. Most other East Asian economies adopted import-substitution strategies early in the postwar period, often allocating a major role to state-owned enterprises. Those strategies failed as the protection of domestic markets resulted in industrial inefficiency and as the increase in intermediate products without a comparable increase in exports resulted in worsening balance of payments. One by one, East Asian economies shifted to export-oriented strategies with a much-reduced role of state-owned enterprises, and this shift helped them escape from the vicious cycle in which they had been trapped (Table 2-18).

Table 2-18 Evolution of Industrial Policies in East Asia

	1950s	1960s	1970s	1980s	1990s
Japan	1950-58	1959-	1967-		mid-1980s
	Import substitution	Export orientation trade & foreign exchange	Liberalization FDI		Deregulation
	Strategic Industries (comparative advantage)		(vision industries)		
Taiwan	1953-57	1958-80		1981-	1986-
	Import substitution	Export orientation			Liberalization
				Strategic industries	Information industry
Korea		1961-72	1973-79	1980-	1990s
		Export orientation		Liberalization	Internationalization
			Import substitution (Heavy industry)	(trade, investment, finance)	Deregulation
					mid-1980s Innovation orientated
Thailand		1961-71	1971-86		1986-
		Import substitution		'81-capital goods	Export orientation
			Export industries		Technology-intensive industries
Malaysia	1950-70		1971-85		1986-
	Import substitution				Liberalization
	(moderate)		Added export orientation		Export orientation

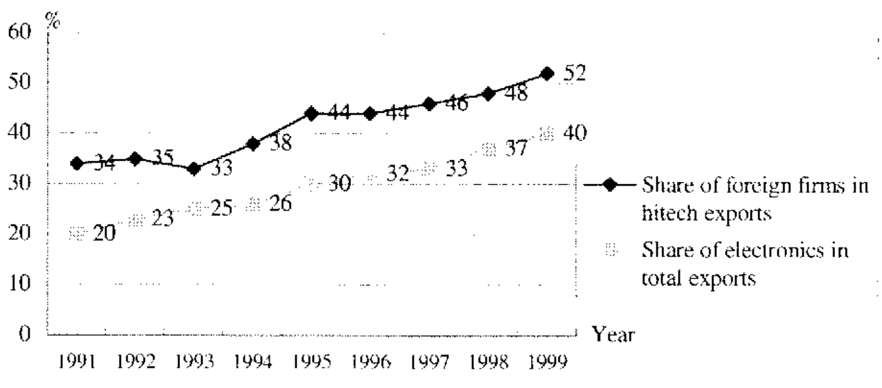
	1950s	1960s	1970s	1980s	1990s
Indonesia		1967-73 New Order (Liberalization)	1974-85 Import substitution		1986- Export orientation Liberalization
Philippines	1950- Import substitution	(strengthened)	1970s	1980s Liberalization (political instability)	1990s (strengthened) (political stability)
China		1965-76 Defence industries (inland heavy industrialization)	1977-78 Plant importation	1980s Coastline liberalization (light industries)	1990s Infrastructure High technology
Singapore	Import substitution (Malaysia)	1960s Export orientation			1990s Strategic industries (high tech & services) Regionalization
Hong Kong	1950- Export orientation (laissez fare, education, infrastructure, institutional support)			1979 Improved institutional support for industry	1990s Upgrade support for technology

Source: The World Bank (1993) and papers presented to the industrial policy conference organized by the Tokyo Club Foundation for Global Studies on 1-2 Feb. 1996.

It appears that the earlier an export-oriented policy was adopted, the greater was the relative success of economic development. "Export orientation," or more general outward looking policy, was the only viable option for two of the four Asian "tigers", Hong Kong and Singapore, which are both city-states. Korea and Taiwan, on the other hand, could have prolonged import substitution but chose to adopt "export orientation" very early in the 1960s. The policy shift succeeded in starting a virtuous cycle of export expansion that generated foreign currency with which to import modern machinery and high-quality intermediate products, further increasing their export competitiveness. Export growth was centered on manufactured goods.

In the case of the ASEAN countries, import substitution policies continued longer with negative results. Thailand and Malaysia started to adopt export-oriented policies in the 1970s and Indonesia and the Philippines shifted to outward looking policies with export-orientation in the 1980s. Export-promotion policy in the ASEAN countries was combined with a policy of attracting FDI, unlike in Taiwan and Korea, which mainly relied on domestic enterprises. In recent years, particularly the ASEAN countries earnestly pursued the strategy of inviting FDI in export-oriented sectors. ASEAN countries increased inward FDI in the latter half of the 1980s and attained high levels of inflow in 1990. This resulted in rapid expansion of the manufacturing sector and a sharp increase in the export of manufactured products, particularly electronics. The transitional economies such as China and Vietnam lagged behind ASEAN economies but increased their FDI inflow in the 1990s by adopting outward looking policy. FDI accounts for a very large share of total exports in China and the ASEAN countries. In the case of China, for example, foreign firms account for more than half of high-tech exports (Figure 2-7). The different approaches followed by the NIEs on the one hand and the ASEAN countries and China on the other seem to be based on differences in the level of development of domestic enterprises and the international environment in which the FDI of multinational enterprises has intensified in recent years. ASEAN countries have also succeeded in escaping from a vicious cycle and generating a virtuous cycle.

Figure 2-7 FDI and Electronics Exports in China



Source: Chinese Statistical Yearbook

Need to Generate a Virtuous Cycle

The existence of a vicious cycle of industrial stagnancy in Myanmar and the experience of a successful shift in Asian countries from a vicious to a virtuous cycle with a change in the policy framework suggest that Myanmar will need a development policy for generating a virtuous cycle.

In fact, Myanmar started a development policy in such a direction in 1988. The Foreign Investment Law promulgated in July 1988 liberalized FDI. The State-owned Economic Enterprise Law enacted in March 1989 liberalized the entry of private-sector firms to areas that had been confined to SOEs, except for twelve specific sectors including electric power, teak, post office, and telecommunication and broadcasting. Moreover, international trade by the private sector was liberalized in October 1988 with the exception of teak, petroleum products, pearls, and jewelry. Furthermore, cross-border trade was gradually liberalized since December 1988. The Private Industrial Enterprise Law of 1990 was enacted to promote, encourage, and foster the development of private industrial enterprises. The Tourism Act of 1990 and its later revision enabled private enterprises to re-enter the tourism industry in such areas as travel agencies and hotel businesses after thirty years.

These reform measures had some positive results. Labor-intensive exports on the CMP formula increased rapidly since around 1995. The number of tourists from overseas also increased. The liberalization measures had a greater impact on the import side than the export side, however, and the balance of payments deteriorated sharply. This was because of the still weak export capacity of Myanmar's industries, the remaining import bias in the policy structure and the policy framework that remained less-than-congenial toward the private sector and foreign investment. The peaking out of onshore oil and natural gas production was also a factor in the deterioration of the external balance because it raised Myanmar's dependence on imported energy. The economic sanctions deprived Myanmar of much of the demand as well as investment from advanced economies.

The reform initiative stalled around 1997 when the government revived inward looking polices in response to the deterioration of balance of payments. In July 1997 foreign remittance regulations and import controls were tightened. The government shifted from an "import first" to an "export first" policy. The new trade policy was a reaction to the uncontrollable increases in imports under the import first policy and allowed enterprises to import only up to the amount of foreign exchange they generated by exports. This aggravated shortages of intermediate products such as diesel oil and parts and weakened export performance even further. The shortage of fertilizer undermined the export performance of the agricultural sector. These inward-looking measures were counterproductive and foreign currency shortages seem to have worsened as indicated by the weakening exchange rate for kyat on the black market. The vicious cycle continues to churning now. Thus, a new policy framework is needed to break this vicious cycle by deepening the reforms undertaken since 1988.

2.1.3 Industrial Development Strategy

We will discuss an industrial development strategy to fill the gap between Myanmar's current industrial structure, which was analyzed in section 2.1.2, and the industrial vision for 2020, which was presented in section 2.1.1.2. In this process, we take notice of the need to turn the vicious cycle to a virtuous cycle, as explained in the preceding section. We believe that Myanmar's industrial development strategy should have three dimensions: major thrusts, a changed role of government, and sequenced policy initiatives. The sequencing of policy applications is necessary to generate desired cumulative effects and minimize the cost from the shock of policy implementation. We view the industrial development strategy in three phases: a short-term strategy (from 2003 to 2005), a medium-term strategy (from 2006 to 2010), and a long-term strategy (from 2011 to 2020).

2.1.3.1 Major Thrusts

The industrial development strategy for Myanmar has four major thrusts.

First, establish a market economy-based industrial system with the private sector leading industrial development.
Second, adopt an outward looking policy framework that promotes exports and FDI with an initial focus on regional markets.
Third, diversify the industrial base with an emphasis on industries with comparative advantage and supporting industries.
And fourth, strengthen Myanmar's competitive advantage as an industrial location through human resource development, infrastructure development, and legal and institutional development.
Enhanced accumulation of industrial clusters will be particularly important for the latter two thrusts, namely industrial diversification and strengthening Myanmar's competitive advantage as an industrial location.

These thrusts are essentially in line with the following four economic objectives announced by the Myanmar government:

- Development of agriculture as the base and all-round development of other sectors of the economy as well
- Proper evolution of the market-oriented economic system
- Development of the economy inviting participation in terms of technical know-how and investments from sources inside the country and abroad
- The initiative to shape the national economy must be kept in the hands of the State and the national peoples.

Our emphasis is more on an outward looking policy and less on basing industrialization on the agriculture sector. We treat agriculture-based industrialization as a more long-term objective.

Building a Market Economy Structure Led by the Private Sector

The marketization of the industrial system is the utmost priority for the industrialization of Myanmar. Direct government involvement in industrial activities such as price controls, import and export controls, and the SOE system should be minimized. Abolition of the multiple exchange rate system is crucial to give proper signals to market participants and to reduce the distortions in resource allocation. The playing field between private firms and SOEs should be leveled. Future industrial development in Myanmar should be led by the private sector and the weight of SOEs in industrial production should be reduced.

Privatization, a stated policy of the government, is crucial not only to make enterprises more efficient and to generate a level playing field but also to lighten the budget burden. Commercialization, or increased autonomy and budgetary discipline, of SOEs should be carried out as an intermediate step toward privatization.

While privatization should be undertaken as a long-term project, reform of SOEs should be started immediately to improve the efficiency of management and lighten the fiscal burden. Reduction or termination of market protection and fiscal subsidies together with managerial autonomy is necessary. In order to shift the source of SOEs' financing from protected markets and fiscal subsidies to the financial system, a healthy and efficient banking system and capital markets need to be created.

We think it advisable to start with speedy privatization of small-scale SOEs. While privatization of large and medium-scale SOEs involves difficult issues such as relationships with line ministries and unemployment, privatization of small SOEs poses fewer problems. China and Vietnam have undertaken the rapid privatization of small-scale SOEs. Myanmar should draw on the experience of those countries in planning the privatization of small-scale SOEs.

In the case of larger SOEs which present more complex problems, Myanmar should proceed cautiously in their privatization while firmly establishing and pursuing the long-term goal of privatization and proceeding with their reform. As long as the playing field between SOEs and private enterprises is not level large-scale investments by SOEs should be minimized. Since privatization tends to generate unemployment, the establishment of a social safety net should be given high priority. Moreover, in order to compensate for the loss of employment in the SOE sector Myanmar should accelerate the inward flow of FDI and the promotion of private enterprises that offer substantial employment possibilities.

Outward-looking Policy

As explained before, an outward looking economic policy is essential to the shift from a vicious cycle to a virtuous cycle. An outward looking policy should include export promotion, FDI promotion, and integration with global and regional economies. International economic integration has both merits and demerits. The merits include expanded market access, development of industrial capacity through the inflow of FDI, and access to international best practices. The demerits include the increased exposure to disruptive swings in foreign product and financial markets and the cost of industrial restructuring. Since the merits significantly outweigh the demerits and the economic cost of prolonging it is extremely large, Myanmar should implement international integration by controlling its risk.

In order to counter the current import bias and to dissolve the current foreign exchange shortage, Myanmar will need to take a strongly export-oriented policy in the short- to medium-term. It must systematically work to eliminate the impediments to exports and actively promote exports. It must coordinate policies to increase exports with policies to attract FDI, since the latter will be the key to expanding exports.

Given the current condition of Myanmar's production factors, with comparative advantages in unskilled workers and natural, agricultural, and forestry and fishery resources and a lack of knowledge and capital resources and infrastructure, it will be crucial to attract FDI in industries with comparative advantages for the development of export industries. Myanmar, in particular, should try to benefit from the possible shift of labor-intensive industries out of neighboring ASEAN economies as explained in the section 2.1.2.4 on the international environment. In order to attract FDI, Myanmar must first realize that the competition for foreign investment is severe and move decidedly to liberalize and promote FDI.

Since export industries formed by foreign as well as domestic enterprises will center on labor-intensive industries, their employment generation effects will be substantial. For example, the export-oriented SEZs (special economic zones) that we propose below are expected to generate employment for about 500,000 workers by 2005, for one million workers by 2010, and for three million workers by 2020. Export and FDI promotion policies should mitigate the unemployment created by the reform and privatization of SOEs.

Myanmar should take up the following strategies to promote exports. First, it should rectify the import bias and dissolve impediments to export. To do this it is necessary to abolish import controls in principle; to liberalize the trading of most items to the private sector; to abolish export duties; and to remove the foreign currency limits on the importation of raw materials and parts and machinery intended for export production. The exchange rates applied to assess import tariffs should be adjusted gradually to market rates. The additional tariff revenues from this adjustment would help offset the government revenues lost by abolishing export duties. The multi-tiered exchange rate system should be adjusted to reduce the bias toward imports over exports. Second, an export promotion commission should be established with members from both the government and the private sector to devise and implement emergency export promotion measures.

FDI promotion policies should be as follows. First, the government should clearly state that Myanmar welcomes FDI and should clarify that FDI in the export sector has priority in the short- to medium-term. Second, in the short- to medium-term, when it would be difficult to develop adequate infrastructure and provide a desirable legal and institutional environment throughout the country, government must create SEZs by concentrating development of physical, legal, and institutional infrastructure in certain geographic areas. Finally, the government should reorganize the existing FDI promotion organizations and establish a one-stop service function.

How Myanmar should balance its efforts for global and regional economic integration will depend on whether Scenario 1 or Scenario 2, which were introduced in 1.1, applies. If Scenario 1 comes to pass, Myanmar can expect a significant inflow of FDI from both large and small- and medium-sized enterprises based in advanced countries in addition to enterprises in ASEAN and China. However, in Scenario 2, the inflow of FDI from large firms in advanced countries would be much restricted. In this case, in light of the strong trend toward regional integration and the difficulties of attracting FDI from advanced economies, Myanmar might focus on economic integration with its neighbors such as the ASEAN countries and China even though the benefit will be substantially less. Perhaps FDI from the NIEs can substitute to some extent for a lack of FDI from advanced economies. In any case, a material benefit of regional integration for Myanmar will be realized only if Myanmar can improve industrial efficiency through extensive marketization.

Export-oriented industrialization carries a few risks as well as benefits. One is vulnerability to "external shocks" such as the Asian currency crisis and sudden changes in technology or consumer demand. Another is the possibility of suppressing an internal development mechanism by depending too heavily on foreign direct investment. The existence of these risks should not prevent the adoption of export-oriented industrialization but it does demand that a developing country acts to avoid such risks. Among other things it should control capital flows in the early development stages, diversify export products and markets, develop domestic markets, and develop industrial clusters and human resources to enhance the ability of sustainable development. In the Asian currency crisis, it was domestic market-oriented foreign investments that suffered most because of the shrinkage of domestic markets in real and currency-adjusted terms and export-oriented foreign investments fared relatively well because of the increased competitiveness from devalued currencies.

Diversify and Upgrade Industrial Structure

Myanmar needs to support the diversification and upgrading of its industrial structure. To resolve the severe shortage of foreign exchange, Myanmar should place a high priority in the short to medium-term on developing export industries that are labor-and resource-intensive. Such industries include garments, footwear, and electronics assembly. Agriculture-, fishery-, and forestry-based industries may develop into a distinctive part of Myanmar's industrial structure. Resource-based industries can be processors, such as food processing and wood crafting, or input producers, such as the agricultural machinery and fertilizer industries. Before Myanmar can emphasize agriculture-based industrialization, however, it must substantially improve the efficiency of the primary agricultural sector itself in order to make it capable of supplying quality raw materials abundantly and steadily. Tourism also falls in the category of labor- and resource-intensive strategic industries.

Finally, there is a strong necessity to develop the crude oil and natural gas industries in order to improve the supply of electricity.

These industries need to be developed primarily by inviting FDI, at least in the short to medium term, while the private sector should complement this investment. Many of these industries need to be firmly based in the production networks that are developing in ASEAN. In this respect, the electronics industry is strategically important.

While Myanmar's industrial development strategy needs to emphasize export industries in the short- to medium-term, in the medium- to long-term the strategy should seek a balance between export-oriented industries and domestic market-oriented industries. After all, it is best for industry in Myanmar to acquire marketing and product development capability in domestic markets through close interactions with customers. Eventually demand from domestic-market oriented activity will be able to support local construction-related industries such as cement, steel mills, and glass, and these industries can develop around a core of domestic enterprises. In the short- to medium-term, when FDI should be directed mostly towards export-oriented industries to alleviate the shortage of foreign exchange, domestic market-oriented industries should be comprised mainly of private domestic enterprises, but in the longer term FDI should be invited to this sector as well.

Because Myanmar should strive in the long run to upgrade its industrial structure, the labor- and resource-intensive industries it focuses on in the initial phase should be ones that can be upgraded with additional knowledge and capital inputs at a later stage of development. The electronics industry is strategically important in this respect, also.

Building and Enhancing Competitive Advantages as an Industrial Base

While Myanmar should have a development strategy for utilizing its current competitive advantage, which lies in its unskilled workers, and natural and agricultural, forestry and fishery resources, it needs to upgrade its competitive advantages to ensure sustainable industrial development. As far as upgrading the condition of production factors, the important tasks are expanding the pool of knowledge workers through human resource development, developing infrastructure, and developing the financial system.

Now more developed East Asian economies are focusing on enhancing their locational advantages, particularly in view of the tough competition to attract FDI. They are inspired by Harvard professor Michael Porter's academic work on competitive advantage of location (Porter). Competitive advantage is the aspects of a location that enhance the international competitiveness of firms that conduct business there. They include such factors as the expansion of the pool of knowledge workers, the physical and regulatory infrastructures, the financial system, the government's efficiency and policy consistency, and the development of industrial clusters in addition to the comparative advantages derived from the location's resource endowment. Many of those factors can be improved by policy efforts of the government.

Human Resource Development

With regard to the development of human and knowledge resources, it is essential to increase opportunities to access economic and industrial knowledge. To do this requires, among other things, absorbing foreign knowledge by attracting FDI, increasing opportunities for overseas travel, making foreign books and journals more available at libraries, and spreading access to the Internet. Regulations constraining information access should be removed as much as possible and public support should be provided for improving accessibility to information by promoting trade fairs on specific industries. In addition, it is necessary to improve education and training in management and technology and this should be done partly with foreign assistance. Myanmar should increase facilities for management education, particularly for private SMEs. Attention should be paid to the spillover effects and cost of training. Moreover, programs for human resource development need to be planned to match the actual needs of Myanmar's industry with careful monitoring of such needs. With regard to training management and skilled workers, programs should be adapted to local conditions and perhaps organized and implemented with the help of foreign countries, including Japan and neighboring countries. Thirdly, incentives for individual capacity building should be strengthened by promoting meritocracy within the firm through reform and privatization of SOEs.

Infrastructure development

Myanmar needs to take two approaches toward infrastructure development. One is a short-term strategy to remove the bottlenecks that are generating the vicious cycle. The other is a long-term strategy to close the gap with other Asian countries.

First, in the short term, the top priorities should be the construction of high-quality industrial estates for export processing in SEZs and the construction of electric power generation facilities dedicated to the industrial estates. Such a concentrated, emergency infrastructure development program is necessary to carry out the industrial development strategy because it will take years to improve the infrastructure nation-wide. We think it is feasible to locate several SEZs with export processing zones in Yangon, where access to water transport is good and labor is abundant. These zones should be targeted at labor-intensive industries such as garments, footwear, and electronics parts. Efforts should be put into developing transportation access to these zones. Also, there should be an immediate effort to resolve the electricity shortage in the private sector.

Second, industrial estates for SMEs should be developed gradually to promote the private sector.

Third, the following principles should be applied to the financing of infrastructure projects. Price controls on electricity should be phased out to increase the financial incentive for investment in the sector. In addition, private financing should be emphasized because it will be difficult to depend heavily on ODA even if economic sanctions are lifted and because Myanmar's budgetary resources are extremely limited. And finally, it is advisable to prepare priorities for infrastructure development before the economic sanctions are lifted.

Fourth, a competitive mechanism should be introduced to the infrastructure sector through such measures as SOE reform and facilitating the entry of private firms. Currently, SOEs seem to monopolize the infrastructure area and they are inefficient because of the absence of competition.

Fifth, in the long run, regional cooperation projects should be developed utilizing ODA funds. Myanmar is developing several links with neighboring economies through international cooperation. These links include a) the corridor between China's Yunnan province and Mandalay, b) the corridor between northern Thailand and Lashio in Myanmar's Shan State c) the corridor from Danan, Vietnam to Mawlamyine, Mon State through Thailand, and d) the corridor running between Kanchanaburi in southern Thailand and Dawei, Tanintharyi Division. Myanmar should try to benefit from its strategic location at the center of the high-growth Asian economies.

Development of Legal and Regulatory Systems

In order to reduce the high cost of business transactions due to legal and regulatory uncertainty typical in developing economics, among other things Myanmar should improve the legal conditions to an international level, distribute the content of legal and regulatory changes in writing, and develop the systems of conflict resolution with foreign firms. Moreover, it is desirable to establish SEZs that provide legal and institutional structure of international caliber in advance of carrying out improvements nationwide, which takes a long time.

Development of Industrial Clusters

Development of the strategic industries mentioned above should be designed to gradually form industrial clusters, or geographic concentrations of related and supporting industries and supporting institutions. An industry is more competitive when it is in close proximity to other related industries and institutions, because the competitiveness of a particular industry is determined by the ease of interaction with other industries and institutions. Successful industries are usually interlinked in a vertical relationship (buyers and supplies) or a horizontal relationship (common customers, technologies, market channels, etc.).

Industrial clusters develop essentially naturally, but government can nevertheless play an active role by facilitating interactions among constituents. For example, it can support the development of universities and public research institutions to facilitate technology transfer, it can develop industrial estate, electricity, transport, and communication infrastructure in the area, it can reduce regulatory impediments to interactions, and it can invite FDI to fill in missing links in the clusters. To this end, it is desirable to give policy support for the development of broadly defined supporting industries, including logistics.

2.1.3.2 Change the Role of Government

The role of government in industrial development in a market economy is not to influence targeted industries and firms directly but to influence and improve conditions that strengthen the competitiveness of the nation as a location for industrial activities. Government plays a major role in improving such conditions including demand conditions, the condition of production factors such as human and knowledge resources, capital resources and infrastructure, industrial accumulation, and the competitive condition of firms. Moreover, government should play an active role in attracting FDI. As global competition has intensified, the efficiency of government has become crucial to a country's competitiveness as an industrial location. The Myanmar government has not been sufficiently involved in this new role, perhaps because the notion of international competition in government efficiency is not generally recognized under the inward-looking policy framework.

To implement our industrial development strategy of market orientation the Myanmar government needs to avoid direct intervention and instead use indirect policy measures and generate market competition. To engender competition government must implement privatization and develop a legal infrastructure such as competition laws. Above all, it needs to have the capacity to plan and implement a well-coordinated comprehensive industrial development strategy. It needs to make a fundamental shift in policy framework away from the traditional framework of the planned economy.

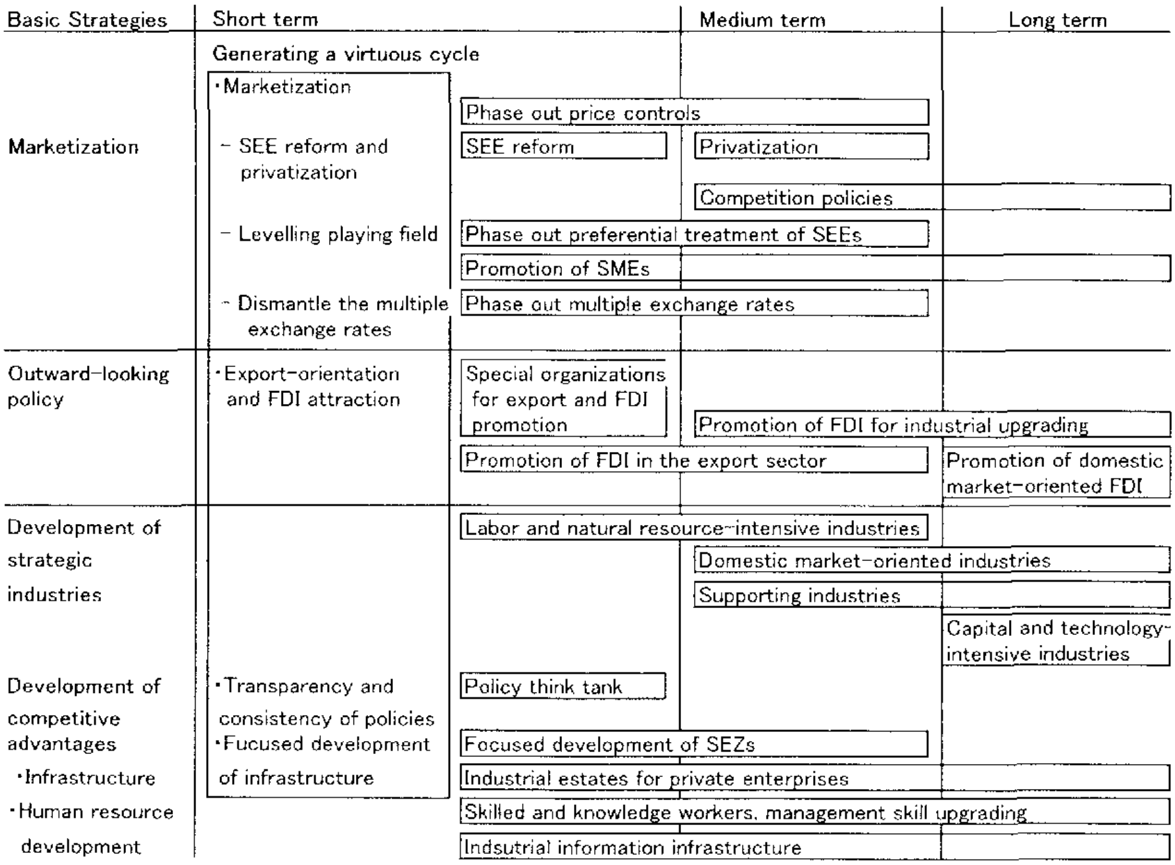
Myanmar might find it useful to establish a policy think tank to support such a wholesale transformation of the policy framework. Such a think tank should report directly to the top level of government and be independent from any particular ministry so that it can implement the industrial development strategy by encompassing diverse ministries. Moreover, to establish such a think tank, Myanmar may seek foreign assistance while it retains responsibility for managing the institution. Government bureaucrats need to be trained to fit the new policy framework, and foreign assistance could possibly be used for this as well.

2.1.3.3 Sequential Application of Industrial Development Strategies

The industrial development strategy must be implemented in sequence to maximize its accumulative effects as well as minimize the associated costs and also to respond to varying fiscal and balance of payment constraints. While Myanmar needs to change from the existing system with a high degree of government intervention in industrial activity to a market economy system, rapidly dismantling the present system may lead to such disruptions as unemployment, reduced government revenues, and inflation. In this regard, the reform and privatization of SOEs should be preceded by measures to attract FDI and promote private enterprises, particularly through FDI, in order to generate employment and foreign currency to offset the cost of SOE reform. On the other hand, prolongation of the status quo or expansion of the SOE sector will worsen the vicious cycle.

We divide the period up until 2020 into three phases: the short term (2003-2005), the medium-term (2006-2010) and the long-term (2011-2020). The conceptual framework for the implementation of the industrial development strategy in each phase is illustrated in Figure 2-8.

Figure 2-8 Phased Development Strategy



Source: JICA Study Team

Short-term (2003-2005): Initiating a Virtuous Cycle

The major purpose of the short-term development strategy should be to reverse the current vicious cycle for a virtuous cycle. We believe this could be done with a twofold strategy of first eliminating the bottlenecks in the supply of electricity and parts and components and then announcing and implementing a package of policy measures for marketization, outward-orientation, and the transparency and continuity of industry-related policies. A few SEZs should be established to embody the two elements (Chart 9).

In order to stimulate both foreign and domestic investment in Myanmar, it is necessary to announce and commit to a dramatic policy change. In light of the strong need for export-oriented FDI and a focused approach, the top priority is to establish SEZs in the

Yangon area. As explained, it takes time to improve legal and institutional systems as well as physical infrastructure nationwide, but a focused improvement in SEZs can be accomplished quickly. Private financing should be effective for constructing electricity plants to supply power to the SEZs. Exports from FDI invested in the SEZs should generate foreign currency to reduce the shortage of foreign exchange, which has been a locus of the vicious cycle. Moreover, new jobs in labor-intensive export industries located in the SEZs will help to offset the unemployment that will accompany reform and privatization of SOEs. To advance marketization, price controls and the multi-layered exchange rates need to be phased out gradually. SOE reform should be implemented before full-scale privatization. A comprehensive privatization program should be prepared during this period.

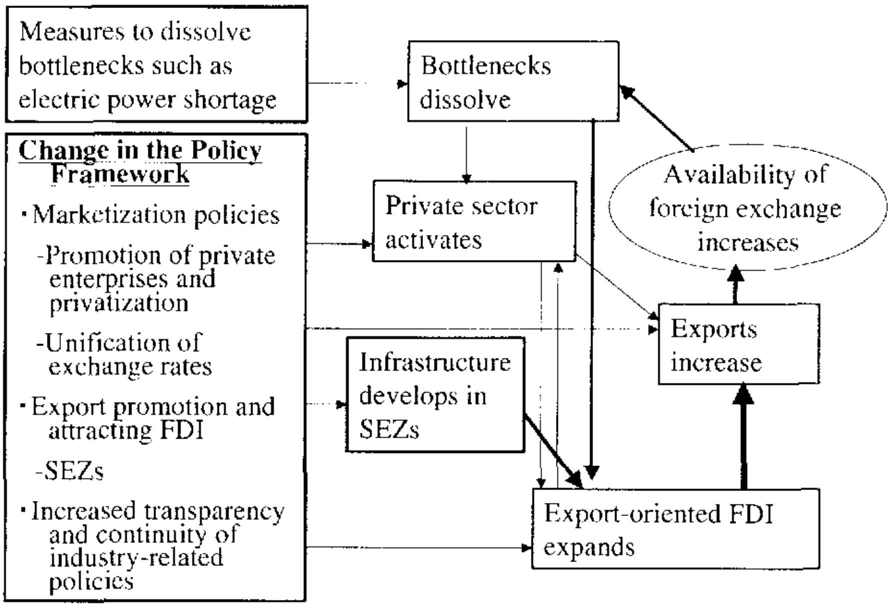
Medium-term (2006-2010): Preparing for Industrial Diversification and Upgrading

We expect that export-oriented development will gradually be established as the policies implemented in the preceding period take effect and that foreign exchange constraints will be steadily eroded while employment through FDI and some development of private enterprises will substantially increase. With this added maneuvering room, the next crucial step is to consolidate the market economy system by proceeding with privatization. The government should also implement measures to enhance industrial diversification and upgrading by encouraging foreign and domestic firms to invest in domestic market-oriented industries and supporting industries.

Long-term (2011-2022): Implementing Industrial Diversification and Upgrading

By the time this period starts, the market economy infrastructure should be mostly established. Competition policy may be put on the agenda in order to maintain competition among domestic and foreign private firms. Moreover, as foreign exchange constraints should have dissipated, FDI should also be promoted in import substitution industries for the purpose of diversifying the industrial structure. There should be more emphasis on industrial upgrading through human resource development and technology transfer and development.

Figure 2-9 Shift to a Virtuous Cycle



Source: JICA Study Team

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APPENDIX

1. Analysis of the Effect of Trade Liberalization under AFTA

The AFTA scheme

- The goal of AFTA is to remove tariffs on all ASEAN products except for special goods (cultural assets and national defense-related articles). Although agricultural products are on a temporary exclusion list (see below), tariffs on these items are to be removed eventually.

- Under the Common Effective Preferential Tariff (CEPT) scheme, original members must lower tariffs on the products belonging to the Inclusion List (IL) to the 0-5% range by 2002. (Note: The deadline for original members has been postponed to 1 January 2003.) Among new ASEAN members, the deadline for Vietnam is 2006, for the Lao PDR and Myanmar it is 2008, and for Cambodia 2010. Furthermore, the original members must reduce tariffs to 0% by 2010 and new members by 2015.

- Under the CEPT scheme, merchandise is classified into one of five categories: (1) the Inclusion List (IL), (2) the Temporary Exclusion List (TEL), (3) the Sensitive List (SL), (4) the Highly Sensitive List (HSL), and (5) the General Exclusion List (GEL). It is important to note that the concessions are approved on a reciprocal, product-by-product basis.

- Tariffs on products on the IL will be lowered to 5% or less by the deadlines mentioned above. There are two schemes of tariff reduction: a normal track and a fast track. Under the fast track scheme, tariffs on the products will be lowered according to the original schedule. Under the fast track, tariffs will be lowered ahead of the original schedule.

- The products in the TEL are temporarily excluded from tariff reduction, but they must be shifted to the IL according to a schedule. Some of the original members could not finish the shift to the IL for all products. For example, Indonesia has 21 items and the Philippines has 6 sugar-related items still on the TEL. Malaysia's government postponed shifting 218 automobile-related items to the IL until 1 January 2005. Myanmar is scheduled to shift its manufactured products to the IL by 1 January 2005 and unprocessed agricultural products by 1 January 2008.

- Goods in the SL are allowed to delay the shift to the IL. The SL includes mainly unprocessed agricultural products such as vegetables, fruits, cereals, and meats. The original members must complete shifting SL items to the IL by 1 January 2010 and by Myanmar must do so by 1 January 2015.

- The HSL includes unprocessed agricultural products such as rice and sugar, which also tend to involve political issues. Myanmar has no items classified on the HSL.
- Tariffs on the items in the GEL do not have to be reduced. This list includes military items, goods concerned with the protection of human and animal life and health, and academic, historical and archaeological things.

Original member nations' progress in tariff reduction under the CEPT:

- Although 1 January 2002 was the deadline for original members to lower tariffs on all items on the IL to 5% or less, Table 2-19 shows that not all IL items have reached the target tariff range.

Table 2-19 Implementation of CEPT Obligations 5% as of 1/1/2002

	IL(1)	Number of items with a tariff rate of 5% or less	Share
Brunei	6,276	6,107	97.3%
Indonesia	7,192	6,483	90.1%
Malaysia	10,039	9,198	91.6%
Philippines	5,567	5,016	90.1%
Singapore	5,859	5,859	100.0%
Thailand	9,104	8,193	90.0%
Total	44,037	40,856	92.8%%

Notes: (1) Inclusion list.

Source: Asean Secretariat

- Only Singapore had reached the target tariff range for all products. Because about 10% of products in Indonesia, Malaysia, the Philippines, and Thailand remained above 5% as of 1 January 2002, the complete enforcement of the CEPT was extended by one year from to 1 January 2003 for the original members.
- The products that are included in the IL but have tariff rates above 5% are summarized in Table 2-20 by country. They include items that tend to raise political issues, such as automobiles for Malaysia and beer for Thailand.

Table 2-20 IL Items with Tariff Rates above 5% as of 1/1/2002

	Main items
Malaysia	Automobile, two-wheeled vehicle parts, agriculture products such as dried fish, lumber etc.
Thailand	Beer, whiskey, polyurethane, steel, color televisions, automobiles
Philippines	Clothing such as an ethylene compound, shirts and blouses, automobiles, two-wheeled vehicles
Indonesia	Chemical products such as soap, wax
Brunei	Motors, optical lenses, coffee, tobacco, beer

Source: JETRO Bangkok

CEPT scheme in Myanmar

- Table 2-21 shows the number of items on Myanmar's IL, TEL, SL and GL. There are no items that are classified to the HSL. Items in the TEL account for close to 55% of all items and the IL accounts for about 43%.

Table 2-21 Number of Items by Category

	IL	TEL	SL	GL
Number of items	2,356	2,973	21	108
Share of all items	43.2%	54.5%	0.4%	2.0%

Source: AFTA Unit

- For comparison, Table 2-22 shows the same ratios information for the other new ASEAN members. The shares of items on Myanmar's IL and TEL in Myanmar are very similar to the shares for the Lao PDR and Cambodia. The 81% share of items on the IL in Vietnam is extremely high compared to the other countries.

Table 2-22 Distribution of Items by CEPT Category for New Member States

	IL	TEL	SL	GL
Vietnam	80.8%	14.5%	1.0%	3.7%
Laos	46.9%	48.5%	2.5%	2.1%
Cambodia	45.7%	51.6%	0.7%	2.0%

Source: "AFTA" edited by Takeshi Aoki

- Table 2-23 shows the number of items on Myanmar's IL and TEL by type of product. There are more manufactured products (HS industry categories 28-43, 50-92, and 94-96) than agricultural products (HS industry categories 01-24 and 44-49) in both the TEL and the IL.

Table 2-23 Number of Items on Myanmar's IL and TEL by type of Product

	IL	TEL
Total number of items	2,356	2,973
Agriculture, forestry, and maritime products	480	491
Manufactured products	1,869	2,339

Source: "AFTA" edited by Takeshi Aoki

- Table 2-24 shows portion of manufactured goods on Myanmar's IL and TEL from three major industries. About half the manufactured items on the IL are heavy industrial products while 30% of the manufactured items on the TEL are from the clothing industry. These ratios reveal Myanmar's strategy on trade liberalization: to liberalize heavy industrially products first, because they cannot be produced in Myanmar while protecting the clothing industry longer because Myanmar competes in this sector.

Table 2-24 Composition of Category by Industry

Industry	IL	TEL
Clothing	10.3%	28.7%
Footwear	2.7%	0.4%
Heavy Industry	49.4%	28.6%

Source: AFTA Unit