

## **AGRO-BASED INDUSTRIALIZING STRATEGY**

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### **1. INTRODUCTION**

In general, agro-based industries offers a key to the solution of many current problems such as rural unemployment, rural poverty and associated malnutrition, rural-urban drift which are not uncommon to an agricultural based and developing country like Myanmar, and therefore deserves a higher prioritization in the national policies and development plans of the country.

It is vital to consider the agro-processing system as a part of the total agricultural production chain of events and also that a continuous supply of quality raw material is indispensable as a sound basis for the industry in Myanmar.

As the government of Myanmar has already committed to ‘agricultural development as a base and all round development for other sectors of the economy as well’ in its four economic objectives, it is generally agreed that an approach to a strategy for agro-based industrialization should be taken up with consumer or market driven approach rather than production approach due to the evident that the increasing inroads being made in the region into exporting to the world markets for agro-processed products.

This situation necessitates the prevailing institutional and industrial infrastructure needs identified, the constraints and future opportunities spotlighted and appropriate policies and strategies dissected out for consideration.

#### **1.1. Background**

The industrial sector in Myanmar still consists of industries dealing with

the basic processing of raw materials. The primary industries account for 50% of the industrial output up to 1993, that has existed since the 1960s, and reduced to 40% in late 1990s.<sup>1</sup> Apart from these, there are few other industries engaged in the manufacture of other products. About 85% of the industrial production is food and beverages, while the manufacturing sector produces less than 10 per cent. Therefore Myanmar is still dependent on imports of even the most elementary manufactures that could easily be produced in the country, and which are indeed produced domestically in most other Southeast Asian countries.<sup>2</sup>

As the economy of the country has supposed, in many ways, to be gradually opened up since 1988, particularly in its main stay agriculture sector, along with the opportunities for economic integration of ASEAN nations and future *plus three*, i.e. China, Korea and Japan, as well as with BIMST-EC, it is high time Myanmar sought realistic strategies and policies to promote agro-based industries in medium term that has already spelt out in its four economic objectives.

## **1.2. Objectives of the Study**

- (a) To understand Myanmar's economic and industrial development stage with international comparison;
- (b) To envisage a possible economic and industrial development strategy with special reference to agro-based industry;
- (c) To justify the agro-based industrializing growth path;
- (d) To identify major issues and constraints as well as the opportunities and challenges in order to suggest ways and means for further development of agro-based industry.

## **1.3. Definition**

In the "Agricultural Master Plan (1989-90 to 1999-2000)", and in the "Five-Year Industrialization Plan" which was started in April 2001,

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<sup>1</sup> Asian Development Bank, *ADB Outlook, 1994, 1997 and 1998*.

<sup>2</sup> Khin Maung Kyi, Ronald Findlay... et al, 2000: 60.

emphasizing the development of the agro-based industries, no specific definition or clarification of the term, “agro-based industry” could be found. It seems therefore that, for practical purpose, a definition by inference or implied meaning of the term, based on the various speeches of and guidance given by the leaders, and on the departmental reports and documents, has to be made. The planners and decision-makers seem to perceive that the agro-based industry as the one that has direct input-output relationship with agriculture. Simply speaking, their perception of the agro-based industry seems to refer to the industry that mainly, if not solely, uses the agricultural inputs to process and/or produce value added products for use mostly in the agricultural sector and, to some extent, in non-agricultural sectors as well. In other words, the agro-based industry is conceived as the agriculture resource-based industry, producing mainly of the processed foods and manufactures of consumer goods, clothing and other items that are meant for import-substitution to satisfy the domestic needs first, and then to be used for other industrial purposes. Because of this lack of proper definition and guiding principles for the development of agro-industries, there are no consistent, uniform and/or standardized procedures or co-ordination of implementation among the ministries and departments concerned. More often, co-ordination among the ministries or departments concerned is rather mechanical than philosophical and rational, and co-ordination with dedication is very weak indeed.<sup>3</sup>

As the framework of this study was essentially confined to solely or partially state controlled industries under the Ministry of Agriculture and Irrigation like rice, pulses, edible oil, sugar, cotton, jute, rubber, and fruits and vegetables industries, except feed and textile industries which are under-control by Ministry of Livestock and Fisheries and Ministry of Industry (2) respectively, it would be appropriate to adopt the term, “agro-based industry”, as prescribed above. However, it should also be noted that since an industrial policy needs to be considered on an economy-wide basis and in terms of implications for economic growth overall, the ultimate task should be to have a strategy which maximizes

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<sup>3</sup>Toshihiro Kudo, 2000:50-51.

economic growth, not simply the one which maximizes industrial growth.<sup>4</sup>

## **2. CURRENT CONDITIONS AND ENVIRONMENT OF INDUSTRY**

### **2.1. Low Level of Industrialization**

#### **2.1.1. Legal Framework and Status of Development**

Since the government of Myanmar has pursued a market-oriented economic system in 1988, twenty seven new business-related laws were promulgated and nine existing laws were amended, between 1988 and 1997, in order to encourage the development of private as well as state owned enterprises. Prominent among the list are the Union of Myanmar Foreign Investment Law (1988), the State Enterprises Law (1989), the Private Industrial Enterprise Law (1990), the Promotion of Cottage Industrial Law (1991), and the Myanmar Citizens Investment Law (1994).<sup>5</sup>

According to the information from the Ministry of Industry (1), the number of industrial establishments and number of workers in Myanmar during the period 1994-1998 has remarkably increased, from 19,000 to 22,000 establishments and from 77,000 to 99,000 workers. It was observed that one characteristic feature of this development pattern of industries was predominated by the small-scale agro-based industries in general and food processing in particular. Despite such tremendous increase in number, the performance in terms of capabilities and utilization of the existing industry is still very inefficient compared to other countries.

According to a World Bank study (1995) and the ADB's Asian Development Outlook 1997 and 1998, operational indicators for the performance of industries especially under the state sector are very weak in all accounts. In most cases, the level of technology is still in the machine industry stage; the electronic age has not yet developed. Industrial man-

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<sup>4</sup> CIE-UNIDO, *A study for a medium term industrial strategy for Vietnam, 1996:9.*

<sup>5</sup> Nu Nu Yin, 2001: 112.

agement itself has not gone beyond traditional factory management. Most state owned plants are in a dilapidated state due to shortage of spare parts and the neglect of maintenance. Practically no facilities or institutions exist to provide training, to upgrade technology and to promote overseas markets. There are no financial institutions to help small industries, except the newly founded commercial banks, which can give only limited help to industries (ADB: 1998).<sup>6</sup>

### 2.1.2. Structure of the Industry

As a matter of fact, the industrial sector in Myanmar mainly consists of industries dealing with the basic processing of raw materials, and the primary industries have contributed over 50% of the industrial output since 1950 up to 1993 and slightly reduced to 40% in 1997 as shown in Table 1. The level of industrial formation in terms of the ratio of the secondary sector (i.e. manufacturing sector) to the GDP was stagnant at around 12% for over three decades. Comparable figures for Thailand, Indonesia, Philippines and Singapore were noted to range from 25% to 42% for the same period, indicating Myanmar's level of industrial formation still incompatibly low.<sup>7</sup>

**Table 1 : Comparison of Industrial Formation**

(Percent)

Country	1970			1980			1993			1997		
	P	S	T	P	S	T	P	S	T	P	S	T
Myanmar	50	12	38	48	12	40	49	13	38	39	12	49
Thailand	30	26	44	20	30	50	12	41	47	13	41	46
Indonesia	35	28	37	25	41	34	17	42	41	24	44	32
Philippines	28	34	38	23	41	36	23	34	43	22	35	43
Singapore	2	36	61	1	39	60	0	37	63	0	37	63

Source: Asian Development Bank, *ADB Outlook 1994, 1997 and 1998 issues*.

Note: P=Primary; S=Secondary; T=Tertiary

In Myanmar, industrial enterprises are classified into three groups: large, medium and small, based on capital, annual production, power use and, most importantly, the number of employees. Majority of the establish-

<sup>6</sup> Toshihiro Kudo, 2002:59, 60.

<sup>7</sup> Toshihiro Kudo, 2002:58.

ments, particularly in the private sector compared to the state-owned and cooperatives one, are found to be small and medium sizes (Table-2). It can also be noted that although the share of the private sector forms a large part, i.e. 96% of total establishments, about 95% of its sector is under the category of small enterprises that employ below 10 workers. On the contrary, state-owned enterprises constitute 68% of the category of large enterprises employing more than 100 workers.

**Table 2 : Size of Establishments in Number of Workers by Ownership**

Particulars	(number)			
	State-owned	Cooperative	Private	Total
Below 10 workers	719	443	50,844	52,006
10-50 workers	291	175	2,134	2,600
51-100 workers	257	57	150	464
Over 100 workers	309	2	141	453
<b>Total</b>	<b>1,576</b>	<b>677</b>	<b>53,270</b>	<b>55,523</b>

Source: *Review of Financial, Economic and Social Conditions, 1998-99.*

In terms of the contribution towards the GDP, private enterprises has also taken the maximum share, about 70% over the recent years, compared to other sectors (Table-3).

**Table 3 : Structural Change of GDP by Ownership in Processing and Manufacturing Sector**

Sector	(percent)			
	1992-93	1994-95	1996-97	1998-99
State-owned	28.4	27.7	27.0	28.2
Cooperative	2.4	0.9	1.0	0.9
Private	69.2	71.4	72.0	70.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: *Review of Financial, Economic and Social Conditions, 1992-1999.*  
(1985-86 Constant Producers' Prices)

Number of establishments of the industries, by commodities manufactured and by ownership (Table-4), demonstrated the dominance of food and beverages particularly in the private sector, being over 50%, which is followed by clothing, construction materials, mineral products and industrial raw materials.

**Table 4: State-Owned, Co-operative and Private Enterprises  
(1998-99)**

(number)

Commodity	State	Co-operative	Private	Total	Per cent
Food and Beverages	197	145	28,177	28,519	51.4
Clothing/ Wearing Apparel	33	220	4,084	4,337	7.8
Construction Materials	125	103	3,392	3,620	6.5
Personal Goods	14	26	1,684	1,724	3.1
Household Goods	10	12	481	503	0.9
Printing and Publishing	22	15	427	464	0.9
Industrials Raw Materials	818	15	1,825	2,658	4.8
Minerals and Petroleum Products	24	23	3,206	3,253	5.9
Agricultural Equipment	5	4	139	148	0.3
Machinery and Equipment	6	3	646	655	1.2
Transport Vehicles	4	7	277	288	0.5
Workshops and Dockyards	305	0	0	305	0.5
Miscellaneous	13	104	8,932	9,049	16.3
<b>Total</b>	<b>1,576</b>	<b>677</b>	<b>53,270</b>	<b>55,523</b>	<b>100.0</b>

Source: Ministry of National Planning and Economic Development.

In terms of output value, food processing industry also accounts for the largest share of total industrial production that increased gradually from 60% in 1960s to 85% in late 1990s (Table-5).

**Table 5: Relative Importance of Food Processing Industry**

(percent)

Commodity Group	Value of Production (Current Price)				
	1961/62	1971/72	1981/82	1991/92	1998/99
Food and Beverages	60.06	61.1	65.41	79.39	84.97
Clothing and Apparel	14.76	10.29	8.22	3.13	1.47
Personal Goods	3.60	2.90	3.03	1.57	0.92
Household Goods	0.20	0.37	0.61	0.49	0.16
Printing and Publishing	0.70	0.87	0.88	0.59	0.11
Industrials Raw Materials	3.40	4.73	6.31	4.38	4.34
Minerals Products	5.86	7.48	5.00	4.04	5.42
Agricultural Equipment	0.00	0.26	0.62	0.11	0.28
Industrial Equipment	0.08	0.15	0.03	0.02	0.04
Transportation Vehicle	0.53	1.97	2.02	0.49	0.52
Electrical Goods	0.25	0.60	0.89	0.69	0.10
Miscellaneous	2.87	2.27	2.85	1.26	0.61
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source: Myat Thein and Maung Maung, *AFTA Process*, 23-25 February, 2000.

### 2.1.3. Sound Entrepreneurship and Weak Industrial Linkage and Clusters

According to the survey conducted on entrepreneurs in Myanmar who are engaged in the industries related to food, wood-based, textile and motor, during the year 2000, major barriers to efficient operation of the business pointed out in conclusion are shown in Table-6.<sup>8</sup> The implication in food industry was that there is no barrier in terms of raw materials and technology rather than electricity, business regulations, skilled labor and finance. Two categories of survey done for dominant businessmen in Yangon and selected ones in Yangon and Mandalay found out those entrepreneurs in both cases possess similar entrepreneurial traits. However, it was also found that the dominant entrepreneurs in Yangon who are less in quantity but own relatively larger firms have outward-looking plans for international markets while the selected entrepreneurs whose firms are relatively smaller and faced with barriers in finance, technology and business contracts, had to strive more for survival rather than growth. Since the latter represents the large number of industries, small and medium sizes, in Myanmar, it was suggested to find ways to promote them as a priority for the development of industry sector.

**Table 6: Barriers faced by Entrepreneurs in Business Operation**

(percent)

Sr.	Type of Firms	Electricity	Regulations	Raw materials	Skilled Labor	Finance	Technology
1	Food Industry	56	44	0	11	11	0
2	Textile Industry	33	0	67	0	33	33
3	Wood Based Industry	25	13	50	25	0	0
4	Motor Vehicles and Repair Industry	20	40	60	20	80	60

Source: Toshihiro Kudo : 2001: 128.

<sup>8</sup> Nu Nu Yin, 2001: 128.



One of the strengths of industrial development in more advanced countries is that the strong linkage both on the supply side and on the demand side among firms within the industrial sector, and between the industrial and other sectors. In Myanmar, existing industries hardly connect or link with each other and do not form meaningful clusters. Tractor plants, car assembly plants, ceramic plants, glass factories have been established but they remain stand alone entities, instead of forming a chain of connected industries, each stimulating the others and thus contributing to cumulative industrial growth. Further, industrial development and the main productive sector, agribusiness, were unconnected, and the extension of the value chain in the whole food industry from crop production to the final consumer product has not taken place. The main explanation lies in the policies that successive governments had followed towards the industrial sector and the overall stagnation of the last 35 years.<sup>9</sup>

## **2.2. Changing International Environment**

### **2.2.1. WTO, ASEAN and BIMST-EC**

Myanmar is one of the founding members of WTO and has also entered into ASEAN in July 1997 reflecting that it has pledged to follow global and regional trade regulations. In addition, since it is geographically situated as a bridge between South Asia and Southeast Asia region it accordingly became a member of BIMST-EC, an economic group made up of Bangladesh, India, Sri Lanka and Thailand.

### **2.2.2. Development of Border Trade**

One of the important steps taken up by the government was to formalize border trade in 1988 which has now expanded to normal trade channel in 10 across-the-border trading points in the border areas with India (Tamu), Bangladesh (Maungdaw, Sittwe), Thailand (Tarcheleik, Kawthaung, Myawady, Myeik), and China (Muse, Bahmaw, Lyzar) with the use of US dollars as the medium of exchange. Although it is a positive move towards the well balanced trade between the neighboring countries and

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<sup>9</sup> Khin Maung Kyi, Ronald Findlay, 2000: 60-61.

Myanmar, a serious pattern of border trade is the dumping of cheap and substandard products of newly emerging industries from the border regions at the expense of Myanmar's nascent or infant manufacturing sector.

### **2.2.3. ASEAN-China FTA**

ASEAN and Chinese leaders agreed to establish, on 6 November 2001, an ASEAN-China Free Trade Agreement (ACFTA), within ten years, in which it was highlighted to accord "special and differential treatment and flexibility to newer ASEAN members" and provide for "an early harvest" for ASEAN through China's front-loaded commitments. Myanmar might have a lot of opportunities as well as challenges to exploit these special and differential treatment in the areas covering not only on trade in goods but also on investments and services based on the experiences gained from the across-the-border trade.

### **2.2.4. Role of Foreign Direct Investment (FDI) and Present Status**

Foreign Direct Investment played a dominant role in bringing in new technology, employing a large number of people and also helping provide export led development in the countries of Southeast Asia. Facilitating the smooth flow of FDI to Myanmar should be the prime task of Myanmar's industrialization. Singapore, Malaysia, Hong Kong, China and Thailand are large recipients of FDI inflow to the east and southeast since 1985. FDI inflow to China, in 1995, formed about 27% of gross fixed capital formation while Singapore and Malaysia received at about 19 and 17% respectively at the same time. Actually countries such as China, Malaysia, Singapore and Indonesia received the largest share of FDI inflows in the region during this period. Overall, FDI inflow began in the early 1980s, rapidly increased in the late 1980s, and accelerated in the 1990s, which are coincided with the rapid rate of growth of these countries during these periods. FDI inflows in Asia, in which Myanmar was found to be among the lowest in the region, are shown in Table 7.

**Table 7 : FDI Inflows in Asia**

(US\$ million)

Country	1985-1990 Average	1991-1996 Average
China	2,654	25,828
Indonesia	551	3,280
Malaysia	1,054	4,660
Singapore	2,952	5,610
Thailand	1,017	1,934
Philippines	413	1,005
Vietnam	30	1,005
Myanmar	28	144

Source: *World Investment Report*, 1997, UN: 306

Myanmar is not a stranger to foreign investment and foreign business operations. The first known case of foreign investment occurred in seventeenth century in the ship building industry. Since the middle of nineteenth century, after the annexation of lower Myanmar to British India, influx of foreign capital, business and laborers had been very extensive. In fact, the growth of rice production in the delta area within a very short period of time had been accomplished with the assistance of capital of European firms investing in rice trade and rice milling.<sup>10</sup>

As of March 2001, Myanmar Investment Commission reported the approval of 355 foreign direct investment projects worth US\$ 7.4 billions. The figure is only an approved amount and the actual inflow would be much less than approved figure. According to the sources of ASEAN statistic, FDI in Myanmar during 1995-2000 accounted for only US\$ 2,968.4 million compared to the approved amount of US\$ 4,607.9 million. In terms of sources of FDI flows to Myanmar, Singapore emerged as the top investor (US\$ 1.54 billion), followed by UK (US\$ 1.4 billion) and Thailand (US\$ 1.29 billion) out of the permitted amount up to March 2001.<sup>11</sup> In general, the pattern of approved FDI indicates that the sector-wise flows are concentrated only in oil and gas, manufacturing, mining, hotel and tourism, and real estate development sectors. Approved investment in agricultural sector, US\$ 34.35 million, proved to be the low-

<sup>10</sup> Khin Maung Kyi, Ronald Findlay, et al, 2000: 108.

<sup>11</sup> ASEAN, *Statistical Yearbook 2001* and CSO, *Myanmar Yearbook 2001*.

est among the sectors indicating that there are many rooms to improve the business environment in agriculture sector for foreign investment. In addition, investment in manufacturing products, especially in labor-intensive industries except CMP garment factories, was insignificant, indicating that investors have yet to be interested in building manufacturing plant whose investment is recoverable only over a long duration.

In fact, many investors have acknowledged the relatively favorable tax incentives together with easily comprehensible legal codes of Myanmar foreign investment regime over the Vietnamese one. However, Vietnam has gained substantial flows of FDI, from 1991 onwards, about ten times higher than what Myanmar received during the same period. This indicates that the pre-entry promotional policy regime alone is not sufficient to attract the inflow of foreign capital particularly when these incentives are not accompanied by the improvement in operating conditions.<sup>12</sup>

### **2.3. Overview of Present Status of Agro-based Industries**

#### **2.3.1. Thrust of Present Industrial Policy and Macro Level Analysis**

The government of Myanmar has established the Myanmar Industrial Development Committee (MIDC) in order to encourage rapid industrialization process in 1995 with the following five objectives namely:

- Development of industries with agriculture as the base
- Enhancement of quantity and quality of industrial products
- Development of new machineries and equipment
- Production of machineries and equipment of industrial use
- Creation of condition for transforming into an industrialized state

Reported achievements since its formation are:<sup>13</sup>

- Formation of 13 industrial zones
- A number of exhibitions, conferences and seminars for exchange of market information

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<sup>12</sup> Khin Maung Kyi, Ronald Frindlay, ... et al, 2000: 111.

<sup>13</sup> Toshihiro Kudo, 2002:56.

- Myanmar Industrial Development Banks (MIDB)
- Establishment of Myanmar Industrial Co., Ltd. for the purpose of trading
- Formulation of industrial development plan in line with the 5-year Short Term Plan

As a matter of fact, the above achievements can be regarded as outputs and not to be considered as the outcomes. Outcomes, for example in health sector, can be defined as increased lifespan of the people of the country which is resulted from the particular healthcare policy of the government rather than the number of hospitals constructed or number of healthcare workers appointed which can be considered as outputs. Similarly, in the industrial sector, the outcomes, for example the per capita GDP, share of industrial output to GDP, increased employment opportunities for rural populace and finally the overall economic growth of the country within a targeted duration etc. will have to be defined. In short, it should be in quality rather than quantity. Another major weakness in the objectives of MIDC was the lack of linkage between the committee and the foreign investment regime of the country, which is a sole window to attract required capital and technology into the country.

In the four economic objectives laid down since 1988, it was emphasized on (1) agriculture-based development and all-round development, (2) evolving market-oriented economy, (3) inviting technology and investment from the sources inside and outside the country, and (4) the initiative to shape the national economy must be kept in the hands of the State and national peoples in which implications of objectives (3) and (4) tends to be more favorable for foreign investors to cooperate with either the state or the nationals rather than to invest 100 percent. In fact, the situation of Myanmar is quite different from the industrialized economies of western countries as well as the neighboring countries since it has yet to develop all of the institutions of a modern market economy and development is occurring in the context of the legacy of the centrally planned subsidy economy. However, sophisticated technology and investment which are the most important factors to decide the growth of the particular industry can be channeled to the country through Multi National Corporations (MNCs) that prefer 100 percent investment or majority equity to joint ventures.

From the review of the East Asian economies for emerging market economy of Vietnam on industrial strategies, it was learned that there is no easily transferable recipe or template for Vietnam to borrow. However, there do seem to be some common factors underlying economic success. These are:

- Making macroeconomic stability and low inflation a priority, with a tight budget as the main component
- Stimulation of savings, with positive real interest rates as the most important factor and channeling these savings into activities yielding high economic and social returns
- Investment in export led growth based on competitive real rate of exchange
- Investment of human resources, particularly primary and secondary education
- Pronounced concentration on institutional development emphasizing an efficient and well-paid administration, a secure environment for private investment, mechanisms for continual monitoring of different economic and social investments and projects, maintenance of a widely accepted set of 'rules of the game'
- The desire and ability to make use of technology

It can be found that most of these elements are less firmly in place in Myanmar's development process of market economy since 1988. A commitment to market economy has profound implications for how government intends to influence the industrialization process. In a market economy, the emphasis will be on decentralized decision making, where expected profitability will be the main determinant of investment and production decisions, regardless of the ownerships of the enterprises making these decisions, and consumers' perceptions of their own interests will determine consumption and saving decisions. The government will then have to influence these decisions by shaping the overall environment and incentives surrounding them.<sup>14</sup>

The situation of private sector in Myanmar can be seen as a fledgling

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<sup>14</sup> CIE, *A Study for Medium Term Strategy for Vietnam*, 1996:120-121.

state but latent. Although the official statistics showed (Table 2) the dominant share, i.e. 96% of total establishments but almost all, 95%, are small enterprises; it is quite probable that the figure may well be more or less underreported and there is a large informal private sector activities that need to be encouraged to become formal. And, it is also apparent that private sector's access to key factors of production, land and finance, remains constrained. Therefore, there are a lot of potentials to promote formal and informal private sector through institutional arrangements for small business enterprises.

On the other hand, reform of the state-owned enterprises (SOE), sharing 68% under the category of large enterprises, needs somehow to go urgently before a genuinely commercialized and competitive SOE system is in place. However, it should be noted that the role of government eventually in a market economy might be thought of as another application of comparative advantage, government should do what it does best and commercial firms should do what they do best. In this context, the appropriate public policy is a good dialogue (cooperation and coordination) between the public and private sectors as well as the public sector within itself. Better procedures and systems for interagency coordination on policy issues are required if the efficiency of public administration is to keep pace with the demands of the economy. In addition, good economic management requires good information, whether in a market or centrally planned economy and thus a major institutional effort in government should be aimed at improving the statistical base for decision making.

### **2.3.2. Justifications for Agro-based Industries in Myanmar**

Agriculture sector was and still the most important sector of Myanmar's economy as well as the society as it is the main source of livelihood for nearly three quarters of the population who live in rural areas. In 2000-01, agriculture sector, including livestock, fisheries and forestry, accounted for 57% of labor force and contributed 33% of export earnings. Since the government initiated the market-oriented economy, agriculture sector has been occupying large share of the export (Table 8).

**Table 8: Export of Principal Commodities***(%)*

Commodity	90-91	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Agricultural Products	31.8	46.6	46.1	36.1	30.3	28.0	18.0	19.0
Animal Products	0.2	0.2	0.1	0.2	0.1	0.5	0.3	0.3
Marine products	5.6	11.2	12.2	16.2	14.6	14.0	9.0	7.5
Timber	33.7	19.4	20.8	18.0	13.2	11.6	10.3	6.5
Base Metal & Ores	2.4	1.1	1.4	0.6	0.5	1.1	3.2	2.5
Precious & Semi-precious Minerals	2.9	1.9	2.7	2.9	3.2	2.2	2.5	3.0
Gas	0.0	0.0	0.0	0.0	0.0	0.1	0.3	9.1
Garment	0.3	6.2	5.9	7.3	6.8	7.0	30.4	31.0
Other Commodities	23.1	13.4	10.8	18.7	31.3	35.5	26.0	21.1
<b>Total Exports</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: *Statistical Yearbook, 2001*.

Major assumptions from “Industrial Development in Myanmar (2) by Toshihiro Kudo, 2002” that justified agro-based industries in Myanmar can be summarized as follows:

- Economic and social factors and environments and features of Myanmar
- Decline of primary products in regional and global market paved the way for Myanmar to follow the neighbor’s experiences to promote value-added exports
- Favorable resource endowment, versatile eco-system and proximity to the demands of regional markets
- Internal structure of the manufacturing sector already occupied in large share with agro-based food and beverage sub-sector
- Appropriateness of the nature to develop light agro-industries rather than heavy industries operated by the state

Other important justification that has been made for “*Value-addition for Increased Productivity of Agriculture Sector*”, by U Tin Htut Oo,



in “*Myanmar-Malaysia Technology Conference (19-21 Aug 2001)*” was “an important role of larger scale agri-businesses in forging the regional division of labor and expertise for supply-side response”. It was also emphasized that combination of Myanmar’s rich natural and human resources and Malaysia’s high technology and investment will be a potentially competitive supplier for the opportunities of market of wide range of traditional and non-traditional value-added agricultural and food products, which are yet to take full advantage of.

### **2.3.3. Identifications for SWOT Analysis**

“A strategy can be seen as the match between qualifications and opportunity that positions a firm in its environment”.<sup>15</sup> Basic model which need not be dwelt—SWOT (Strengths, Weaknesses, Opportunities and Threats)—is well known. Basic Design is attached as (Annex-1).

### **2.3.4. Internal Appraisal**

Internal appraisal, strengths and weaknesses of an institution or an organization, will have to be listed out first in order to find the distinctive competences of the institution before going to create a pragmatic strategy. In this case on finding the approach of agro-based industrializing strategy for Myanmar, the basic question will be: “Who will be carrying out this agro-based industrialization strategy?” In this sense, it is an institutional question and the hierarchy is everything. The Government, of course, and especially its will, will be in a top level hierarchy, and a body or board that is given a full clout to influence any other public or private organizations involved in this scheme on policy matter will be next to it. This being the case, the will of the government for industrialization should clearly be spelt out as a “mission” or “goal” first, in order to let all the beneficiaries concerned engaged in this mission known. Potential ingredients to be considered as a core in the mission will be:

- increasing the farmer’s income
- increasing value-addition to agricultural produce
- countering poverty and rural unemployment
- malnutrition and rural-to-urban drift etc.

<sup>15</sup> Michael Porter, *Perspectives on Strategic Management*, 1982: 111.

### **2.3.5. Strengths**

As it is already determined above, the hierarchy coming down from the top level, spelling out the strengths will have to be in macro level as well as in the micro levels for the institution assigned for this purpose. Macro level strengths can be identified as follows.

- Resource endowment: land, water, unskilled labor, diverse agro-ecological conditions that are favorable for production of raw materials for value-added agro-industries as well as high-value crops and fruits for export market
- Attractiveness of those resources to initially establish factor-driven industries by foreign investors
- Fair size domestic market over 50 millions people
- Established legal framework, English language, English law, for doing the business
- High literacy rate
- Moderate hard infrastructure
- Competent entrepreneurship in private sector
- Incentives under Myanmar Investment Law
- Future international airports
- East-West and West-East corridors
- Stability

In the area of micro level assessment for internal strengths, it is needed to consider from the institutional viewpoint for implementing agency, i.e. the particular ministry assigned for that purpose or the body or board. For the time being, it is doubtful that given the present objectives, activities and capability of MIDC, it could not be regarded as an implementing agency since it has weak interconnectedness among the government entities, foreign investment and private sectors particularly in small business enterprises, which is a majority part of present driving force in industrialization. Therefore, the strengths of that future institution will only be clarified in the section on approach to agro-based industrialization strategy.

### 2.3.6. Weaknesses

Myanmar's problems are as much structural as macroeconomic. It lacks the necessary policies, and its strategies are ad hoc and respond to a variety of problems in, at times, contradictory ways. (ADB Outlook, 2002). In finding out the internal weaknesses at the macro level, we can list out a lot as follows based on the suggestion from bi-lateral and multi-lateral institutions as well as the intellectuals both within the country and abroad. Majority of these weaknesses are constraints rather than gaps, which are to be settled institutionally prior to the formulation of realistic industrializing strategy.

- Data difficulties in doing a detailed economic and social assessment
- Dominant government intervention and presence in key sectors
- Distortion on foreign exchange market
- High level of inflation
- Low level of revenue collection and public expenditure
- Lack of financial market
- Continue support of the inefficient state enterprises despite their small contribution to the economy
- Complex and inefficient market mechanism
- Wide-ranging restrictions on private sector activity
- Competent civil service and lack of transparency and accountability in government and corporate operations
- Clear and consistent rules in doing business
- Reluctance to change the policy whenever it is necessary
- Lack of private-public interface
- Collaboration among sectors
- Culture and/or cost of doing the business
- High risk of investment climate
  - Barriers to entry
  - Uncertainty of contract enforcement
  - Possibility of expropriation
  - Short duration of land lease and state-ownership on land
  - Weak Intellectual Property Rights
- Centralized decision makings and intervention

- Monopoly and nepotism
- Present trade and investment policy that are not favorable to protect domestic infant industries
- Lack of specific agro-based industry policy, institutional support and poor coordination with credit supplies
- Absence of comprehensive strategies for phased development
- Lack of adaptive R&D on agro-based industries identifying vital research needs and implementing the transfer of technology, i.e. laboratory-to-factory or researcher-to-farmer linkage etc.
- Backward linkages: not well integrated agricultural input supply, low quality of raw materials, untimely delivery; discouragement by exploitative conditions (e.g. low purchase prices)
- Forward linkages: lack of technology on packaging, design, marketing, innovation; lack of market and marketing information; insufficient connection with domestic trade as well as export

### **2.3.7. External Appraisal**

Opportunities and threats of the external environment will also have to be mapped out in order to find the key success factors and a suitable approach to agro-based industrializing strategy. Some of the simplest major questions will be:

- What are the target markets we are going to penetrate?
- What kinds agro-based industry products are in high demand in those target markets?
- Can we produce these commodities within our means?
- Do our majority of private sector need sophisticated technology and investment to be obtained through foreign investment to produce them?
- Are the trade policies flexible enough to reduce the transaction costs in exporting those products as well as importing the required inputs for the local industries from abroad?

Most of the answers to these questions are already in place in the internal appraisal.

### **2.3.8. Opportunities**

- Myanmar's geographic location that has across-the-border-trade access with China (1.3 billion), India (1 billion), Bangladesh (100 million) and Thailand (60 million)
- Future free trade agreements within the framework of ASEAN Free Trade Area (AFTA), "preferential treatment" and "early harvest" schemes with ASEAN+3, i.e. China, Korea and Japan, and economic cooperation with BIMST-EC countries
- ASEAN Investment Area (AIA) framework in the areas of industry, agriculture, livestock and fishery, forestry and mining
- ASEAN Integration System of Preferences (AISP) for CLMV countries
- Greater Mekong Sub-region (GMS) cooperation in agro-industries
- Pro-WTO factors: MFN status, Generalized System of Preferences (GSP) with developed countries
- Info Tele-Communication (ITC): new skill and new type of workforce but new ways of trading; updated market opportunities

### **2.3.9. Threats**

- Anti-WTO and ASEAN factors:
  - Non-discriminatory reduction of tariffs
  - free flow of capital
  - stable convertible exchange rates
  - absence of quantitative and administrative restrictions
  - non-existence of monopoly of exports or imports
- Anti-Globalization factors
  - influx of foreign goods and the death of nascent local industries:
  - BMNCs trampling local economies
  - spread of dominant culture of advanced countries
  - disputes on free trade by affected various interest groups such as consumers, business and labor
- Anti-MNCs factors:
  - interest of the company vs. interest of the local community
  - new breed global company vs. multi-domestic company

- ITC: less and less unskilled labor is needed and urgent need to upgrade the workforce

### **3. AGRO-BASED INDUSTRIALIZING STRATEGY**

#### **3.1. General Framework**

Upon consideration of the basic factors internal strengths of natural resourcefulness, economics, social and geographical conditions of Myanmar that have been sought in previous sections, the fact that the importance to develop and modernize the agriculture sector in Myanmar, as fast as possible, is undeniable. However, from the aspect of industrialization, agro-based industrialization should be a major part of the whole industrialization strategy for the country in the near term since this specific agro-based industrialization strategy can not go alone very far without the development of other industry clusters linked to it. There will be linkages between the producers, processors and marketers, and also linkages to the suppliers of inputs and other services such as finance, modern inputs like new technology, agricultural chemicals and advices. Example of an industrial cluster, i.e. California Wine Cluster can be seen in (Annex-2)<sup>16</sup>.

In fact, the objective for agricultural development should not be an end to such a modern developed nation since agriculture is not merely a single matter of growth of output for the country. It should rather be a mean or tactic. But, how quickly this objective could be achieved will be very much dependent upon the commitment, will and level of free hand of those who will implement this agro-based industrialization strategy. In management terms, functions determine structure; hence structure has to follow the strategy. In this sense, it is imperative to formulate a mission, a reason for being, from which the specific objectives will be set up and determine a strategy that consists of creating the public value, legitimacy and feasibility. As in the corporate mission that emphasizes the concept of “maximizing long-term shareholder wealth”, the ultimate drive of a mission for public sector should be based on the living

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<sup>16</sup> Michael Porter, *Singapore 2001*.

standard and/or per capita income of Myanmar people up to a specific level. It can then be further down to the objectives with realistic targets to be achieved within a specific time frame and then the strategy on how to implement it. There will also be a lot of uncertainties that leave plenty of rooms for debate among the policy makers about whether an objective offered by the strategy formulating team is well defined.

### **3.2. Basic Approach to Agro-based Industrialization Strategy in Myanmar**

According to the Mark H. Moore's strategic triangle framework of developing a strategy for a public sector organization, the implementers must make alignment in a strategy by meeting three broad tests namely: First, substantively valuable to the stakeholders involved at low cost in terms of money and authority; Second, legitimacy and politically sustainable; and Third, operationally and administratively feasible. These tests are powerful tools because they identify the necessary conditions for the production of value in the public sector. If the team that implement has an attractive purpose broadly supported by the political environment but lack the operational capacity to achieve it, the strategic vision must fail. If the team has a substantively valuable goal that is administratively and operationally feasible but cannot attract political support, then that enterprise, too, will fail.<sup>17</sup>

“Grossly misguided policy cannot be overcome by efficient administration, but inefficient administration can derail even the best policies.” (Hilton L. Root, Milken Institute, 2001).

In order to meet the particulars of this triangular approach, it is essential, from the organizational aspect, to formulate an advisory board that will be given an autonomy to create a mission first, and then formulate and implement a sound and realistic industrialization strategy for Myanmar in which agro-based industrialization strategy will be incorporated as a major ingredient in early period of its long range industrial vision. Similar model has been successfully tested in Singapore when

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<sup>17</sup> Mark H. Moore, *Strategic Management in Government*, Harvard University Press, 2000:70-71.

the country was suffered from poverty, high unemployment and unrests soon after she gained the self-government from British in 1959. An Economic Development Board (EDB), a statutory board, was formed in 1961 according to the recommendation made by the industrial survey mission of UNDP. The government of Singapore entrusted upon EDB in order to stimulate new free-enterprise industries, which will be efficient and tailored to Singapore's needs. Its initial task was to create an environment conducive to industrial development for which the necessary infrastructure had to be built. Singapore started the industrialization program implemented by EDB at per capita income of US\$ 250 in 1959 and today achieving approximately US\$ 24,000.

### **3.3. Learning from Singapore's Experience**

Singapore has proved to other nations that it is possible to be both small and rich. However, it is not completely transferable as a general model without modification from one part of the world or one culture to another but Singapore has much to teach the rest of the world both in terms of substance and process.

In this point, it is noteworthy to refer to Dr. Edgar H. Schein's conclusion remarks on EDB in his "Strategic Pragmatism": "In one form or another, a country embarking on a development program must create an organization that can animate the process of EDB and carry it through. The form of this kind of organization will vary with the particular culture and circumstances of the country in which it is created, but it is fair to say that unless such an organization is created in some form, and unless such an organization becomes effective in its own right, economic development will be slowed down."<sup>18</sup>

### **3.4. Preliminary Conclusion**

It is therefore to take into consideration one of the propositions of intellectuals that advised the government of Myanmar as a gate door to economic development. His primary suggestion was, If the Myanmar

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<sup>18</sup> Dr. Edgar H. Schein, *Strategic Pragmatism*, 1996.



has to achieve her vision to be a “Modern Developed Nation”, it is a must to establish first a think-tank or an advisory board, comprising robust apolitical intellectuals from both within and outside the country, which will advise, oversee and monitor the development of government’s policy making and implementation on economic development. Singapore has already done a similar manner with Industrial Survey Mission from UNDP, which strongly recommended forming the Economic Development Board (EDB).

This kind of advisory board should have a serious role of responsibility to convince the government that it has to play a lead role and be business oriented and making realizing that economic development would not be possible without stability and collaboration among all the sectors of government and society. In addition, in order for the government to be effective, it has to create a dynamic, competent, well-paid and uncorrupted civil service made up of the best and brightest talents available. Attracting the national talents most of them are now living abroad would be one of the strategies among others. It also has to encourage the government that the key resource to the success of economic development is not necessarily the natural resourcefulness of a country but its own people who have to be trained and educated to fill the jobs that would improve their own standard of living. This condition would only be accomplished through a strategy of attracting foreign investment and working closely with the investors to meet their ongoing needs so that the present factor-driven economy could be translated into investment-driven within a time frame as short as possible and finally to step into knowledge-based innovative-driven economy.

If this process is to work, the government needs a somewhat independent agency that would have the power to create and implement the economic strategy in which an agro-based industrializing strategy will be one of the main features for Myanmar. That agency has to realize that if it was to function effectively, it will have to start creating a new culture and operate as a team focused on a clear vision to build the country, maximize the flow of information and encourage openness within the organization, staff itself with competent and “dare to dream” people and

empower them to be innovative and self-motivated while retaining the hierarchy necessary for coordinated actions.

Major TOR for policy setting to this advisory group in terms of agro-based industrialization strategy will be considered as follows:<sup>19</sup>

- Linkages policy between producers, processors and markets
- Credit policy to production, processing and trading taking into account the seasonality, idle periods etc.
- Location policy depending on availability of infrastructure and raw materials
- Investment policy balancing foreign investment with local entrepreneurship
- Technology policy including issues viz. balancing of imports with encouragement to domestic industry development needs of small agri-business and end-user
- Regional cooperation policy in the areas of marketing and technology development
- Marketing policy taking into consideration surplus/shortage i.e. balancing domestic needs with the need for exports and for activating demand supporting to nascent industrial units to ensure continued viability
- Manpower policy (Human Resources Development) whether technical education is sufficient and to allow for international cooperation
- Quality improvement policy in order to ensure stability and standards of supplies as well as output
- Development policy on infrastructure
- Adaptive R&D policy on to firmly link within the farms, R&D institutions, and industrial enterprises
- Policy on improved relationship among the government, labor and agro-based industries
- Policy on environmental and socio-cultural concerns and administrative structure

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<sup>19</sup> FAO, RAPA, *Adapted from the Report of the Regional Expert Consultation on Policies and Strategies for Development of Selected Agro Industries, 1991-19.*

Fig 1 : BASIC DESIGN OF SWOT ANALYSIS

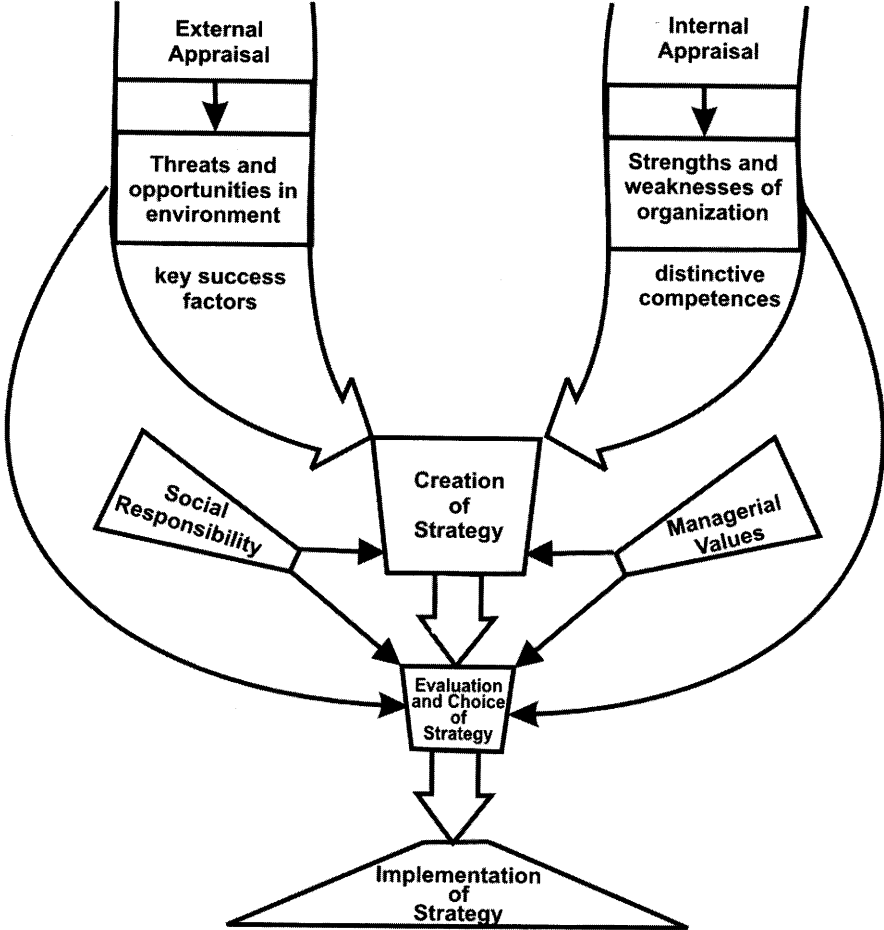
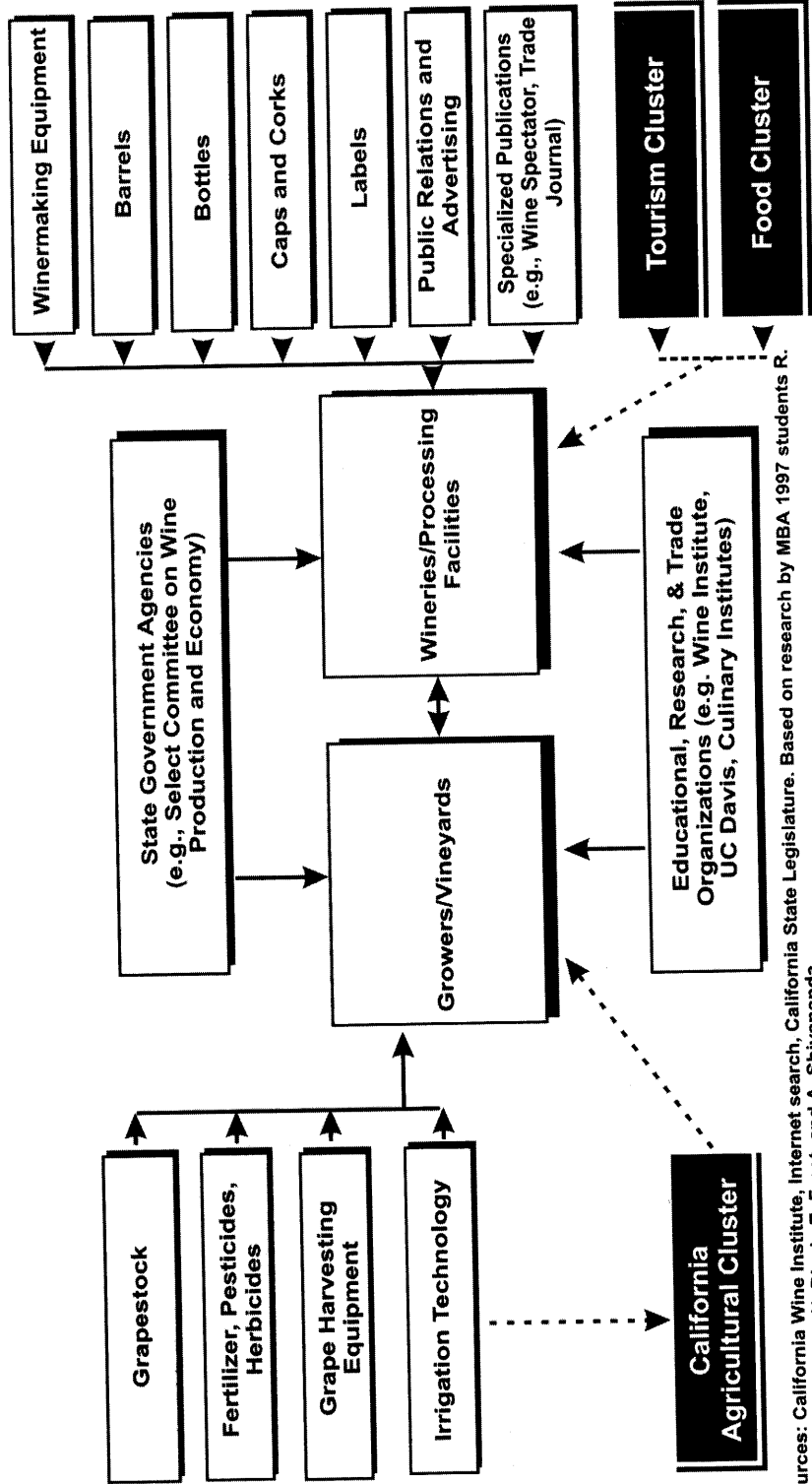


Fig 2: CALIFORNIA WINE CLUSTER



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Sources: California Wine Institute, Internet search, California State Legislature. Based on research by MBA 1997 students R. Alexander, R. Arney, N. Black, E. Frost, and A. Shivananda. CAON Singapore 2001- 08-02-01 CK