

Chapter 1

Current State of the Venezuelan Economy and Society and Major Issues Relevant to Small- and Medium-sized Manufacturing Enterprises

Chapter 1 Current State of the Venezuelan Economy and Society and Major Issues Relevant to Small- and Medium-sized Manufacturing Enterprises

1.1 Macroeconomic Overview

1.1.1 GDP

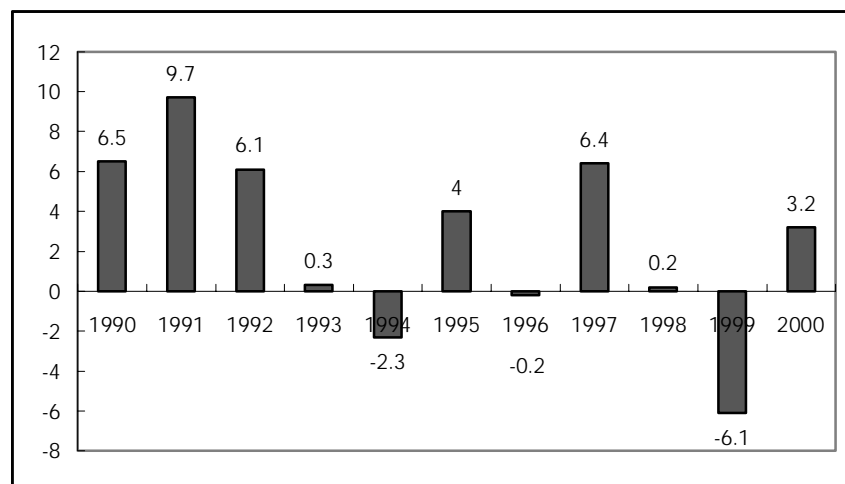
The Venezuelan government has been striving to establish a stable economic base by using economic resources amassed from oil revenues in the 1970s and 1980s, which were realized through the OPEC-led price hikes, and by developing non-oil industries such as aluminum and iron and steel. However, the economy still depends heavily on oil revenues and is vulnerable to price fluctuation, as continued in the 1990s and to this date.

Historical trends in the country's GDP growth rates are summarized as follows (Figure 1.1-1).

- The average growth rate of real GDP in the 1960s and 1970s: +3.7% (Rapid increase in oil revenues in 1973, 1974 and 1979)
- 1980 – 1993: +2.1%
- 1989: -7.8% (August 1990, oil prices jumped due to Iraq's invasion of Kuwait)

Then, GDP trends between 1990 and 2000, based on data published by MPD (Ministry of Planning and Development, May 2001) are shown in the following graph.

Figure1.1-1 GDP Growth Trends (%)

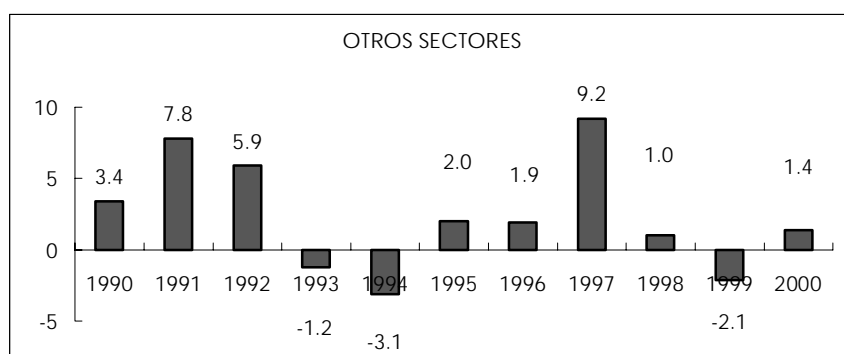


Source: Central Bank of Venezuela (BCV)

1.1.2 Price trend

As shown below, inflation has gradually been subsided and prices appear to be in the course of stabilization. It should be noted that price stability is a direct consequence of government policy to keep the Bolivar and interest rates at high levels. Together with low tariff rates, these policies encourage imports and therefore bring domestic prices down to international price levels. Increased imports, however, have an adverse effect on local manufacturers which cannot compete with imported products. In fact, bankruptcy of small manufacturers has increased rapidly since 1995 when the government started the policy to support the strong Bolivar. Industries are criticizing the policy, but it is an inevitable solution for the government that attempts to achieve economic stability by keeping inflation in check.

Figure1.1-2 INFLATION TRENDS (1987 ~ 2001 FORECAST)



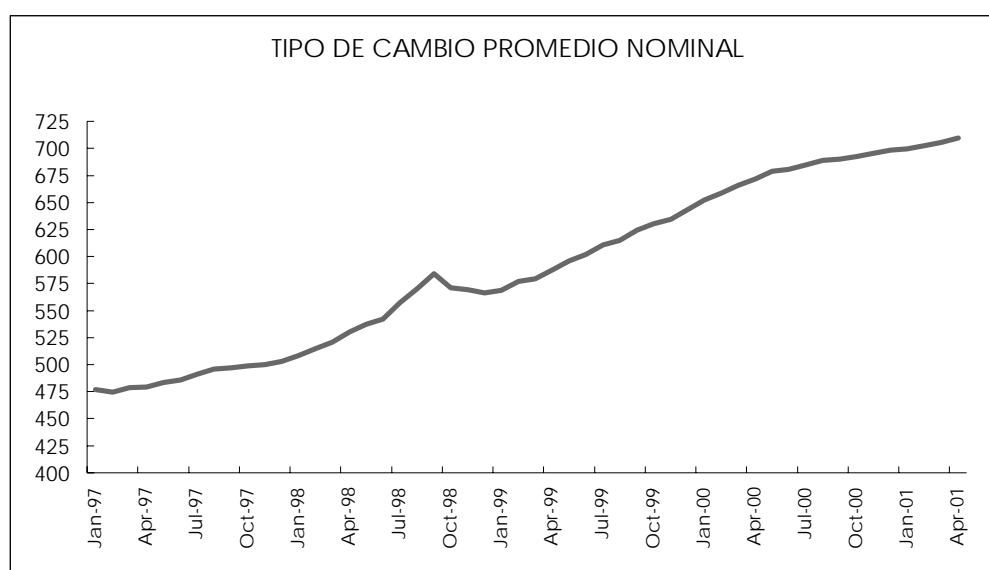
Noto: El dato de 2001 corresponde a la inflación acumulada durant el peíodo Dicl. '00-May'01
Source: BCV

1.1.3 Exchange policy and control

The country devaluated the Bolivar by 7.98% in 2000. The devaluation rate was still deviated from the inflation rate, but the difference seems to be narrowing as inflation subsides. In the meantime, the central bank is taking the steps to stabilize the currency by establishing a new fluctuation band and developing a plan to adjust a margin of deviation.

Thus, as discussed in the previous section, the present exchange policy should be accepted as effective measures for inflation control. As the policy is maintained, price stability will be followed by currency stabilization that will take effect in due course.

FIGURE 1.1-3 FOREIGN EXCHANGE RATES (Bs./USD, MONTHLY AVERAGE)



Source: BCV

1.2 Socioeconomic Conditions

1.2.1 Population

Between 1990 and 1996, population in Venezuela increased at an annual 2.7%, the highest growth rate in Latin America to rank with Paraguay. According to the central bank's official data in 1999, the country's population totaled 23,710,809, a 4.1% increase over 19997. Growth factors are relatively high birth rates, low mortality rates, and migration from neighboring countries (a total of 1.8 million migrated from Colombia).

1.2.2 Labor force

In 1999, population over 15 years of age amounted to 15,562,861, representing 65.6% of the total and up 5.5% from 1997. Recent trends in working population and employment are shown in Table 1.2-1.

TABLE 1.2-1 WORKING POPULATION AND EMPLOYMENT

Category	1997	1998	1999
Working population (1,000 persons)	9,507	9,907	10,225
Employed	8,495	8,816	8,742
Unemployed	1,012	1,091	1,340
Unemployment rate (%)	10.6	11.0	14.5

Source : BCV

1.2.3 Education

Basic education plays an important role in establishing the social and economic foundation of any country and needs to be upgraded all the time. In Venezuela, proliferation of compulsory education throughout the country is considered to be national priority. Last year, the government embarked on the Plan de Escuela Bolivariana to enhance basic education and promote integrated education. As part of such efforts, it is important to develop skills that are required to achieve the goal set in the economic development plan by establishing vocational training schools in rural areas to meet the needs by local industries

1.2.4 Income and wage

Income distribution is a crucial factor for affecting social and economic stability in any country. In the present economy that heavily depends on the oil sector, while the non-oil sector lacks growth potential and vitality, the income gap is widening and poor people have limited sources of income, largely relying on public investment and social welfare. The situation can only be improved by creating employment opportunities through balanced economic growth. In particular, local industries (the primary sector - agriculture, forestry, fishery, and mining – and industries processing farm products and other raw materials, and tourism) should be used as major vehicle to narrow the regional disparity in income. Promotion of local industries – which also means promotion of SMEs – will therefore become effective measures to improve income distribution both geographically and hierarchically.

1.2.5 Regional economy

With the deterioration of the farm sector and the decline in population, most regional economies are losing vitality. The government, in its new economic development plan, sets priority to regional development and decentralization of economic activities. It has announced a national transportation network plan and series of regional development plans, such as the Orinoco/Apure Axis development plan. Based on these master plans, implementation plans will be about to be completed. As a result, SME promotion programs in various regions will be designed in line with the policy objectives set forth in the relevant development plans, which are summarized as follows:

- a. Decentralization of population and economic activities that are excessively concentrated in the north central region;
- b. Revitalization of local economies to attract industries and population; and
- c. Infrastructure development to support regional economic development, including the construction of transportation networks and the installation of communication systems.

In addition, other supportive programs, which should usually accompany regional development projects, should be implemented, including optimum allocation of management resources for regional economic development, proliferation of information media, induced development of local industries (especially agriculture, forestry and agro-industry), and the enhancement of the local government organization to support regional development initiatives.

1.3 International Trade

The country's exports are still dominated by crude and petroleum products, which account for 75-85% of the total value of exports during the past decade, subject to variation of crude oil price. Imports were previously dominated by raw materials (nearly 50%) and the share of machinery and equipment (including transportation machinery) is recently on the rise. Exports of industrial products still represent a relatively small share. As the economy globalizes rapidly, the manufacturing sector is expected to establish international competitiveness in terms of quality and other aspects.

In addition, the country is expected to establish its own market strategy in preparation for the establishment of FTAA (Free Trade Area of Americas) in 2005, including export promotion policies and programs. The country's export and import

trends for the past five years are summarized in Figure 1.3-1. made from materials of the MPC.

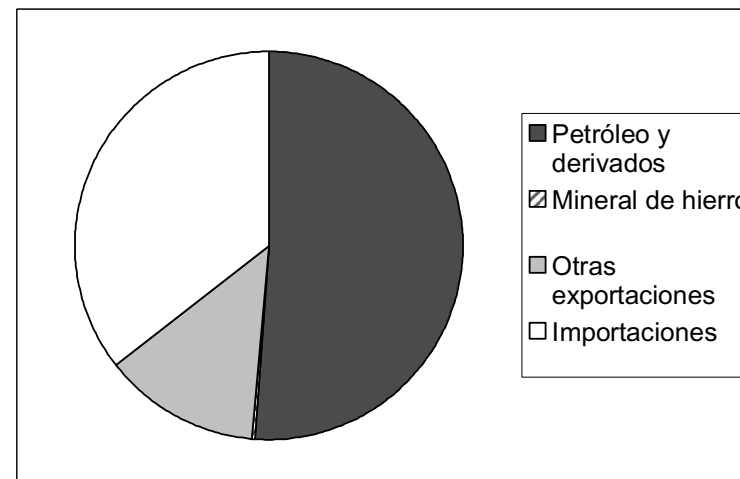
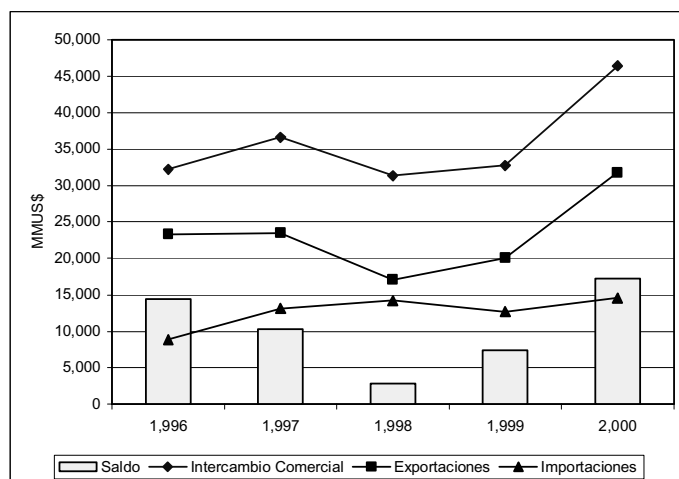
Major export items among non-traditional products (non-oil sector) are non-ferrous metals and metal products, followed by chemical products, transportation equipment, plastics, food, farm and dairy products, and machinery and equipment. The country's largest export market is the U.S., which continues to account for majority of total exports, including crude and petroleum products and non-traditional products account for 26% of the total exports. The largest export market of non-traditional products is the U.S., followed by Colombia accounting for 21% of the total exports. In addition, the country's exports to Mexico and Spain grew at the highest annual average growth rate of 18% for the past five years, followed by Japan, 11%, Italy, 5% and the U.S., 4%. On the contrary, its exports to the U.K., the Netherlands and Colombia showed negative double-digit growth rates.

With regard to imports in Venezuela, consumer products including electronics, transportation equipment and chemical products account for more than 50% of the total imports. In comparison between the first quarter of 2000 and that of 2001, mineral products, transportation equipment, and food, beverage and tobacco grew largely, accounting for 15.5% of the total imports. With regard to Venezuela's imports from different countries for the past five years, the value of imports from the U.S. has been the largest, accounting for 42% of the total, followed by Colombia, 7 %, and Brazil, Germany, Italy, and Japan, 4% respectively. Annual average growth rate of Venezuela's imports for the past five years has been 13%. Its annual growth rates of imports from Brazil and Spain have averaged 19% respectively, followed by Italy, 18%, Mexico, 15%, and Japan, 14%.

FIGURE 1.3-1 TRADE BALANCE IN VENEZUELA

(Millones de US\$)

	1,996	1,997	1,998	1,999	2,000	TOTAL	PART%	VAR 00/96
a Intercambio Comercial	32,221	36,645	31,346	32,749	46,392	179,354	100.0%	10%
b Exportaciones	23,319	23,486	17,097	20,080	31,811	115,793	64.6%	8%
c Petróleo y derivados	18,522	17,939	11,833	16,215	26,918	91,427	51.0%	10%
d Mineral de hierro	168	157	160	97	101	683	0.4%	-12%
e Otras exportaciones	4,629	5,390	5,103	3,768	4,792	23,682	20.5%	1%
f Importaciones	8,902	13,159	14,250	12,669	14,581	63,561	35.4%	13%
g Saldo	14,416	10,327	2,847	7,411	17,230	52,232		



Source

Petróleo y derivados: **Dirección de Economía de Hidrocarburos, MEM**
 Mineral de hierro: **Gerencia de Planificación y Economía Minera, MEM**
 Otras exportaciones: **OCEI**

Note:

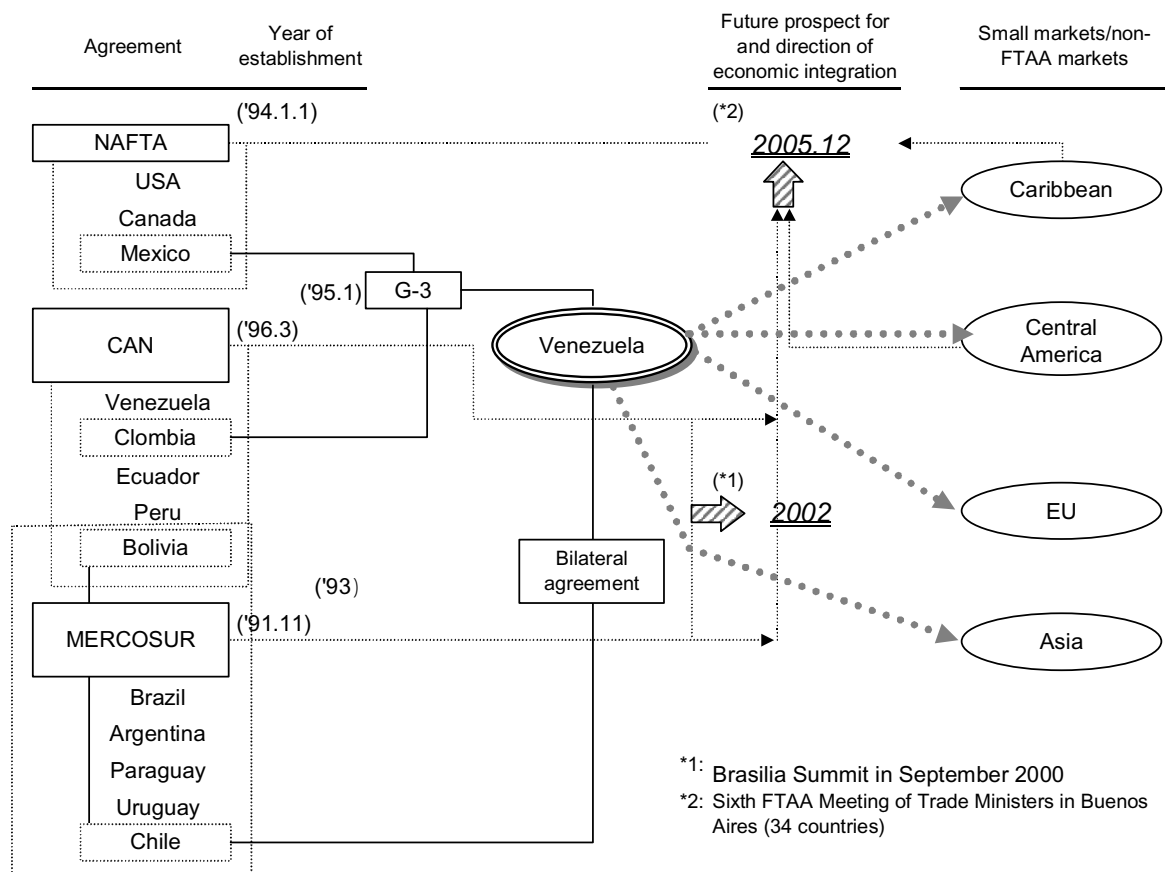
Intercambio Comercial $a=b+f$
 Exportaciones totales $b=c+d+e$
 Saldo $g=b-f$
 Var 00/96: Variación promedio interanual entre 1996 y el 2000

1.3.1 Trade Agreements

In the Americas, the move to form a free trade zone, after a stationary period in the 1980s, was accelerated since the early 1990s. Today, various regional economic zones exist, including NAFTA in North America, MERCOSUR in South America, and CAN, CACM and CARICOM in between. Venezuela participates in CAN, forms Group-3 (G-3) with Mexico and Colombia, and has entered a free trade agreement (FTA) with Chile. In the meantime, South America is moving ahead of FTAA toward a continental free trade zone, as the summit meeting of South American nations held in early September 2000 (Brasilia Summit) resolved the integration of MERCOSUR and CAN, targeted in 2002. In particular, Venezuela and Brazil expressed a clear intent to expand their mutual trade and promote close cooperation in the areas of energy and infrastructure development, as evidenced by President Chavez of Venezuela who actively approached President Cardoso of Brazil to discuss these matters. Since then, Venezuela has been exploring closer ties with its southern neighbor, which is positioned as a destination of its decentralization and rural development plan.

Economic cooperation agreements within the Americas, which involve Venezuela, are summarized as follows.

FIGURE 1.3-2 ECONOMIC COOPERATION AGREEMENTS AND RELATIONS INVOLVING VENEZUELA



Source: JICA Study Team

1.3.2 Trade policy

(1) Political and economic framework for successful growth of Venezuela in the world economy

To reinforce the effective vehicles related to promotion of non-traditional trade, specially to leverage the existing skills in the field of energy sources and the means to use them.

- a. To start trade negotiations with different countries and economic blocs in pursuit of more favorable commercial opportunities, which should be expanded to countries and

areas with which Venezuela has not have close relations so as to unleash economic dynamism.

- b. To evaluate advantages of trade agreements signed and entered by Venezuela in order to complete and pursue the national objective of production promotion.
- c. To support the establishment of new international alliance strategy and diversification of commerce, followed by verification their effects. The strategy should address the important of the Asia/Pacific area and emphasize alliances with India, Malaysia and China in the context of WTO.
- d. To enable the domestic market to expand into the Andean and Caribbean markets in the context of open and supplemental relations. It is important to check the market environment in the Caribbean and Andean regions.
- e. To determine strategy to establish the relations with MERCOSUR, particularly Brazil, in order to study the objective to create a free trade zone. Note that negotiation with Brazil on expansion of commercial relations should include the issues related to energy, which is of mutual interest for both countries.
- f. To define special concerns of Venezuela and incorporate them into agenda for multilateral and western hemisphere negotiations. In particular, it is desirable to incorporate them into the framework for negotiations at FTAA and WTO.
- g. To upgrade skills of bureaucrats who are engaged in the above negotiation process, and to define the country's arguments and propositions on important negotiation scenarios. It is important for both the government and private sectors to develop a proposal in the context of international economic relations when they implement the above strategies.

1.3.3 Infrastructure related to foreign trade

(1) Current state of transportation hubs for physical distribution in South America

Figure 1.3-3 shows international physical distribution routes that are widely recognized and designated by IDB for infrastructure development. Among them, two physical distribution routes are important for Venezuela and its trade, namely the Venezuela-Colombia route and the Atlantic route. In addition, infrastructure development plans are proposed or implemented in the countries within CAN and MERCOSUR, and sub-regional infrastructure projects are planned to establish or upgrade physical distribution routes between neighboring countries.

FIGURE 1.3-3 PRINCIPAL CURRENT HUSBS IN TERMSO FOR THE VOLUME OF FLOWS IN SOUTH AMERICA



Source : IDB, Dec., 2000

1.4 Investment

1.4.1 Recent trend

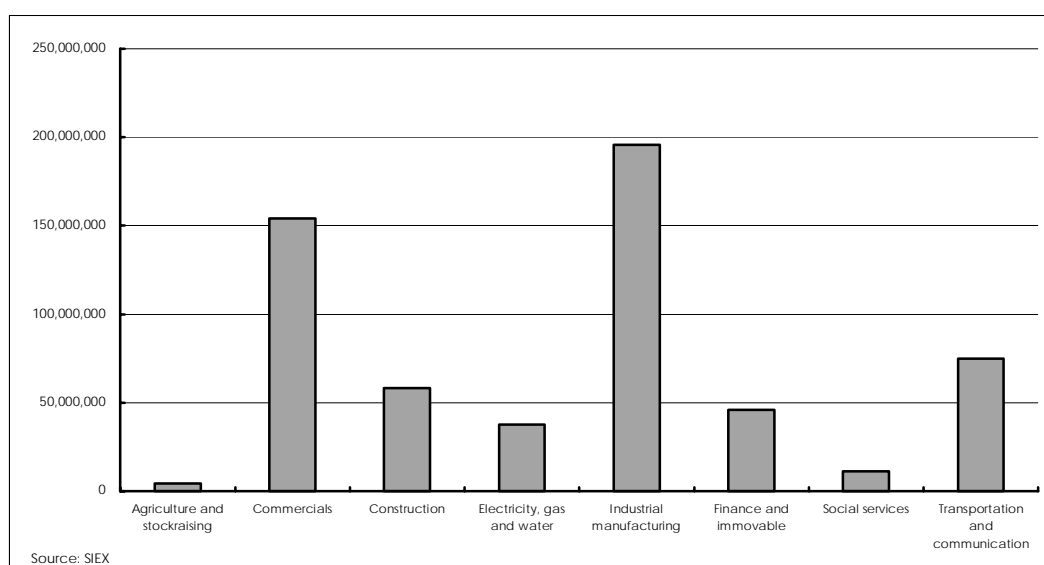
Table 1.4-1 shows invest trends by sector between 1993 and 1998. The mining sector received the largest amount of investment, followed by manufacturing, banking/real estate, and trade and hotel. Another foreign direct investment data between 1991 and 1999 were obtained from SIEX and are presented in the table 1.4-2 of the main report. In 1998, \$15,510 million were invested. Of total, 80% was related to investment in two former state companies, SIDOR (steel mill) and Andino (cement), which were in the process of privatization. Measured by the accumulated total since 1979, the manufacturing sector received the highest share of 61.6%, followed by the banking and real estate sector 22.4% and hotel, restaurant and commercial service 5.0%. By country of origin, the U.S. ranked first with a 38.6% share, followed by the Netherlands 8.3%, Mexico 6.0%, Panama 4.3%, Argentina 2.3%, and Brazil 1.3%. In 1999, total investment plummeted to \$515,750,000, one third the amount in the previous year. Bahamas ranked first, followed by the Netherlands, the U.S., Colombia, the Cayman, and South Korea. By sector, the manufacturing sector accounted for one half, followed by commerce, construction, banking and real estate, and electricity, gas and water. In 2000, the figure grew 13.5% to \$585.5 million. By country, the U.S. came first, followed by the Netherlands, Bermuda, Spain, Japan, Switzerland, and the Cayman.

TABLE 1.4-1 FOREIGN INVESTMENT TRENDS BY SECTOR

(US\$)

Sector	1993	1994	1995	1996
Agriculture	12647526	3921690	16335256	14120638
Mining	52374564	38806115	38274047	254987993
Manufacturing	275936415	339936049	122724171	228411857
Electricity	719227	108325051	5317647	112311000
Construction	4848825	9904412	3939252	7085865
Trade/hotel	23710909	40934774	31691132	64764623
Transportation/communication	20093430	128332956	28078479	13941854
Bank/real estate	58697558	45409810	105303401	728391569
Public health/recreation	141219	560551	159298	4089147
Total	449169673	716131408	351822683	1428104546
Sector	1997	1998 (Jan-June)	Total	Annual average (Total)
Agriculture	49246677	154034	96425821	63521349
Mining	2214197203		2598639922	2469185196
Manufacturing	361376967	1262814689	2591200148	1852603513
Electricity	3982738	30314703	260970366	1490608441
Construction	32665065	6720202	65163621	46471132
Trade/hotel	70641893	7633270	239376601	1430395786
Transportation/communication	16516985	5129572	212084276	35579411
Bank/real estate	311426511	11761576	1260990425	1051579656
Public health/recreation	4089147	267215	6266401	5405333
Total	3064143186	1325568017	7331117581	5813993817

Source: SIEX

FIGURE 1.4-1 REGISTERED FOREIGN DIRECT INVESTMENT FOR 2000 BY SECTOR IN VENEZUELA

1.4.2 Investment climate

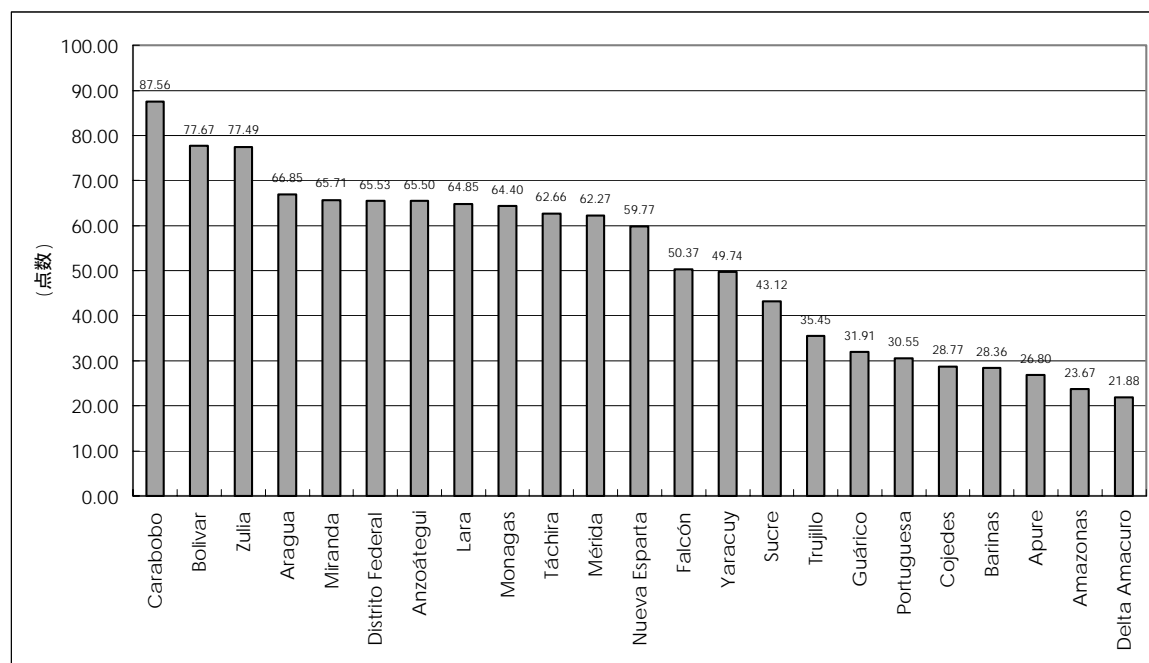
The national SME survey conducted by CAF (OBSERVATORIO PYME) rates the states with regard to SME promotion by applying the following three criteria:

- 1) National policy to support SMEs (35 points)
- 2) Human resource development strategy for SME development (30 points)
- 3) Organization, creation and responsibility of the private sector (35 points)

Note that the criteria in 1) includes expandability and quality of institutions and plans required for development of individual companies, and quality of infrastructure. 2) includes the current state of human resource development in each state, the literacy rate, and development of higher education. 3) contains importance of guidance to the private sector and its organization, and deployment of support policy related to responsibility of the local private sector.

As a result of rating, three states (Carabobo, Bolivar and Zulia) received over 70 points, confirming their role as center of the country's production activities. Then, 9 states received over 60 points and show future growth potential under industrial support focusing on strengths of each state and region. The remaining 11 states were rated between 20 – 50 points. For these states, it is desirable to identify industries which can be fostered to support the intermediate states (60 points or over) in the context of policy support or the regional hub strategy.

FIGURE 1.4-2 RANKING OF STATES IN TERMS OF SME PROMOTION ENVIRONMENT

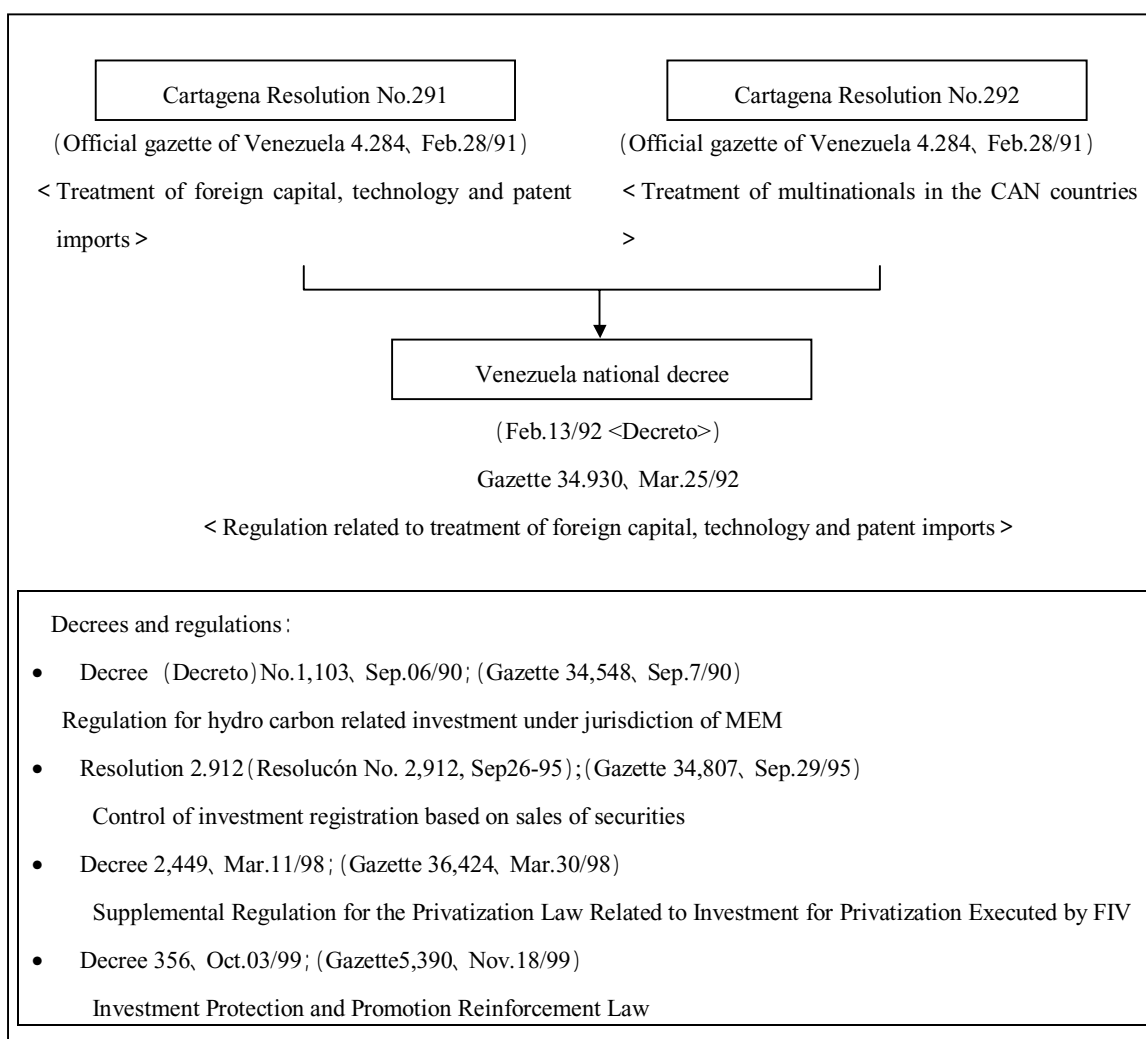


Source: CAF

1.4.3 Investment promotion policies and programs

(1) Legal framework

The legal framework for investment promotion is based on non-discriminatory treatment of local and foreign capitals. It is structured as “major standards for foreign investment and technology licensing” based on Cartagena Resolution Nos.291 ad 292 among the CAN countries, as follows.



1.4.4 Investment in Industrial Parks and Future Projects

During the second field survey, the study team visited and analyzed four industrial parks, namely Carupano (Sucre), El Tigre (Anzoategui), Tinaguito (Cojedes), and El Tocuyo (Lara). Then the third field survey covered industrial estates and districts in Parque Tecnológico (Mérida), Zona Libre Cultural, Científica y Tecnológica (Mérida), San Fernando-Biruaca (Apure), San Antonio (Táchira), Ureña (Táchira), San Cristobal (Táchira), Coro (Falcón) and Punto Fijo (Zona Franca Industrial, Comercial y de Servicios de Paraguaná-Falcón). The study team discussed members of the local chamber of commerce and industry, as well as executive officers of local governments (including governors and mayors), and visited production facilities of major enterprises in each area. The results of analysis are summarized in the following table 1.4-2. Major issues commonly seen among the four industrial parks are the lack of facility maintenance due to a poor management organization, the lack of support for

entrepreneurs who show interest in new projects, and the absence of coordination between central government and local organizations. To overcome the situation, the government should redefine the role of industrial parks and a strategic direction for future development.

TABLE 1.4-2 COMPARISON OF SELECTED INDUSTRIAL PARKS

	El Tigre (Estado de Anzoátegui)	El Tocuyo (Estado de Lara)	Carúpano (Estado de Sucre)	Tinaquillo (Estado de Cojedes)
Management organization (at present) (initial stage)	ASOCIACION CIVIL CORPOINDUSTRIA (25 years ago)	None, the chamber of industry is organized. Developed by CORPOINDUSTRIA in 1979	None, the chamber of industry is organized. Developed by CORPOINDUSTRIA two decades ago	None, the chamber of industry is organized. Developed by CORPOINDUSTRIA two decades ago
Land area (ha) Number of lots Average lot size	49,71 92 4200 m ²	88,0 Minimum 3,000m ²	44 (only 13ha in service) 2,000 – 3,000m ²	64ha: 34ha managed by the chamber 30ha managed by municipality 4,000m ²
Employment	520	50 - 100	350	600
Economic Activity or Economic Sector	Metal and machinery 40%, industrial service 32%, general manufacturing 12%, electrical products 7%, chemical products 7%, and food processing 2%		Canned tuna/sardine (exported to Brazil) Technology from Spain/supervision by Brazil, plastic bags, furniture manufacture, block manufacture, fish powder production	Lubricant oil, steel material processing, automotive filters, chemical products, office desks/chairs, animal feed, ceramic glue, soap, radiators, paint, tanks for tank lorries, computer printout paper
Manufacturers in operation	15 empresas (28 %), 15 under construction), 23 (idling)	Only 2 companies in operation Production of uniforms (cloth imported) Seeds (technical assistance)	Approx. 10-15% (10 companies)	16 companies in operation (15-20%)
Incentives	Income tax exemption for 8 years	Income tax exemption for 8 years	Income tax exemption for 8 years	Income tax exemption for 8 years
Site preparation	Generally finished, infrastructure available	Requiring rework due to growth of bush	Site preparation completed for 13ha and undeveloped bush land	Improvement of site roads and public area under the rehabilitation plan Rehabilitation started
Utilities Water Electricity Gas Sewer Communication	OK OK LPG OK OK	OK OK × Treatment plant required Rehabilitation required	OK Not available, companies have their own power generation systems. × Treatment plant out of service Not serviceable	OK OK × Rehabilitation required Rehabilitation required
Remarks (issues)	Many companies lack initial funds (due to high interest rate) after purchase of lot. New incentives are expected after facility rehabilitation. Promotion of an irrigation project is expected.	Project approval is suspended due to application for financial assistance. Poor maintenance and management	Pollution control required (sewerage treatment) as the site is adjacent to a recreational beach Improvement of public service: garbage collection, water, telecommunications Tourism Request is made for designation as the free trade zone.	Project approval was obtained, but lack of financial source Joint venture preferred The study results should be used to make the organization more functional. Streamlining of procedures required

	Parque Tecnológico, MERIDA	ZOLCCYT, MERIDA	S. Fernando Biruaca, APURE	San Antonio, TACHIRA
Industrial estate management (Present) (At the time of incorporation)	1992 ULA/CONICIT/CORPOANDES/FUNDACITE	1995 Board of Directors (Ley sobre la Zona Libre Cultural, Científica y Tecnológica del Estado de Mérida)	-	1973-75 No administration
Area (Ha.) No. of lots Average lot area	Leasing of ULA facility	4 states 295.7 Has.	20-30 Has. (future)	500 Has.
Employment	-	-	-	15,000 workers in tobacco production
Economic Activity or Economic Sector	(Actual) 17 companies in 2000, employing 99	Investment approved in 4 states (Sucre, Campo Elías, Libertador, Santos Marcolina) is entitled to benefits as free zone.	* Afforestation (1.1MMHas.) (Saladillo, planting of eucalyptus and slash pine continues for 8 – 10 years) *Agricultural and dairy products *Fresh water fish, cotton	Textile, leather (shoes and bags), furniture, metalworking, aluminum transforming, tobacco (30 factories), export 56% (including Urea)
Companies in operation	Innovation System: * Technology Center *Enterprise Inn & Modernization Assistant System: *Enterprise Incubation *Publication Service	*Assembly industry *Imports of folklore products from CAN and Mexico	Cotton, tobacco, cheese, rice, cacao, sugarcane	*250 establishments (exporting to Colombia, Mexico and Caribbean) *95% deal with banks
Incentive	-	Gazette 4,937, Jul.14, 1995	-	Decree 315/327 (Border area development plan)
Land	-	-	Only a few sites in Biruaca	Factories sporadically located in the city Decreto No. 963
Utilities Water Electricity Gas Sewer Communication	-	Joint support by the central and local governments	OK Improvement required Insufficient Improvement required Improvement required	
Remarks (issues)	*Support required for future expansion into new fields *Need for plant expansion *Inducement to V/C	* Support to maintain sustainable development of science, technology and culture	* River transport development * Development of agro-industry	* Factory relocation plan * Effluent treatment plant required * Developed required as key border area * Tobacco tax (state)

	Ureña, TACHIRA	San Cristoba, TACHIRA	Coro, FALCON	Pto. Fijo, FALCON
Industrial estate management (Present) (At the time of incorporation)	Established 25 years ago	-	-	Established as Zona Franca 25 years ago FONDUR
Area (Ha.) No. of lots Average lot area	55Has.	-	-	246 Has. 18 -
Employment	25,000人	-	-	5,000 (peak level)
Economic Activity or Economic Sector	Bus body, automotive parts, office equipment, furniture	70% of industries in the Andes area are concentrated.	Fishery (tuna, shrimp), coal, petroleum refining, meat, non-ferrous metal, eco-tour, salt, cement, palm, aloe	* Toursim-related commerce * Petroleum refining * Industrial estate (Zona Franca) * The entire peninsula is managed by CORPOTULIPA.
Companies in operation	Capacity utilization rate of 40%	58% retail, 20% SMEs 19% MEs Textiel (20%), woodworking (20%), metal and machinery(10%) Food (10%), lime (9%), shoes (9%), automotive parts (6%), graphics art (6%), leather (4%)	Mining, agriculture, cattle raising, fishery	* Toursim-related commerce in Zona Libre, 401 projects (84%)、tourist service 73 (16%) * 19 companies in ZONFIPCA (20% operating)
Incentive	Border area development plan	Border area development plan	-	Income tax exempted for 10 years (Official Gazette No. 36517, 34772)
Land	Factories are scattered in the city Decreto No. 963	Factories are concentrated in a limited area of the city. Decreto No. 963	Decreto No. 963	* Managed as industrial estate *The entire peninsula is Zona Libre for toursim
Utilities Water Electricity Gas Sewer Communication	Insufficient Frequent power outage LPG Improvement required OK	Insufficient Frequent power outage LPG Improvement required OK	Insufficient Improvement required Improvement required Improvement required OK	Insufficient Improvement required OK Improvement required OK
Remarks (issues)	* Industrial structure analysis and corporate diagnosis required (strategic direction) * Urgent need for human resoure development (foreign workers inflow) * Integration with San Antonio (Infrastructure development)	* Customs clearance 3 days * Project selection should be evaluated from the viewpoint of“optimum allocation.” * La Fría should be developed as the center of food production. * Improvement of freight transport service	* Human resources are attracted to the oil industry * Organization of the fishery industry * Construction of an airport as a hub for physical distribution * Development of the irrigation system	* To reappraise the positioning as Zona Franca (in terms of systme) * Redevelopment targeting the Caribbean market

Source: JICA Study Team

1.5 Finance

1.5.1 Financial System and Reform

The "general law of a bank and other financial institutions" known as a bank law was published in 1993, and was enforced in January, 1994. The purpose of this law is to strengthen the domestic financial system and the domestic financial institution and to build the firm base of this sector in order to increase competitiveness. The important points of this law were to liberalize strongly regulated and protected conventional domestic bank sector, and to open the door to foreign investment. Each business lines of a commercial bank, a housing loan specialized bank, and a leasing company was limited for every bank before this, thus the universal bank without operating restrictions was accepted by this law.

The major universal banks occupied about 60% of the whole financial market, and the other 70 financial institutions divides remaining market. A small bank has high operating cost and it's borrowing rate is also high as a result. In order to make raise the efficiency of these banks to be developed, the Venezuelan government is promoting the inter-bank merger considered to be the best method.

1.5.2 SMEs financing

The major problems in the finance for SMEs are; a)high lending rate, b)insufficient securities or collaterals, c)complexity and long procedure. Regarding a), the interest is falling as already mentioned, however, the rate for small manufacturer is set up highly in many cases. Moreover, in the case of the private bank, it is usual to require the security worth 2 to 3 times of amount of loan. Regarding c), preparation of the documents submitted to a financial institution is complicated for SMEs, financial institution side does not give sufficient explanation of a document but usually only pass it to a customer. These caused more difficulty for SMEs. It has been said that a borrower feels longer since the examination begins from the time of documents being ready completely. In addition, since a private bank is only able to provide a short-term loan (maximum lending periods are three years from a commercial bank and five years from a universal bank), it is difficult to fulfill the demand for fund to purchase a machine or/and an equipment. Moreover, it can not lend out to the informal company which has not paid the tax or social security.

1.6 Tax System

The taxation system in Venezuela is fundamentally defined by the law, the authority to formulate a tax is exceptionally granted to the President on the constitution. Since Venezuela has adopted the federal system, a tax can be formulated and imposed in a country level, a state level, and each local governing level (municipality). Among these, the national tax is the most important.

1.6.1 National Tax

National tax is regulated by Organic Code Taxation.

National taxation is mainly formed by;

- Income tax
- Business asset tax
- Value added tax (IVA)

In addition, there are import tax, registration taxation on production and/or purchasing of alcohol, tobacco, match and salt as well as production of hydro carbonated energy.

1.6.2 Regional tax

(1) State tax

At preset State tax is still insignificant and the taxation burden is limited. It is because the federal state of Venezuela basically depends on budget allotment of a country, and it is to be distributed to a state 20% of national budget by the decentralization law. State taxes are documentary stamp tax, fees for using a road, a bridge, a harbor, and an airport, and others. However, the rate of State tax may become large if decentralization will progress in the future.

(2) Municipality Tax

The constitution of Venezuela allowed the municipalities to form and collect taxes. The common taxes by municipalities (cities, towns and villages) are as follows.

- a. Production in the municipality
- b. Fees of services provided by the municipality
- c. License tax applied for industry and commerce

- d. Automobile tax
- e. City immovable tax
- f. Others

1.7 General Profiles of Industry in Venezuela

As discussed earlier, the Venezuelan economy depends heavily upon oil and international oil prices are a major factor for determining the country's GDP. This oil-dependent economic structure has not changed over the past decade. In fact, despite the government's efforts to foster the non-oil sector, the petroleum and natural gas sector (including petroleum refining) gained share of GDP from 22.3% in 1990 to 27.5% (preliminary) in 2000. In the non-oil sector, all industries other than service have been on the decline, down 10% between 1997 and 2000. Most non-oil industries are heavily affected by the country's oil revenues and their business cycle directly links to that of the oil sector.

The service sector in general increased share from 43% to 45% during the period, whereas other non-oil sector grew from 26% to 29%. In the non-oil sector, the manufacturing industry holds the largest share of 14% in 2000. The manufacturing industry includes the petrochemical industry and is thus affected by the oil market. Following the manufacturing sector, real estate and commerce hold 8% each. Agriculture only accounts for 5% of GDP. (Table 1.7-1)

TABLE 1.7.1 GDP (CONSTANT PRICE)

Economic Activities	Million Bolivar							Variation Percentage				
	2000(*)	share	1999(*)	1998	1997	1996	1995	2000/99	1999/98	1998/97	1997/96	1996/95
Oil Activities	160,366	27.5%	155,066	167,490	164,247	150,139	139,418	3.4	(7.4)	2.0	9.4	7.7
Petroleum and Natural	129,818	22.2%	123,342	136,256	133,420	121,368	111,959	5.3	(9.5)	2.1	9.9	8.4
Refinery	30,548	5.2%	31,724	31,234	30,827	28,771	27,459	(3.7)	1.6	1.3	7.1	4.8
		0.0%										
Non-oil Activities	407,699	69.8%	396,905	419,533	423,284	406,046	416,494	2.7	(5.4)	(0.9)	4.2	(2.5)
Producers of Goods	155,966	26.7%	153,382	168,549	173,839	163,085	166,866	1.7	(9.0)	(3.0)	6.6	(2.3)
Agriculture	28,359	4.9%	27,748	28,356	28,186	27,526	26,995	2.2	(2.1)	0.6	2.4	2.0
Mining	5,119	0.9%	4,724	5,275	5,520	5,174	5,042	8.4	(10.4)	(4.4)	6.7	2.6
Manufacture	82,620	14.1%	79,771	87,863	93,105	89,186	94,091	3.6	(9.2)	(5.6)	4.4	(5.2)
Electricity and Water	10,933	1.9%	10,711	10,593	10,459	9,987	9,864	2.1	1.1	1.3	4.7	1.2
Construction	28,935	5.0%	30,428	36,462	36,569	31,212	30,874	(4.9)	(16.5)	(0.3)	17.2	1.1
Producers of service	255,974	43.8%	247,584	255,481	253,898	246,960	255,262	3.4	(3.1)	0.6	2.8	(3.3)
Commerce	47,088	8.1%	44,783	50,774	53,079	50,702	55,451	5.1	(11.8)	(4.3)	4.7	(8.6)
Restaurants and Hotels	14,602	2.5%	14,613	14,913	14,665	14,404	14,700	(0.1)	(2.0)	1.7	1.8	(2.0)
Transport, Storage and Communication	36,545	6.3%	33,436	32,896	31,076	28,499	28,027	9.3	1.6	5.9	9.0	1.7
Financial y Security Institutions	6,360	1.1%	6,258	7,261	7,330	7,040	8,733	1.6	(13.8)	(0.9)	4.1	(19.4)
Real estate	47,359	8.1%	46,709	47,235	46,344	45,030	44,919	1.4	(1.1)	1.9	2.9	0.2
Lental service for company	19,035	3.3%	18,779	19,686	19,777	19,215	20,086	1.4	(4.6)	(0.5)	2.9	(4.3)
Serv. Communal, Social, Person, non Lucrative service	39,137	6.7%	38,552	38,768	38,052	36,951	36,433	1.5	(0.6)	1.9	3.0	1.4
Services of the General Government	45,848	7.8%	44,454	43,948	43,575	45,119	46,913	3.1	1.2	0.9	(3.4)	(3.8)
Minus: Serv. Bank. Imputed	4,241	0.7%	4,061	4,497	4,453	3,999	5,634	4.4	(9.7)	1.0	11.4	(29.0)
SUB-TOTAL	568,065	97.3%	551,971	587,023	587,531	556,185	555,912	2.9	(6.0)	(0.1)	5.6	0.0
Plus: Import duty	16,009	2.7%	13,917	15,535	14,003	9,321	10,715	15.0	(10.4)	10.9	50.2	(13.0)
TOTAL	584,074	100.0%	565,888	602,558	601,534	565,506	566,627	3.2	(6.1)	0.2	6.4	(0.2)
Source: B.C.V.												
Note: * Primary figure.												

1.8 Economic Development Plan

1.8.1 Economic Program 2001

The Venezuelan government announced Economic Program 2001, as continuation of Economic Program 2000. The program sets the primary objective to “achieve stable and continuous economic development” and calls for the establishment of the environment that is conducive to further stabilization of the currency, correction of high interest rates, and low inflation.

To promote economic development without inflation, the program sets forth the qualitative improvement of public expenditures as a means to induce investment by the private sector, thereby to revitalize and modernize the currently stagnant sectors. Furthermore, it emphasizes the importance of taxation from the non-oil sector to maintain a stable source of public expenditures, while relying on it as an effective means to control inflation.

Macroeconomic targets set for the year 2001 are summarized as follows.

TABLE 1.8-1 2001 MACROECONOMIC GOAL

Macroeconomic targets	2001
Real GDP growth rate(%)	4.5
Oil sector	4.1
Non-oil sector	4.7
Gross investment (net) (as percentage of GDP)	17.4
Public investment	8.0
Private investment	9.4
Government budget deficit (as percentage of GDP)	2.0
Ordinary income (MMUSD)	7,582.0
Foreign currency reserve (MMUSD)	18,136.0
Inflation rate (%)	
Spot	10.0
Average	11.1
Average exchange rate (Bs./USD)	725.0
Unemployment rate (%)	11.8
Lending rate (%)	19.0
Interest received (90 days) (%)*	10.0

*90-day time deposit

Source: MPD

1.8.2 Industrial development plans

After 1989, the government abandoned its import substitution policy to promote liberalization of the domestic economy and trade. In 1990, the Perez administration announced the eighth five-year plan to aim at a smaller government, the economy led by private initiatives and export promotion. Under the plan, various policies and programs were established and implemented, including the liberalization of trade and foreign exchange, promotion of foreign direct investment, privatization of state enterprises, and liberalization of prices and interest rates.

During the period, Venezuela participated in regional free trade agreements, such as CAN and G-3, which expanded trade with these countries, especially with Colombia. While the inflow of textile and apparel products from Colombia to the domestic market have damaged SMEs in these industries, industries processing natural resources and automakers in Venezuela have expanded sales in Colombia.

The government's industrial development strategy sets forth objectives including country-wide re-industrialization, the development of the market environment to encourage fair competition, government support for lagging sectors, and creation of productive and continuous corporate alliances (production chain). In particular, an emphasis is placed on promotion of SMEs and correction of regional disparity.

1.9 SME Promotion (Summary)

1.9.1 Small and Medium Manufacturing Enterprise Promotion & Development Law

The law^{*} was enacted to promote Small- and Medium-scale Manufacturing Enterprises (SMMEs) under Gazette No.5,552 dated November 12, 2001. Key points of the law are summarized below.

(1) Definition of SMMEs

Small-scale manufacturing enterprises:	11 – 50 employees 9,001 – 100,000 taxation units
Medium-scale manufacturing enterprises:	51 – 100 employees 100,001 – 250,000 taxation units

(2) Organization responsible for SMMEs promotion policy

A new organization in charge of SMMEs promotion policy, SMEs Development Bureau, will be established within the Ministry of Production and Commerce. As an organization responsible for implementation of SMMEs promotion policy, the establishment of INAPYMI is mandated under the law.

1.9.2 Entrepreneurship Support

Economic activities in Venezuela, except for basic industries, are concentrated in the central and northern coast area. To reduce excessive concentration, MPC has developed an industry revitalization program for other areas. The program consists of various programs including revitalization of industrial estates and entrepreneur support. MPC intends to build a supply chain under the 2001 industry revitalization program by developing new industries in lagging regions. It will also focus on the sectors that can take leadership in industrial activities

The industry revitalization program contains the following two key projects:

- a. Rehabilitation of industrial estate facilities
- b. Implementation of the entrepreneur support program (Antonio Jose de Sucre Program)

^{*} Note: Small and Medium Manufacturing Enterprise Promotion & Development Law (SMMEs law)

- Technical support for entrepreneurs
- Provision of loan funds
- Recruitment of tenant firms for industrial estates

Antonio Jose de Sucre Program (AJS Program) was started in 2000 for the purpose of creating employment opportunities and promoting industrialization with contribution to the national economy. The program was planned between the end of 1999 and January 2000 under the leadership of MPC's Vice Minister Office (Industry) and in cooperation of FONCREI, SOGAMPI and other organizations. Then it was launched in January 2001. The program is implemented for one year and will be implemented on a continuous basis. In the future, INAPYMI, as it starts up, will take leadership. At present, said program is reexamined by MPC, and it may be implemented again in 2002.

Actual procedures for implementation of the AJS program are summarized as follows:

- a. Project promotion by State's Coordinator and recruitment of entrepreneurs
- b. Pre-registration with Entrepreneur Assistance Office
- c. Technical assistance for project formulation and evaluation
- d. Project proposal submission and presentation
- e. Project evaluation
- f. Announcement of results and loan application
- g. Evaluation by the Ministry of Production and Trade after the project startup and follow-up

Note that, in the step "c." FONCREI's project evaluation method is used to help project formulation. As many candidates have no experience in project formulation, university professors and other professionals help develop a business plan on the basis of the evaluation method.

1.10 Summary of Environmental Conditions for SMEs (Major Issues)

1.10.1 Macroeconomic and Social Environments

- (1) The country's GDP growth rate has been declining year after year. While the oil sector continues firm growth, the non-oil industry, particularly the manufacturing sector is staggering in recession. The national economy is still dominated by the oil sector. Inflation has been subsided after 1996, but the foreign exchange policy to keep the strong current, continued as part of price control measures, adversely affects competitiveness of domestic industries. The policy is considered to be one cause for deterioration of manufacturing industries in the country.
- (2) Population has been growing at over 2% annually. During the past decade, it grew faster than GDP. Accordingly, total labor force has been growing at an annual 3.7%, but employment has been increasing at only 1.4%. The jobless rate has been on the steady rise. Working population in the agriculture sector has been on the rise, whereas that in the manufacturing sector shows continuous declines. The tertiary industry records the highest growth to account for 67% of total employment. Employment in the mining and oil sectors accounts for a meager 0.65% of total and declines further.
- (3) As for the industrial structure measured by GDP share, the service sector holds the highest share of 43.8%, followed by the oil industry 27.5% and the non-oil industry 26.7%, which declines further. Income distribution is largely made through the agriculture, forestry, fishery, manufacturing and service sectors, but as the manufacturing industry continues to shrink and decreases employment, losing its position as a major income distribution mechanism.

1.10.2 Business Environment

(1) Trade

In both exports and imports, the U.S. accounts for over 50% of the country's external trade. Crude oil and petroleum products account for 75 – 85% of total exports. Colombia is the second largest trade partner in exports and imports of non-petroleum products. The country enjoys a trade surplus on account of oil exports, but its trade structure is highly skewed in terms of both commodity and country.

As economic integration and trade liberalization are expected to progress in the future, Venezuela aims to develop new exports markets in addition to Andes countries and Brazil, including the Caribbean, Central America, EU and Asia. Furthermore, other policy priorities are placed on modernization of the customs clearance system and the upgrading of the trade-related information system.

(2) Investment

During the five-year period between 1993 and 1997, foreign direct investment (FDI) represented an annual average 33% of total investment made in the country. FDI reached its peak level of 89% in 1994, which dropped sharply thereafter to 17.3% in 1997. By sector, FDI has been accounting for dominant share in the construction sector (an average 99%) as well as the transportation and communication sector (86%).

In the manufacturing sector, FDI's share is also fairly high at an average 78.8%. Thus, investment in the sector is mostly made by foreign firms, while local capital accounts for slightly above 20%. Nevertheless, the manufacturing sector has been steadily losing its share since 1993, from 56% to 35% in 1995 and 12% in 1997.

With the decline in the share of the manufacturing sector, FDI has been maintaining a very high share probably because of the high capital cost in the country.

(3) Number of enterprises

In the manufacturing sector, food processing, machinery and metal, and forest product processing industries account for a combined share of 62.4% of the total number of establishments. Within the three industries, SMEs represent 94.5% of total. They account for 92.6% of all manufacturing establishments. By region, five provinces??? in the north (Miranda, Carabobo, the federal state, Lara and Aragua) boast a combined share of 64%, while six departments (Guarico, Cojedes, Nueva Esparta, Apure, Amazonas and Delta Amacuro) have less than 1% each, with a combined total of 2.4%.

(4) Finance

Financial service for SMEs in the country has a number of problems. First of all, there is a large difference in interest rate (spread) between deposit and lending, indicating a high cost at banks. There is no commercial bank that extends long-term (over five years) loans, discouraging capital spending by the manufacturing industry.

There is a long-term loan program directed to the manufacturing sector, but it is not widely used because of various problems that impede the use. Lending rates, although declined recently, are still high, at an average 24% in 2000. They are much higher for SMEs, usually over 30% and 40% in some cases.

The line of credit allocated to SMEs is very limited, not to mention troublesome application procedures (burdensome documentation requirements) and the long examination and approval process. This is because commercial banks invest most of their assets (more than 80%) in government bonds and other low-risk securities, while only 3% of total assets go to SME loans. Also, 70% of loan disbursements are concentrated in the five industrialized provinces that are all located in the north-central area.

A public loan guarantee organization for SMEs, SOGAMPI, is not large enough to provide sufficient service. It should be expanded for better service, together with the establishment of FOPYME and RGF. In addition, the capital market should be developed. The existing securities exchange in Caracas does not function fully and cannot serve as a vehicle to promote venture capital.

(5) Taxation

There is no taxation system covering SMEs. The reimbursement system for IVA and import duties for export promotion is improving by speeding up the procedures. Local tax incentives should preferably be offered to promote local industrialization. At present local taxes vary in type and rate among provinces and municipalities.

1.10.3 Industry Profiles

(1) Production trend by sector

In terms of GDP share in 1999, the oil sector surpassed the non-oil industry and recorded the second largest share next to the service sector. In 2000, the service sector accounted for 44% of GDP, the oil industry 28% and the non-oil industry 27%. During the past five years, the annual average growth rate of GDP was the oil industry 2.84%, agriculture 1.0%, and service 0.06%, whereas the manufacturing industry -2.57%. The non-oil sector recorded negative growth of 1.34% to indicate the continued tendency to increase presence of the oil sector. In the non-oil sector, food processing, information, forestry and fishery industries have been steadily growing.

Chapter 2

Promotion Policy for Small- and Medium-sized Enterprises

Chapter 2 Promotion Policy for Small- and Medium-sized Enterprises

2.1 Major Issues Related to SME Promotion

(1) Results of the interview survey

Major “problems” related to SME promotion were generalized in terms of business environment by extracting and assorting approximately 500 opinions and comments recorded in the series of the interview surveys (around 60 times) covering government agencies and related organizations involved in SME promotion, and other public and private organizations in various areas.

The results of keyword-based classification indicate that large portions of respondents viewed policy/public administration, finance, industrial structure, education and training, infrastructure, and raw materials as problems. On the other hand, there are several areas, including the environment and standardization, that were less recognized as problems.

(2) Results of the questionnaire survey

In addition, major problems identified by individual companies were generalized from the results of the questionnaire survey conducted for SMEs in the three manufacturing sectors subject to the target subsector study.

The results of the questionnaire survey indicates that the areas cited frequently as problems are taxation and customs clearance (in particular, the delay in IVA refunding), lack of government support, the shortage of training organizations, high raw material prices, and employment and labor relations. On the other hand, the areas less cited are the lack of product’s marketability (0%), the lack of quality competitiveness (16%) and instable delivery of raw materials (20%).

In the automotive parts industry, major problems are the weakness in sales organization/lack of sales skills, taxation and customs clearance systems, lack of government support, the shortage of training organizations, low productivity, and high raw material prices. In the aluminum products industry, the lack of government support was cited as the most serious problem, followed by high raw material prices and the shortage of training organizations. As for the plastics products industry, high raw material prices were cited by all respondents, followed by taxation and customs clearance systems, government procedures and services, and employment and labor relations.

2.2 SME Promotion Policy Proposals

2.2.1 Basic targets

In overall consideration of a number of opinions and comments on the current economic and social conditions, the business environment surrounding SMEs, and promotion of SMEs, as obtained from various surveys, strategic targets expected to be effective in SME promotion in the country are established as follows.

- a. Escape from petroleum-dependent economy
- b. Renovation of industrial structure
- c. Improvement of income distribution and break-up of social anxiety
- d. Promotion of regional development and regional dispersion of economy
- e. Activation of economy through promotion of investment and expansion of employment
- f. Strengthening of environmental preservation
- g. Development of sustainable fields of industry

2.2.2 SME fostering principles

We hold up the following fostering principles prior to fostering and development of SME's, small-to-medium-sized manufacturing enterprises in particular, for achieving the basic strategic targets indicated above.

(1) Strengthening of constitutional predisposition of existing enterprises and supporting of enterprises of strong constitutional predisposition

It is necessary to formulate policies in the future with the principle to selectively support "enterprises of strong constitutional predisposition" and "enterprises having latent powers" among existing SME's. That is, the policy to give aid to the weak enterprises having no ability for expansion or latent powers will obstruct growth of the entire SME's and such efforts will not be rewarded.

(2) Promotion of creation of new enterprises

It is logical to expect the dynamic growth potential of new types of industries that can adapt themselves to the changing business environment. In this connection, government policy should focus on promotion of new industries under a new vision for industrialization and business development, including the development of local resources and their new applications, and technology and product development.

(3) Development and fostering of regional SME's

The regional development policy should not be a part of "population dispersing policy". It should be implemented as a policy that is substantially based on the economical rationality to the end. That is, it is fundamental to uprear local industries having substantial competitive strength in various regions of the nation. How to develop regional resources having economical competitive strength and make economically effective use of them is the key factor. It is necessary for the government to execute formation of the infrastructure that promotes private investment while suitably implementing public investment (infrastructure investment) that is effective for research and development of regional resources as well as for creation of economy. Fields of high feasibility as regional light industries are farm commodities processing, livestock farming and dairy husbandry, forest commodities processing, marine commodities processing, textile industry, tourism and others.

(4) Elimination of investment without probability (wasteless investment)

There were cases in the past where creation of industrial complexes failed due to the layout plan in which policy philosophy took a lead. For implementation of projects and also for eliminating such wasteful investment, sufficient study and prudent planning of resources distribution are wanted. It is desirable that planning is implemented as centered on investment plans lead by private sectors if possible. Thus, development of projects led by investment in infrastructure requires prudent examination.

(5) Supporting of development of key categories of business and of key regions

Also from the viewpoint of distribution of limited resources, it is necessary to promote centralized development upon determination of fields and regions to be strategically developed and fields and regions having large possibilities such as the following: industries of relative superiority for Venezuela, fields having superiority in the holding technology, fields of potentiality with domestic resources, fields of products that suit target markets, categories of business effective for development of domestic economy and regions to be developed as strategic bases.

(6) Strengthening of environmental considerations

The principle to minimize environmental disruption that accompanies industrial development should be adopted. Since most of the fields of small-to-medium-sized manufacturing enterprises in Venezuela were not subject to the environment control in

the past, strictness is not observed in the attitude of enterprises against environmental preservation. To aim at sustainable growth of sound industries in the future, it is necessary for government agencies to provide guidance for pollution control under stern restricting conditions. Furthermore, it is necessary to take supporting measures such as burden reducing measures (low interest credit, subsidies, etc.) and cooperation by public projects, with the fact that investment for the pollution control equipment is a large cost accounting burden for SME's taken into account.

2.2.3 Proposal of principal policies and policy structure

Principal policies reviewed on the basis of the survey results are adjusted according to priority and are structured as follows. It should be noted that the policies proposed below are “essential policies” for SME promotion in the country, regardless of the order of implementation and other factors. The policy structure is shown in Fig.2.2-1.

(1) Strengthening of the management base

The policies important for strengthening enterprise's constitutional predisposition are as follows.

1) Smoothing of fund supply

A. Financial policies

- a. Long-term fund loan system:
Improvement and expansion of existing system
- b. Short-term fund loan system:
Improvement and expansion of existing system
- c. Debt guarantee system:
Improvement and expansion of existing system

B. Special taxation system

Application of the special taxation system is an incentive that reflects the course of the government with an emphasis in fostering SME's, and its effective implementation is needed.

- a. Special taxation system for key regions:
Applicable to special economic zones, depopulated zones, 3-axis project object areas, etc..
- b. Special taxation system for encouraged categories of business:

Categories of business such as strategic new enterprises, as centered on key sectors included in the government's economy plan, to be specified using the development effect as the criteria at each occasion.

c. Special taxation system for investment for research and development:

This special taxation system to be established with the objective to promote investment in technological development is applicable to research and development of regional products and testing for commercialization.

d. Tax deduction and special depreciation system:

Applicable to investment for research and development and investment in pollution control equipment, besides existing export promoting tax deduction (drawback), refund of IVA, etc.

2) Strengthening of managerial resources

A. Management and technology support

a. Consultation at window:

This window is for consultation related to all problems such as management, technology, sales, labor affairs and legal affairs of SME's. It is opened as a place of one-stop-service function that provides advice making use of INAPYMI information network, INAPYMI headquarter function, etc.

b. Consulting system:

To institutionalize equal conditions in the whole nation by generalization of functions of various existing management consulting and supporting mechanisms (such as PAIPYME and SEDEC-PTG programs).

c. Consultant qualification approval system: To institutionalize approval by qualification test for standardization of consultant qualification and for enhancing the level of consultants.

B. Human resources fostering

a. Enterpriser and executive officer training system:

System for education and training of administration technology and management technology (INAPYMI senior worker training mechanism)

b. Technical worker training system:

To expand and improve existing INSE training centers.

C. Computerization support

a. INAPYMI information network system:

To construct a system that provides, in a nationwide network, broad information related to SME's and to freely make such information available to SME's without PC's at INAPYMI regional support centers.

b. Computerization support for SME's:

Support for promotion of computerization of SME's.

D. Penetration of patent system

a. Penetration of patent acquisition and support of acquisition:

Support at industrial property consultation windows (SPIC). (See 2.3.1.4 (4).)
INAPYMI regional support centers also provide this service.

b. Promotion of use of patented technologies:

Disclosure of developed technologies, promotion of their use and provision of patent information by public research institutions.

E. Environmental measures

a. Promotion and guidance of environmental measures:

Strengthening of auditing of environment of SME's and guidance for improvement.

b. Promotion of investment on environment:

Special measures (special loan, taxation system) for promotion of investment on environment.

3) Exchange, liaison and association

A. Association

a. Promotion of exchange among enterprises:

Promotion of exchange among enterprises of the same category of business and also of different category of business (implemented as an event operation of INAPYMI).

b. Support of promotion of union formation:

Guidance for union formation, financing for enhancing the level, etc.

c. Support for activation of integration of industries:

Support for activation of industrial complexes, construction of relevant infrastructure, promotion of cluster formation, etc.

B. Optimization of trading

a. Elimination of unfair trading:

Guidance for prevention of unfair trading, guidance for optimization of subcontracting conditions, etc.

4) Consolidation of market distribution

A. Increase of efficiency of physical distribution

a. Support of activation of wholesale business:

Promotion and guidance for development of wholesaler (trading house) functions.

b. Promotion of increase of efficiency of physical distribution system:

Reduction of physical distribution costs, research and development and infrastructure construction

(2) Promotion of initiation of business

1) Creation of strategic enterprises

A. Research and development

a. Promotion of use of public research and development institutions:

Use of public research and development institutions such as IVIC, colleges and technological parks (free use of facilities, joint development, entrusted studies, etc.)

b. Research and development expenses aiding system:

Application of special loan, special taxation system, subsidy, etc.

c. Support of acquisition of patents: (See 2) D above.)

d. Support of industrialization:

Advice for use of government venture capitals and for industrialization.

2) Promotion of initiation of business

A. Creation of new enterprises

a. Promotion of incubation:

Expansion of incubators appended to technological parks to the whole nation.

b. Industrialization support program: Antonio Jose de Sucre program, etc.

B. Support and advice for business initiating proceedings

a. Consultation at window and provision of information:

Available at INAPYMI regional support centers.

C. Education and training

- a. Administrator and manager training: INAPYMI senior worker training system.
(See 2) B above.)

D. Support of research and development

- a. Support of industrialization, commercialization, study and research:
Support of development by new enterprises ... Special loan, VC, special taxation system, subsidy, etc.

E Implementation of events

- a. Planning of various exchange meetings:
Venture business exchange meeting, different categories of business exchange meeting, etc. (event operation of INAPYMI)
- b. Holding of fairs:
New products fair, new technology fair, international trade fair, etc. (event operation of INAPYMI)
- c. Holding of seminars:
Various management and technology seminars (event operation of INAPYMI)

(3) Other measures

1) Promotion of regional SME's

A. Determining key strategic areas

- a. Deployment of INAPYMI regional support centers with priority:
Priority is given to determination of support centers in special economic zones (8 zones). Consolidation of information functions and appointment of regional industry experts.
- b. Strategy of development of key fields in the region:
Consolidation of business initiation promoting system, consolidation of information, input of human resources, application of key region special incentive, etc.

2) Promotion of export

A. Development of export products and establishment of production system

- a. Reactivation of industrial complexes and promotion of development of regional specialized products:

Conformity with key development strategy in MPD regional development policy, implementation of Antonio Jose de Sucre program.

B. Development of export markets

- a. Development of export markets in key regions (CAN, Caribe, Middle America): Study and research of regional markets and construction of the export infrastructure.

C. Consolidation of export infrastructure

- a. Establishment of VENEXPO:

Acquisition of export market information, market research. (See 2.3.1.8.)

3) Consolidation of administrative organization and system

A. Human resources fostering system

- a. Fostering the staff to be in charge of SME administration:
Use of INAPYMI senior worker training system.

B. Study and research

- a. Study and research of SME measures: Study of policies by SME Bureau of MPC.
- b. Creation of SME white paper: Analysis of current situations of SME's

4) Formulation of special measures

A. Determining promotion measures by category of business

- a. Promoting measures for recommended category of business:
Planning of individual policies.

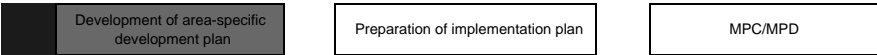
B. Formulation of special economic zone development strategy

- a. Study of development strategy by zone:
Research and development of regional products and their relevant industrial products.
- b. Creation of development plan by zone:
Creation of regional development implementation plan.

FIGURE 2.2-1 STRUCTURE OF SME PROMOTION POLICIES AND PROGRAMS

	Basic Strategy	Program design policy	Basic Programs	Programs and institutions	Remarks	Implementation body		
I	Reinforcement of corporate base	Improvement of financial access	Directed finance	Investment finance program	Long-term loans	FONCREI, BANDES		
				Working capital finance program	Short-term loans	Commercial banks, credit guarantee organizations		
				Credit guarantee program	Credit guarantee	SOGAMPI, RGF		
			Special taxation	Tax incentives for specific areas, industries, and R&D, special deduction, and special depreciation		MPC/MF/SIEX		
		Upgrading of management resources			Management, technology and sales support	Consultation at INAPYMI Local Support Center	Management/technology consultation (one stop service)	INAPYMI
						Consultant service system	Subsidy	MPC/INAPYMI
			Consultant certification scheme	Consultant registration program		MPC		
		Human resource development	Entrepreneur/manager training program	INAPYMI Manager Training Program	INAPYMI			
				Skilled worker training program	INSE Training Center	INSE		
		Support for computerization	INAPYMI Information Network System (Information Service)	Database, information service on government policy, technology and product, finance, VC, event, market, and Q&A	INAPYMI			
				Support for SME computerization		MPC/MCT/INAPYMI		
		Promotion of the patent protection system	Promotion of patent application and support	SPIC Consultation Desk	SPIC/MPC			
				Dissemination of patent information, publication of patent portfolio held by public organizations	SPIC/MPC			
		Environmental protection measures	Promotion and guidance for environmental measures	Technical guidance for environment protection	Ministry of Environment and Natural Resources			
				Promotion of environmental protection investment	Special loan program for environmental protection investment	MF/MENR		
		Interaction, alliance, collective operation	Promotion of collective operation	Promotion of interaction among enterprises	INAPYMI event program	INAPYMI		
					Support for formation of cooperative	Guidance for cooperative formation and loan program	MPC/MF	
					Support for revitalization of	Plan for revitalization of industrial estates, infrastructure development, guidance for clustering promotion	MPC/MCT/MINFRA	
		Development of Market and Distribution Systems	Streamlining of physical distribution	Elimination of unfair trade	Prevention of unfair trade, normalization of subcontracting conditions	MPC		
					Support for revitalization of wholesales industry	Tax incentive, loan and guidance	MPC, MF, SIEX	
					Promotion of streamlining of physical distribution	R&D, infrastructure development, loan	MPC/MINFRA/MF	
II	Promotion of entrepreneurship	Creation of Strategic Enterprises	R&D	Promotion of use of public	IVIC, MCT/EC, universities, technoparks (promotion of commissioned research)	IVIC, MCT/EC, universities, and technoparks		
				R&D investment subsidy program	Special loan, tax incentive,	MF/MPC		
				Support for patent application	SPIC consultation desk	INAPYMI/SPIC		
				Support for commercialization	Venture capital investment	FONCREI		
		Promotion of entrepreneurship	Creation of new ventures	Promotion of incubation	Reinforcement of technoparks and incubators	MPC		
				Entrepreneur support program	Antonio Jose de Sucre Program	MPC, FONCREI, SOGAMPI		
			Support and advice for incorporation	IND consultation & information service (one stop service)	INAPYMI local support center	INAPYMI		
				Manager education	INAPYMI manager training program	INAPYMI		
				Support for business startup, commercialization, R&D	Loan, tax incentive, subsidy	MF/SIEX/MPC		
				Planning of entrepreneur meeting (creation of opportunity)	Interactive meeting for new ventures	INAPYMI		
					Interactive meeting for entrepreneurs in different businesses	INAPYMI		
				Sponsoring of technology/idea exchange forums	New product and technology fairs	INAPYMI		
				Sponsoring of seminars on technology and other knowledge	Management and technology seminars	INAPYMI		
		Other Programs	Promotion of local SMEs	Development of strategic areas	Priority deployment of INAPYMI support centers	Installation of information systems and assignment of local and industrial experts	INAPYMI	
					Development strategy for local priority industries	Entrepreneur promotion system, information service, assignment of human resources, and application of local incentive policy	INAPYMI	
			Export promotion	Development of export products and establishment of the production system	Revitalization of industrial estates, and promotion of development of local specialty products	Antonio Jose de Scuré program, MPD regional development plan	MPC/INAPYMI	
					Development of export markets	Market study, development of export infrastructure	BANCOEX/MPC	
					Development of infrastructure for external trade	Establishment of VENEXPO	Export market information and market study capabilities	BANCOEX/MPC
			Development of the administrative organization and system	Human resource development program	Education of government staff in charge of SME promotion	INAPYMI manager training program	INAPYMI	
					Research and study	Research and study on SME policy	MPC SME Development and Policy Planning Departments	MPC
				Publication of white paper on SME			MPC	
Development of special measures	Development of promotional measures by industry		Industry-specific promotional measures	Planning of operational policies	MPC			
				Establishment of development strategy for special economic zones	Research on area-specific development strategy	Product development and development of related industries	MPC/MPD	

Source: JICA Study Team



2.2.4 Policy implementation structure and action plan

2.2.4.1 Points to be kept in mind in implementation of policies

It is necessary to keep in mind the points indicated below and careful preparations prior to implementation of policies.

(1) Conformity with upper level plans

Importance should be attached to the conformity with "Economic Development Plan", which is currently promoted as a national project, National Regional Development Plan and its relevant plans in particular. These upper level plans seize the concept of a region on geographic relation with peripheral areas having economical relation, and executes multi-aspect evaluation of potentiality of the region. Another important target of this regional development plan is "de-centralization". It indicates "reform of industrial structure of the region and activation of industries" as the strategic principle for achieving this target and sets development of the regional industry as the prime mover for promotion of de-centralization. SME development should also be promoted in line with these regional development plans.

(2) Construction of policy implementation structure

Success of SME promoting measures and their relevant programs is largely dependent on whether a good policy implementation structure is constructed or not. The major part of the currently assumed implementation structure consists of SME Promotion Bureau, as an organization in MPC, and its subordinate agency, INAPYMI which is an SME policy implementation agency. INAPYMI has local organizations (INAPYMI regional support centers) besides the central organization, and directly implements support activities for SME's. For effective policy implementation, it is critical to mobilize concerted efforts that are led by MPC's organization (MPC and INAPYMI) and are participated by other ministries having support capabilities (including the Ministry of Planning and Development, the Ministry of Finance, the Ministry of Science and Technology, the Ministry of Education, the Ministry of Environment and Natural Resources, and the Ministry of Infrastructure) and related organizations (government financial institutions, research and development organizations, universities, and vocational training organizations). To run the collaborative organization smoothly, a liaison committee should be organized by representatives of related ministries and discuss the issues related to policy implementation.

(3) Fostering administrative officers in-charge of policies

Education of policy in-charge administrative officers is needed as matched with construction of new administrative organizations for promotion of SME's. Particularly in the stage where INAPYMI is newly established and a number of staff members is needed, it is necessary to formulate an intensive fostering program.

(4) Composition of staff of INAPYMI regional support centers

For establishment of INAPYMI regional support centers, it is necessary to appoint the staff having a thorough knowledge of the region, because communication with SME's in the region is an important role and function. Also, it should be considered to recruit local government personnel in order to provide the series of "government permit/license" service related to incorporation and investment as one-stop service. Furthermore, as window consultants, who are most important staff members, those who are able to provide consultation and appropriate information with a background of thorough knowledge on management, technology, sales, etc. are needed.

There also is an idea to use UEMPC, which is a local organization of MPC, as a regional support center of INAPYMI. But, duplication of human resources should be avoided to the utmost (although joint use of an office is admissible), so as to avoid complication of INAPYMI's independent organization structure, managing principle, chain of command, etc.

(5) Cooperation structure and development efforts of local governments and self-governing bodies

The regional development plan is created and development is implemented with a focus on development of regional products, under the proposition of de-centralization. Thus, success of regional development also depends much on the level of cooperation by local governments including municipalities. Local government will also benefit from successful development in its own jurisdiction and should make efforts to support the project by improving the investment climate, such as tax incentives, support programs and the development of industrial infrastructure, while extending cooperation to INAPYMI's support activities and using INAPYMI's power.

(6) Equal opportunity by deployment in the whole nation

SME's can be developed in any region in the nation including a depopulated region. Support of development of SME's by the government should also be deployed in the whole nation, aiming at provision of equal opportunity to the people. It will be necessary, however, to make adjustments for the scale and contents of the support system in correspondence to the latent development powers and characteristics of each region.

2.2.4.2 Implementation plan (action plan)

We propose the action plan for promotion of SME's in Venezuela as follows.

(1) Short-term plans

1) Consolidation of structure

Consolidation of implementation structure is required prior to implementation of SME promoting policies, and the following matters should be taken care of first.

A. Consolidation of laws

SME Promotion Act is being prepared aiming at establishment in coming November, and its draft specifies establishment of INAPYMI as an agency for implementation of SME measures. It is therefore considered that no special law is required for establishment of INAPYMI, and there is no necessity for further consolidation of laws in the immediate future.

B. Consolidation of organizations

a. SME Bureau of MPC

First of all, it is necessary to newly establish "SME Bureau" in MPC. This bureau is to have such duties as formulation of SME policies, creation of laws, investigation of types of operation of SME's, SME policy publicizing activities, promotion of liaison with other relevant government agencies and coordination with them, and guidance and support for conduct of INAPYMI. Regarding the scale of the organization, however, it is better to establish such a principle as to start with necessary functions and necessary personnel at hand only and to make a gradual expansion in the future.

b. INAPYMI headquarters (Caracas)

The functions required of INAPYMI are of a broad range (see 2.3.1.6). But it is better to limit the organization in the initial stage to workable functions only and to

expand the organization along with consolidation of the structure. Consolidation of support functions, however, should be started beginning with those of higher necessity as matched with needs of SME's.

c. INAPYMI regional support centers

INAPYMI regional support centers are to be located in all the provinces as a rule, and additional establishment at strategic bases should also be considered as required. In the initial stage, however, locations should be selected with a focus on the key locations, followed by establishment of those in local regions. Thus, it is desirable to establish support centers in eight "special economic zones", which are key development areas of the regional development plan at the beginning.

C. Construction of cooperating relation with relevant supporting institutions

Based on the precondition that INAPYMI becomes the window in the future to implement support activities in response to the requests from SME's, it is necessary to request for cooperation to relevant government agencies, local governments and self-governing bodies of areas where INAPYMI regional support centers are located and to other institutions. It is also necessary to individually make mutual confirmation of the procedure for implementation of cooperation with each one of these institutions.

D. Education of in-charge administrative officers

It is necessary to urgently educate staff members of new organization (SME Bureau) in MPC and of INAPYMI headquarters and regional support centers to be newly established. INAPYMI itself will set up "senior worker training system" and conduct training of business administrators and executive officers in the future. As the need for fostering administrative officers is pressing, it is necessary to ask for cooperation of appropriate experts (college professors, senior consultants, etc.) and to have administrative officers acquire education and training related to general fundamental education related to SME's, SME relevant laws, administrative proceedings related to initiation of business, fundamentals of business administration (management, finance, accounting, personnel, production, sales, etc.), information managing technology, etc. within a short period of time.

2) Consolidation of support functions

It is hard to fully hold planned functions from the initial stage, and a certain length of time is required for repletion of functions. It is therefore more practical to use

existing functions at the beginning and to improve these functions through implementation. The following methods can be considered, for example:

Management consultation:

Use of existing consultants for window consultation on business management at regional support centers of INAPYMI

Business diagnosis:

Rebirth of diagnosis mechanism (subsidy) by improvement of PAIPYME

Financial support:

Use of FONCREI, SOGAMPI by improvement of mechanisms and advertising of new system

Business initiation support:

Continuation of Antonio Jose de Sucre program

Information provision:

Provisional use of MCT's information network and joint development of national network (INAPYMI information network)

Incubator:

Expansion of existing facilities (appended to technological parks) and establishment of new facilities (special economic zones)

Investment support:

Operation of venture capital (FONCREI)

Research and development:

Acceptance of entrusted research, product development, analysis and testing, etc. by the use of functions of colleges and technological parks

Human resource fostering:

Use of technology training (INSE) and executive officer training (IESA)

Enterprise liaison:

Joint study of model clusters of MCT development and promotion of evolution to the whole nation

Since publicity activities for these existing functions were not sufficient before, they will be broadly advertised through the information network and regional support centers. Furthermore, it is necessary that requests for support from SME's are entirely accepted at regional support centers and these centers provide guidance and support to SME's regarding proceedings that are applicable to their requests.

3) Construction of information network system

Principal functions of each regional support center in the initial stage are window consultation and information provision, and the bridge of the back support is INAPYMI headquarters, relevant government agencies, etc. Therefore, use of information network is indispensable for providing these services, and establishment of information network is an important subject in the initial stage. Regional support centers will be established at around ten places (including special economic zones) in the immediate future. But it is necessary to construct a usable setup as early as possible, with cooperation of MCT acquired for construction of the network system that links regional support centers with INAPYMI headquarters. Furthermore, planning should be made so that contents of information that can be consolidated in a relatively short period of time are prepared in the immediate future and to gradually expand them along with expansion of the network system to the whole nation. It is assumed that the web site (pilot project) of the venture capital will become accessible in the early stage.

4) Development of priority policies

Critical policies for SME promotion should be developed to facilitate their early implementation. In particular, implementation plans should be developed for the following policies in order to ensure timely implementation.

A. Reforming and expansion of the financial system

a. Implementation bodies

- Long-term loan: FONCREI, BANDES
- Short-term loan: RDF and commercial banks
- Credit and guarantee: SOGAMPI, RGF, FONPYME
- Venture capital: FONCREI
- Trade finance: BANCOEX

b. Field guidance/assistance: INAPYMI Financial Assistance Department, Local Support Center

c. Program outline

- Reduction of interest rates (low-interest loan)
- Expansion of credit lines
- Development and expansion of the guarantee program for long-term loans

- Simplification of loan service (reduction of the examination period)
- Dissemination of financial market information
- Establishment of special credit lines (R&D, business association, consulting service, etc.)

See 2.3.1.1 for detail.

B. Human resource development

- a. Implementation body: INAPYMI Education & Training Department “Senior Manager Education Program”
- b. Program outline
 - Training of government officers specialized in SME promotion policy
 - Training of entrepreneurs
 - Training of senior managers

C. Business startup promotion and support program

- a. Implementation body: INAPYMI Entrepreneur Support Department, local support center
- b. Implementation support: Universities, technoparks, public testing and research organizations, MCT, financial institutions (institutional lending), local governments, etc.
- c. Program outline
 - Promotion of nationwide allocation of incubators
 - Reviewing and continuation of the Antonio Jose de Sucre program
 - Consultation service by local support centers
 - Cooperation in improvement of investment climate
 - Provision of related information
 - Field guidance by experts
 - Promotion of R&D initiatives (product development, technology development, market development)
 - Planning and holding of events
 - Promotion of venture capital

See 2.3.1.3 for detail.

D. Functional enhancement of INAPYMI’s local support center

- a. Implementation body: INAPYMI headquarters, local support center

- b. Implementation support: MPC, MPD, MTC, MF, MINFR, Ministry of Environment, INE, SIEX, SENIAT, BANCOEX, FONCEI, BANDES, SOGAMPI, RDF, RGF, INSE, universities, technoparks, regional development corporations, local governments, etc.
- c. Program outline
 - Information desk/consultation service (approval, permit, application, finance, technology, management, patent, business startup, law, taxation, incentives, etc.)
 - Provision of information (technology information, financial information, investment information, market information, product information, policy information, statistical data, event information, registered consultants, corporate information, venture capital information, etc.)
 - Q&A service
 - Management guidance
 - Technology guidance
 - Business startup guidance
 - Collective operation guidance
 - Market development guidance
 - Regional development cooperation
 - Infrastructure development cooperation
 - Various events (forum for interchange of business enterprises in different industries, seminars, fairs, etc.)
 - Others (regional development study and research, etc.)

See 2.3.1.6 and 2.3.2.1 for detail.

E. R&D support

- a. Implementation body (cooperation) : INAPYMI Technical Cooperation Department
- b. Implementation assistance: Universities, technoparks, public testing and research organizations, MCT, national enterprises in basic industries
- c. Program outline
 - Cooperation in product development
 - Cooperation in technology development
 - Cooperation in promotion of patent application
 - Publication of developed technology
 - Promotion of cooperation in technology and product development by upstream industries

- Provision of product and technology information

See 2.3.1.4 for detail.

F. Building of information system and support for development of IT-based business process

- Implementation body: INAPYMI Information Service Department, local support center
- Implementation support: Universities, technoparks, consultants, MCT, INE, BANCOEX, Ministry of Finance, etc.

c. Program outline

- MPC's web site
- Development of related databases
- Provision of management information
- Provision of overseas information
- Venture capital information
- Q&A network dialogues
- Event information
- Others

See 2.3.2.1 for detail.

G. Special taxation measures

- Implementation body: Ministry of Finance, SENIAT
- Program outline
 - Taxation on SMEs (reduction of income and business asset tax rates)
 - Special taxation on startup companies
 - Special taxation on equipment modernization
 - Tax incentives on R&D expenses
 - Special taxation on pollution control-related investment
 - Tax incentives on promotion of tax payment by microenterprises and small enterprises
 - Special taxation on priority industries
 - Special taxation on priority areas

See 2.3.2.1 for detail.

The procedure for promotion of short-term plans is shown in Figure 2.2-2.

(2) Medium- and long-term plans

Sequential implementation of policies enumerated in section 2.2.3 above and review of policies implemented in short-term plans are needed for medium- and long-term plans. The principal items are as follows.

1) Improvement and strengthening of financing mechanism

It is anticipated that the demand for investment increases and supply of abundant funds under appropriate loan conditions becomes necessary in accordance with progress of economical development. Measures such as strengthening of human capacity of loan institutions, expansion of fund supply volume including introduction of low-interest funds, strengthening of supporting power of guarantee institutions and increase of efficiency of loan affairs will become necessary because of this reason.

2) Construction of information system and support of computerization

Information providing service will be improved to a system that promptly deals with needs of SME's with the new age, its contents will be replete, and more efficient and more appropriate servicing activities will become feasible by the use of the database accumulated through servicing activities. Furthermore, it is considered that "electronic government" function will become common in the near future and all of the government proceedings through regional support centers will become feasible with this "electronic government" function. Therefore, consolidation of information at INAPYMI headquarters will become an extremely important function and the information system will become a key means for supporting SME's. Therefore, management and repeated improvement of the information system are gists of medium- and long-term strategy toward the future.

IT innovation at SME's in Venezuela has not yet made progress, but IT innovation will supposedly make progress in the aspects of business administration and production activities, together with expansion of the software industry in the future (see 3.4). Increase of efficiency of production and strengthening of competitive strength by the use of IT are indispensable factors for growth of SME's in the future. The government, therefore, is required to strengthen support for promotion of IT innovation of SME's. Support of IT innovation of SME's in local regions in particular is essential for promotion of efficient development of regional products, and it is an indispensable factor also for introduction of advanced technology.

3) Establishment of consultant qualification certification system

Transiently, the current mechanism and consultants fostered up to the present time are used. In the medium and long run, however, the system of certifying the qualification of consultants as "national qualification" should be established, for promising homogeneous consulting service based constantly on advanced knowledge to accepting enterprises. For establishment of qualification certification system, provisional measures and transition plan such as use of existing consultants during the transition period and opening of the road toward acquisition of qualification should be fully examined.

4) Consolidation of research and development system

Sustainable upgrading of production in farming and cattle breeding, forestry, fishery, etc. is basically required for achieving the basic targets of development and industrialization of local products in all the regions of Venezuela according to the principle of the regional development plan. That is, technological development such as breed improvement, improvement of input materials and improvement of measures of production (mechanization, etc.) is a pre-condition for promoting efficient production of these products. Furthermore, development of processing technology and product development for commercialization are required for industrial development using these materials as raw materials. It is necessary that these series of developments are conducted continuously at research institutions having sufficient facilities, and participation of public research and development institutions is indispensable. In other words, it is necessary that research themes are shared among regional colleges and their ancillary research institutions and central research institutions and that convenience of use of developed technologies by SME's is provided.

5) Promotion of business initiation

The ultimate objective of promotion of SME's lies in promotion of initiation of many strategic SME's with strong constitutional predisposition. Among policies related to promotion of business initiation, the following can be raised as medium- and long-term plans.

- a. Establishment of incubators in the whole nation
- b. Continuous implementation of Antonio Jose de Sucre program
- c. Improvement of investment environment (infrastructure, industrial utilities, finance and taxation system, information system)
- d. Promotion of research and development

- e. Holding of various events
- f. Penetration of venture capitals

The measures that correspond to each item of principal policies indicated in 2.2.3 should be continuously promoted in accordance with the business environment and needs at each point.

FIGURE 2.2-2 SHORT-TERM ACTION PROGRAM FOR SME PROMOTION PLAN

Activities	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
I. Legislation																		
Enactment of SME Promotion Law																		
II. Organizational development																		
Organization of MPC SME Bureau																		
Organization of INAPYMI headquarters																		
Organization of INAPYMI local support center																		
Model districts																		
Economic special districts																		
State capitals																		
Education of government staff																		
III. Building of Collaborative Relations with Related Support Organizations																		
Ministry of Science and Technology																		
Installation of information system																		
Engineering center																		
Model cluster																		
IVIC, other research organizations																		
Ministry of Finance																		
Government financial institutions																		
Guarantee organizations																		
SENIAT																		
Ministry of Planning and Development																		
Regional development corporations																		
Ministry of Education																		
Universities and technoparks																		
INSE																		
Ministry of Environment																		
Environmental audit and guidance																		
Vice President Office																		
State governments and municipalities																		
IV. Development of Support Functions																		
Management consultation desk																		
Assignment of full-time staff																		
Formation of back support organizations																		
Implementation of the new PAIPYME program																		
Institutional improvement and implementation																		
Financial system																		
Institutional improvement and implementation																		
Entrepreneur support (Antonio Jose de Sucre program)																		
Modification and implementation																		
Incubator reinforcement plan and implementation																		
Information support																		
Building of preliminary information networks																		
Building of nationwide information networks																		
Collection and incorporation of data and information																		
R&D																		
Selection of research topics and joint development																		
Development of the system to promote commissioning to private enterprises																		
Human resource development																		
Development of the manager training program																		
Promotion of collective operation																		
Joint development of model cluster (MCT)																		

Source: JICA Study Team

2.3 Particulars on the Main Policies, Systems and Measures

2.3.1 Main Policies

2.3.1.1 Tasks and Measures for Coping With the Situation in Smaller Business Financing

(1) Promotion of institutional lending

To promote the public loan program nationwide, the local chamber of commerce and industry should be used as a key facility to distribute information and accept loan application. At the same time, nature and content of the program should be explained to loan staff of commercial banks that actually extend the loan.

(2) Expansion of the loan program

While FONCREI and SOGAMPI are moving to increase the source funds by increasing capital, it is important to add staff for the purpose of expanding the program.

(3) RDF and RGF

In relation to the establishment of RDF and RGF, it is recommended to develop operation standards that reflect local conditions (operation method, funds, evaluation method, etc.) and a human resource development program, while building a backup system to establish the good relationship with local banks and ensure efficient interaction, e.g., the central government pays the difference between the collection cost and the loan guarantee fee.

(4) High interest rates

The current interest rates are excessively high compared to the inflation rate. They are particularly high for SME loans. It is very difficult for most companies to make profits to compensate for the high interest rate. The high interest rates seem to be caused by large issuance of government bonds (crowding out) and high banking costs. It is therefore proposed to lower the interest rates on SME loans by reducing a lending risk through SOGAMPI's loan guarantee program.

(5) Increase of loanable funds

At present, loanable funds are squeezed by purchase of government bonds by commercial banks. They should be increased by expanding loans from government financial institutions and supplying public funds to the institutional lending program of local government.

(6) Long-term loans

At present, a limited number of government financial institutions, such as FONCREI, can provide long-term loans for SMEs. Also, commercial banks which execute loans are required to assume all risks and are therefore reluctant to long-term loans for SMEs. To increase long-term loans, it is proposed to: (a) develop a loan program in combination with guarantee service to reduce the risk for the commercial bank and lower the interest rate; and (b) promote the leasing and hire purchase of machinery and equipment and establish an insurance program to cover the risk for equipment leasing or hire purchase.

(7) Streamlining examination of loan application

At present, examination of loan application takes a long period of time due to a variety of causes, including diversity of required documents, the lack of examination skills, the lack of information, and the collateral requirements. Efforts should be taken to resolve these causes, including training of loan examiners, use of information networks, advisory for rational simplification of documentations, production of document preparation manuals, and support by INAPYMI local support centers.

(8) Recommendations for public financial institutions

1) Loan and credit

At present, loan demand is sluggish due to the economic slump. It is time to improve the public loan and credit schemes so that they will be able to meet increasing demand in the future. In particular, it is important to establish a system that can develop the good relationship between users and financial institutions, while enhancing the public loan guarantee program. Thus, as public financial institutions plan to expand their loan programs, their efforts should be supported by equivalent growth of loan guarantee organizations.

Immediate measures should include the recruitment of commercial banks that use the new RGF guarantee program and FONCREI's program, and the improvement of service quality of public financial institutions.

Intermediate measures should consist of: (a) organization of the federation of public financial institutions after RDF and RGD have been established, and joint development and operation of loan information networks and program management systems; and (b) development of a SME support program to back up borrowers.

2) Venture capital

Venture capital (a pilot project is currently implemented) is expected to become an important vehicle for strategic investment in prospective industries and technologies. In the initial stage, FONCREI will take leadership and accumulate know-how, which will be transferred to the private venture capital industry in the future. The Web site will be initiated for nationwide deployment.

2.3.1.2 Tax System

Major problems related to taxation, as cited by SMEs, are : (a) the business asset tax; (b) the delay in drawback and IVA refunding; and (c) high municipal taxes. The business asset tax is heavier on the manufacturing industry than the service industry due to the difference in ownership of tangible equipment, creating unfair tax burdens. The tax refund system is being improved. In addition, efforts should be made to improve public confidence by disclosing the actual progress of tax refund. Finally, a survey should be conducted to examine the current state of municipality taxes and its results should be revealed, together with assessment of financial impacts on SMEs, so that local government can understand the impacts of local tax on industrial development.

At the same time, efforts should be made to urge tax payment by SMEs. This can be accomplished by providing public support for SMEs that pay tax.

In Japan, the taxation system for SMEs includes reduction of corporate business tax rates (municipal tax) as well as reduction of the corporate income tax. Also, special deduction is allowed for equipment investment to promote modernization of SMEs, together with accelerated depreciation and partial deduction of R&D expenses.

The following preferential treatment measures are proposed in view of the above:

- a. Reduced income tax and business assets tax rates for smaller businesses
- b. Special tax systems that reduce the tax burdens of businesses just getting started^{*} and individual proprietors
- c. Preferential treatment measures regarding plant and equipment outlays for modernization of smaller businesses and their research and development expenses (e.g. exemption from VAT, special depreciation and partial income tax deductions)
- d. Tax exemption measures and tax deductions to encourage procurement of equipment for prevention of pollution

^{*} There is exemption period from business asset tax for an entrepreneur. (See 1.6.1 in the main report)

- e. Incentives to and encouragement of payment of taxes by small and very small businesses (e.g. guidance for correct bookkeeping and guidance for rationalization of operations through correct bookkeeping)

It is important that special tax systems be established for priority sectors or regions that the government is particularly interested in promoting instead of for smaller businesses in general. Therefore, it is important that the special tax system targets a specific sector/area that the government intends to promote with priority, rather than SMEs in general. While the central and local governments will select priority sectors and areas according to a set of criteria, they have to review the currently available incentives and modify them as required, including acceleration of their implementation. The study team has identified priority fields of development, which are described as follows.

- a. Agricultural product development and agricultural product processing industries
- b. Forestry product development and forestry product processing industries
- c. Fisheries development and processing industries
- d. Livestock raising and dairy farming
- e. The tourism industry
- f. Industries related to the above

2.3.1.3 Support to Smaller Businesses That are Getting Started

Present problems related to SME support are summarized as follows.

(1) Problems

Problems related to the Antonio Jose de Sucre (AJS) program are as follows.

1) Basic Strategy

The AJS program requires companies that receive support to operate in a designated industrial estate. However, it does not necessarily serve the best interest of each company nor the objective of entrepreneur support. It is recommended not to link regional development with promotion of entrepreneurship.

2) Perception of Entrepreneurs

How entrepreneurs are perceived and evaluated is a very important point. That is because of the big difference in foundation for existence between newly started businesses and existing smaller businesses. Unfortunately, the Venezuelan side is not sufficiently capable of seeing the difference.

3) Evaluation of Entrepreneurs

Evaluation of business proposals requires an appropriate evaluation method, experience and know-how. Evaluation, as it is conducted right now, is virtually loan examination on loans to existing enterprises with collateral, and fails to examine viability of a new business.

4) Support Mechanisms

The content of the entrepreneur support program is not in tune with the growth stage of entrepreneurs, in the final analysis there being only constriction of financing to occupancy of industrial parks and certain industrial regions or areas. The program has little capability of developing into a policy menu for promotion of smaller businesses, and it offers no mechanisms for fostering of emergence of one entrepreneur after another.

(2) Proposals

1) Reformulation of Basic Strategy

The economic revitalization program consists of the AJS program and the industrial estate rehabilitation program. The AJS program is primarily designed to create employment opportunities regularly and contribute to the national industrialization process. Nevertheless, it is difficult to promote business startups by implementing the program activities focusing on decentralization of economic activities, such as promoted relocation of businesses to industrially lagging areas, development of non-traditional industries in selected areas, and inducement of manufacturers to the existing industrial estates.

In other words, development of a new business that has the different business foundation, characteristics and behavior from those of existing SMEs should not be promoted from the viewpoint of the traditional industrial development strategy. A new strategy suitable for each business should be developed through careful consideration.

2) Building the support system according to the type of entrepreneur

Entrepreneurs can be roughly divided into university students (first-time entrepreneurs) and workers with some job experience. Each type of entrepreneur requires a different support program. First-time entrepreneurs require to learn new knowledge, technology and creativity. Universities can create an entrepreneur

education program that includes practical support using their incubators. For entrepreneurs who have work experience, seminars and symposiums should be held nationwide to find candidates for support.

3) INAPYMI's support system

INAPYMI local support centers provide the following support services.

- a. Walk-in advisory services by experts
- b. Sending of experts to companies
- c. Furnishing of information
- d. Training and instruction
- e. Research and development support, etc.

4) Introduction and use of incubators (technoparks)

There are five incubators in Venezuela, and several more under planning. The existing incubators are closely associated with universities and most of them are located within the university campus. However, they are limited in physical space and accommodate a small number of entrepreneurs. Naturally only a handful of companies have emerged from the incubators. In the future, it is important to use the incubators more effectively for entrepreneur support by following the examples show below.

TABLE 2.3-1 QUANTITATIVE CHARACTERISTICS OF INCUBATORS IN DIFFERENT COUNTRIES

	U.S.	U.K.	Finland	Japan	Republic of Korea	China	Australia
Number of bases (places)	850	90	54	200	135	110	79
Average number of occupant companies	20	19		20	14	16	
Number of companies fostered	6,458	1,710		1,500	1,902	5,293	
Number of companies that have graduated	19,000			800		1,934	
Average year of establishment	1991			1995	1999		1994
Average floor space (m ²)	4,073	2,044	1,042	1,994	1,712	17,163	1,167
Average staff strength (number of persons)	2.8	5.8	6	0.7			3.3

Source: Information furnished in speech by Mr. Ichiro Sakata of the Ministry of International Trade and Industry's Siting Policy Section and information published by the Development Techniques Society in November 2000.

a. Summary of Business Incubators

The National Business Incubator Association (NBIA) of the U.S. defines the business incubator as the “program to provide diverse business support services in an integrated way by combining internal staff and independent experts, for the purpose of assisting growth of startups with new ideas and technology seeds.” The incubator usually has its own facilities. The incubator without an incubation facility is called the virtual incubator or the cyber incubator.

b. Activities of the business incubator

The business incubator consists of hardware and software elements. Hardware includes physical infrastructure, such as low-cost office space, laboratory facility, meeting rooms and public floor (shared by all entrepreneurs), and information equipment. Software includes general consultation and support for entrepreneurs, basic business support, support for industry/university joint projects, support for fund raising, support for management guidance, support for access to lawyers, accounts, and venture capital, network support for related industries, and marketing support.

From the above list one can appreciate the variety of the business support services that are provided. Survey findings show that the standard services provided by more than 70% of the institutions are concentrated in the 8 items of Table 2.3-2 below.

TABLE 2.3-2 STANDARD SERVICES IN U.S. INCUBATORS

Listing of services	Provision of shared office space (%)
Percentage (%) of incubators that provide them	96
Basic business support	89
Market support	77
Accounting and financial management	77
Loan funds access support	86
VC and other networking	76
Linkage with higher research institutions	92
Provision of conference rooms	88

Source: Information furnished in speech by Mr. Ichiro Sakata of the Ministry of International Trade and Industry's Siting Policy Section and information published by the Development Techniques Society in November 2000.

c. Indispensable Conditions of Business Incubators

According to the findings of a survey carried out in the U.S. in 2000 by the Japan Conference of New Business Support Organizations (JANBO) the following 8 points can be cited as the indispensable conditions of business incubators:

- Assignment of capable incubations managers and staff and implementation of support programs
- Formation of diverse external resource networks for better order-made support functions
- Process for screening of occupants suitable for the character of the individual incubator
- Provision of good graduation screening and graduation support functions
- Promotion of exchanges and joint-use of facilities and services between occupants
- Formation of networks between companies that have graduated
- Building of win-win relationships with universities
- Securing understanding and cooperation with local municipalities, industry support organizations, funds, etc.

2.3.1.4 Research and Development

(1) The Present Situation Regarding Research and Development in Venezuela and the Tasks Faced Concerning It

The following is a description of the main institutions in Venezuela relating to industrial technology development and the present situation regarding their activities.

A. IVIC

Venezuela has only limited public industrial technology development facilities. Representative of them is the Venezuelan Institute of Scientific Research (Instituto Venezolano de Investigaciones Cientificas) (IVIC), organized under the Ministry of Science and Technology (MTC). Its facilities are the best among the country's public research and development institutions.

However, the facility does not conduct research projects for private enterprises, with a few exceptions. It is essentially an academic research institute conducting government-led basic research and is not involved in technology or product development on a commercial basis.

B. Tecnoparks Attached to Universities

Parque Tecnológico Sartenejas (PTS) is annexed to Simon Bolívar University in Caracas and a leading technopark in the country. It contains high-tech companies, research facilities, a high tech skills training center, offices, support service (including incubators), and commercial facilities.

That facility has a system for cooperation with private companies, which means that it is possible for it to work on practical research and development, but access to it by private companies is somewhat problematic because of its location next to the university campus in the hills away from where companies are concentrated. Public R&D facilities of this type in the country are very limited in number and small in scale. Each technopark is willing to provide service for the private sector but is not ready to do so in terms of resources. On the other hand, their presence and information on their service are not communicated well to the private sector. In addition to the technoparks under USB, there are several technoparks attached to local universities.

C. MCT Engineering Center

Within the PTS premise, there is an engineering center (under supervision of MCT), which provides technical assistance for private enterprises in the area of development of metalworking products by performing CAD/CAM design and making wood patterns and prototypes (dies) using machine tools. The center is expanding its facility under MPC's budget and plans to start a training course for machinery design in October 2001 as part of MPC's Metal Mechanica project. The course will teach to university graduates and company workers the design techniques on farming machinery. The center lacks expertise in advanced die making technology and wishes technology transfer from Japan.

D. Developed Technology and Patent Applications

As judged from the number of patent applications, development of industrial technology by private enterprises is not very active. It essentially comes from the shortage of R&D investment, together with the lack of knowledge on patent application and various problems related to application procedures. It is recommended to promote technology development and patent application by expanding R&S facilities of technoparks, promoting university/industry joint projects at university research facilities, disclosing technology developed by public research organizations (IVIC and basic research centers of technoparks), and disseminating related information.

E. Technology Development and Product Development by Public-Run Materials Industry

The PDVSA and other public-run materials industries such as petroleum-related industries, the aluminum industry and the iron and steel industry all have the form of “bulk materials export industries,” there being little interest in fostering industries derived from them. Market economy principles identify the domestic market as the most important and advantageous to domestic industry, and development of the domestic market through fostering of processing industries using domestically produced materials ought to be the most important task for Venezuelan materials industries, too. Considering at the same time the present situation in which Venezuelan smaller businesses are unable to carry forward technology development and product development on their own because of insufficient strength, what is needed is technology development and product development efforts by upstream materials industries themselves in line with domestic market needs with a view to fostering and securing the domestic market. Specifically, the testing and research facilities of material industries themselves should develop and implement a strategy of expansion of domestic production and domestic and foreign markets by carrying out plastic, aluminum, iron and steel and other materials processing technology and product development research and development and furnishing domestic industries, including smaller businesses, with such technology.

F. Tasks of Research and Development by Smaller Businesses

As we have seen in the above, except for some key industries, in Venezuela research and development concerning industrial technology is quite insufficient, research and development in fields needed by smaller businesses in particular lagging behind as regards development of systems for it. In terms of the overall picture the following can be said to be the kind of strengthening and support measures that will be needed in view of that situation:

- a. Expansion of the functions of public research and development facilities and setting up of systems for their cooperation with the private sector
- b. Strengthening of technoparks attached to universities and expansion of their local impact
- c. Setting up and strengthening of policy-determined support systems
- d. Enhancing awareness concerning acquisition of technology patents

- e. Disclosure to the private sector of technology developed by public research institutes
- f. Making information on new products, new technologies, etc. more widely available

(2) Need for Research and Development and Tasks Involved in It

Research and development is essential for SMEs to grow continuously in the changing business environment that is marked by the rapid pace of technological innovation. Nevertheless, R&D investment takes some time to generate returns and therefore becomes heavy burdens on most SMEs in terms of human resources and funds. Public support is required to promote technological development efforts of SMEs.

A. Necessary Themes of Research and Development

The order of importance of the different technology development needs of smaller businesses as determined taking into account the findings of studies concerning that in Japan is as follows:

- a. Development of new products
- b. Rationalization and achievement of labor savings regarding production processes
- c. Enhancement of degree of value added in existing business areas
- d. Acquiring higher and more advanced technological capability
- e. Securing of new technology (introduction of technology)

Regarding a. above, development of new products, it is only natural for companies to engage in it for the sake of meeting ever diversifying market needs and new industrial needs, and it is carried out for development of innovative industrial products in terms of functionality, design, price and other aspects as well as products meeting the needs of areas closely related to regional and local markets, new products geared to rapid technological progress, products to be supplied to niche markets, etc. Furthermore, as needs arising in the course of social capital improvement newly occurring on the basis of government policy, much is expected in the way of development of new industrial products relating to the field of housing development, the field of infrastructural development, the field of vitalization of regional and local industry, the field of information and communications, the field of environmental improvements, the field of medical care and social welfare and so on and so forth.

As for the other four items above starting from b., rationalization and achievement of labor savings regarding production processes, they represent technical improvement

of the company's own means of production and are important themes for strengthening of the foundation on which the company's operations are based in that they are directly linked with enhancement of the price and quality competitiveness of the company's products.

B. Establishing the Systems Necessary for Technology Development

In general, the problems that smaller businesses face in engaging in technology development lie in points like the following:

- a. Shortage of technology development personnel
- b. Shortage of funds
- c. Insufficient awareness as an enterprise
- d. Shortage of equipment and facilities for research and development
- e. Shortage of information needed for research and development

Smaller businesses, most of which do not have very strong constitutions as enterprises, can usually hardly be expected to be able to establish on their own systems for overcoming such problems, and it is therefore necessary to furnish outside support for reinforcement in order to make it possible for them to strengthen the foundations of their operations to a level from which they will be able to go forward with research and development on their own.

(3) Support Measures Needed in the Way of Research and Development

From the above, the following are considered to be possible ways of supporting research and development by smaller businesses in Venezuela:

A. Technical Support Measures

- a. Technical guidance for research and development
- b. Technical training systems (training of research and development personnel)
- c. Guidance concerning putting new technology on an operational footing (startup guidance)

B. Support Measures for Making the Necessary Funds Available

- a. Tax breaks (deductions for research and development expenses and special depreciation system for research and development equipment and facilities)
- b. Research and development loans system
- c. Guarantees for research and development loans
- d. Research and development subsidies (to cover part of the expense)

- e. Venture capital
- C. Utilization of Public Research Facilities
 - a. Opening the facilities and services of public testing and research institutions to the outside (equipment and facilities of government research institutes, universities, technoparks, etc.)
 - b. Acceptance of privately commissioned research by public research and development institutions
 - c. Educational-industrial joint research
- D. Cooperation in Furnishing Information
 - a. Furnishing of technical information (new technology, new products)
 - b. Disclosure and furnishing of technology developed by public entities
- E. Other Measures
 - a. Holding of technology exchange events
 - b. Technology development seminars
 - c. New product and new technology fairs
 - d. Making patent information more widely available and encouraging acquisition of patents

(4) Proposed Measures

The following measures are proposed considering the present situation of smaller businesses in Venezuela and government support policies and the circumstances of related facilities and institutions there:

- A. Technical Support
 - a. Technical Guidance
 - * To hire R&D experts by using government subsidy.
 - * To provide free technical consultantation at INAPYMI, technoparks and universities.
 - b. Training and Grooming of Research and Development Experts
 - * To add a training course for development research specialists to INAPYMI's expert training program.
 - c. Guidance for Putting New Technology on an Operational Footing

To provide technical assistance for commercialization of new technology under INAPYMI's "entrepreneur guidance." Technical guidance and support includes support for patent application (protection of intellectual property), support for fund raising, including the use of venture capital, guidance for related permits and licenses, and guidance for preparation of a business plan.

B. Support Measures for Making the Necessary Funds Available

a. Tax Breaks

To allow special deduction and accelerated depreciation of R&D investment.

b. Research and Development Loan System

To establish loan and credit guarantee schemes for R&D investment.

c. Direct Investment (venture capital, etc.)

To induce investment by government venture capital to selected projects as part of entrepreneur guidance.

C. Utilization of Public Research Facilities and Research and Development

a. Opening Public Testing and Research Facilities to Outside Use

In Venezuela that has a limited number of public testing and research organizations, a workable solution is to expand research facilities of technoparks operated by universities. In particular, engineering centers of technoparks should be expanded to make some facilities available to SMEs, which will use them at low cost and under assistance of instructors. These facilities will be equipped with latest equipment that is too expensive for SMEs to purchase, which will help SMEs to learn latest technology and its value. This proposal should be implemented after research facilities of universities and technoparks are expanded, together with equipment and instructors to provide proper technical assistance for SMEs.

b. Acceptance by Public Research and Development Institutions of Research Commissioned by the Private Sector

To complement and support the R&D functions of SMEs, a support program will be established to conduct R&D projects upon the request of SMEs, including technology and product development. The program will be implemented by universities and their technoparks. The service fee will be set at low cost, including government subsidy. Then, technologies and products developed by public research organizations will be licensed to SMEs.

c. Educational-Industrial Joint Research

There is also to be creation of systems for technology and product development based on joint development themes between smaller businesses and universities and technoparks attached to universities. The meaning of educational-industrial joint development is creation of products meeting new needs by demonstration of

technology developed at universities and their research facilities on production lines operating on a commercial basis or by fusion of actual achievement regarding production technology and skills with research capacity. It will also be possible for university students to participate in such educational-industrial joint research groups, and it is hoped that there will be fomenting of a linkage environment that can serve as a base for regional and local enterprise creation activities. Promotion of such activities should make it possible to contribute to vitalization of regional and local industry through things like creation of new joint undertakings and prevention of the brain drain phenomenon through participation of university research workers and students in business.

D. Cooperation in Furnishing of Information

a. Furnishing of Technical Information (on new technology and new products)

Technology and production information will be provided nationwide via INAPYMI Information Network. Also, Internet-based Q&A service will be provided in response to questions.

E. Encouragement of Wider Availability of Information on Patents and Acquisition of Patents

In technology development it is extremely important to clearly establish intellectual property rights. Patent application is handled by SAP under MPC, but the current application processing system needs to be improved. Since insufficient protection of patents and intellectual property rights concerning technology constitute a major obstruction to development and spread of technology, urgent improvement of administrative organization concerning patents is needed. INAPYMI's local consultation desks will be provided with personnel and information sources ("patent consultation desk") to assist SMEs in patent application.

F. Other Aspects

a. Holding of Technology Exchange Events

There is to be holding of various kinds of technology exchange events in different areas under INAPYMI sponsorship, the aim being to offer possible opportunities for one's company's technology development and technology improvement through presentation of technology of many different lines of business. That could result in opportunities for joint technology development between companies in the same line of business whose interests match or companies in different lines of business.

b. Technology Development Seminars

There is to be holding of INAPYMI-sponsored technology development seminars.

c. New Product and New Technology Fairs

There is to be holding of INAPYMI-sponsored new product fairs, new technology fairs, etc. for the purpose of presentation and spreading of technology and products.

2.3.1.5 Promotion of Joint Activities by Smaller Businesses

(1) Present Situation Regarding Joint Activities and Necessary Tasks to Improve It

1) Present Situation in Venezuela Regarding Cooperatives

There are presently about 1,300 cooperatives in Venezuela, based on the Special Law on Cooperatives enacted in 1975 and revised after revision of the constitution in 2000, cooperatives formed by individuals representing the second level. Also, the bureau promotes, jointly with local government, regional development and formation of local cooperatives in line with the national decentralization policy.

Cooperatives established under the Special Cooperative Law are legal entities and are treated as small farms and enterprises under the tax law and are exempted from income tax. However, it is suggested that the present tax exemption is temporary and cooperative will become the subject of taxation in the near future.

(2) Promotion of Joint and Cooperative Activities

1) Significance of Establishment of Joint and Cooperative Activities and the Kinds of Groups Involved

In principle cooperatives of smaller businesses are groups organized to compensate the weaknesses of smaller businesses with weak constitutions as businesses, promote modernization and rationalization of how they are run and strengthen their adaptability in economic society and that undertake joint activities in the spirit of mutual support and aid. That being the case, the appropriateness of how a cooperative is being run is evaluated in terms of the extent to which the operations of its members are rationalized and their economic situations are improved through the cooperative's operations and activities. There are different types of business cooperatives according to the purpose.

2) Purposes and Operations of the Groups

While various types of business cooperatives are defined in Venezuela, they do not seem to fully enjoy the benefits intended under the law. It is recommended to promote joint operation of various economic activities under the business cooperative in order to encourage rationalization of management and normalization of commercial transaction, such as those suggested below.

- a. Implementation of joint economic activities such as joint production, joint processing, joint procurement, joint sales, joint transportation, joint storage, joint receiving of orders, joint research, etc.
- b. Joint undertakings such as establishment of welfare, recreational and other similar facilities for cooperative members, lending of business funds to cooperative members, guaranteeing business debts assumed by cooperative members and so on and so forth.

Besides the above, in mutual exchanges as businesses through their activities in the cooperative as an enterprise organization members are able to jointly enjoy all sorts of conveniences and benefit such as the following:

- a. Exchange and mutual use of technology
- b. Formation of clusters
- c. Exchange and sharing of information
- d. Enhancement of cooperative activities

In addition to the above, formation of groups for joint activities is also effective in terms of facilitating implementation of smaller businesses support policies and feedback concerning policy tasks and building of a system of cooperation between the public and private sectors.

3) Government Support Measures

The present system of government support measures for cooperatives is as follows:

a. Financing System

System of loans and loan guarantees for activities invested in by activity cooperatives.

b. Tax System

Tax exemption treatment concerning cooperative activities.

2.3.1.6 INAPYMI and implementation of SME policy

(1) SME policy and its implementation organization, and major issues

1) Current state

MPC is responsible for formulation and implementation of SME policy in the country. In practice, however, SME policy formulation and implementation is not carried out under a centralized organization to deploy nationwide activities under the consistent policy. Instead, different ministries and organizations conduct their own activities according to different policy guidelines and using their own organizations, making SME policies and programs inefficient and inconsistent. It is therefore recommended to establish an organization that serves as a sole leading agency responsible for policy formulation and implementation.

Under these circumstances, the government proposes a basic scheme on SME promotion policy, together with the draft bill for SME promotion. The scheme consists of MPC's supervisory role in policy formulation and the establishment of an organization, INAPYMI, responsible for implementation of SME policy.

(2) Recommended organization and scope of activity for INAPYMI

In consideration of the present situation and the issues facing SME promotion policy, a general guideline for the organization of INAPYMI, including its expected roles and functions, is recommended as follows.

1) Expected roles and functions of INAPYMI

- a. MPC's SME Development Department will be responsible for formulation of SME policy, the drafting of SME-related bills, preparation of a handbook for SME policy, public promotion and information dissemination on SME policy, promotion of linkage and coordination with related ministries and organizations, and guidance and support for INAPYMI in operation and management.
- b. INAPYMI will serve as an implementation body for SME policy and will be responsible for provision of support services for SMEs in a variety of fields, including management, technology, information service, and education and training.

2) INAPYMI's major service activities

- a. Management support (corporate diagnosis, consultation, etc.)
- b. Technical support (technical assistance, et.c)

- c. Information service (SME policies and programs, human resource (specialist) information, management resources)
 - d. Education and training (entrepreneurs, consultants, SME managers, and SME policy makers)
 - e. Incubation (business startups using the existing facilities under the leadership of INAPYMI, collaboration with universities, technoparks and university incubators)
- 3) INAPYMI's organization
- INAPYMI's organization will be established according to the following principles.
- a. It will have the headquarters and local organization (INAPYMI local support centers) to provide uniform support service throughout the country.
 - b. INAPYMI local support centers will have one-stop service type consultation desks and meet the daily needs of SMEs.
 - c. INAPYMI will establish collaborative relationships with other SME support organizations as shown in Figure 2.3-1 so as to use their resources and functions.
 - d. INAPYMI's function and organization will expand gradually in consideration of budget and human resource constraints.
 - e. The organization plan will be made by taking into account MPD's regional development plan, including development points and axes and infrastructure development.

(3) INAPYMI's organization

1) Functional relationship between MPC/INDC and other organizations

INAPYMI will be established as an organization under supervision of MPU's new department in charge of SME development. (See Figure 2.3-2.) Figure 2.3-1 shows the functional relationship between MPC/INAPYMI and other SME support organizations.

Basically, MPC will, as a policy maker, supervise operation and management of INAPYMI and provide support for its activities. In particular, MPC will promote and coordinate activities of MPC and its organizations, other related ministries and agencies, regional development organizations, and local governments in connection with implementation of INAPYMI's SME support functions, organization, and information gathering and dissemination capabilities.

It should be noted that MPC has internal functions and related organizations involved in SME promotion, including standardization of intellectual property rights

(SAPI), development of industrial estates, export promotion, investment promotion, protective tariff, market development, and external treaties.

2) MPC's SME Development Department

MPC's SME Development Department will supervise INAPYMI and will be responsible for formulation of SME policy. It will also provide public support for INAPYMI and its activities. The department will consist of the following three divisions.

A. SME Policy Division

- Formulation of SME policy, Dissemination of SME policy, Related research and study, Environmental management (pollution control)

B. SME Promotion Division

- Cooperation and coordination with MPC's related departments and other organizations, Promotion of local SMEs, International cooperation (technical assistance, etc.)

C. INAPYMI Supervision and Support Division

- Support related to operation and management, financial assistance, technical assistance, information service, human resource development, market development, management advisory function, promotion of joint operation and cluster formation, regional development, entrepreneur support, and infrastructure development

3) INAPYMI's headquarters

INAPYMI's headquarters will consist of the following divisions that correspond to the key functions that INAPYMI will assume. Figure 2.3-2 shows the functional relationship among INAPYMI's headquarters, local support centers, and MPC.

A. Business Management Division: (Business control and general affairs, Financial management and accounting, Public relations)

B. Policy Planning and Development Division: (Policy assistance, Organizational assistance, Subsidy management, Investment promotion, Legal consultation, Policy formulation)

C. Education and Training Division: (Government officer training, Entrepreneur training, Manager training, Skills training)

D. Financial Assistance Division: (Short- and long-term loan and credit, Venture capital promotion, Loan guarantee assistance, Taxation and incentive assistance)

- E. Technical Support Division: (Technology development, Promotion of commercialization, Technical consultation, Intellectual property and patent, Pollution control, Standardization and inspection)
- F. Information Service Division: (Information planning, Technica information service, Market information service, Database service, Internet system management, Q&A service, IT promotion service)
- G. Market Development Service Division: (Market development service, Domestic market development, Export market development (Coordination Window for Export Promotion Activities by BANCOEX))
- H. Management Advisory Service Division: (Management advisory service, Management diagnosis service,
- I. Cluster Promotion Division: (Cluster promotion, Promotion of cooperative activities, Promotion of meetings and exchanges)
- J. Regional Development Division: (Local specialty development, Research and study)
- K. Business Creation Division: (Incubation, Entrepreneur support)
- L. Infrastructure Development Division: (Industrial utilities development, Transportation infrastructure development, Communication infrastructure development, Pollution control facilities)

4) INAPYMI local support centers

INAPYMI local service centers will deliver INAPYMI's support functions to SMEs. Efficient and prompt service under the one-stop service concept is demanded. INAPYMI local support centers will consist of the following divisions according to the type of service to be provided. (See Figure 2.3-2)

5) Organization Formation Stages and Personnel Assignment Plans

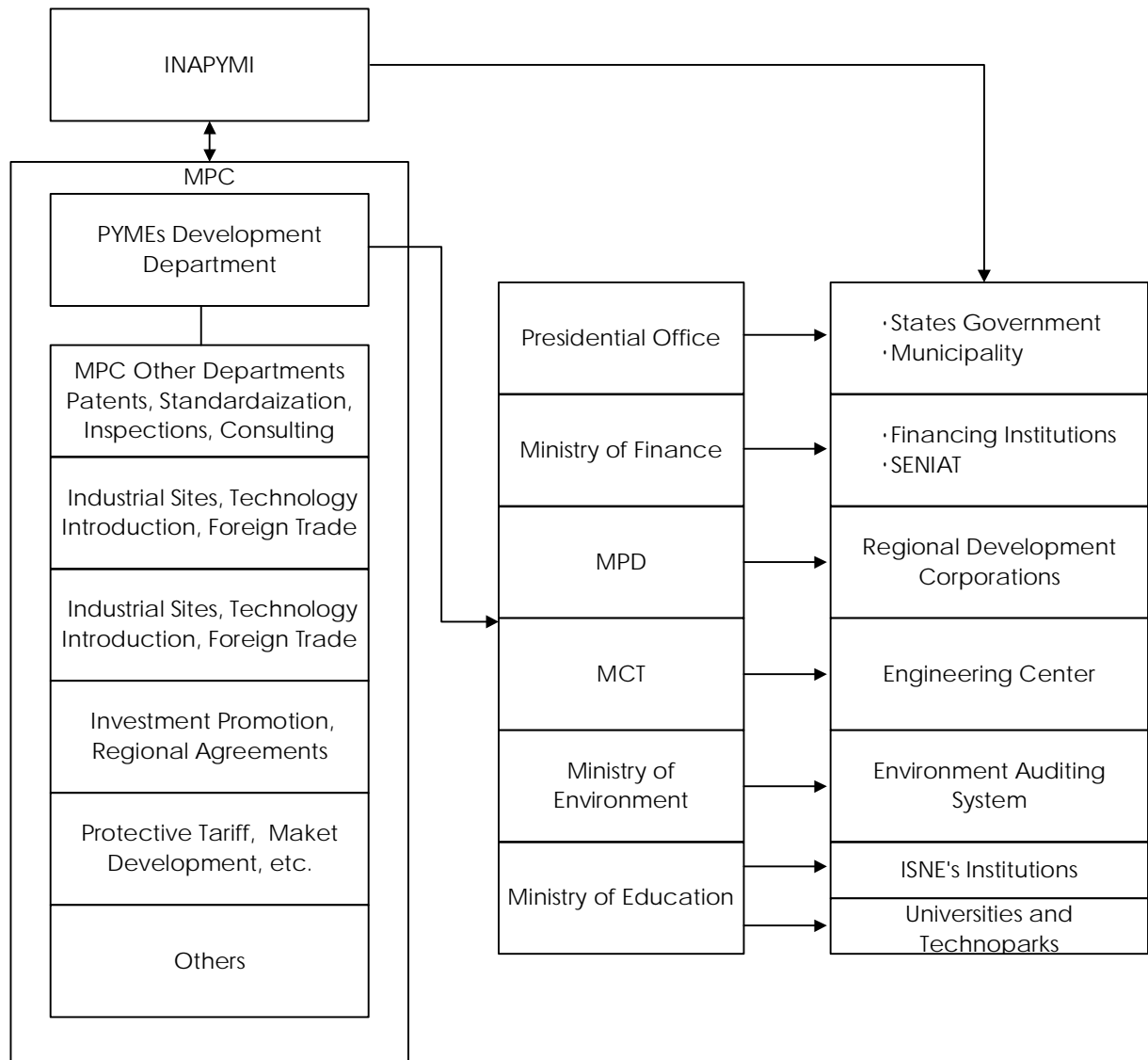
The above-mentioned organization will be the INAPYMI's ultimate organization, it being considered that it would be difficult or even impossible for the MPC to secure the necessary budget and human resources for INAPYMI to have full-sized organization and personnel assignment when it is initially established. Therefore, the following alternative is proposed as a provisional measure at inauguration of INAPYMI on the basis of the assumptions of giving priority to functions with the greatest importance among all of the functions that INAPYMI is eventually to have and being able to obtain linkage with and cooperation from existing organization.

(4) Points to Be Borne in Mind in Building and Operating INAPYMI

In implementation of INAPYMI it will be necessary to bear in mind the following points in order for it to be able to attain the goals and results that it is intended to attain:

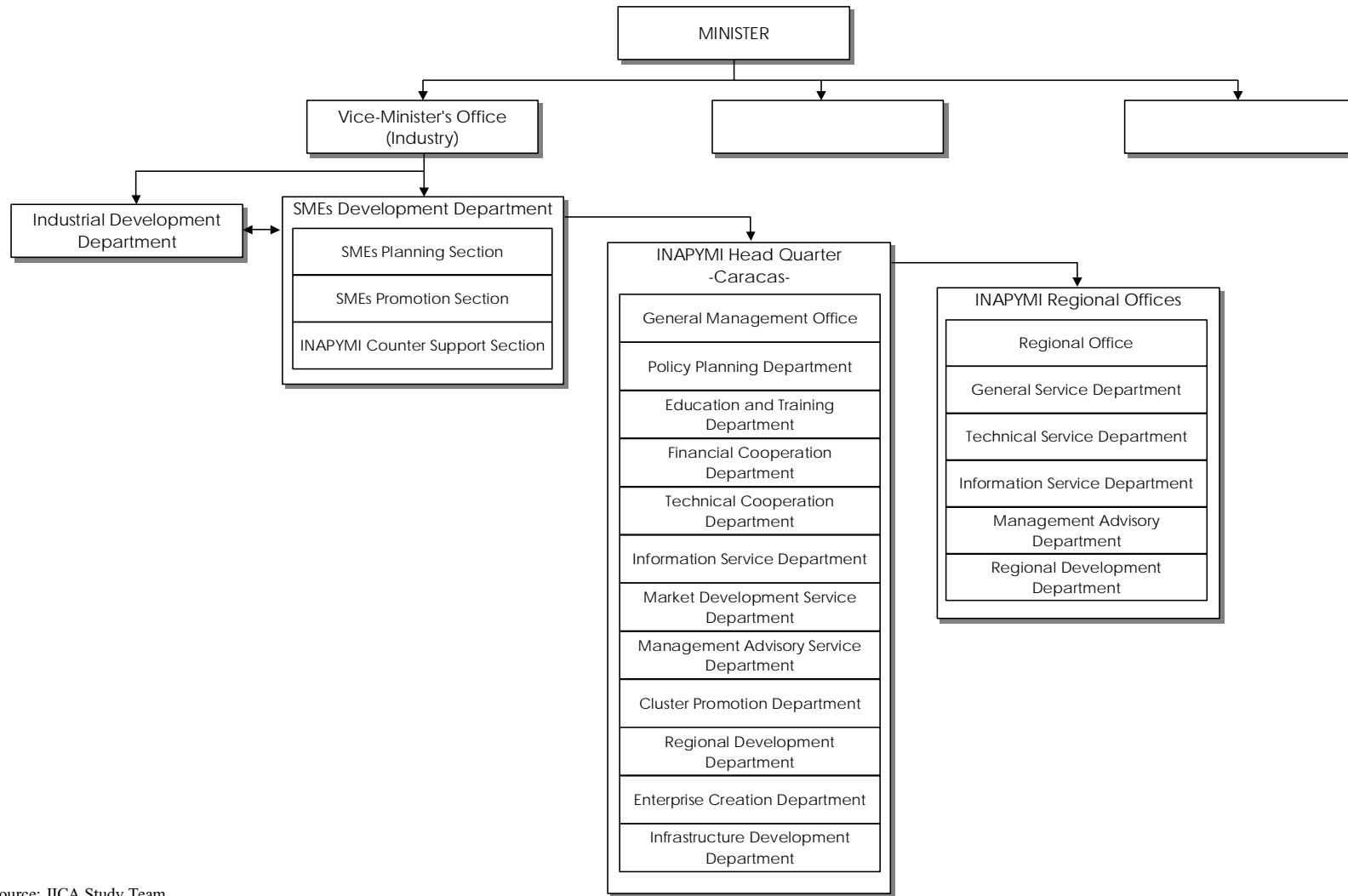
- a. Building support content, support methods and support systems geared to the needs of entrepreneurs and smaller businesses
- b. Strong leadership on the part of INAPYMI's top management
- c. Building of a posture and systems for sustained ongoing efforts
- d. Securing and training human resources with advanced knowledge
- e. Nationwide unfolding of activities on the basis of close linkage and cooperation with UEMPCs and regional and local governments (departments and municipalities)
- f. Strengthening of linkage and cooperation with existing support organizations and groups and universities
- g. Speedy and efficient performance of work and furnishing of customer-oriented services
- h. Building a support system in which the government acts as one through adjustment and coordination of functions with other ministries and agencies
- i. Obtaining of advanced knowledge and information from abroad
- j. Sharing of accumulated concrete successful experience and experience and know-how as organizations

FIGURE 2.3-1 COORDINATION STRUCTURES



Source: JICA Study Team

FIGURE 2.3-2 MPC ORGANIZATION PLAN FOR SMEs DEVELOPMENT



Source: JICA Study Team

2.3.1.7 Regional Smaller Business Development Strategy

(1) Present State of Regional Development Plans

The National Regional Economic Development Plan is now being formulated, mainly by the MPD, and although it has not yet been publicly announced, the gist of it is as follows:

1) 3-Axis Planning

Regional development planning is to be based on the following three major axes of development (see Figure 2.3-3):

a. Orinoco/Apure Axis Plan

This is a plan for development of the whole basin of the Orinoco River from the river mouth westward upstream all the way to Tachira via Apure, and it includes the departments of Tachira, Barinas, Apure, Portuguesa, Cojedes, Cuarcico, Anzoategui, Monagas, Bolivar and Delta Amacuro. The development covers agriculture and livestock raising, forestry, heavy oil, fisheries, hydroelectric power, etc.

b. Occidental Axis Plan

This is the development plan for the northwest part of the national territory extending all the way to the border with Colombia and covers the departments of Zulia, Tachira, Merida and Trujillo. The product areas to be developed include oil, coal, hydroelectric power, phosphate ore, agriculture and livestock raising, forestry, agricultural and forestry product processing, tourism and cotton.

c. Oriental Axis Plan

This development plan centers on the northeastern part of the national territory and covers the departments of Nueva Esparta, Sucre, Anzoategui, Monagas, Bolivar and Isla de Margarita. The products to be developed include oil, gas, aluminum, iron, phosphate ore, gold, diamonds, uranium, livestock raising, fisheries and forestry and forestry product industry.

2) Development Bases

As a means of vitalization of regional and local industry eight places with existing potential to become development bases have been designated as “special economic zones” (see Figure 2.3-4). The products with development potential of those special zones are respectively as follows:

Zone I: Cacao, bananas, cassava, tourism

Zone II: Agriculture, tourism

Zone III: Environment (ecotourism), lumber, tourism, “name”(?), ocume(?), electric power

- Zone IV: Palm oil, bananas, cacao, livestock raising, access to Andes countries
- Zone V: Livestock raising, rice, tourism, environment (ecotourism base: birds)
- Zone VI: Agriculture (peanuts, etc.), lumber (reforestation wood)
- Zone VII: Irrigation agriculture, lumber (reforestation wood)
- Zone VIII: Tourism (22 islands), fisheries

(2) Regional Smaller Business Development Strategy

The following regional smaller business development strategy is proposed on the basis of the basic strategy guidelines based on national regional development plans.

1) Strategy of Placing Emphasis on Special Economic Zones

The success of regional economic development plans depends on the success of development of the “special economic zones” selected as development bases on the basis of existing potential. It is therefore considered best to adopt the strategy of placing emphasis for the time being on promotion of industry in those special economic zones and then to proceed with expansion and development to the strategic development axes on the basis of successful results obtained in those zones, and it is therefore proposed that regional development strategy in promotion of smaller businesses also be carried forward in harmony with such regional base strategy (special economic zone 3-axis plan) in overall planning.

2) Priority Setting Up of INAPYMI Support Centers

The first INAPYMI regional smaller business support centers are to be installed on a priority basis in the vicinity of the special economic zones for emphasis on support there. Furthermore, experts specializing in development technology for the particular primary products of the respective special economic zones and related industrial products are to be assigned to those respective zones

3) Emphasized Primary Product Production Fields in Regional Development Strategy

- a. Agricultural product development and agriculture product processing industry
 - Cereals (rice), Product crops (cacao, peanuts, etc.), Oils and fats industry, Cotton and textile industry
- b. Forestry product development and forestry product processing industry
 - Lumber products, Building materials and wooden-frame housing industry, Other forestry products (palm oil, pine resin, etc.)

- c. Fishery product development and processing industry
 - Fisheries (coastal fisheries and fish farming), Fishery product processing industry
- d. Livestock raising and dairy farming
 - Meat industry, Dairy products industry, Leather and furs processing industry
- e. Tourism industry
 - Tourist services industry, Ecotourism, Light industries relating to tourism
- f. Related industries
 - Machinery industries relating to agriculture, Machinery industries relating to forestry, General leasing industry, Afterharvesting, Product packing, storage and transportation industries, Others

4) Targeted Support Policy

Particular development goals will be designated in the special economic zones, and measures will be implemented to give special incentives for development of the designated primary products.

Major promotion programs will include a special loan program, special taxation, technical support, human resource development, R&D support, entrepreneur support, and market information service.

FIGURE 2.3-3 3-AXIS DEVELOPMENT PLAN AND ACCESS TO THE OUTSIDE

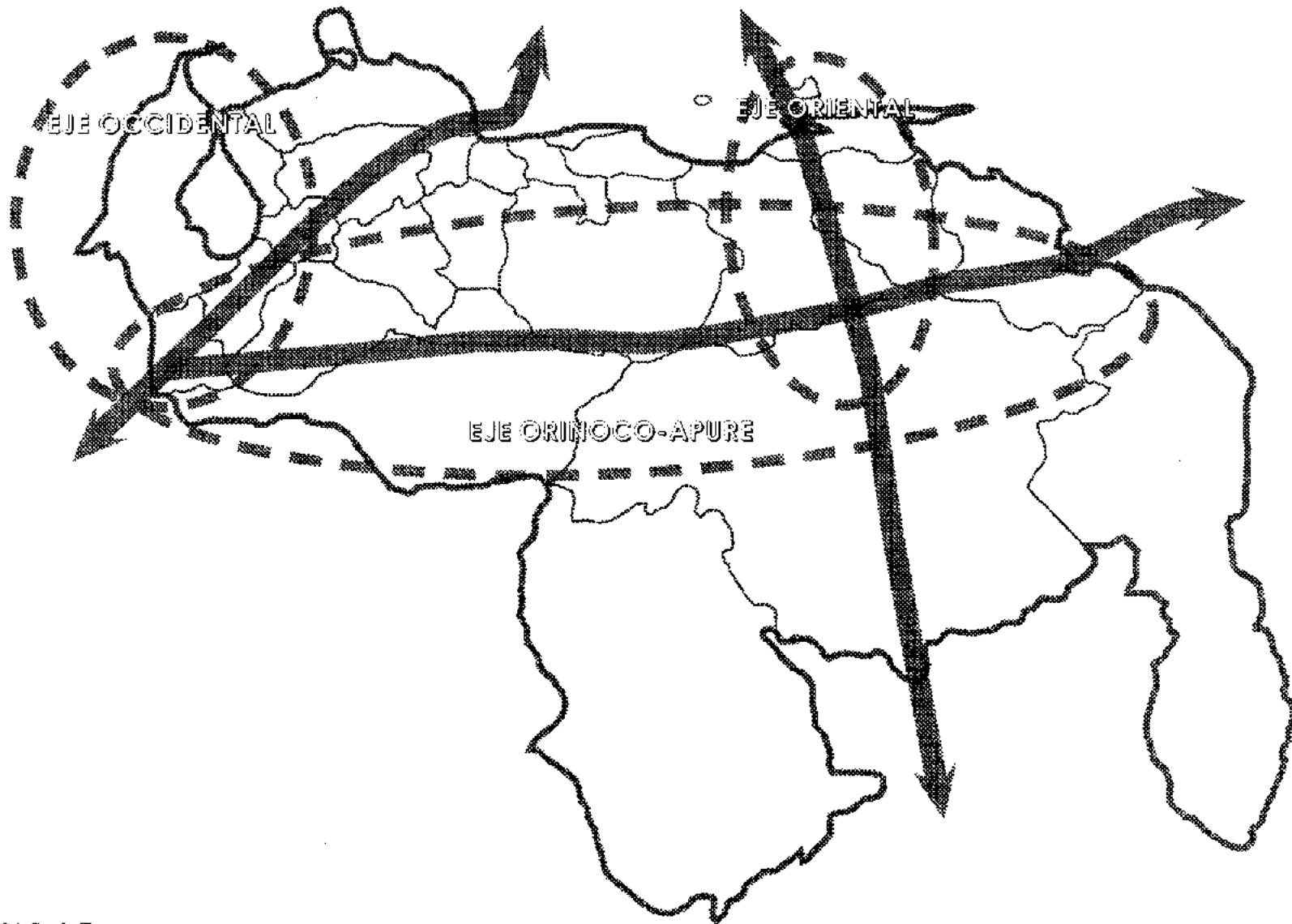
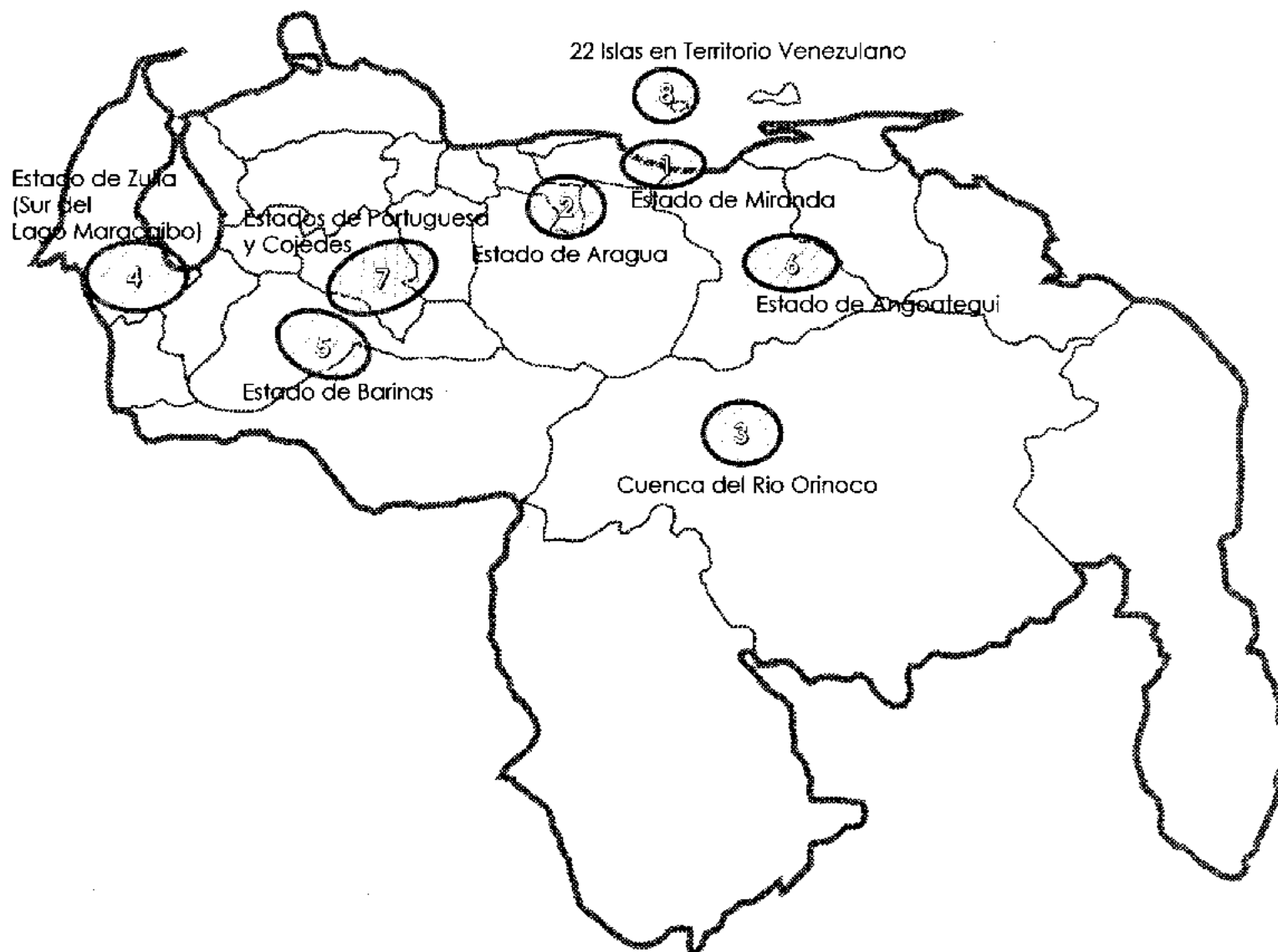


FIGURE 2.3-4 DISTRIBUTION OF SPECIAL ECONOMIC DEVELOPMENT ZONES

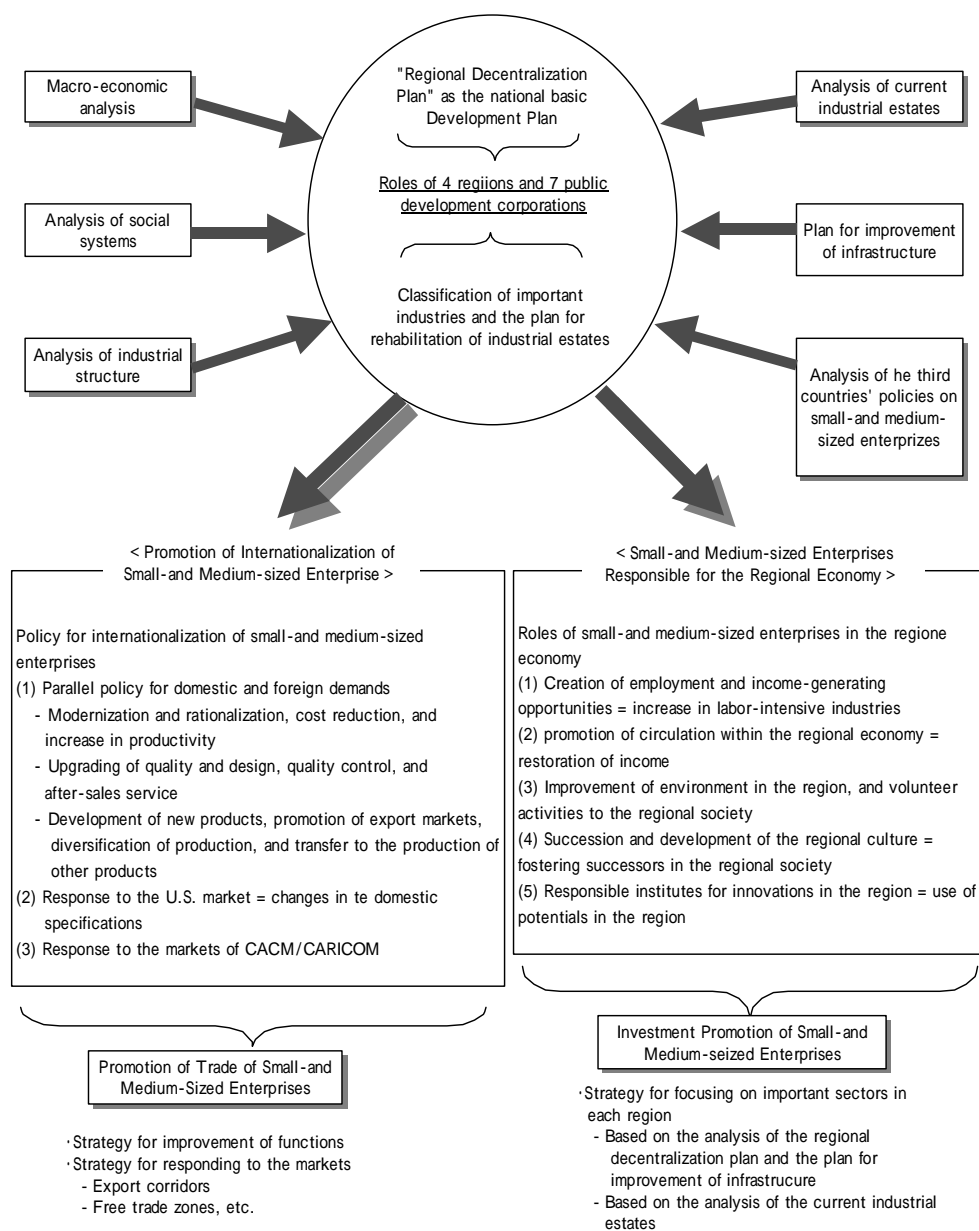


Source: JICA Study Team

2.3.1.8 Proposal for Trade and Investment Strategies

It is recommended to direct trade and investment under the SME promotion plan by combining promotion of priority industries in different regions under the “decentralization plan” (forming the basis of the SME promotion plan) and the industrial estate rehabilitation plan. (Figure 2.3-5)

FIGURE 2.3-5 PROCESS OF ANALYZING TRADE AND INVESTMENT POLICIES CONCERNING SMALL-AND MEDIUM-SIZED INDUSTRIES



Source: JICA Study Team

(1) Trade; promotion of internationalization of small-and medium-sized enterprises

1) Parallel policies for domestic and foreign demands

The country's industry is required to develop its markets, both inside and outside the country, urgently in response to the imminent pressure of market liberalization. Diverse efforts are required in many fronts, including modernization of production facilities, strict enforcement of quality control, productivity improvement and cost reduction, and the strengthening of after-sales service.

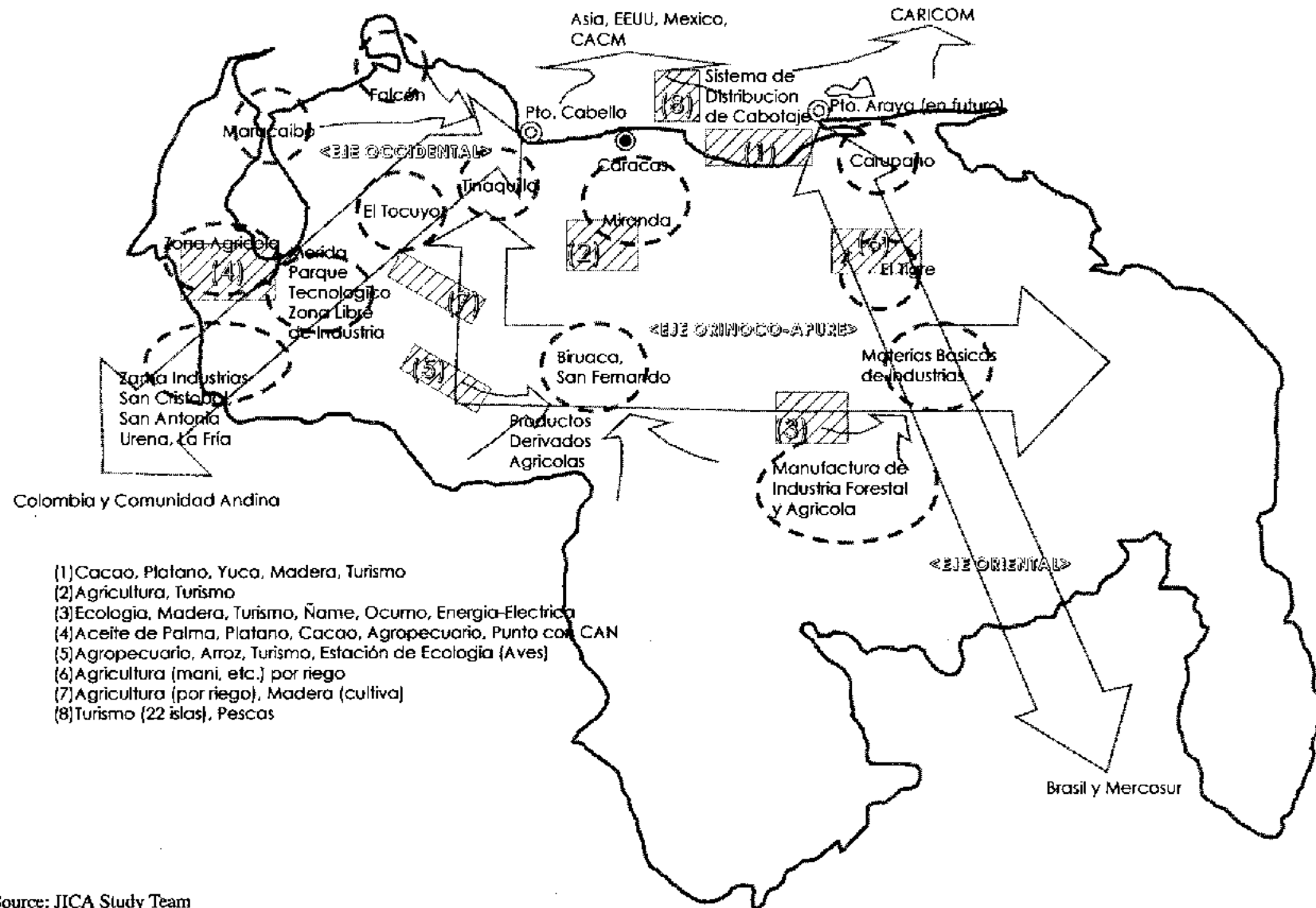
(2) Promotion of trade by small-and medium-sized enterprises(as responsible institutes for the regional economy)

1) Strategies for important sectors by regions

A) Strategic products in each region are specified in order to be reflected in the export corridor plan after analyzing the regional decentralization plan and the plan for improvement of infrastructure, and criteria for the selection of projects and priority sectors for investment are decided. The following are development motif and specific products in those regions where production points, strategic points for regional development, and other potentials exist.

B) Based on the results of the current analysis of industrial estates (the rehabilitation project is led by government), products and their development concepts should be developed for the existing production bases, strategic based for regional development, and other areas with growth potential. (Figure 2.3-6)

FIGURE 2.3-6 EXPORT CORRIDOR & INDUSTRIAL PARK



(3) Strategy for the Improvement of Circumstances of Trade and Investment by Small- and Medium- sized Enterprises

1) Problems

Problems identified from the interview survey of local governments, industrial estates, industrial areas, the chamber of commerce and industry, private enterprises, and entrepreneurs in more than 30 locations in 15 states, are summarized as follows.

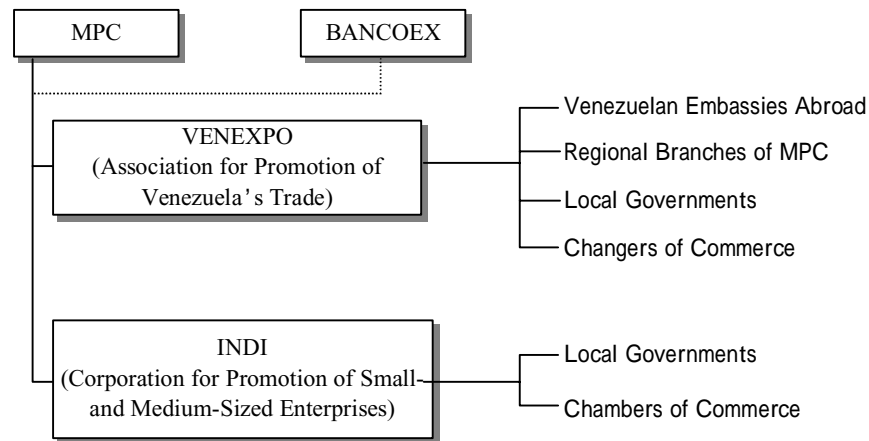
- a) Relationships between the concerned public development corporations (local development corporations) and the local governments are not clear.
- b) A service industry has been rapidly increasing due to changes in the industrial structure. As clearly shown in the recent survey of Andes Development Corporation (CAF), nearly 93% of small-, medium-and large-sized enterprises belong to the service industry.
- c) Surveys on domestic markets in Venezuela and foreign markets are lacking. Particularly, providing market information to small-and medium-enterprise is urgently needed.
- d) Supply of industrial facilities (water, electricity, gas, sewage, water treatment, etc.) are not enough. In those enterprises which maintain these facilities by their own efforts, the costs are reflected in the prices.
- e) Communications among sectors in economic activities do not function well. Particularly, small-sized enterprises lack in such information as what are produced in which regions in the country and what are forwarded to which market.
- f) Information exchange and networking between the central government and the local governments are urgently required.
- g) Necessity of establishing a distribution system. In order to respond to forthcoming regional development, and construction of export corridors and hubs, it is necessary to construct a “Cabotaje” system to gain access to domestic distribution centers and systems, as well as foreign markets.
- h) Necessity of exchange of information of foreign trade, market, technologies, etc. among small- and medium- sized enterprises.

2) Strategy for the Improvement of Functions

It is important to establish Venezuela External Trade Organization (VENEXPO) for the purpose of establishing systematic efforts to make industry ready for economic and trade liberalization. On the other hand, investment promotion should be based

on the strategy that emphasizes the reinforcement of INAPYMI's new SME-oriented business service.

FIGURE 2.3-7 STRATEGY FOR THE IMPROVEMENT OF FUNCTIONS OF TRADE AND INVESTMENT BY SMALL-AND MEDIUM-SIZED ENTERPRISES



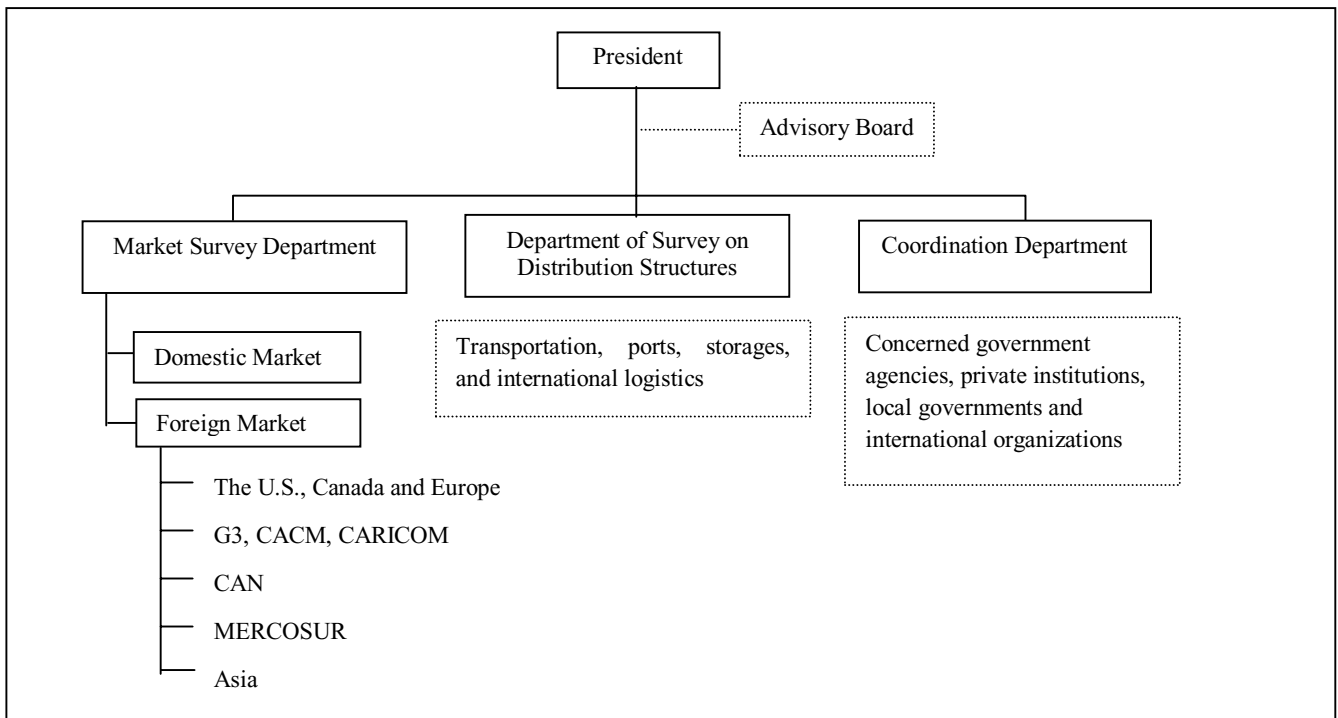
Source: JICA Study Team

3) Plan for the Establishment of VENEXPO and Its Organization and Function

a. Organization and Function

First of all, VENEXPO as a government agency focuses on providing small and medium-sized enterprises with enough information and endeavors to enhance the concept of internationalization. Major activities at the initial stage are “market survey,” “survey on structures of distribution,” and “coordination activities.” Excellent staff from MPC, MPD, BANCOEX, and Regional Development Planning Department of Vice President Office will be recruited. Figure 2.3-8 illustrates the organization of VENEXPO.

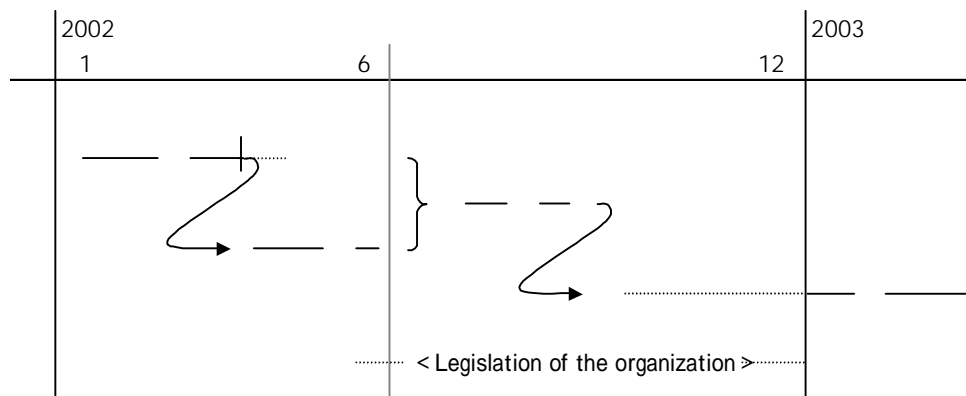
FIGURE 2.3-8 ORGANIZATION CHART FOR VENEXPO



Source: JICA Study Team

b. Plan for the Establishment of VENEXPO

- A. Preparation for the establishment of organization and function; establishment of a preparation committee in MPC
- B. Recruitment of the staff
- C. Formulation of action plan(A/P)
- D. Starting detailed survey activities based on A/P



4) Development of the trade support system

In light of the fact that the establishment of VENEXPO will take some more time, the trade support system to meet immediate demand should be based on the ongoing efforts made at BANCOEX.

At present, BANCOEX has the functions responsible for market study and trade promotion, as mandated by the decrees related to the operation and management of the organization. In particular, BANCOEX is required to provide the following services.

- Información Comercial (trade information)
- Identificacións de Oportunidades de Negocios (Identification of business opportunities)
- Inteligencia de Mercados (Market information)
- Estudios de Mercado vinculados con los sectores-productos objetos de la promoción (Market study by field/product)
- Programas Sectoriales de Asistencia Técnica (Sectoral technical assistance program)
- Programa de Asistencia Técnica Empresarial (Asesorías Individuales) (Technical assistance program – consultation for individual enterprises)
- Programas de Capacitación (Training programs)

In addition, BANCOEX conducts the exchange of personnel with various Japanese government organizations, including JETRO.

To develop the trade support system, particularly to meet the needs for “SMEs and MEs” in local communities and to improve quality of export promotion service, it is recommended to reinforce BANCOEX’s support functions on the basis of its trade promotion strategy. In particular, the above functions will become critical when non-traditional export products are developed by SMEs as a result of promotion policies and programs their commercial production capabilities are established. Then, INAPYMI’s headquarters – Export Promotion Unit of Market Development Department – will serve as a contact point for local deployment of the export promotion functions. It is logical to establish VENEXPO by capitalizing on these functions and resources.

The most critical element of the trade support functions is an effective combination of “market study” and “logistics.” As new value added products are expected to be

developed and commercialized in rural regions as a result of the decentralization policy, logistics will be a primary function to support the product development process and will constitute the prerequisite to market study. Effective support in these areas will enable small- and medium-sized, local manufacturers to accurately understand availability of raw materials, their costs and market opportunity, and to provide products and services in response to the market conditions.

2.3.2 Principal Systems

2.3.2.1 Information System

(1) Importance of Establishing an Information System

To implement the “economic decentralization strategy” that is the basic strategy of the government’s economic development plan, the building of information systems, together with infrastructure development, is essential. In order for the Venezuelan government to carry out its basic economic development program (“Economic Decentralization Strategy”), constructing an information system along with the development of infrastructures will be of vital importance. Where essential information for successful business activities is over-concentrated in the central region, SMEs with limited capacities to collect information need to locate in the central district in order to operate their businesses advantageously. Building an information system to mitigate the disadvantages of local enterprises and smooth out distinct economic disparity between the central and local regions will work as an incentive for local SMEs to take root in their respective regions thereby promoting regional development.

In addition, the information system will provide effective tools for the administrators in implementing the SME promotion programs, as it will perform important function for the central government in conveying its policies, processing applications for permits and licenses, implementing assistance programs, understanding the needs of business entities, etc.

Moreover, disseminating information technology among SMEs is essential to enhancing their R & D capabilities and competitiveness. Thus, establishment of the information system and diffusion of information technology will facilitate the growth of SMEs and the cultivation of their potentials. During the interviews described under Section 2.1.2, many interviewees from local SMEs were lamenting for a lack of information from the central district and concerned about falling behind in competition technically and financially. Such disparity in the availability of information between the central and local regions could lead to disparity in technical capabilities, including those in information technology, and over-concentration of business entities in the central area.

(2) Conditions for Setting Up SMEs Information Network

The SMEs information network plan was drafted on the following premises:

- a. The SMEs information network will be built as part of the administrative measures to support INAPYMI activities (thus it is named “INAPYMI Information Network”).

- b. Computer terminals of the INAPYMI Information Network will be set up in the INAPYMI Regional Information Departments within the INAPYMI Regional Support Centers to allow SME staff to search and obtain information via the computers.

Locations of INAPYMI Regional Support Centers

- A. Capital of each region
- B. Specially designated industrial zones and strategic development zones
- C. Counseling desks of Regional Information Centers and One-Stop Service Counters will be linked to the information network.

(3) Main Contents and Function of the INAPYMI Information Network

- A. Database
 - a. INE Statistics
 - b. List of Registered Consultants
 - c. Application forms for governmental licenses/permits and instruction manuals (See the “One Stop Service System” section.)
 - d. Company Directory
 - e. Applicable laws and policies and explanation thereof
- B. MPC Home Page
 - a. Policies on SMEs
 - b. Laws and regulations concerning SMEs
 - c. Information concerning SMEs
 - d. Financial information (Information about public financial institutions (BCV, FONCREI, BANDES, SOGAMPI, BANCOEX, etc.)
 - e. Schedule of events
Technical seminars and forums, International/domestic trade shows, Exchange meetings (interdisciplinary, technical exchanges, etc.), Match-making of venture businesses, Venture Fair
- C. Business Information
 - a. Product information
 - b. Market information
 - c. Technical information
 - d. Patent information
 - e. Introduction of potential business partners
- D. Overseas Information (links)

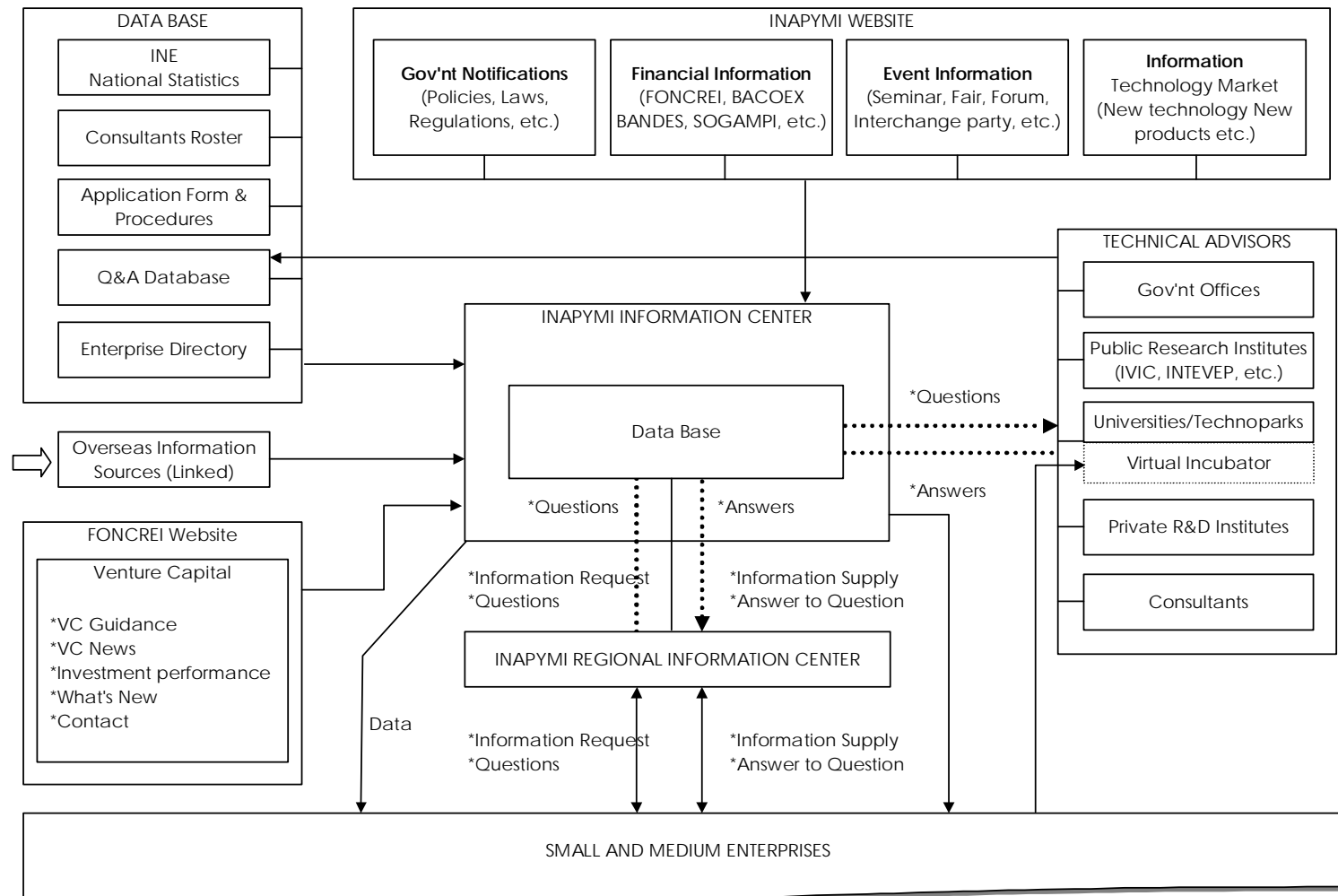
E . Venture Capital Information(FONCREI - WEBSITE)

Information on FONCREI - Venture Capital

F . Q&A Online Dialogue

A network of institutions and specialists offering technical support for SMEs in a variety of specialized fields will be established to answer questions sent by SME staff from the INAPYMI Regional Support Centers. Data of frequently asked questions and answers will be compiled as a database at the INAPYMI Information Center Headquarters, which will be accessed and utilized from the counseling service desk in each region (See Figure 2.3-9)

FIGURA 2.3-9 INAPYMI SMEs INFORMATION NET-WORK (Preliminary Plan)



Source: JICA Study Team

2.3.2.2 One-Stop Service System

(1) Purpose of One-Stop Service System

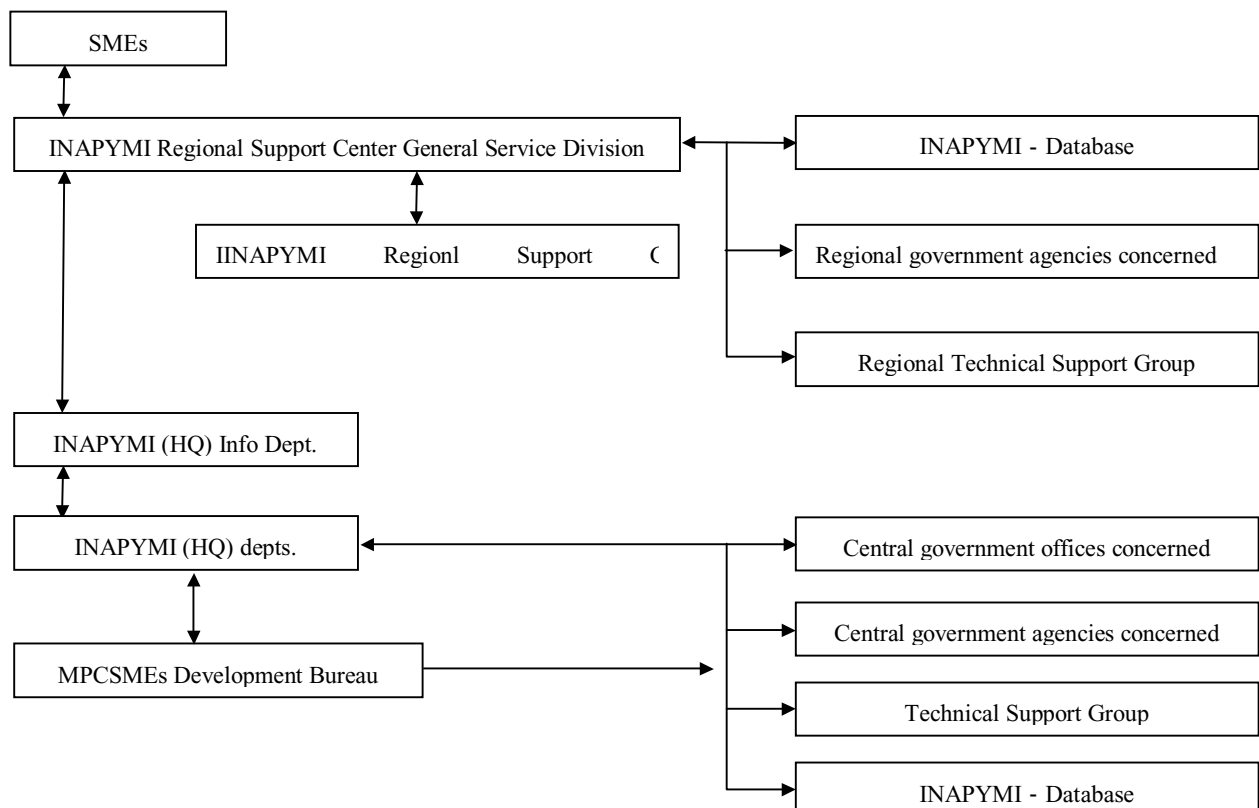
The purpose of adopting a one-stop-type service system is to simplify the complicated administrative procedures, about which many local SMEs are eagerly requesting improvement, by utilizing INAPYMI's new administrative service capabilities.

(2) One-Stop Service Counters

Counters of the One-Stop Service System will be set up at the General Affairs Service Divisions of INAPYMI Regional Support Centers.

(3) Function of One-Stop Service System

Upon receiving inquiries from local SMEs, the system will search appropriate authorizing agencies or specialists to answer the inquiries, process applications for permits/licenses, and respond to requests for specific information. The system will be so designed as to become a part of the cyber government in the future. Illustrated below is the mechanism of the One-Stop Service System.



(4) Contents of One-Stop Services

Among the services offered by the General Affairs Service Division of INAPYMI Regional Support Center, acceptance and processing of applications for governmental permits and licenses, as well as judicial affairs, will be handled at the One-Stop Service Counters. Listed below are merely examples of such affairs and may not correspond to actual procedures in Venezuela.

A. Permits and Licenses

- (i) Incorporation Procedures (including administrative procedures related to local government)

- (ii) Other permit and licensing procedures

Application for export and import license, drawback license, tax deduction, and intellectual property, other incentives.

B. General Consultation

- (i) Legal Consultation

- (ii) Other Consultation

Incentive programs and how to apply, Preparation of governmental application forms and procedures, Preparation of loan application forms and procedures, Corporate registration procedures and legal requirements, Other

2.3.2.3 SME Diagnosis

(1) Present Status

Public consulting service for SMEs in the country is provided by MPC (PAIPYMI), CONIINDUSTRIA, FIM, Carabobo State Economic Development Department (SEDEC(PTG program). However, all of them are not provided nationwide and need to be modified to provide service at national level.

(2) Recommendation

To improve SME diagnosis and consultation services in Venezuela, the following measures are recommended:

- 1) As part of SME promotion policies of the Venezuelan government, INAPYMI should take the lead in establishing the SME diagnosis system.
- 2) To assure the quality of SME diagnosis, a national-level consultant accreditation system should be introduced. More specifically, INAPYMI will conduct a state

examination and grant the national consultant license to those who passed the examination and hire them preferentially.

- 3) INAPYMI should take the lead in fostering consultants and educating/training entrepreneurs, SME operators, and personnel engaged in SME policy programs. In a short term, INAPYMI can modify and utilize existing programs while working with other agencies. MPC's SME policy makers and other outside lecturers will be employed to teach certain subjects. Eventually, INAPYMI will establish an independent training/education system to foster consultants, entrepreneurs, SME operators, and SME policy executors.

2.3.2.4 Consultant Accreditation System

(1) Present Status

1) Consultant Training Programs

A. FIM PRODUCTIVIDAD

In Venezuela, FIM PRODUCTIVIDAD (NGO) has been offering business consultation services since the early 1980s. It has been making concentrated efforts on fostering consultants and produced 200 to 300 consultants in the past 15 years. Its basic training course covers theoretical education, practical training at actual business sites, and learning of diagnostic criteria and standard. Its standard has undergone numerous revisions since 1981, and CONINPYME is currently using the FIM diagnostic standard.

B. CONINDUSTRIA

Under the SME Consultant Training Project (supported by IDB) that started in 1999 as a CONINPYME program, CONINDUSTRIA has fostered 190 consultants. FIM, Metropolitan University, and Spanish (Basque) aid organization were contracted to carry out the actual training programs. Two courses are available under this project as outlined below:

Regular program	:	Training period	:	6-month course
		No. of trainees	:	20
Intensive seminar	:	Training period	:	2 – 3 days
		No. of trainees	:	35 – 50

C. INSE

Enterprise Adviser Program was inaugurated in 1993 and has since fostered 93 advisers. This program aims to improve the productivity and stability of SMEs by presenting improvement plans to SMEs as the final result based on the diagnosis done by the advisers fostered under the program. It is up to each SME whether or not to implement the recommended plan. The program, which was developed by expanding the quality/productivity improvement concept of ISO-9000, offers consultation services at an exceptionally low rate of US\$9.00/hr (whereas the going rate is at least US\$25.00/hr) to SMEs that cannot afford to hire consultants on their own. These consultation services use the “Competency Based Economic by Formation of Entrepreneur” method of GTZ of Germany.

D. Other Programs

In addition to the above, FUNDES and IESA are conducting specialist training courses, which, however, are for training entrepreneurs, proprietors, and managers, but not for fostering consultants.

2) Types of Consultant and Qualification

Traditionally, most Venezuelan consultants were trained at FIM, whereas today, registered consultants under the CONINPYME program of CONINDUSTRIA are regarded more as standard consultants.

Consultants registered with CONINDUSTRIA are classified as follows:

Types of Consultant

Integrated Consultant (provides consulting services in all fields)

Specialized Consultant (provides consulting services in specific fields)

Types of Consultant by Qualification

Junior Consultant 50 or lower

Standard Consultant 51 – 60

Senior Consultant 61 or higher

Consultants registered with roster are classified according to category, qualification, special skill, general management, experience, academic background, presentation at conferences, regional specialty, etc.

(2) Problems

1) Absence of Unified Qualification Standard

A major problem under the present system is the lack of public certification on consultants, whose quality varies greatly among individuals. In particular, there are many consultants who are not qualified or who rely on experience or reputation, creating uncertainties among client companies, particularly SMEs, about reliability and value of advice.

2) Obscure Classification of Consultants

Although CONINDUSTRIA has divided consultants into several classes, fields of expertise of each class are not clearly defined. Division of work and specialization between the technical advisors trained at INSE and the specialized consultants of CONINDUSTRIA are also unclear. Scales of enterprises subject to consultation services need to be identified as well.

3) Expensive Consultant Fees

Considering the status of the labor market in Venezuela, the going rate of consultant fees is exceptionally high. The current rate (US\$25/hr. to Bs25,000/hr.) is almost comparable to that in Japan and not affordable for average SMEs. In order to disseminate consultation services to upgrade Venezuelan SMEs, the rate should be lowered to an affordable level.

4) Absence of Skill Update System

In ever-progressing industrial society, consultants must keep pace with advancing technology by constantly learning and evaluating the latest techniques so that they can give proper, up-to-date guidance to enterprises. To ensure this, consultants' skills need to be reevaluated and updated periodically.

(3) Necessity for Establishing the Accreditation System

Technical support is one of the most important aspects of SME promotion. SME consultants are technical advisors who are in the position to provide actual support with reliable skills and knowledge in specialized technical fields. Therefore, the consistency of consultants' faculty should be assured by a certain accreditation system like those for doctors, lawyers, and certified public accountants.

(4) Proposed Plan for Consultant Accreditation System

1) Classification

A. Temporary Measure

If the present system is adopted by CONINDUSTRIA, present consultants will be hired as provisional measures, while integrated consultants will be classified as general consultants and specialized consultants as technical consultants. They are required to take the government's certificate test within two years after the start of the new system.

B. Classification under the New System

I. General Consultants

- a. Accreditation criteria of junior-level consultants
- b. Consultants for all sectors

II. SME Management Consultant

- a. Accreditation criteria of professional consultants
- b. B-1 : Consultants for manufacturing sector
B-2 : Consultants for service/distribution sectors

III. Technical Consultants

- a. Accreditation criteria of professional engineers
- b. Consultants by industrial sector
(Examples in Japan: machinery, shipbuilding, electric, electronics, chemistry, textile, resource engineering, construction, waterworks, health engineering, agriculture, forestry, fishery, industrial engineering, information engineering, applied science, bioengineering, environment)

2) Outline of Accreditation System

A. Method of Accreditation

- a. Qualifications: None required (except for technical consultant examination, which requires candidates to have a bachelor's or higher degree of engineering and seven or more years of experience in business).
- b. Document examination (accounts for 10% – 20%)
- c. Written examination (accounts for 50% – 70%)
- d. Practical test (accounts for 10% – 15%, not applicable to technical consultants)
- e. Oral examination (accounts for 10% – 15%)

B . Renewal of License

General consultant	: renewed once in every five years
SME management consultant	: renewed once in every three years
Technical consultant	: renewed once in every three years

C . Examinations for Qualifying Consultants

a . Prerequisite

Those who successfully completed the “SME Consultant General Education Course*” in college are exempted from the first-round examination.

*Note: SME Consultant General Education Course will be newly established in certain colleges, and students who passed the examination on completion of the course will be issued of a certificate of completion.

b . First-Round Examination

- Basic knowledge (SME promotion programs in Venezuela, code of ethics for consultants, comprehensive diagnosis, guidance method, etc.)
- Accreditation of General Consultants will be done based on the result of this first-round examination only.

c . Second-Round Examination (Not necessary for general consultants)

- Written test
- Training
- Interview
- License renewal examination (written and oral examinations)
- SME management consultant (once in every 3 years)
- Technical consultant (once in every 3 years)

3) Registration System

- Registration form (to be prepared in MPC format)
- Registration counter (MPC)
- Database (INAPYMI Database)
- Things to note when using the system

Chapter 3

Target Subsector Promotion Plan

Chapter 3 Target Subsector Promotion Plan

3.1 Automobile Assembly and Parts Industries

3.1.1 Automobile assembly industry

(1) Local automobile market

According to the Automotive Parts Industry Association (FAVENPA), approximately 3,940,000 motor vehicles of all types were sold in the country between 1965 and 1999, of which 2,280,000 units were still owned as of the end of 1999, accounting for 58%. Those used for less than 5 years account for 28.33%, 6-10 years 19.08%, 11-15 years 19.97%, and more than 15 years 32.63%. Thus, more than one half of automobiles used in the country are 11 years or older. Percentage compositions of automobiles by category and service life are shown below.

Based on the current ownership, annual automobile demand was estimated for the average service lives of 10 and 15 years, namely 228,000 and 152,000 units respectively. On the other hand, the present automobile population can be classified into local assembled vehicles and imported vehicles. Locally assembled vehicles account for approximately 88% of total. If assembled vehicles imported by local assembly manufacturers are added, approximately 94% of all automobiles owned in the country was supplied by local companies.

By country of origin, U.S. vehicles hold a dominant 58% share, followed by Japanese 20%, European 14%, Brazilian 5.4% and Korean 2.6% (on the rapid rise in recent years).

(2) Automobile assembly industry in Venezuela

At present, there are seven assembly companies operating in the country, which register with the Automobile Industry Association (CAVENEZ). The U.S. big threes are operating in Carabobo, two truck and bus assemblers in Aragua. Toyota and Mitsubishi have assembly plants in the east side of the capital, Sucre and Anzoategui. Other than the seven companies, two companies recently ceased their operations, Fiat in May 1999 and Honda in September 2000.

TABLE 3.1-1 AUTOMOBILE ASSEMBLERS OPERATING IN VENEZUELA

Assembler	Year started	Location (state)	Equity contribution by pared company
Daimler Chrysler de Venezuela L.L.C	1950	Carabobo	100%
Ford Motor de Venezuela S.A.	1962	Carabobo	100%
General Motors Venezolana C.A.	1948	Carabobo	100%
Iveco Venezuela, C.A.	1992	Aragua	-
Mack de Venezuela C.A.	1963	Aragua	-
MMC Automotriz S.A.	1990	Anzoátegui	Nissho Iwai 90%, JAIDO 10%
Toyota de Venezuela C. A.	1963	Sucre	90%

Source: JICA Study Team

The automobile assembly industry in the country grew rapidly after the Automobile Industry Law was enacted in 1962. As shown in the following table, the law was amended repeatedly and created the business environment that was highly unstable for both assembly and parts manufacturers.

TABLE 3.1-2 HISTORY OF THE AUTOMOBILE INDUSTRY ACT IN VENEZUELA

Year of amendment	Description															
1975	To establish the final local content level at 90% under the initial Andean agreement.															
1982	To lower the final local content level to 50% in consideration of the actual level of industrialization.															
1985	To lower the mandatory export ratio to 50%.															
1990	To abolish restrictions (permitting entry of new assemblers, allowing the change or addition of car types, and limited imports of assembled cars) and establish mandatory contribution to foreign currency reserve (PCD).															
1991	Liberalization of imports of assembled vehicles (previously limited to models that are assembled in the country) and reduction of the rate of mandatory contribution to foreign currency reserves.															
1995	To amend the original law to ensure harmonization with the Andean agreement, then the Act was lapsed. (Major amendments) - To establish common tariffs for trade with non-CAN countries. - To allow imports of automobiles produced in the region at zero tariff. - To establish local content (33% for C1 category and 18% for C2 in 1999).															
1999	The New Andes Automobile Law was enacted to lower local content significantly after 2000. (General outline of the new automobile law) Local content <table><tr><td>Category</td><td>(1999)</td><td>2000</td><td>2001</td><td>..... 2009</td></tr><tr><td>C1 (up to 16 passengers) (33%))</td><td></td><td>24.75%</td><td>25.75%</td><td>4.75%</td></tr></table> Passenger cars/GVW (commercial vehicles up to 4.53 tons) <table><tr><td>C2 (Other vehicles)</td><td>(18%)</td><td>13.5%</td><td>14.0%</td><td>18.0%</td></tr></table> Tariff rates CDK tariff 3% CAN common tariff Category C1 – 35%; C2 – 15% (Venezuela, Colombina) Category C2 – 10% (Ecuador)	Category	(1999)	2000	2001 2009	C1 (up to 16 passengers) (33%))		24.75%	25.75%	4.75%	C2 (Other vehicles)	(18%)	13.5%	14.0%	18.0%
Category	(1999)	2000	2001 2009												
C1 (up to 16 passengers) (33%))		24.75%	25.75%	4.75%												
C2 (Other vehicles)	(18%)	13.5%	14.0%	18.0%												

Source: JICA Study Team

According to CAVENEZ's data, sales of locally assembled and imported vehicles changed significantly between 1990 and 2000 according to the change in the administration. Now, imported vehicles account for nearly 40% of the total. Note that the Figures in the parenthesis denote the share of assembled cars imported by local assemblers. Annual variation of the Figures is partially caused by withdrawal of Fiat and Honda, while it reflects the fact that assembly companies have been importing assembled cars to maintain their share.

TABLE 3.1-3 YEARLY CHANGES IN AUTOMOBILE SALES (1999 – 2000)

Year	Locally assembled	Imported (% by local assemblers)	Total	Administration
1990	41316	-	41316	Gobierno de Pérez (1989 – 94)
1991	70656	4267 (11%)	74923	
1992	87913	43676 (45%)	131589	
1993	81225	45086 (54%)	126311	
1994	56126	17948 (52%)	74074	Gobierno de Caldera (1994 – 99)
1995	77985	10997 (22%)	88982	
1996	55220	12635 (51%)	67855	
1997	35121	44736 (55%)	177857	
1998	21384	54366 (63%)	175750	Gobierno de Chávez (1999 -)
1999	71368	32971 (53%)	104339	
2000	88226	57080 (35%)	145306	

Source: CAVENEZ

On the other hand, locally assembled vehicles are exported mainly to Colombia and Ecuador, as shown in the table below. Exports fell sharply in 1999 partly due to deterioration of the neighboring markets and the decline in price competitiveness caused by the appreciation of the Bolivia.

TABLE 3.1-4 YEARLY CHANGES IN EXPORTS OF LOCALLY ASSEMBLED VEHICLES (1994 – 2000) AND IMPORTS OF VEHICLES ASSEMBLED IN THE CAN REGION

Year	Colombia	Ecuador	Others	Total (imports of CAN-assembled cars)
1994	15514	3698	91	19203
1995	15163	3754	222	19139
1996	12825	1876	22	14723
1997	16563	3236	2	19801
1998	11123	3510	34	14667
1999	1744	121	49	1914 (5572)
2000				3747 (15763)

Source: CAVENEZ

(3) “Family car” project in Venezuela

The major change in the recent automobile market in Venezuela is the successful achievement of the “family car” project launched by the Chavez administration in August 1999. Under the five-year agreement signed with assembly companies, sales of locally assembled vehicles and small passenger cars made in Colombia have been growing

rapidly. The outline of the project and models produced under the project are described below.

1) A general outline of the “family car” project

- a. Technical specifications for “family cars”: A two-door coupe or sedan accommodating a driver and four passengers, equipped with a 1,000-1,600cc, four-cylinder engine burning nonleaded gasoline, with an after-burner for pollution control; minimum fuel economy of 12km/liter; minimum guarantee for 30,000km or one year; spare parts for 10 years; service warranty; and sales price ranging between 4 million Bs and 5.5 million Bs, which may be varied according to the foreign exchange rate and inflation, subject to prior approval of the government.
- b. Incentives: Assembled vehicles, imported parts, and locally produced parts are exempted from IVA. Assembly companies, parts suppliers and distributors are required to offer the designated discount prices, with the bank’s financial service under favorable terms.

TABLE 3.1-5 ASSEMBLY COMPANIES PARTICIPATING IN THE “FAMILY CAR” PROJECT AND MODELS OFFERED

Assembly company	Family car model	Sales price (July 2001)
Venezuela GM	Corsa 1400 manual	Bs. 6298000
Venezuela Ford	Festiva 1300 manual	Bs. 4380000
	Festiva 1300 automático	Bs. 4895000
	Fiesta 1600 manual	Bs. 665000
MMC	Accent 1300 manual	Bs. 6200000
Sofaven (Venezuela Renault)	R-19	Bs. 743900
	Twingo	Bs. 6250000
Venezuela Mazda	323	Bs. 6483000

Source: JICA Study Team

The family car market has been growing steadily. If it expands at the pace recorded in the January-July 2001 period, the market will reach an annual size of nearly 60,000 vehicles, accounting for 30% of the overall market. Now, Toyota has obtained the government license for 1300cc Terios and plans to start sales at 7 million Bs in December this year. Daimler Chrysler has obtained the license for a family car made by Hyundai, called “Brisa.” As family-size cars have gained a more than 40% share in

Brazil where an official support program to promote people's car has been embarked earlier, the Venezuelan government expects the "family car" project to contribute greatly to growth of local automobile demand. Another factor for increase in local automobile production is the result of the negotiation between the Venezuelan and Colombian governments on tariff treatment of family cars; at present, family cars made in Colombia are exempted from IVA as they are imported to Venezuela, while those made in Venezuela do not receive the same treatment in Colombia.

(4) Automobile industry and free trade agreements

As mentioned earlier, Venezuela has signed and will sign a free trade agreement with neighboring countries, including the Andean agreement with Colombia and Ecuador, G3 with Mexico and Colombia, and MERCOSUR including Brazil and Argentina. The automobile industry must compete with counterparts in these countries, which are compared in the table below. For the immediate target, the Venezuelan industry should aim to become the leader in the CAN area.

TABLE 3.1-6 COMPARISON OF AUTOMOBILE INDUSTRIES IN VENEZUELA AND NEIGHBORING COUNTRIES

Country	Production (vehicles)	Exports	Ownership	Sales of automotive parts (US\$)
Argentina	350000	13000	7000000	4000 millions
Brasil	1660000	360000	18000000	16000 millions
México	1880000	1433000	12000000	13000 millions
Venezuela	94000	3747	2000000	800 millions
Colombia	51011	16777	2000000	500 millions
Ecuador	10989	2476	1000000	170 millions

Source: FAVENPA, JICA Study Team

As for local content, Argentina, Brazil and other MERCOSUR countries require 60% or higher, Mexico (NAFTA) specifies 62.5% for C1 category after 2002 and 60% for C2 category, which are much higher than 26.75% for C1 in 2002 and 34.75% in 2009, as required under the New Andean Automobile Law. Thus, Venezuela and other CAN countries are lagged behind in the localization process. In consideration of the size and potential of the domestic and export markets, the automotive parts industry in Venezuela aims to localize relatively simple parts and components, not including engines, transmissions and other power train components, which is very realistic and reasonable

(5) Current state of selected automobile assemblers and recommendations for revitalization of the parts industry

Recommendations for government policy and strategy for the future development of the Venezuelan automobile industry are summarized as follows.

- a. The New Andes Automobile Law, which is effective until 2009, is based on the international agreement with Colombia and Ecuador and cannot be revised unilaterally, as in the case of the previous automobile industry law. As a result, it is trusted by the automobile industry and allows assemblers and suppliers to establish their business plans according to longer visions. The law has been adopted on the basis of experience and lessons learned from the government policy on the automobile industry over three decades. It is therefore important to maintain the law as the basis of the industrial policy and implement the future policy in consistent therewith, thereby to allow assemblers and suppliers to pursue long-term strategies.
- b. It is desirable to promote the family car policy that will contribute to the further growth of local automobile production. In this connection, the government should negotiate with neighboring countries to obtain preferential treatment (exemption of IVA) for family cars made in Venezuela, which is granted to family cars imported from these countries. At the same time, it is recommended to maintain the incentive program on family cars as they are effective in providing an impetus for the automobile industry and establishing the industry's foundation.
- c. Similarly, it is urgent to eliminate the unfair treatment on automobiles used as tax cabs. At present, taxi cars imported from third countries are exempted from IVA under the Decree No.126 dated May 5, 1999, while those assembled in the country are subject to IVA. Fair treatment will contribute to further growth of local automobile assembly.
- d. Majority of tax cars in the country are used for 11 years or longer. It is important to encourage replacement of the old fleet not only from the viewpoint of traffic safety, but economic stimulus as well. The government is expected to provide tax and other incentives for purchase of commercial vehicles, including preferential treatment on locally made vehicles in government procurement.

- e. As the economy has still to recover from recession, measures should be taken to ensure balanced growth of locally made cars and imported ones by controlling the latter from third countries within a specific percentage of the former. At the same time, the government should make efforts to create level playing fields for the automobile industry under the regional free trade agreements.
- f. Foreign exchange and financial policies should be directed to the development of international competitiveness in the long run, in the context of pursuing industry policy focusing on promotion of non-oil industries including automobiles.

3.1.2 Parts industry

(1) General background

Today, there are well over a hundred automotive parts suppliers of varying size, of which 80 companies are relatively large and members of FAVENPA. Therefore, data on the automotive parts industry shown in this report are based on those published by FAVENPA

As discussed earlier, majority of automobile assembly manufacturers are located in industrial estates in Carabobo and Aragua, which are in the central area surrounding the capital city of Caracas, whereas two Japanese companies (Toyota and MMC (Mitsubishi/Hyundai)) are operating in eastern states of Sucre and Anzoategui. Geographic distribution of the 80 suppliers reflects that of assemblers. 67 companies are concentrated in the central area, including the Caracas metropolitan area (10 companies), Miranda (15), Carabobo (29), and Aragua (13). On the other hand, only 13 companies are located in the west and east areas, namely Tachira (3), Lala (2), Torjiro (1), Cojedes (1), Sucre (4), and Anzoategui (2).

(2) Automotive parts market

Sales of automotive parts, as measured by FAVENPA data, remained more or less unchanged during the past four years after a major decline in 1998 due to the decrease in local assembly production (Table below). Furthermore, the market was almost equally divided among original equipment manufacturer (OEM) parts, replacement parts (REP), and exports (EXP), although no data on individual suppliers are available from FAVENPA. These sales data are compared with Mexico, Brazil, Argentina and other

CAN countries to show production capabilities of automotive parts industries in Venezuela and the Andes countries (CAN, Comunidad Andina de Naciones).

TABLE 3.1-7 AUTOMOTIVE PARTS SALES TREND IN VENEZUELA

(US\$ Million)					
Category	1977	1998	1999	2000	2001
OEM	480	390	260	280	350
REP	310	240	240	260	250
EXP	215	250	240	240	260
TOTAL	1,005	880	740	800	810

Source: FAVENPA

TABLE 3.1-8 COMPARISON OF AUTOMOTIVE PARTS SALES IN CAN COUNTRIES AND MAJOR AUTOMOBILE PRODUCING COUNTRIES IN LATIN AMERICA

(US\$ Million)		
Country	1999	2000
Brazil	14,500	16,000
Mexico	12,000	13,000
Argentina	3,000	4,000
CAN countries in total	1,500	1,470
Venezuela	740	800

Source: FAVENPA

(3) Major issues facing the automotive parts industry

Major issues identified from discussion among FAVENPA member companies, both general and specific to each product category, were identified as follows.

1) General issues

- Small production volume to create heavy financial burdens related to amortization of tooling costs
- High costs due to high tariff on imported raw materials, and high prices for domestic raw materials that exceed international prices
- The so-called “cost-penalty-zero” request by assemblers discourages localization or makes product development difficult (many complaint about credibility of

target prices specified by assemblers and confidential requirements for CKD vehicle prices)

- Limited access to technology, and the lack of enthusiasm among R&D departments of assemblers, which give priority to cost cutting over technical assistance
- Assemblers do not have interest in localization of low-cost, small parts.
- Assemblers do not provide support for exports that would contribute to production increase.
- High idling rate (below 60%)
- Parts and components made in Venezuela are less used in the manufacture of automobiles in Colombia, compared to the use of parts made in Colombia for assembly in Venezuela.

2) Product category

- Exhaust system: Assemblers use imported catalytic converters and do not provide support for localization. Assemblers use imported catalytic converters.
- Metal press parts: As there is no demand for repair parts, the decrease in assembly units causes the increase in tooling cost.
- Air-conditioners and cooling systems: The capacity utilization rate is 25% for air-conditioners and 50% for radiators. In the domestic repair parts market for air-conditioners and radiators, local products represent 60% and imports 40%. However, intensifying competition due to under-invoice of imports and smuggling is being concerned.
- Plastic parts/interior parts: Plastic parts, other than extrusion molded parts that require the high tooling cost, can be locally made, but production costs are high due to the high die cost caused by small production volume and high tariffs (10% - 20%) on imported raw materials and parts.
- Audio and electrical systems: Suppliers have experience in exports of batteries, antennas, speakers and radios, but they are concerned about the pace of technological innovation.
- Insulators, tubes, hoses, and filters: Basically, these items can be produced on an OEM basis. Filters are mostly incorporated into engines as part of CKD imports.
- Safety glass: Except for capsule glass that requires expensive capital investment, safety glass can be produced locally on an OEM basis.

- Brake systems, suspensions, and power trains: Production of parts and components related to suspensions and power trains, except for engines and transmissions, is mainly made by DANA VEN Group.

Overall evaluation of competitiveness among FAVENPA members indicates that most parts are considered to be competitive in domestic and CAN markets for repair parts, while opinion is divided for OEM, i.e., some parts are considered to be fairly competitive and others somewhat competitive. In the world market, most parts are not competitive enough, except for some categories that have some competitiveness as OEM or replacement parts.

3.1.3 Implementation plan for promotion of the target subsectors

(1) Localization of automotive parts

It is recommended that assemblers and suppliers start general discussion on the future localization plan in the context of a long vision through 2009 and on the basis of the New Andes Automobile Law, which constitutes an international agreement. And based on the long vision, they have to make efforts to reinforce competitiveness of automobiles and parts made in Venezuela.

(2) Introduction of uniform tariff rates and reduction

It is recommended to reduce import tariffs on raw materials and part used for production of automotive parts to a uniform 5% or 3% (applied to CKD parts).

(3) Adaptation to increased production of modular parts

Production of modular automotive parts can lead to the clustering of the parts industry in an open competition environment (not captive relations). Assemblers and suppliers have to discuss, together with the long-term nationalization plan, the system to allow the effective use of technology, machinery, equipment and labor force for the purpose of supporting joint efforts of suppliers to develop and manufacture higher value added parts

(4) Enhancement of the skill training system

It is recommended to establish a training system to teach basic skills to field workers of small suppliers.

(5) Recommendations for small- and medium-sized automotive parts manufacturers in Venezuela

1) OEM suppliers

- They are entering the age of free competition. To win customers, priority should be given to quality improvement (they have to make marketable products, not commodity parts) and cost reduction. These goals can only be achieved by redesigning their operations in ways to maximize work quality and efficiency, under the leadership of the management. Efforts should start from promotion of 5M (Mono de obras, Materiales, Maquinas, Medidas, Medio Ambiente) activities in order to eliminate or minimize in-process defects.
- Efforts should be made to develop good relations with assembly companies, including close communication and interdependence. In particular, suppliers should be ready and willing to meet customer demand for quality control and its improvement, which enable them to keep abreast of the technology trend in the automobile industry.
- Free competition means a wider opportunity. Suppliers are free to approach different assembly companies and develop new marketing channels. However, they should not be overzealous about new business opportunity. They should avoid entering a market or a field in which they do not have competitive strength and which is expected to incur loss.
- Factories should be run by the optimum number of workers. They cannot afford to accommodate surplus labor, which should be assigned to sales and product development activities. While factory workers make products and profits, others have to work hard to develop new products and technologies.
- Collaborative relations with other suppliers, including competitors, should be pursued in an attempt to start a new business by combining resources in a synergetic way, including joint development and production by sharing production equipment, techniques and labor force..
- IT should be fully utilized to improve productivity in the entire business process and marketing activity based on the Internet should be vigorously pursued..

2) Replacement parts manufacturers

- Managers should trace their products through distribution channels to check customer satisfaction and the changing market needs. They should realize that they make marketable products, not commodity parts, and they should be proud of supply such products.

- For the same reason, they should pursue the best workmanship and product packaging, which make products look more attractive.
- Efforts should be made to develop niche products, which holds the key to continuous business expansion.
- IT should be fully utilized and collaborative relations with other suppliers should be established and maintained to collect market and other information and advertise the company and its products.
- The OEM contract should not always be a final goal for suppliers. Niche markets provide opportunity for business expansion. It is important to make a right decision on the basis of the real ability and strength.

3) Support for SME managers

- One stop service via the Internet should be introduced to provide assistance and advice for SME managers who cannot often find or afford to outside advisors. Also, it is recommended to establish an Internet-based self-evaluation system (Sistema de Autodianoistico) and an official program to train SME consultants.
- The low interest rate, long-term loan program for SMEs should be expanded.
- Efforts should be made to promote broad-based human resource development by establishing education and training courses on radio, TV or Internet (Many SMEs workers have not finished secondary education.) and the certification system.

3.2 Plastics Industry

3.2.1 Current state of the plastic resin industry in Venezuela

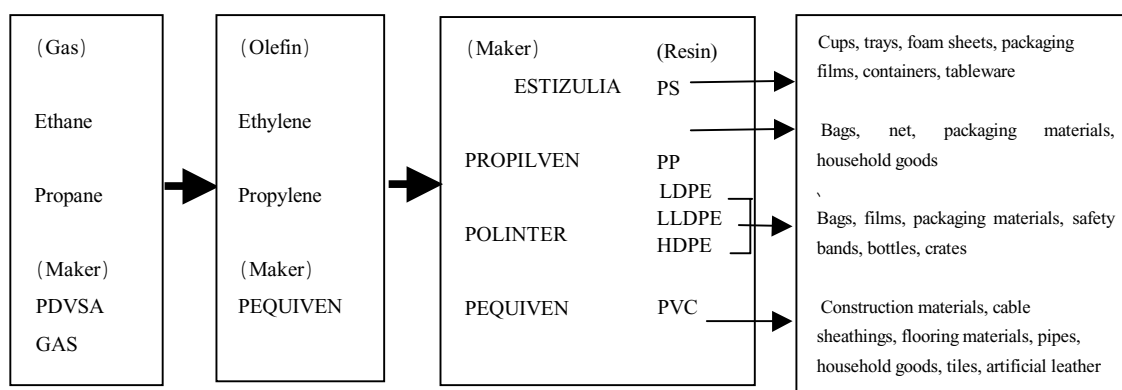
(1) Structure of the plastic resin industry

1) Industrial structure and domestic demand

a. Olefin/plastic resin chain

Olefin is the generic name for ethylene, propylene and other chemical products, from which synthetic resins (derivatives) are produced, generally referred to as plastic resin. Plastic resins are further processed into plastic molded products.

The olefin/plastic resin chain refers to a series of production processes to make olefin from petroleum gas (associated gas produced from crude oil), then polyethylene resins and plastic molded products.



b. Plastic resin demand

Major materials for plastic transformed products made in Venezuela include PVC resin¹, Polyolefin resin (LDPE², HDPE³, LLDPE⁴, PP⁵), PS resin⁶, as well as other imported plastic resins⁷. Domestic demand has been on the decline across the

¹ PVC • Poly Vinyl Chloride resin

² LDPE • Low Density Poly Ethylene resin

³ HDPE • High Density Poly Ethylene resin

⁴ LLDPE • Linear Low Density Poly Ethylene resin

⁵ Poly Propylene resin

⁶ PS • Poly Styrene resin

⁷ ABS, AS, PET, PC, Unsaturated polyester

product lines due to the economic recession in the recent few years and increasing competition from low price products imported from neighboring countries. Demand for PVC and PP has been growing slightly on account of government-aided housing construction and other public projects that were started in the latter half of 2000.

Annual domestic demand for plastic resin dropped from 360,000 tons in 1995 to 300,000 tons in 1999. It grew to 325,000 tons in 2000, equivalent to the 1997 level. Demand consisted of PE (LD, LLD, HD) 52.3%, PP 20.3%, PVC 17.2% and PS 7.7%. In particular, PVC demand went back to the 1998 level in 2000. (Table 3.2-1)

TABLE 3.2-1 APPARENT YEARLY CONSUMPTION OF PLASTIC RESIN IN VENEZUELA

(units : 1,000t/y)

Year	1994	1995	1996	1997	1998	1999	2000
PE (HD, LD, LLD)	123.7	178	169	175	196	160	170
PP	51.5	41	57	56	57	66	66
PVC	61.9	87	72	60	55	41	56
PS	30.0	36	31	27	25	25	25
Others*	9.8	20	11	9	8	8	8
Total	276.9	362	340	327	341	300	325

data at year '97 ~ '00 were estimated by JICA team.

Note: Others (ABS, AS, PET, PC)

Source: AVIPLA based on data supplied by ASOQUIM.

3.2.2 Current state of the plastics industry in Venezuela and major issues

(1) Current state of the plastics industry

1) Production

The plastics industry accounted for approximately 0.6% of GDP in 1998 and 1999. It represented 15% of the manufacturing sector and 1.6% of the chemical and petrochemical industries including plastic transformers. (Table 3.2-2) According to AVIPLA 2000, the capacity utilization rate of the plastics industry remains at around 43%. If the rate is doubled, the industry's share in GDP will exceed 1%.

TABLE 3.2-2 GDP AND PLASTIC TRANSFORMING INDUSTRY

(unit: 1 million Bolivar)

	1998	% GDP	1999	% GDP
Total GDP	587,023	100.0	551,971	100.0
Manufacturing industry	87,863	15.0	79,771	14.5
Chemical, petrochemical industry,	9,665	1.6	8,775	1.6
Plastic transforming industry	3,500	0.6	3,300	0.6

Source: ASOQUIM, BCV, AVIPLA2000

2) Number of enterprises and employment

According to AVIPLA 2000, the plastics industry showed declines in all indicators between 1997 and 1999, including employment, the number of enterprises, the capacity utilization rate, and export ratio. (Table 3.2-3) In particular, employment has decreased steadily in the 1990s, from 24,862 in 1990 to 17,716 in 1997 and then 13,048 in 1999. The average rate of decrease is 7% and the pace accelerated in the recent three years, 14.2% per year.

According to CONINDUSTRIA's survey of 350 enterprises in each industry sector, 29% of the plastic transforming industry increased employment between June and December 2000 and 28.5% responded no change. For all industries, 40% of enterprises indicated decreases in employment. Other indicators also suggest that the plastic transforming industry has been enjoying better business conditions since 1999; 54.9% of enterprises increased the capacity utilization rate and 22% reported sales growth.

TABLE 3.2-3 RECENT STATUS OF PLASTIC TRANSFORMERS

Year	Unit	1997	1998	1999	Annual Rate of Change
Number of employees	Person	17,716	15,293	13,048	- 14.18%
Number of enterprises	Number	289	272	245	- 7.93%
Production rate on transformer	%	46.7	44.3	42.6	—
Export ratio of production	%	12.5	10.45	5.81	—

Source: AVIPLA 2000

As for employment per enterprise, 25% of enterprises in the plastic transforming industry have 21-50 employees and nearly 80% have less than 150 employees. Thus, the industry is dominated by small- and medium-sized enterprises.

3) Value of production by the plastic transforming industry

According to AVIPLA, production of plastic transformed products has been steadily declining in the 1990s, e.g., 3.5 billion Bolivar in 1998 and 3.3 billion Bolivar in 1999. The average rate of decline during the decade is 5.5%. (Table 3.2-4)

TABLE 3.2-4 TOTAL PRODUCTION OF PLASTIC TRANSFORMING INDUSTRY IN VENEZUELA

(unit: Billion Bs)

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999
Production	5.5	5.0	4.8	4.6	4.7	4.3	4.2	3.5	3.3

Source : AVIPLA 2000

Similarly, the capacity utilization rate of the industry has been declining year after year. It dropped to below 50% in 1996 and reached 44.3% in 1998 and 42.6% in 1999. The industry thinks that the low rate represent export capacity.

4) Geographical distribution of plastic transformers

80% of plastic transformers in the country are located in the central area, 16% in the west area, and 2% in the east area. Within the central area, 37% of all the enterprises operate in Miranda and 19% in the Caracas metropolitan area. Thus, majority of plastic transformers are located in these two areas.

TABLE 3.2-5 GEOGRAPHICAL DISTRIBUTION OF PLASTIC TRANSFORMERS

West District	%	Central District	%	East District	%
Lara	6	DTO Federal	19	Sucre	1
Zulia	7	Carabobo	14	Anzoategul	1
Merida	1	Aragua	12		
Tachira	2	Miranda	37		
West District	16%	Central District	82%	East District	2%

Source : AVIPLA information

5) Physical distribution of plastic resin and transportation costs

Two plastic resin suppliers, Polinter and PEQUIVEN, have stock points (SPs) in Tablazo and Los Guayos. On the other hand, plastic transformers are distributed as shown in Table 3.2-5 (16% in the west area, 82% in the central area, and 2% in the east area). The suppliers deliver plastic resin to transformers and five distributors (see the table below) at the two SPs. When a customer takes delivery at the Tablazo SP, it must be responsible for transportation of plastic resin to its plant or other facility.

Note that the price for delivery at the Los Guayos SP is approximately 3% higher than that at the Tablazo SP because an additional transportation cost from Tablazo to Los Guayos is required. Plastic resin is shipped from either SP to the customer's facility upon request and at the customer's cost. In terms of transportation cost, therefore, a customer located close to Tablazo is advantageous over the one located further.

(2) Plastic product markets

1) Product categories

Table 3.2-6 shows types of plastic products available in the domestic market, and those exported and imported. As seen in the table, three product categories - containers, packaging materials and construction materials – account for a combined share of 60%. In the import market, construction materials also hold a relatively large share, while foamed sheets and caps & lids account for 20% each, and bathroom goods and films & sheets 10% each.

TABLE 3.2-6 MARKET SEGMENTATION OF PLASTIC PRODUCTS IN VENEZUELA

Category	Domestic market*1	Category	Import %	Category	Export %
Containers	18	Films & sheets	12	Containers	18
Packaging	27	Adhesive sheets	11	Bags	11
Electronics	3	Foamed sheets	20	Crates	5
School goods	1	Caps & lids	24	Coolers	3
Hose	2				
Construction	16	Construction	19	Construction	17
Toys	2			Cans	4
Agriculture goods	1				
Medical goods	3			Brushes & Combs	2
Cages & baskets	7			Cages & Baskets	2
Geomembranes	2				
Household goods	7			Household goods	37
Bathroom goods	4	Bathroom goods	13		
Others	7	Others	1	Others	1
Total	100		100		100

* 1 : Of those available in the domestic market, 75% are locally made and 25% are imported.

Source : AVIPLA

As for exports, household goods account for 37% of total, followed by containers and construction materials, which hold 17-18% each.

Note that these products are injection or extrusion molded. The three product categories account for 72% of plastic products, contributing greatly to exports.

Comparing imported products and locally made ones, the former is largely seen in foamed sheets, caps & lids, and bathroom goods.

(3) Production of plastic products

1) Production equipment

Most production equipment owned by SMEs in the plastic product sector is deteriorated due to aging. Of the selected 20 SMEs that were visited by the study team, only 5 companies (25%) own new equipment and other 15 companies use old equipment that has been for more than 20 years. New equipment owned by the five companies is limited to one or two units per company and the rest of equipment is fairly old. However, slightly over 30% of enterprises that responded to the questionnaire survey cited old equipment as a major problem facing them. This reflects the fact that the current capacity utilization rate is low and most SMEs believe that high quality products are not demanded by the domestic market.

2) Production technology

Many SMEs in the sector have production technology that is far below world standards. They have to realize importance of quality, cost and on-time delivery if they are to survive through intensive competition in the international market. Then, they have to analyze and identify their strategic direction in the context of world trends, and select and execute an optimum strategy. In reality, only a few companies move strategically and many others have still to find where they should go. The results of the questionnaire survey indicate that more than 30% of respondents cited low productivity (33%) and low levels of production technology (33%).

3) Production management

Many SMEs in the plastics sector need to modernize production management. In particular, they have to establish an organization capable of executing day-to-day production management activities according to the size of operation.

4) Supply of raw materials and quality

The results of the questionnaire survey indicate that SMEs feel uncertainty about raw materials in the following respects:

Price volatility of locally available materials	100%
Unreliable delivery schedule	33%
Instable quality (PVC)	33%

Nevertheless, these negative factors are expected to improve in the near future, for the petrochemical industry in Venezuela will improve supply capabilities through 2004. Also, the business environment will become more favorable for SMEs in the plastics sector as the government's economic promotion policy will take effect and inflation begins to subside.

(4) Sales of plastic products

1) Sales and distribution costs

The physical distribution system in Venezuela is not well developed. Most SMEs own trucks to transport raw materials and products.

2) Inventory management and cost

Large inventory of these products may turn to waste if consumer taste changes or demand declines. To minimize the inventory cost and various risks associated with excess inventory, it is desirable to control inventories of both raw materials and products at around one month.

(5) Other

1) Education and training

Majority of managers of companies visited by the study team pointed out the shortage of skilled workers (foremen).

2) Capital investment

Most SMEs use old production equipment and expensive, locally made materials.

3) Labor management

Many SMEs visited by the study team pointed out problems related to employment and labor management.

3.2.3 Proposals for Sectoral Reform for the Venezuela Plastic Products Industry

On the basis of the results of the above analysis, the following proposals are made to upgrade the ongoing efforts to promote the plastics industry in Venezuela.

(1) Vision

The small and medium enterprises in Venezuela's plastic products industry are to work towards achieving the following by the target year of 2005.

“On the basis of government policy for promotion of the SME sector, by achieving the three objectives of expanding the market through linkages with the major plastics-using industries, of improving cost competitiveness through collaboration within subsectors, and of upgrading of technology, to contribute to the growth of the SME plastic industry within the overall context of V's plastic products manufacturing industry.”

(2) Mission

The foregoing five items comprise the mission advocated for the sectoral reform program. They are to be supported through the three approaches of basic government policy, management strategy and practice at the level of companies in the sector, and through reform at the factory level.

1. **Basic items for implementation of factory reforms:** SME factories are to be reformed by the realization of shop-floor quality assurance programs, adoption of a re-evaluated marketing orientation in the product development process, and achieving quick customer response, in compliance with customer needs.
2. **Market growth strategy:** Implementation of strategies for expansion of the market and aggressive development of the export market.
3. **Strategy for improving cost competitiveness:** Promotion of joint purchasing of raw materials for plastic production, and by use of IT the collection and application of information to business activities.
4. **Technology upgrading:** Creation and support for a “National Plastics Center.”
5. **Attraction of foreign investment; and introduction of a standardization and quality assurance programs:** promotion of the attraction of investment from other countries as a means to shift towards greater output of high value-added products and specialty products; improving standardization and quality assurance systems as a means of expanding exports

(3) Strategy Proposal

1) Reform in the Petrochemical Industry

Venezuela is working towards the goal of having in place in 2004 a million tons/year of ethylene production, and 780,000 tons/year of polyethylene production. This would mean a doubling of polyester supply. Work by related parties (the government, polyethylene suppliers, the plastics products manufacturing industry and others) is progressing at eliminating potential problems in the polyethylene production chain.

The new plant may be able to attain the target production cost only if it maintains a high rate of capacity utilization. Whereas it would be necessary in order to achieve the target to sell 780,000 tons in the domestic and export markets combined, it is believed that the following objectives require support for attainment of a suitable level of sales in the domestic market:

- a. Domestic prices for plastic resins must be brought close to world market prices.
- b. Domestic consumption of plastic products for packaging and wrapping by domestic companies must be promoted through ASOQUIM.
- c. The functions of the National Plastics Center must be improved and in particular the training of veteran workers (supervisors) is to be done.
- d. Support must be provided for improvement of technology at SMEs.

2) Market Growth, Inter-Industry Linkage, Development of Export Markets

Expansion of the domestic market cannot be easily attained. This objective can be realized, however, if the relations between the different subsectors at the SME level can be improved, and if suitable efforts are made in related industries (user industries; see below) for introduction of new products and for promotion of the development of new uses for plastics.

a. Potential Market in the Automotive Industry

The potential demand in the automotive industry can be gauged by the estimation of the Japan Automobile Manufacturers Association that for a compact passenger car in model year 2001 8.3 kg of plastics were used, of which 50% was polypropylene and polyvinyl chloride use was 1 kg and had declined from earlier levels. Use of polypropylene is expected to increase in the future. It is recommended that in view of the expected increase (see table below) that the private sector and the government

adopt initiatives whereby domestic products can have a greater market. The role of the proposed National Plastics Center would be important in this connection.

b. Development of Applications of Plastic Film and Sheeting for Agricultural Uses

COVEPLA has been formed with the objective of developing agricultural uses for plastic materials. There are numerous applications that have been identified for the cool-temperature parts of Venezuela, such as protection against dehydration of seedlings, shutting out UV radiation, forcing of plants, and controlling ripening of fruit during shipment and storage. It would be helpful for promotion of such developments. There is great value to this as basic technology for Latin American production of “clean” vegetables, stabilization of fruit prices, improvement of agricultural productivity, promotion of the adoption of scientific farming, and the exportation of agricultural products.

It is proposed that through the COVEPLA organization that a study be made of relevant technology in use or under development in other nations, and that the interchange of technology be initiated. It is believed that promotion of R&D through COVEPLA would be fruitful in a short time.

c. Development of the Export Market

The high-potential export markets for Venezuela are the Caribbean nations and Columbia. These countries, however, are also Venezuela’s competitors. Unless inexpensive raw materials are procured from the world market, and production costs are kept low through appropriate production technology and low labor costs, the Venezuelan plastics products industry cannot easily compete against them. In comparison to these other countries, however, Venezuela possesses high quality technology and a high quality workforce, and the superiority of having domestic production of the raw materials for plastics production, as well as having a domestic market of good scale to support the industry.

In view of the above, the regions to which Venezuela has recently exported products and the products that have been exported are what should be taken up if the issue at hand is how to promote export growth in the near term, and improve the balance of payments. That is, the development of new markets and new products requires a certain amount of time, while it is rational to increase exports by recapturing lost markets.

Export regions: Within Mercosur, the northern Brazil, and the European, Caribbean, and Columbian markets are suitable targets. It would be necessary to work at the collection of information from the industrially advanced countries of Europe and the United States, and at development of export markets with the objective of maintaining competitiveness in the future. Efforts at developing the market in the advanced countries would contribute to the improvement of technology levels in Venezuela.

Export products: Export possibilities should be examined for extruded products for which there already is a track record for export business, technology related to extruded products, markets where exports have been successful, as well as a review of the products and study of quality, production cost, and output quantities. In such an instance, it would be vital to seek the cooperation of resin producers in order to be able to purchase resin at export prices.

It is proposed that a study committee be formed in order to concentrate the efforts of the SMEs in promoting exports, and that it develop an export strategy.

3) Strengthening Competitiveness

Many analysis and reports for competitiveness of the plastic product sector have been made. These are contributing to structure improvement and qualitative change of the sector. While it avoided repeating these reports, it described briefly the main two points considered very effective for the industry as follows:

a. Cost competitiveness

The material cost accounted in the price of a product is about 72% in the high case and 50% in the low case. Therefore, in order to increase cost competitiveness, in many cases, reduction of a material cost as well as improvement in yield rate and curtailment of a loss, are the most effective. In order to lower the purchase material cost, it is most effective to lower the domestic production plastic resin price. Manufacture cost can be cut 10-15% by reducing a materials price 15%. However, in order to fully enjoy the effect, it must be carrying out curtailment of a loss, and improvement in yield rate at the same time.

b. The common purchase of materials resin by setting up a common purchase association

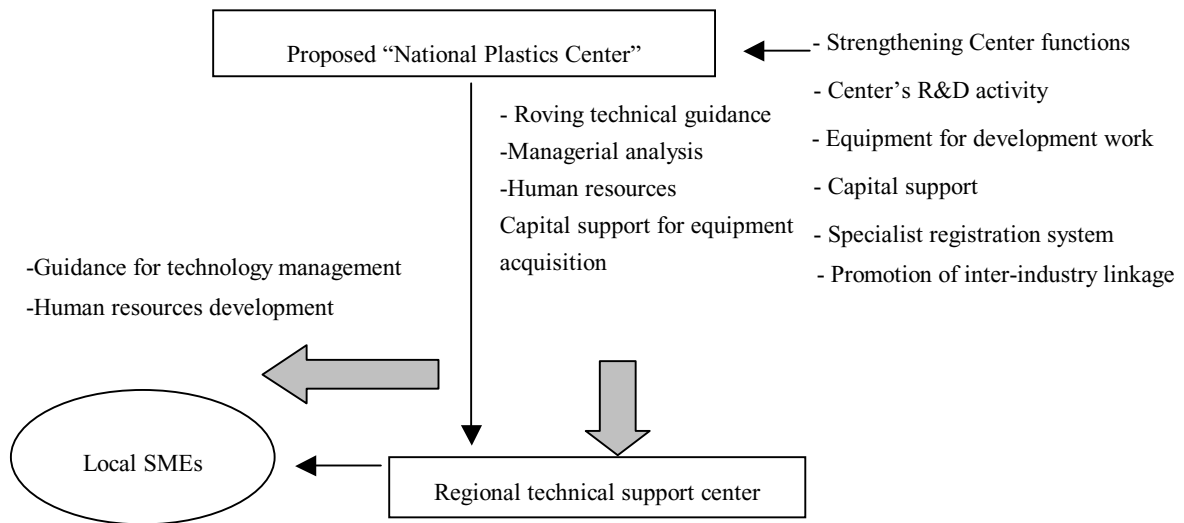
The establishment of a common purchase association for SMEs was recommended in order to purchase plastic materials in lump sum in large quantities, reduce materials

expense at the end. The common weakness of individual SMEs is a lack of fund for purchasing raw material, and being unable to purchase much resin materials at once. One of solutions is to create a common purchase organization by SMEs. Thus, a cooperative can gain negotiating power against resin suppliers to pull down the price by extensive purchase. Moreover, a cooperative will be able to receive a loan from a bank. Consequently, SMEs will be able to obtain required amount of materials resin from the common purchase organization which they belongs. Such a common purchase organization needs to continue continuously. For this purpose, it is desirable that the middle-scale company which purchases resin of 100 - 300ton monthly will be the core of the organization. As for a central and the local government, it is recommended to support setting up the organizations for a common purchase plan and materials supply. FONCREI may assist to supply a fund and PDVSA may cooperate in establishment and activity of organizations by selling raw materials. In addition, it is a good example that the common purchase association of an ARAGUA state is inaugurated from April, 2001.

4) National plastic center

As for the national plastic center Project of Venezuela, a detail plan is creating by the parties concerned (the government, ASOQUIM, AVIPLA, university, etc.). Since the contents of details were not indicated to the JICA Study Team, the following contents of an enterprise are proposed as reference.

Purpose: Establishing the technical center of a processing industry with the purpose of sustainable development of a plastic processing industry with competitiveness. The main functions are shown below:



For the staff, tie-up with the existing organization (examples: CEDEA, INCE, INDESCA, CIED, INTEVEP) can be considered.

- a. Technical consultation
- b. Management diagnosis and instruction system
- c. Cooperation with a local organization
- d. Promotion of the linkage between industries (refer to strategy proposal)
- e. Introducing official approval system of "consultant engineer"
- f. Technical upgrade through educational training

5) The improvement proposal for individual company (SMEs factory spot improvement)

There are many things which can be the effective by immediate judgment and prompt decisions, such as improvement in quality on the machine side, curtailment of a loss, exclusion of waste and overwork in production of SMEs. In order to foster personnel who can make these judgment and decisions, it is important to give on-the-job-training and technical brush up for a leading employee and a foreman by traveling consultation. However, it is necessary to provide financial assistance at the same time.

6) Others

a. Renewal of obsolete facilities in SMEs

There are many SMEs using the old production facility, and continuing production using expensive domestic plastic materials. As a result, productivity is low and the amount of money of the loss is large.

One of this solution is common production and common investment. A plastic sector companies can establish a cooperative society and performs scrapping of production facilities and introducing new equipment. The method has been enforced in a Japanese textile industry and plastic industry in the past. This method helps companies discarding surplus equipment and having cost competitiveness by raising operating efficiency. However, the government, SMEs, a financial institution, a plastic materials producer, a plastic processing industry association (AVIPLA), etc. need to cooperate to tackle this.

b. Joint technology introduction by SMEs

Production and development of high added value, special article, and differentiation goods etc. are means to activate SMEs in Venezuela,. However, for the present SMEs situation, it is not easy to develop a new product by themselves. A shortcut is introduction of technological know-how. In this case, the linkage between same or different industries is important. SMEs might cooperate to unite the each advantage, and form the organization for receiving technological know-how or of foreign direct investment.

An examples:

Special cap of a container (high-density PE)

Disposable injector body without metal needle (cooperation with special steel maker)

High-pressure injector (special plastic)

Plastic gear which does (high-density PE, special plastic use ..ex.. clock, printer, measurement apparatus)

3.3 Aluminum Product Industry

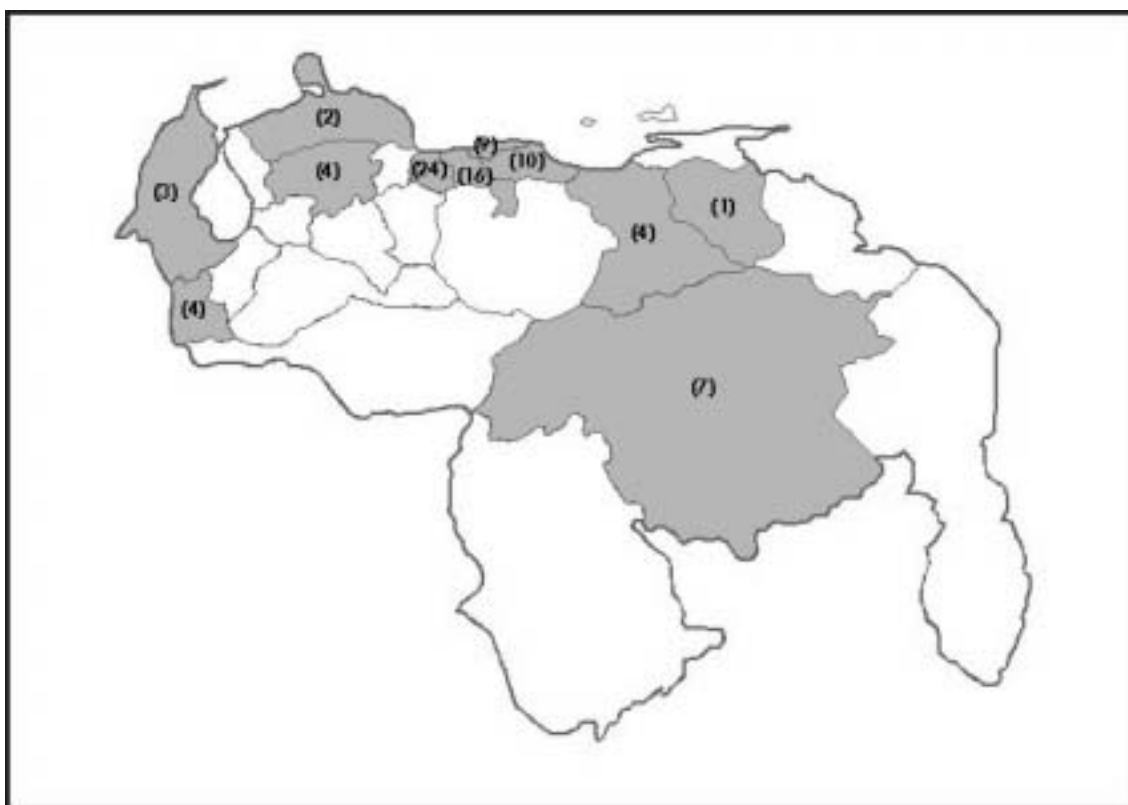
3.3.1 Current state of the aluminum transforming industry and major issues

(1) Current state of aluminum transformersGeographical distribution and size of operation

The number of aluminum transformers in each state is shown below. Figure 3.3-1 plots the figures on the country's map.

Primary aluminum manufacturers are concentrated in Puerto Ordaz, north of Bolivar. On the other hand, many aluminum transformers are located in four states surrounding DC.

FIGURE 3.3-1 GEOGRAPHICAL DISTRIBUTION OF ALUMINUM TRANSFORMERS IN VENEZUELA



Source: AVIAL, POTENCIAL EXPORTADOR SECTOR TRANSFORMADOR DE ALUMINIO 2001-2003, Junio 2001,

The following table shows breakdown of aluminum transformers according to application, together with the number of enterprises and employment.

TABLE 3.3-1 NUMBER OF ALUMINUM TRANSFORMERS AND EMPLOYMENT BY APPLICATION

Application	No. of enterprises	Employment
Construction material	25	1510
Electricity	4	755
Packaging	22	2420
Transportation equipment	12	980
Refrigerator	16	907
Consumer good	19	924
Total	98	7496

Source: AVIAL, POTENCIAL EXPORTADOR SECTOR TRANSFORMADOR DE ALUMINIO 2001-2003, Junio 2001,

(2) Market (demand)

1) Domestic market

Table 3.3-2 shows the recent trends in aluminum consumption by application. Clearly, power transmission lines and construction materials are major consumers of aluminum products in the country. It should also be noted that domestic demand declined abruptly in 1999. In fact, the local market is in a slump and aluminum wheel manufacturers operate at 25% of peak production levels.

TABLE 3.3-2 DOMESTIC CONSUMPTION OF ALUMINUM PRODUCTS

(1000 tons)

Application	1997	1998	1999
Construction	35.4	34.7	37.7
Electricity	84.5	85.5	57.7
Packaging	11.8	11.2	3.3
Transportation	11.5	12.0	12.4
Refrigerator	0.8	0.7	0.2
Consumer	2.7	2.4	1.0
Others	33.7	33.0	9.2
Total	180.4	179.5	121.5

Source: AVIAL Transforma Dec 2000 p.23

2) Export market

Table 3.3-3 shows aluminum export trends by product category. Major export items are aluminum wires, stranded wires and cables, aluminum wheels, and scraps, which account for a combined total of more than 70% (1999). However, these items have gradually on the decline, and in particular, exports of stranded wires and cables dropped sharply in 1999, being one half that in 1998.

TABLE3.3-3 ALUMINUM EXPORT TRENDS (1997 ~ 1999)

(1000 tons)			
Product	1997	1998	1999
Aluminum products in total	191.5	190.0	129.1
Aluminum scrap	14.4	16.2	20.5
Aluminum powder/flake	8.3	0.0	0.6
Aluminum bars/shape materials	22.4	16.1	10.8
Aluminum wires	41.2	48.6	38.4
Aluminum plates	22.0	14.1	6.1
Aluminum circles	3.1	3.1	2.0
Aluminum foils	26.1	26.2	9.3
Aluminum pipes	0.4	0.4	0.3
Piping materials	0.0	0.0	0.0
Construction materials	0.2	9.5	0.3
Tanks/containers	0.0	0.1	0.1
Other tanks and containers	2.9	4.1	4.2
Stranded wires and cables	34.7	37.8	19.4
Household goods	0.7	0.8	0.2
Aluminum wheels	12.3	11.4	15.8
Others	2.9	1.6	1.1

Source: AVIAL Transforma Dec 2000, p.23

(3) Current rating of enterprises surveyed

Table 3.3-4 shows the results of evaluation of the nine enterprises visited during the second field survey. Evaluation was made in terms of rating on a relative scale ranging from 1 (poor), to 2 (unsatisfactory), 3 (fair), 4(good), and 5 (excellent). Note that item “sales” should be rated on the basis of sales capability, but this evaluation focuses on capacity utilization. “Quality level” is evaluated in terms of rejection rate.

**TABLE3.3-4 EVALUATION OF NINE COMPANIES VISITED ON THE BASIS
OF RELATIVE RATING**

Category	Item	A	B	C	D	E	F	G	H	I
Quality	Equipment	1	2	4	1	1	5	4	2	5
	Quality level	3	3	3	1	3	5	2	3	3
Productivity	Production management	3	3	3	3	3	5	4	3	4
	Equipment maintenance	3	2	4	2	3	5	4	3	4
	Production technology	3	3	3	2	3	5	3	4	5
Marketability	Design	3	3	3	3	3	5	5	3	4
	Functionality	3	3	3	1	3	5	5	5	5
	Merchandisability	3	4	3	3	3	5	5	5	5
Price	Internal factors	2	3	3	2	3	5	2	5	3
	External factors	2	2	3	3	3	3	2	5	2
Sales	Sales	2	2	3	5	2	5	1	3	2

Source : JICA Study Team

Table 3.3-5 summarizes major problems identified by companies that were visited by the study team and responded to the questionnaire survey.

TABLE 3.3-5 MAJOR PROBLEMS IDENTIFIED BY SELECTED ALUMINUM TRANSFORMERS (Based on Responses to the Questionnaire Survey)

Category	Item	Compan y A	Compan y B	Compan y C	Compan y D	Compan y E	Compan y F	Compan y G	Compan y I
Sales, marketing	Lack of competitiveness								
	Lack of competitiveness in product quality								
	Products lack marketability								
	Lack of sales skills								
	Poor sales organization								
	Excessive competition with local companies								
	Others	a)	b)		e)				g)
Production technology	Aging equipment								
	Low levels of production technology								
	Issues related to production management system								
	Low productivity								
	Others								h)
Business management	Employment and labor management								
	Procurement management								
	Financial management								
	Inventory control								
	Training system								
	Others								
Raw materials and utilities	Instable quality of raw materials								
	Unreliable delivery of raw materials								
	Instable material prices								
	Unreliable supply of utilities								
	Others								
Political, institutional, environment	Taxation/tariff system								
	Government procedures and public service								
	Strict regulation								
	Pollution control and environmental preservation costs								
	Lack of government support								
	Shortage of training institutes								
	Poor levels of public training								
	Others		c)	d)			f)		i)

a) Lack of environmental conditions conducive to globalization

b) Lack of die cast manufacturers (only aluminum plate processors)

c) Shortage of training facilities, lack of market and export support

d) Financial access

e) Poor cash flow due to delay in payment for government procurement

f) Problems related to customs and customs clearance procedures

g) Need for low-cost loans and capital

h) Sluggish domestic market

i) Lack of effective incentive for export promotion

j) Difficulty in procurement of raw materials and severe contraction of the domestic market

Source: JICA Study Team

1) Production facilities and equipment

Table 3.3-6 shows production capacity of the aluminum transforming industry and its utilization rate in 2000, as estimated by AVIAL, and share of export production and production for the domestic market. The total production capacity is estimated at 414,240 tons/year, the capacity utilization rate 54%, ratio of export production to local production 59:41.

TABLE 3.3-6 PRODUCTION CAPACITY OF THE ALUMINUM TRANSFORMING INDUSTRY AND CAPACITY UTILIZATION RATE

Category	Capacity 1000 tons/year	Utilization rate %	Share of export production	Share of local production
Electrical wires and cables	190.0	50	72%	28%
Construction materials (bars/shape materials)	47.1	49	30	70
Packaging materials (slug and tube)	54.5	54	65	35
Transportation equipment (components)	22.7	68	80	20
Rolled products (sheets, plates, foils)	100.0	50	50	50
Total	414.2	54	59	41

Source: AVIAL "POTENCIAL EXPORTADOR SECTOR TRANSFORMADOR DE ALUMINIO 2001-2003"

2) Production technology and management

As seen in Table 3.3-4, corporate evaluation indicates that Companies F, C and I keep higher levels of production technology.

3) Introduction of technology

A flying pan manufacturer visited by the study team exclusively hold licenses from foreign companies. A tube manufacturer has introduced an impact deep drawing sytem technology from the U.S., with equipment.

4) Procurement and sales

As shown in Table 3.3-5, 6 out of 11 companies pointed out instable quality of raw materials and 7 companies instable material prices. Aluminum transformers currently purchase ingot at LME prices, and they want domestic the prices to be lowered to the levels that allow competition with foreign manufacturers.

5) Education and training

In the questionnaire survey (Table 3.3-5), 6 out of 11 companies complained about the shortage of training organizations, and 4 the poor level of training. Some pointed out poor vocational training at INCE.

3.3.2 Recommendations for improvement

The aluminum transforming industry faces the urgent problem to deal with, the decline in capacity utilization rate and the decrease in sales due to the sluggish demand. At the same time, it must promptly take effective measures to expand the market in the long run. In this section, recommendations are made to address these needs.

(1) Strategic guideline

1) Rationalization of the primary aluminum industry

CVG, as a public corporation representing the primary aluminum industry, is expected to develop and execute programs focusing on SME promotion. In particular, it should make efforts to expand the market from the viewpoint of customer service and satisfaction. In particular, it has two major tasks to carry out. First of all, it should listen to the requests of aluminum transformers, including the lowering of ingot prices, and take appropriate action for the interest of promoting SMEs. Secondly, it should enhance its ability to play a leading role in technological development as well as product development in the downstream sector by providing testing, research, technical consultation and financial service functions.

2) Upgrading of the aluminum transforming industry

Demand for high value added products serves as an impetus for upgrading of any industries including aluminum transformation, because it requires advanced equipment skills. To spur such demand, MPC should take leadership in initiating project to expand the markets for aluminum products in the long run, particularly the domestic market.

(2) Deployment of strategic guideline

1) Rationalization of the primary aluminum industry

The primary aluminum industry and the aluminum transforming sector has discussed the issues related to supply and sales of raw materials. However, negotiation seems to be suspended due to the change in management on both sides. They have reportedly

discussed the establishment of supply stations (stock points) to deliver ingots from the manufacturer to aluminum transformers, provision of free transportation service, optimization of lot size, and the establishment of discount prices. It is important to realize that these issues are boiled down to the zero sum game – one side profits at the other's loss (A benefit of one party creates a burden on the other.) Thus, so long as the two parties negotiate from their own ground, the conflict is difficult to solve. It is therefore recommended that CVG make the first move to resolve the supply problem for aluminum transformers. It should propose and implement a plan to develop an optimum supply system from the interest of promoting its sales. As for discount prices, CVG should accept and review the request from each transformer. If a discount price is approved, it should be treated as sales promotion expenses. This way, an efficiency supply system can be quickly installed, at least in its preliminary form. At the same time, CVG will be able to obtain information on competitiveness of the downstream sector and use it for development of its marketing strategy.

It is important to take advantage of the industrial structure vertically integrated under the public corporation. Public policy targeting the primary aluminum industry can be effectively and promptly implemented. It is therefore recommended to work with CVG in setting policy targets and goals, measuring the results, and promoting activities.

2) Upgrading of the aluminum transforming industry

Aluminum transformers visited by the study team are roughly classified into the following four categories.

- a. Tube manufacturers: They have international competitiveness, which can be further reinforced if ingots are supplied at discount prices.
- b. Extrusion manufacturers: They make capital investment on a continuous basis and are willing to keep it in the future. They have sufficient production capacity to promote strong growth if effective demand exists. And they will be able to improve competitiveness further if discount price and other favorable conditions are given. Rolled product manufacturers are also in the same situation.
- c. Aluminum wheel manufacturers: They were previously expected to become internationally competitive. However, their market contracts rapidly due to sluggish demand. Also, they have some quality problems.

- d. Casting manufacturers other than car wheels: They generally require modernization in terms of production equipment and techniques. They can supply products that meet requirements of present customers, namely manufacturers of electrical equipment and consumer products, whereas they are capable of making automotive parts, which provide them with a great opportunity for market expansion. At present, automotive parts using aluminum castings, including engines, power trains and suspensions, are imported in the form of assembly from foreign sources. Although localization is not being demanded for the time being, development of the aluminum casting industry needs to be promoted from the viewpoint of SME promotion.

In consideration of the above factors, the following actions are proposed as core elements of the medium-term market development project to be implemented under the leadership of MPC.

- a. Development of new alcohol beverages to spur demand for aluminum cans
- b. Establishment of design standards to promote use of aluminum members for low-income public housing
- c. Establishment of a product development workshop for automotive castings

These proposals set forth the primary objectives: (1) to develop an alcohol drink for lunch; (2) to use the public works project for SME promotion; and (3) to encourage CVG with technology and funds to develop the ability to manufacture automotive castings, thereby to create incentive for local procurement of automotive parts and transfer technology to SMEs. Each proposal is described in detail, as follows.

- a. Development of new alcohol beverages to spur demand for aluminum cans

In Japan, 1,340,000 tons of aluminum plates were manufactured in 1999 and 410,000 tons (30.5%) were used for production of beverage cans. In Venezuela, beverage demand is expected to grow steadily, together with aluminum demand for soft drink and beer cans. In addition to such demand, it is proposed to develop a new beverage suitable for an aluminum can.

- b. Establishment of design standards to promote use of aluminum members for low-income public housing

In 2001, the country underwent the outbreak of the dengue fever, which caused extensive and serious damage. The disease was carried by mosquito, which bred massively in and around low income communities that accounted for the bulk of the

country's population. Unsanitary conditions in these communities should be improved urgently. An effective solution is to build public housing to accommodate low income people who are living in the desolate environment. And aluminum materials are suitable for public housing.

c. Establishment of a product development workshop for automotive casting

Generally, the automobile industry is a major consumer of aluminum castings and forgings. In Japan, 90.8% of aluminum castings produced in 1999 (341,000 tons) and 73.1% of aluminum die cast products (557,000 tons) were used for automobile production. Approximately 10 million automobiles were produced in that year. On the other hand, in Venezuela, 94,000 vehicles were assembled in 2000. As pointed out earlier, automotive components that use castings and forgings (engines, power trains, suspensions) are imported as unit assemblies and are not produced locally. There is no plan or prospect for localization. To promote localization of aluminum castings and forgings for automobiles, ALCASA or VENALUM should launch a project to develop production capabilities. Once production techniques and other know-how are established, they can be transferred to SMEs. This way, the supplier base for aluminum parts is established. As the first stage of the project, the production process should be selected according to potential demand and quality requirements, such as sand casting, mold casting, die casting, and squeeze casting.

d. Promotion of R&D related to aluminum products

To promote the downstream (aluminum processing) industries so as to increase value added by the domestic aluminum industry, while boosting supply of aluminum products to the domestic and export markets, it is recommended to initiate joint R&D projects on aluminum product development under the leadership of primary aluminum manufacturers and the participation of smaller aluminum processors. More precisely, primary aluminum manufacturers under CVG (including VENALM and ALCASA) will lead development efforts on aluminum processing technologies, including the development of new applications. Then, technologies so commercialized will be transferred to aluminum processing industries, together with technical assistance to establish production technology. At the same time, primary aluminum manufacturers will develop new aluminum products that substitute for other materials and select prospective products on the basis of market study inside and outside the country, followed by focused promotion of their commercialization. Market study will be conducted in cooperation of INAPYMI (domestic market) and BANCOEX (export

market), together with universities, technoparks and other public research organizations as required.

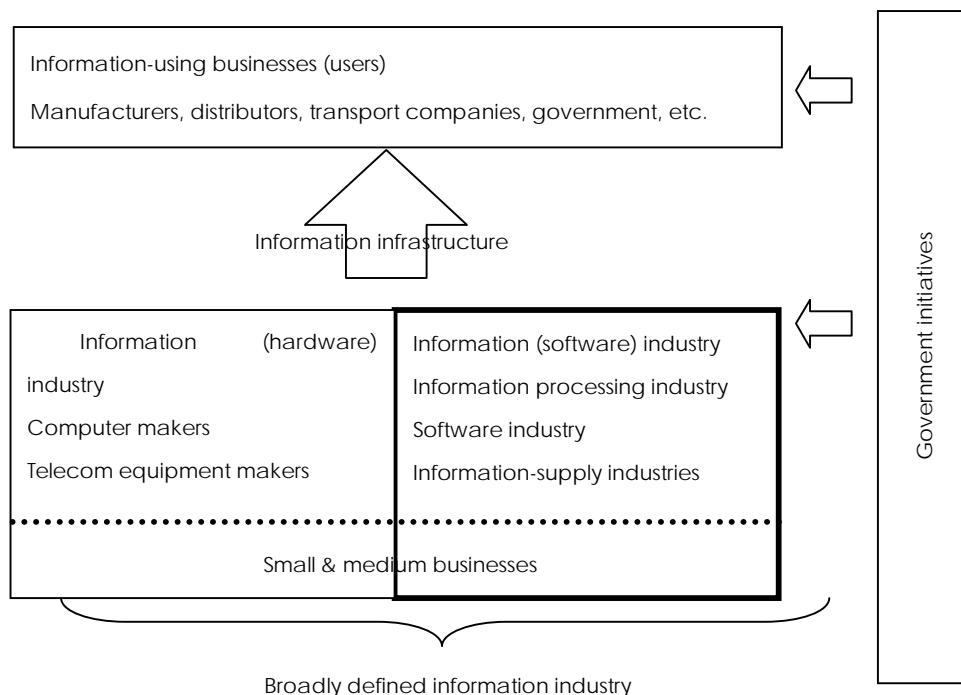
3.4 Information (Software) Industry

3.4.1 Trends in the World Information Industry

(1) Definition of the Information Industry

The broadly defined information industry, as shown in the diagram below, includes the hardware industry, but in this report the working definition of the industry that is used is that it comprises the information processing services industry, the software industry and information vendors. At times the expressions “information services industry” or “software industry” and the like are used, but in all cases can be understood to stand for “information industry” in the sense defined here.

The beneficiaries of the products and services provided by the broadly defined information industry are defined here as the information-using companies, or users.



(2) Information Technology Trends

1) Number of Internet Hosts

The number of Internet hosts in Venezuela, according to the Internet Software Consortium, was 14,281 as of January 2000, and 15,658 as of July of the same year, representing a 9.6% increase in just six months. During the five years through January the annual average growth was 95%.

TABLE 3.4-1 NUMBER OF INTERNET HOSTS IN VENEZUELA

	95/1	95/7	96/1	96/7	97/1	97/7	98/1	98/7	99/1	99/7	00/1	00/7
No. of hosts	529	853	1,165	1,679	2,417	4,679	3,869	6,825	7,912	9,424	14,281	15,658
Growth rate (%)		61.3	36.6	44.1	44.0	93.6	-17.3	76.4	16.0	19.1	51.5	9.6

Source: CAF report, Dec. 2000

2) Use of the Internet

Venezuelans began using the Internet in 1995, somewhat later than most other countries. The level of usage is still in the initial stage. Users are 2% of the population. Classified by place where the Internet is used, the overwhelming majority of users are in private homes. It can be said that the environment for use by companies and the government is yet to be formed.

The two major characteristics of Internet use in Venezuela are:

- Almost all (more than 50%)⁸ users reside in Caracas.
- Internet providers with the exceptions of T-Net and CANTV Service have fewer than 10,000 users (many have fewer than 5,000).

Up to this time, almost all users connected to the Internet in order to use e-mail. As a result, average time spent online has been only 12-13 hours/month.

TABLE 3.4-2 NUMBER OF INTERNET USERS IN VENEZUELA, 1999

Category	No. of users	Ratio (%)
Education	116,000	22.5
Government	45,500	8.8
Large, medium businesses	56,000	10.9
Small businesses	49,500	9.6
Households	247,500	48.1
Total	514,500	100.0
Post-adjustment for double counting	452,000	
Venezuela population	23,710,809	
Internet user rate (%)	1.91%	

Source: IDC Venezuela

⁸ >50% is not almost all but that is what is written!!! Almost all is 90% or more in my book.

(3) Present Conditions and Issues in the Venezuelan Information (Software) Industry

1) Present Status of the Software Industry

a. Attitudes of Software House Owners

While many of the software houses visited had been started each by only a handful of owners, the attitudes shown towards being engaged in the software business were thoroughly professional and were not tech-biased. Strict attention was being paid to use of computers for fulfillment, budgeting, and quality assurance in their project management activities, in order to achieve “customer satisfaction.”

b. Nature of Software House Business

The software companies visited were engaged in consulting, system development and integration, management of customers’ information systems, education and training, agency sales of software and computer equipment, repair and maintenance of computers, and so on. The relative importance of these different lines of business varies from company to company and diversity was standard. Each company had at ready its module program as the core for system development and had adopted a system of modifying it according to decisions derived from customer requirements. The environment is already compatible for introduction of package systems for ERP.

c. Business Conditions at Software Houses

Business was more or less stable at the software companies visited. Many of these companies had as major customers banks and other financial institutions, petroleum-related companies, governmental agencies at local and central levels, and major companies in manufacturing or distributing. They adjust their human resources to meet changes in conditions and continue in a stable manner. The large companies that comprise their major customers continue to be outsourcing-oriented with regard to functionality for development and operation of their own systems. Because the software houses can obtain a certain amount of income from this outsourcing, there is some cause for concern that they will become lax in terms of their drive to develop new customers. But at the same time some companies had established operations in Miami, Argentina, Puerto Rico or elsewhere in order to overcome a handicap associated with product “made in Venezuela,” and gave the appearance of being international companies.

d. Finances

Developing software is a business activity within the bounds of a company's own capital resources. Software industry firms generally rely on external finance to a low degree, because the cost of borrowing from financial institutions is high and the firms tend to lack fixed assets to post as security. Many firms would like to be able to use intellectual assets such as software patents as security in order to obtain funds at low cost for the relatively short periods needed to develop the market for new software products and promote those products.

e. Human Resources Development , and Education and Training

The opinion that "Venezuela possesses ample human resources of good quality in the field of information technology" was expressed by all owners of the companies visited. As evidence of that they cited the practice of the petroleum companies, that since the 1960s have replaced their computers whenever new models came on the market, and the strong efforts being made at education at the introductory and intermediate levels. Many companies dedicate considerable time and money to education and training in the software industry because the growth and development of the industry at rock bottom depends greatly on the abilities of individual employees. The retention rate of younger employees is short but at the managerial level many employees stay with their companies for about 10 years and the average is 4-5 years. Therefore the curricula for education and training programs has been tailored to the needs of specific job categories and to produce swift results. Some companies, however, have career paths that provide for the advancement of employees over the medium to long term by assigning them to a variety of positions.

f. Utilization of Employees

All of the companies take in entry-level technicians as new hires with the expectation that they will remain with the company for only a few years, but are severely strained concerning the retention of excellent technical personnel who possess advanced capabilities. Reportedly many students at Simon Bolivar University while still in school are given tickets to future places of employment in the United States or Spain. In the estimation of a recruitment firm, graduates of this university the starting salary they can obtain at United States or European software houses, exclusive of recruitment costs, is 2.7 times what they can receive in their own country. Many executives are worried that this pay differential will lower the overall quality of information technology in Venezuela in a hollowing-out process.

g. Equipment

The companies that are commissioned with the work of operating and managing information systems for banks employ large host computers. The network systems employing UNIX, Windows NT and the like are made up of the latest equipment available. The situation is such that it is an easy matter to obtain LAN/WAN and Internet-enabling telecom equipment. Having noted this much it must also be stated that it appears to be a financial strain to replace equipment at a pace matching that of technological innovation.

(4) Problems in the Information Industry

a. The Limited Adoption of Information Systems Among SMEs

Taxation, in the form of import duties and indirect taxes, account for 50% of the purchase price of computers and peripherals, so that the financial burden on SMEs that establish inhouse information systems is substantial. Because, further, some SME owners do not as yet possess much knowledge about information technology, they are short in terms of appreciating the value of using computers for purposes of rationalization in a business. The SME sector tends to be shunned by the software industry as being high in risk and presenting a small market relative to the industry's major customers, the petroleum-related companies and large financial institutions. There are some software houses desirous of catering to the SME market, but they lack clearly defined direction for making SMEs into their customers.

b. Weak Relationships Between Software Companies and Between Software Companies and Universities

It would be desirable for SMEs, in their efforts to make better use of information technology, to enter into relationships with knowledge centers that can offset or overcome the SMEs' weaknesses in information and managerial knowhow, and technology, thereby strengthening managerial resources. It is extremely important, moreover, to have a platform for information interchange in the area of IT for the Internet to be used so that transactions between companies can be done smoothly and for the benefit of SMEs. In particular, because it would be necessary for there to be participation by many SMEs in activities on behalf of creating supply chain groupings, or regional groupings, affiliations of one form or another are essential. It would be appropriate for software companies to play the role of coordinator in achieving just this.

c. Absence of Measures That Would Prevent Emigration of IT Specialists

Loss of a significant percentage of its skilled human resources would hurt Venezuela's information industry, but at present there are no policies in place that are intended to keep IT specialists from relocating to other countries. Some of the company owners met, however, expressed the opinion that there should be policies to promote the return to home of these workers from nearby countries as it would contribute to development of the information industry.

It would seem that what is needed is creation of an environment that motivates IT personnel to achieve their best, and not adopt the problem of salary differentials, that is one of the reasons for emigration. Recognition of the value of intellectual assets and giving fair compensation to those who create the assets would be one of the employment criteria that should be met.

d. Support Policies Favoring Independent Efforts by SMEs to Improve Management Are Lacking

The understanding exists in the Venezuelan government that use of IT by SMEs will contribute to energizing the Venezuelan economy, but it is necessary to establish a system that will overcome shortcomings of human resources, capital, information and so on that hamper this process. At the same time the government must lower telecommunication costs, expand telecommunications capacity, speed up communications, and improve the telecommunications infrastructure as essential steps for SMEs to make greater use of IT.

e. Need for Improving Conditions to Facilitate Electronic Commerce

For there to be smooth progress in the expansion of electronic commerce, it is necessary to make such activity by SMEs easier by efforts in the inter-related areas of access to credit information, approval of credit, settlements, processing of complaints, insurance for transactions, authentication and other functions particularly as they apply to e-commerce.

f. Lack of Application Packages Easy to Use at SMEs

Easy-to-use information network systems that deploy the latest information technology are indispensable for SMEs if they are to make managerial improvements through the use of IT while they conquer the challenge of a shortage of capital.

Inexpensive information systems that are at the same time highly reliable are of great importance. Availability of package programs with business modules usable by SMEs in general is necessary.

3.4.2 Recommendations for Promotion of IT Utilization by SMEs

It is believed that Venezuela's small and medium enterprises must undertake at their own initiatives managerial reforms through pro-active use of IT, for which the following measures should be of value.

(1) Basic Topics in Promoting IT for SMEs

1) Recognition of the Effects of IT

There are two major areas where the effects of IT use by SMEs can be expected: the improvement of productivity, and the expansion of business opportunities. Because use of IT makes it possible to collect, store, and utilize great quantities of data and information, it makes it possible to speed up decision making, improve the effectiveness of managerial organizations, more speedily comply with customer requirements, reduce the cost of buying and selling, reduce inventory levels, shorten delivery times, and improve the efficiency of the production—distribution—sales chain. It becomes possible, as a result, to fundamentally reform traditional business organizations and processes, improve productivity, and make sales and profits grow.

Further, it is possible to originate one-to-many communications, and to both collect and engage in interchange of a great diversity of information and data. This makes it possible to open new channels for distribution of goods and services, so that it becomes possible to do business with many companies and individuals who could not be contacted previously, so it is possible to look forward to entering new markets, developing and expanding sales channels, and greatly increasing the number of opportunities to do business. This is not a simple matter of strengthening sales or marketing activities; it is a marketing revolution made possible by the Internet.

2) Revolution in Managers' Awareness

In progressing with the application of IT to their businesses, managers must acquire a good understanding of how it will influence the company's business activities, and while undertaking the relevant managerial reforms, engage in study of how to proceed so that IT is beneficial to sales, to profits and to progress in the improvement of

management. Once the decision has been made to make use of IT, it is necessary to succinctly define the managerial strategy concerned, and the managers must take the initiative in exploiting IT in a steady and well-planned manner.

In order to support the analysis, decision making, and activities of the managers, it is also necessary for the government and information (software) industry to cooperate in order to prepare and deploy advisors who can facilitate the use of IT by working from the viewpoint of and with the SMEs, open offices where support can be offered to SMEs, and organize and present information showing examples of the use of IT.

3) Improvement of Organizations and Human Resources

Employees must work at improving their own IT literacy for there to be success in use of IT by the companies. It would be effective in this regard to arrange for in-house group activities, and have as many employees as possible participate, and to maximize the number of persons who have access to a computer.

Also of importance is pro-active interchange of information with suppliers and other companies in the same industry; the building of systems suitable for management reforms in each company; and adoption of inexpensive, easy-to-use software and hardware. Contacts with universities, research institutes, government agencies and others also are important.

In order to achieve this it is necessary for there to be collaboration by the government and the information (software) industry; improvement of public education and training institutions; and building of human networks.

3.4.3 Recommendations for Support for Information Technology for SMEs

(1) Purpose of IT Support for SMEs

The target is for about half of the nation's SMEs to have Internet access for e-commerce within five years. As an objective that the SMEs themselves must individually address, need exists to deploy a management strategy that will re-make the awareness of managers, and enable smooth progress in making each company information-savvy.

(2) Directions for SME Support

Necessity exists for establishing a support center for SMEs that can act in a comprehensive manner on behalf of this sector that is capable of contributing much to the economy and society of Venezuela in the 21st century. Such an organization would assist start-ups including venture businesses as well as existing businesses that wish to make improvements.

It is conceivable that such an organization could effectively have the objective of helping companies in their initial stage, such as through “start-up support,” “support for business expansion and management reform,” “expansion of tax incentives for angel investors^{*},” “acceptance of intellectual assets as security,” while also providing support in connection with finance through opening new channels for funding including utilization of venture capital, and taxation.

(3) Organization of the Center

The “Small and Medium Business Support Center,” in order to promote the use of IT and assist in the start-up of new and improvement of existing companies, will employ IT professionals as advisers to SMEs in addition to corporate consultants, tax accountants and others.

(4) Financing for Information Investment

Investment for information hardware and software should be financed by a new “IT loan system,” support through taxation measures, approval of accelerated depreciation, facilitating of leasing, and use of venture capital.

3.4.4 Recommendations on Promotion of the Information (Software) Industry

(1) Targets for the Information (Software) Industry

During the coming five years, there will be formidable expansion both of solutions business and in information networking. Marketing strategy, with sharply defined parameters for the Four P’s of marketing (Product, Price, Place and Promotion) must be

^{*} “Tax Incentives for Angel Investors” means special tax deduction allowed for an individual who invests in a venture capital that satisfies a set of requirements, i.e., the investor is permitted to deduct loss incurred by such investment from his income over several years. The angel refers to such individual investor.

formulated in accordance with this. In the solutions business, there will be continuous change and development in order to accurately satisfy the requirements of individual users.

(2) Development and Wide Distribution of Many Applications Packages for SMEs

It is recommended that efforts be made to upgrade the quality of applications packages available from Venezuelan sources. These packages would be for use in the areas of sales management and automation using POS, accounting, financial management, tax management, production and purchasing management, office work automation, corporate management, and personnel management. Development of ERP packages suitable for small and medium manufacturers also would contribute to the improvement of management. IT personnel would benefit from their work on development of this software as the work would make them become involved in the affairs of management; the work thus would have an OJT side-effect.

(3) Creation of E-marketplaces

A large number of e-marketplaces will be opened during the coming one year or two years, in keeping with the shift towards global businesses. Among the e-marketplaces that already exist are some organized by major automobile assemblers, to facilitate and improve their own procurement of parts and supplies. What has begun since the creation of the first e-marketplaces, however, is creation of more comprehensive e-business marketplaces, because there is only low value added by the intermediary function of the early e-marketplaces. These newer websites therefore cover not only the procurement of goods but also delivery, settlement, payment guarantees, export procedures and so on.

(4) Opening of ASP Portals

It is recommended that ASP portals specifically for the SME sector be opened. ASP companies can have a large market in the SME sector. In order to satisfy the requirements of SME customers, ASPs have to offer attractive applications at acceptable prices, and expand offerings of software through partnering with, acquiring, or other measures relative to systems sellers and others who are influential in or even outside of Venezuela.

(5) Compilation of IT Success Stories

It is recommended to compile examples of successful experiences of SMEs in utilizing IT, and make them accessible through the Internet. The compilation can be made, for example, using a form such as the one below.

(6) Human resource development for the IT industry

1) Sophisticated skills required for IT engineers

As the mainstream of information systems becomes web-centric, IT engineers specialized in networking and Internet technologies are increasingly on demand. Furthermore, IT engineers are expected to have a variety of associated skills, including presentation, communication, general management, team management, leadership, problem solving, and creativity.

2) Strategic direction of human resource development

IT engineers that are highly demanded and need to be trained intensively are system engineers specialized in network computing, system consultants, system analysts, system engineers with experience in business application development, Web content programmers, and business consultants. As the business focus shifts to solution business, consulting and management skills are required to expand opportunities for IT engineers in their late 30s and over. The new working environment requires career management that allows each IT engineer to apply their skills with maximum productivity over a long period of time.

3) Strategic direction of the HR management system

The primary goal of HR management should be placed on “pay for performance” according to the employee’s goal, role and job title (responsibility). To motivate individual workers and vitalize the entire organization on a continuous basis, multi-faceted efforts are required, including the establishment of clear-cut management philosophy, definition of management goals, presentation of score-based evaluation of management efficiency and follow-up programs, feedback of performance evaluation results, and performance-based promotion and wage systems. Also, management is required to increase transparency in corporate management by disclosing business data (profits, etc.) to employees.

3.4.5 Recommendation for development of the IT-integrated government system

(1) Objective of development of the IT-integrated government system

In line with the policy set forth under Decree No.825, the Internet-based e-government will be established within the next five years. The Internet-based e-government will consist of information networks linking the ministries of the central government, local governments and organizations and is designed to improve public service for people and businesses significantly.

The e-government is not merely integration of administrative services and functions into an online system. Rather it will continuously pursue the simplification and streamlining of public service and the minimization of tax and other burdens on people and businesses by means of business reengineering, consolidation of similar services and projects carried out by different ministries or departments, and modification of the institutional and legal frameworks and infrastructures. The e-government is therefore a complex process of redesigning the government's service delivery system, which will face a number of challenges, including information security and protection of privacy.

(2) Basic concept of the e-government

Development of the IT-integrated government system is considered to be a major vehicle to improve quality of public service, simplify and streamline government operation, and improve its transparency. The process should start from public disclosure of government actions and decision-making processes, which warrants that the government will conduct public administration in an effective and efficient manner and for the best interest of people whom it serves.

(3) Information networking of the government, people and businesses

1) Electronic information dissemination and gathering

Today, most ministries, agencies, local branch offices and bureaus, national universities and other educational institutions, and testing and research organizations have their own Web pages, which make a variety of information known to the public, including laws, regulations, decrees, public notices, press releases, statistical data and information, results of research and study, and educational materials. Information networking of the government and private sectors will provide, in addition to the

existing information base, value added information service that serves the best interest of users.

2) Development of the portal site for government information sites

To facilitate access to government information by people and businesses, a portal Web site that serves as a “general information desk” will be required to guide and link visitors to Web sites of government organizations and their contents.

3) Promotion of one-stop service

One-stop service means the provision of government services at a single location or through a single application. This can be implemented in two forms, a “comprehensive government service system” and “one-stop service in a specific field.” The former means a service delivery system using the Internet, which must be preceded by the development of a simple and easy-to-understand mechanism to provide public service by redesigning and rebuilding the existing business processes. To achieve the goal, each ministry and agency is required to augment and enrich information published on its Web site, including public procedures and electronic forms of application. On the other hand, the latter enables the integrated processing of inter-related application procedures by linking the existing systems. Primary examples are export/import licensing and related permits, and customs clearance and other related procedures at the port. It is important to build the infrastructure for the one-stop service in the form of joint research projects with the private sector, such as the development of a general electronic application system and experimental operation of a user-operated public information terminal to check reliability and operability.

4) Electronic procurement process

Implementation of the electronic procurement process is expected to contribute to improved transparency of government procurement together with cost reduction. At the first stage, it is recommended to provide procurement information in an electronic form, including quick access thereto, develop an integrated system for prequalification review and listing of potential bidders, and develop a procurement system to manage bidding, evaluation and contract award procedures. In particular, for public works projects, the entire procurement process should be disclosed to the public, while an order placement and processing system using electronic data should be developed.

5) Promotion of public information disclosure

To ensure that information owned by government offices is properly disclosed to serve the best interest of people, large amounts of documents held by various ministries and agencies need to be properly managed for prompt access and accurate retrieval. For this purpose, it is recommended to develop and operate an integrated document management system shared by all government offices. Now, it is strongly recommended to define system requirements and configuration to allow integrated management of documents prepared or obtained by different organizations by using information and communication technologies.

(4) Information networking of the government organization

1) Ministerial information networking

First of all, IT infrastructure should be built up by developing the “one PC at every desktop” environment plus a local area network to link all PCs within each ministry. Then, groupware will be introduced to allow workers to exchange and share information by using e-mail, electronic board, electronic documentation, meeting room reservation and other functionality. At the same time, back office functions, such as HR and payroll management, budget control, and inventory management, will be incorporated into the ministerial system.

As most administrative work performed by government offices has common elements, information networking should be implemented simultaneously to maximize efficiency and effectiveness. At first, each ministry and agency identifies business processes that can be standardized in the information networking process. These business processes are then classified into five categories, “communication type,” “information sharing type,” “consultation and coordination type,” “standard application/permit type” and “non-standard application/permit type.” Then, for each type, network infrastructure (e.g., ministerial LAN and inter-ministerial LAN), an inter-ministerial electronic data exchange system, and an integrated document management system should be developed and customized.

2) Inter-ministerial information networking

As the final stage, the intranet connecting LANs operated by all ministries, agencies and other government organizations should be developed. For this purpose, various application systems should be installed to streamline inter-ministerial business processes, including an inter-ministerial communication system, a government license/permit

database, a statistical database, a legal database, and an inter-ministerial legal coordination system.

(5) Infrastructure development for e-government

1) Protection of personal information

As information networking progresses, personal information is exchanged, distributed and published over the network and a risk of abuse (theft, misallocation, etc.) increases. It is important for the government to take appropriate action to protect personal information, including legislation and protective measures. Personal information should be handled with extreme care to protect privacy and according to strict rules.

2) Security measures

The e-government should have reliable security measures that can be trusted by people. Comprehensive and advanced security measures should be introduced to effectively prevent intrusion by hackers. In particular, mission-critical networks and systems should be protected from a threat of cyber terrorism by introducing adequate monitoring and contingency plans.

3) Major issues

In developing the e-government by means of information networking, there are a number of hurdles to be cleared. For instance, an authorization mechanism between an applicant and a government office should be installed, as well as an accounting mechanism over the Internet, the establishment of a deadline for the application and reporting through the network, and originality of an electronic document. Various institutional frameworks, laws and regulations will be required to reflect the changing needs of society and economy in the e-government system in a flexible and dynamic way.

4) Outsourcing

Ministries and agencies are expected to focus on policymaking and planning functions, while entrusting operational functions to outside organizations. Outsourcing should include operation and management of information systems. Information networking of the government system aims to perform administrative service more efficiently and effectively, and outsourcing is a powerful tool to achieve the goal so long as the contractor is selected through fair and appropriate procedures.

In particular, major portions of work related to development, operation and management of information systems can be outsourced, while only key planning functions should be retained with information system department of ministries.