No. 38

THE STUDY REPORT
ON
THE CAVITE EXPORT PROCESSING ZONE DEVELOPMENT AND INVESTMENT PROMOTION PROGRAM
IN
THE REPUBLIC OF THE PHILIPPINES

(MAIN REPORT AND ANNEXES)

SEPTEMBER 1990

JAPAN INTERNATIONAL COOPERATION AGENCY

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PREFACE

In response to a request of the Government of the Republic of the Philippines, the Japanese Government decided to conduct a study on the Cavite Export Processing Zone Development and Investment Promotion Program and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to the Philippines a study team headed by Mr. Nobuo Aihara of UNICO International Corporation from November 20, 1989 to March 30, 1990.

The team held discussions with concerned officials of the Government of the Republic of the Philippines, and conducted field surveys. After the team returned to Japan, further studies were made and the present report was prepared.

I hope that this report will contribute to the Cavite Export Processing Zone development and investment promotion and to the promotion of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of the Philippines for their close cooperation extended to the team.

September, 1990

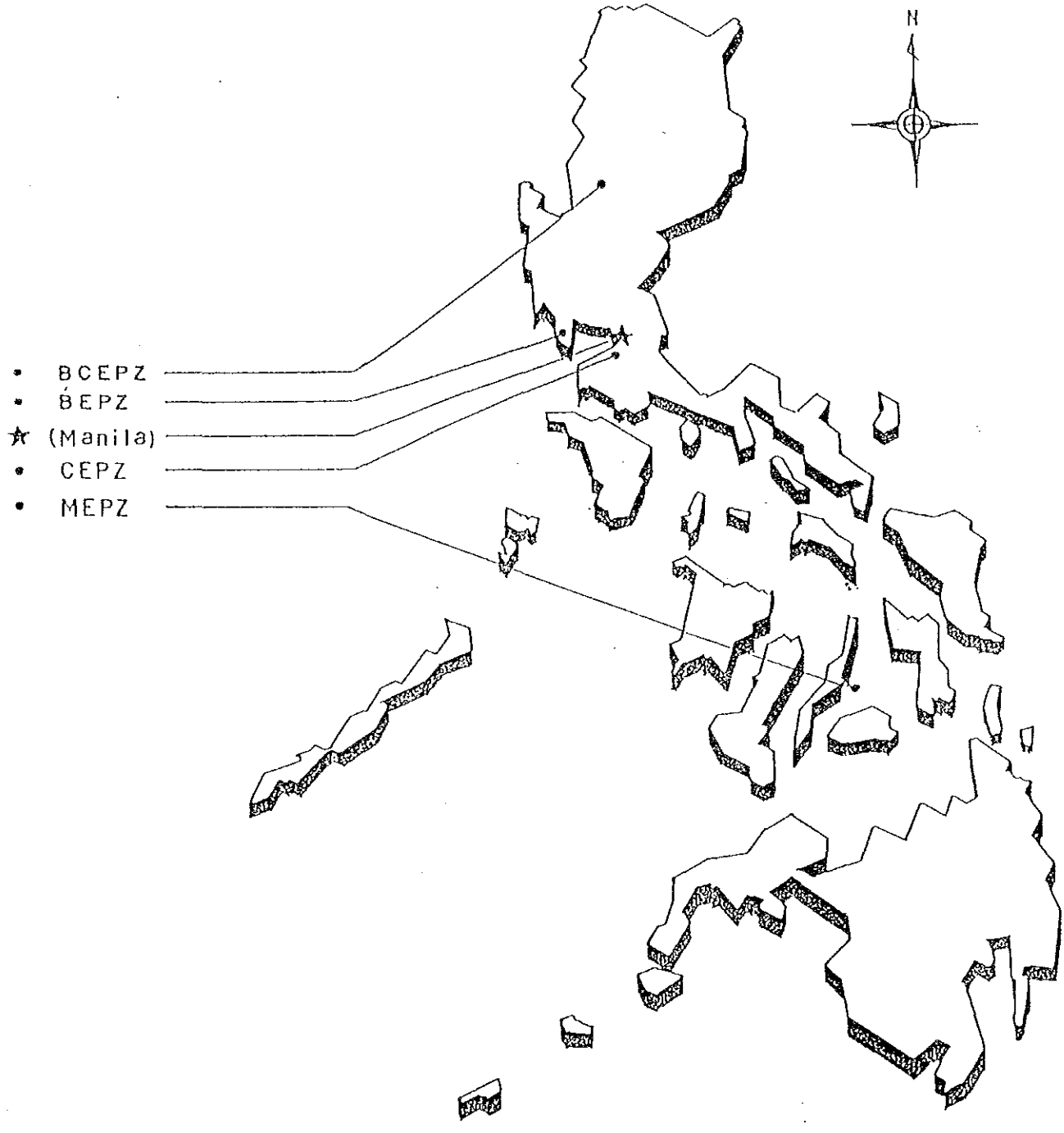
Kensuke Yanagiya

Kensuke Yanagiya
President
Japan International Cooperation Agency

Location Map

of

EXPORT PROCESSING ZONES



Organizations/Abbreviations Used in the Report

Economic Terms

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
AOTS	Association for Overseas Technical Scholarship
BOI	Board of Investments
BOT	Build, Operate and Transfer
BCEPZ	Baguio City EPZ
BEMB	Bonded Export Marketing Board
BEPZ	Bataan EPZ
BMW	Bonded Manufacturing Warehouse
BPS	Bureau of Product Standards
BPTTT	Bureau of Patents Trademarks and Technology Transfer
CALABAR	Cavite, Laguna, Batangas and Rizal
CB	Central Bank
CEPZ	Cavite EPZ
COCI	Chamber of Commerce and Industry
DA	Documents against Acceptance
DOST	Department of Science and Technology
DPWH	Department of Public Works and Highway
DTI	Department of Trade and Industry
EIMP	Export Industry Modernization Program
EP	Export Permit
EPZA	Export Processing Zone Authority
FCF	Fixed Capital Formation
FTZ(A)	Free Trade Zone (Authority)
GDP	Gross Domestic Product
GDS	Gross Domestic Savings
GNP	Gross National Product
GRP	Gross Regional Product
GSP	Generalized Scheme Preference
GTEB	Garments and Textile Export Board
HUDCC	Housing and Urban Development Coordinating Council
IA	Implementing Arrangement
I.E.	Industrial Estate

IEAT	Industrial Estate Agency of Thailand
IIC	Investment Information Center
IIG	Industry and Investment Group
IIT	Taiwan and Thai Industrial Development Service Center
IP	Import Permit
IPC	Investment Promotion Center
IPP	Investment Priorities Plan
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
LDD	Long Distance Direct Diallines
MEA	The Metropolitan Electricity Authority of Thailand
MERALCO	Manila Electric Company
MEPZ	Mactan EPZ
MIDA	Malaysia Industrial Development Authority
MM	Metro Manila
MOF	Ministry of Finance in Japan
MTPDP	Medium Term Philippine Development Plan
MWSS	Metropolitan Waterworks and Sewerage System
NAIA	Ninoy Aquino International Airport
NCR	National Capital Region
NEDA	National Economic and Development Authority
NIEs	Newly Industrialized Economics
NSC	National Steel Corporation
NSO	National Statistics Office
NPC	National Power Corporation
OA	Open Document
OECD	Organization for Economic Cooperation and Development
OECF	Overseas Economic Cooperation Fund
OSAC	One Stop Action Center
PEA	Public Estates Authority
PLDT	Philippine Long Distance Telephone Co.
PVC	Polyvinyl Chloride
RIC	Regional Industrial Center
SAPROF	Special Assistance for Project Formation
SDR	Special Drawing Rights
SEC	Securities and Exchange Commission

SEPZs	Special Export Processing Zone
SFB	Standard Factory Building
SSH	South Super Highway
T. I.	Texas Instrument
TLRC	Technology and Livelihood Resource Center
UNIDO	United Nations Indsutrial Development Organization
URPO	Urban Road Project Office

Unit

cu. m	cubic meter
ha	hectare
kg	kilogram
km	kilometer
kV	kilovolt
kW	kilowatt
kWh	kilowatthour
MVA	mega volt ampere
MW	mega watt
sq. m	squaremeier
V	volt

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MAIN REPORT

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Chapter 1
BACKGROUND AND OBJECTIVES OF THE STUDY

Chapter 1 BACKGROUND AND OBJECTIVES OF THE STUDY

1-1 Background of the Study

The Cavite Export Processing Zone (CEPZ) which forms the object of the present study, is one of a total of four export processing zones in the Philippines.1/ The other three are; details of all four zones (EPZs) are presented in Annex 5:

	Location
Bataan Export Processing Zone (BEPZ)	Mariveles, Bataan
Mactan Export Processing Zone (MEPZ)	Mactan, Cebu
Baguio City Export Processing Zone (BCEPZ)	Baguio City, Benguet

The governmental body responsible for the development, construction and management of export processing zones is the Export Processing Zone Authority (EPZA), set up under Presidential Order No.66. The EPZA is under the control of the Department of Trade and Industry (DTI).

Aiming to promote foreign investment and expand export industries, both objectives of the Philippine government's industrial development policy, the government embarked on the development of export processing zones in 1969. BEPZ, the first such zone, was completed in 1972. Following this the MEPZ and BCEPZ were completed in 1979 and 1980 respectively. In addition to these the government decided on the development of the CEPZ to be located in Rosario, Cavite. In 1983 the first phase of construction was initiated. This is now almost completed; 13 factories have started operation and 8 more are under construction.

In order to improve the international balance of payments the expansion of exports is a vital issue. One aspect of an active policy in this sense is the government's promotion of non-traditional export industries. Recently the garments and electronic parts (including ICs) industries have shown rapid growth. The government has adopted a comprehensive policy to support such development while at the same time endeavors to maximize the efficient use of domestic resources through promoting the furniture and food processing industries. Moreover, its policy aims at the introduction of the high-technology-based industries such as the electric and electronic industries and machinery industries. To realize these ends, in addition to industrial promotion through domestic capital investment, the active promotion of foreign investment has become a vital issue for the Philippine government.

Note: 1/ These four EPZs are public zones. There are also a few Special Export Processing Zones. Hereafter the term EPZ will be used to refer to the former.

Formerly, many Japanese and Western companies undertook a relocation of their international production base in favor of production in Taiwan, South Korea and other NIEs countries. However, with the rapid appreciation of the value of the currencies of these countries, and the rise in labor costs, their international competitiveness was weakened. This made it necessary for the investing foreign companies to transfer the production base elsewhere. It is under such conditions that a large number of industries have moved to Thailand because of its increasingly advantageous position in international competition. This move is recently extending to the Philippines, Malaysia and Indonesia.

Moreover, this transfer of the production base is also a response to the USA's General System of Preferences and to the unification of the Common Market in 1992. Further, there is a definite trend produce in the overseas production base itself those parts which up to now had been supplied to the production base abroad from the advanced industrial nations.

Under the above situation, there has been a rapid increase in foreign investment to the Philippines in recent years. Foreign investment in the Philippines, which had continued to decrease in the early 1980s because of political and economic instability, began to rapidly increase after reaching a low point in 1986. The foreign investment approved by the BOI totalled 9,523 million pesos (458 million US dollars) in 1988, with an increase of about 2.7 times over the previous year, and 17,498 million pesos (799 million US dollars) or a 1.8 times increase in 1989.2/

Further, since the start of the Aquino Administration there has been a rapid recovery of investment by Filipino companies (either 100% Filipino capital or joint venture companies having less than 40% foreign capital). However, it is true that there are still many investors who regard the investment climate in the Philippines with a certain diffidence regarding the investment risks caused by social and political conditions. It is all the more important therefore for the government to take more active measures for investment promotion.

The Philippine government also seeks to effect a dispersion of industries concentrated in the Metro Manila area (NCR) and promote regional industry. In 1990 the government decided to abolish the provisions of investment incentives applied to establishments in the NCR area except in special cases, while encouraging industrial investors to locate their manufacturing establishments in Regional Industrial Centers outside of the NCR.

Note: 2/ The indicated investment amount is in terms of equity. The US dollar amounts indicated in the parentheses are calculated with the exchange rate of 20.8 pesos per US dollars for the year of 1988 and of 21.9 pesos per US dollars for the year of 1989.

In response to the above governmental policies companies are seeking possible factory sites in the regions outside of NCR, where they can benefit from the investment incentives and where they can have convenient delivery and dispatch of raw materials and finished goods, supply of electricity and water, telecommunication and other infrastructure as well as attractive leasing conditions. Consequently manufacturers seeking factory sites in Laguna and Cavite including CEPZ are increasing and the government needs to respond to this trend.

The Philippine government, in view of the above context, has determined to actively pursue policies for the promotion of investment and is proceeding with an expansion plan for the CEPZ in order to provide production sites which will attract potential investors from inside and outside of the country. In keeping with this, the government made a request to the Japanese government in May, 1989 for technical cooperation to undertake the Study on the Cavite Export Processing Zone Development and Investment Promotion Program (the Study) which was envisaged to form the basis for the detailed investigation of the CEPZ expansion plan and the pursuit of investment promotion activities. In response to the above request the Japan International Cooperation Agency (JICA) dispatched a preliminary study team to the Philippines in August in the same year, and an Implementing Arrangement (IA) for the undertaking of the Study was agreed on and signed between the JICA preliminary study team and the DTI/BOI, the Philippine counterpart for the Study. The present Study has been carried out in accordance with the tasks and details set forth in the IA.

1-2 Objectives and Scope of the Study

The objectives of the Study, as set forth in the IA for the Study which was agreed on and signed between the Philippine government and the JICA preliminary study team on August 29, 1989, consist of the following components;

1) To define and prioritize the development objectives of CEPZ, and to identify target industries for promotion.

2) To analyze the existing and potential demand for CEPZ location mainly among potential Japanese and Philippine investors.

3) To propose the promotion strategies/incentives and to design an appropriate operation and management plan.

4) To formulate the measures and practices for the nurture of linkage industries.

The scope of the Study is defined in the IA, which is summarized below:

(1) Study on Background and Relevant Conditions

1) Industrial development policies of the Philippines

2) The role and contribution of the industrial sector (including linkage industries) to the economic development of the Philippines

3) Present situation of industrial development by sector (including that of the linkage industries)

4) Comparative advantages of the Philippines concerning industrialization, relative to other Asian competitors

5) Present situation and trends of industrial location in Metro Manila and its surrounding areas

(2) Study on the Development Plan for the CEPZ

1) Present situation of the existing EPZs

2) Goal and objectives set for the development of CEPZ

3) The existing plan for the development of CEPZ

(3) Study on Foreign and Local Investors Demand

1) Setting of targets for specific product items and industries to be induced

2) Demand for location in CEPZ

3) Investors' requirements/conditions for selecting CEPZ

4) Criteria for selection of investors (including the linkage industries) who apply for location in CEPZ

(4) Study on the Investment Promotion Strategies and Investment Incentives to be Adopted for Investment Promotion in CEPZ

1) Institutional set-up for promotion activities

2) Strategies and incentives for promoting investment (including an action program)

(5) Study on the Operation and Management Plan of CEPZ

1) Roles and functions of the Government Agencies and State Enterprises, such as the EPZA

2) Services to be provided to the locators of CEPZ

   a) Simplification of Customs formalities and Export/Import licensing

   b) Provision and maintenance of basic facilities such as telecommunication systems

   c) Training and consulting services for investors

   d) Simplification of location procedures and other formal procedures

3) Provision of other related services to the locators

   a) Standard factories, warehouses and storages, and packaging facilities

   b) Training facilities for employees

   c) Export inspection facilities

Besides the Cavite Province in the CALABAR Region including CEPZ, the Study covered Metro Manila, other EPZs in Baguio City, Bataan, and Mactan, as well as Japan. Investigations relating to the NIEs and ASEAN countries were conducted on the basis of documents and available data.

In addition to the present Study, the Overseas Economic Cooperation Fund of Japan (OECF) provided the Special Assistance for Project Formation (SAPROF) on the CEPZ development project. The main areas of the SAPROF study were the investigation of a site development plan, conceptual design of the various facilities involved in the expansion plan, estimates for the project and operating costs, and a financial and economic evaluation of the project. As the SAPROF study was scheduled to commence and complete before the present Study, as far as possible a mutual exchange of information between the two study groups was pursued in the course of the present Study.

1-3 Main Activities Performed for the Study

The Study was commenced in the early part of November, 1989, and the field survey had been conducted with 19 experts during the period from the middle of November, 1989 through March, 1990. The main aspects of activities performed in the field survey were, among others, (a) a questionnaire survey and interviews made to the companies operating in the four EPZs to learn their views and obtain comments on required improvement of those EPZs, and (b) a questionnaire survey on potential Philippine investors to identify their interest in CEPZ particularly as a location for their factories.

For the questionnaire survey to the companies operating in the EPZs, forms were delivered to 59 companies through the EPZA's Zone offices in the respective EPZ. 31 companies responded. The experts of the Study Team visited these responding companies to clarify details of the responses and collect supplemental information.

For the questionnaire survey to the potential Philippine investors, a questionnaire, and a brochure introducing CEPZ were mailed to 500 Filipino companies in export-oriented manufacturing industries, and usable responses were obtained from 155. In addition to these surveys, the Study Team studied the present situation and conditions of relevant aspects by making visits to government authorities and agencies, the provincial government of Cavite, financing institution, private industrial estates and others.

In the meanwhile, another questionnaire survey was simultaneously conducted in Japan to identify interest of Japanese potential investors in investment in the ASEAN countries and especially the Philippines. A questionnaire, and a brochure introducing CEPZ was sent to 1,400 companies belonging to the Chamber of Commerce and Industry in Tokyo and other five large cities. 215 responses were received.

In March, 1990, the Study Team presented to the counterpart an Interim Report prepared in the Philippines at the final stage of the field survey. Following the presentation of the Interim Report, meetings were held by the representatives of the Study Team and the counterpart to review the report and discuss the basis and direction for the preparation of a final report. The Study Team, after its return to Japan, continued the study work to carry out detailed investigations of the main aspects and formulate an investment promotion program as per the agreement made in the aforesaid meetings. This final report presents all the outcome of the investigations thus made, and the conclusion and recommendations derived from the Study.

Chapter 2
THE CURRENT SITUATION OF THE SOCIOECONOMIC CONDITIONS AND INDUSTRIAL DEVELOPMENT IN THE PHILIPPINES

Chapter 2 THE CURRENT SITUATION OF THE SOCIOECONOMIC CONDITIONS AND INDUSTRIAL DEVELOPMENT IN THE PHILIPPINES

2-1 Issues Relating to the Socioeconomic Situation and Industrial Development

(1) General Conditions of the Philippines

The Philippines is an archipelago consisting of some 7,000 islands of which the largest are Luzon and Mindanao. The socioeconomic sphere of the country can be divided into the three blocks of Luzon, Mindanao and the Visayas which encompasses islands scattered between the two main islands. Administrative regions as indicated in Figure 2-1-1 are divided into the National Capital Region (NCR) and the 12 Regions which comprise 71 Provinces.

Socioeconomic indicators are shown in Table 2-1-1.

The GDP of the Philippines is low compared to Thailand which has about the same population, and is in fact the lowest of the ASEAN countries. Looking at the composition of the GDP by individual industrial sector reveals that a particularly large share of GDP is accounted for by the agriculture, forestry and fishery sectors together with wholesale and retail sectors.

In comparison with Thailand and Indonesia, the scale of external trade of the Philippines is extremely low.

(2) Economic Conditions

1) Economic Growth and Industrial Structure

The Philippine economy suffered a rapid decline in growth in the early 1980s. The real GDP in 1983 in 1972 constant prices was 99,921 million pesos which represented a growth of less than 1% over the previous year; after 1983 contractions were recorded for 1984 and 1985. In 1985 GDP decreased to 89,904 million pesos representing a fall back to the level of 1979 (Table 2-1-2). However, since the start of the Aquino Administration in 1986 the GDP tended to grow and in 1988 attained 101,534 million pesos, for a 6.4% growth. However, as the population of the Philippines continued to grow at a 2.5% rate there has been no significant increase in the real GDP per capita over the last 12 years. From the 1,679 pesos level of 1976 it had increased only slightly to 1,949 pesos in 1982 only to drop back thereafter so that with 1,729 pesos in 1988 it had returned to the 1976 level.

Table 2-1-3 shows the GDP for 1988 by sector. The agricultural sector accounts for 27%, the industrial sector for 33% and the service industries for 40%. The 40% share of the service industries has been constant since about the 1950s. The share of the industrial sector had continued to show an annual increase up to the 1980s whereas the relative share of agriculture had diminished over the same period. However, industry began to stagnate in the early 1980s resulting in a relative decrease of its share and an increase in that of the agricultural sector.

Employment by sector shows that the agricultural sector still provides as much as nearly 50% of all jobs. This not only indicates the insufficiency power of the industrial sector to generate jobs but also points to a large amount of hidden unemployment in the agricultural sector. It is necessary to seek effective measures to shift labor from the agricultural sector to productive sectors and thereby increase purchasing power and expand the domestic market. Such a program would result in a continuous expansion of domestic industrial activities and thereby meet a necessary requirement for the modernization of industry.

2) International Balance of Payments and Trade

The economic stagnation experienced from the beginning to middle of the 1980s was attributed partly to the inefficient industries which had developed with the aid of protective measures in the 1970s, development which resulted in heavy dependence on imported machinery, materials and parts. It led to a chronic excess of imports over exports and in turn aggravation of the international balance of payments. As a result, a vicious cycle was generated as importation of the raw materials and parts on which the continuation of production depended became difficult and this in turn caused a stagnation of industrial production.

The recent situation regarding the international balance of payments and the external debt is shown in Table 2-1-4. Since the 1970s the Philippines has largely depended on foreign loans from the IMF and other sources for implementation of its industrial expansion policies. As a result foreign debt increased relative to the country's economic scale, to the extent that it became a serious problem. After entering the 1980s, the Philippine economy was adversely affected by several external factors, including the rapid rise in oil prices, high interest rates in the Euro-market, world economic stagnation and the fall in the prices of primary commodities. When negotiations for more favorable terms for repayment of foreign debt became deadlocked in 1983, the country was forced to adopt rigorous measures of economic austerity. Further, the changeover to a floating market in 1984 only deepened the economic crisis.

After the first oil shock a pattern developed whereby the deficits in balance of trade and services in the Philippines' international balance of payments had been covered by the inflow

of loans and capital transfer. The deficit in the overall balance of payments continued to increase up to 1983 by which year it had reached 2 billion dollars. At that time the trade deficit was 2.5 billion dollars. After 1984, import restrictions effected a reduction in the trade deficit and accordingly the overall balance of payments began to move into surplus. However, with the economic recovery experienced after 1987 there has been a resurgence of imports and the overall balance of payments has once again moved into the deficit.

Major exports which were traditionally primary commodities such as sugar, coconuts, copper ore have been increasingly replaced by electronic parts such as semiconductors, and garments. Electronic parts accounted for 21%, and garments for 19% of the total export value in 1988. However, a large part of this is consignment-based processing whereby raw materials and parts are supplied by the overseas orderer who takes the finished products after processing. Following the above exports are phosphoric acid and phosphate fertilizers, processed foods, toys, handicrafts, etc. (refer to Table 2-2-8).

Among imports, raw materials and intermediate goods make up 50% of the total, and the large part of these are for the consignment-based processing export (refer to Table 2-2-12).

3) Gross National Expenditures and Capital Formation

Tables 2-1-5 and 2-1-6 show the Gross National Expenditure of the Philippines from 1983 to 1988, in 1972 constant prices and market prices respectively. The real Fixed Capital Formation (FCF), after the year 1983 when it reached a peak of 23,102 million pesos, continued to substantial decrease up to 1986, and the real FCF for 1986 decreased to 10,057 million pesos representing a level as low as 44% of the 1983 FCF. Although the FCF in 1987 and 1988 showed an increase of 15.7% and 17.4% over each previous year, the 1988 FCF was as low as about 59.1% of the 1983 FCF. The ratio of FCF to GDP accounted for 23.1% in the year 1983, but thereafter it continued a substantial decline to 11.0% by 1986. Although there was a gradual rise after the year 1986, the ratio was 13.4% in 1988. The FCF decreased at a rate more than that of the decline of the GDP. This reveals that the stagnation of the Philippines' economy which continued through the middle of the 1980s resulted in a substantial decrease in investment.

The past trend (1984-1986) of "Government Construction", "Private Construction" and "Durable Equipment" which are the components of the FCF each show a decrease, of which decreases in the Private Construction and Durable Equipment were much more than that of Government Construction. The former two accounted for about 80% of the FCF, and the decrease in the FCF was greatly attributed to the decrease in those two elements. It is obvious that such a decline in the FCF and especially Durable Equipment which continued to the middle of the 1980s would constrain economic growth thereafter, and hence investment promotion would be essential to stimulate the further growth of the economy.

Looking at the past trend of the FCF reveals that the contribution of Government Construction to the FCF was rather small, at about 20%. There may be no significant change in this structure, and hence the promotion of private investment would be essential.

The Gross Domestic Savings (GDS) also showed a similar trend. The GDS in 1972 constant prices substantially decreased after the year 1983 to 3,588 million pesos in 1985 which was as low as only 38% of the 1983 level (9,466 million pesos). The GDS, after a slight increase and decrease thereafter, increased to 8,172 million pesos in the year 1988. It is only about 86% of the 1983 GDS. The ratio of GDS to GDP was also low, in the level of 4 to 6% during the years of 1984 to 1987. In the year 1988 the ratio rose to an 8% level, which was still lower than the 1983 level (i.e., 9.5%). The ratio of FCF to GDS was as low as 60% despite the a low level of the FCF. This implies that the foundation for capital formation is weak in the Philippine economy, suggesting the importance of investment promotion, particularly by foreign interests, for the expansion of industrial production. The various indicators quoted above are summarized in table form as Table 2-1-7.

4) Current Trend of Investment

With the strategic change from the previously emphasized import-substitution industries to policies for promotion of export-oriented industries in the 1970s a more active stance was taken to introduce foreign capital. In 1981 the consolidation and integration of basic laws relating to foreign investment was undertaken and the Omnibus Investments Code promulgated. Even with the advent of the new government in 1986 the basic policy of actively introducing foreign capital to supplement domestic capital remain unchanged. Three years ago,the Omnibus Investments Code of 1987 was enacted and introduction of foreign capital received a further boost. Measures for the reinforcement of investment incentives were envisaged and implemented.

It was in this context that foreign investment began to rapidly increase after 1987, as shown in Table 2-1-8.

In recent years there was a particularly remarkable growth of investment in the manufacturing sector. However, one problem which emerged was the concentration of investment in the NCR. Table 2-1-9 shows the trend of investment over the five-year period from 1984 to 1988 in the NCR and environs. During that time 46% of all new factories were established in the NCR and 40% of total investment and 50% of foreign investment were concentrated here. This concentration proceeds from the advantages of the area with its international harbors and airports, relatively well equipped infrastructure, easy access to central organizations, and the largest domestic market. The government has endeavored to realize a dispersion of industry to the regions through its policy for regional development (examined later). Table 2-1-10 shows the equity investment in the manufacturing sector of

Filipino companies (100% Filipino capital and joint-ventures in which foreign companies having less than 40%) approved by BOI for 1983 to 1989. The domestic investment in the manufacturing sector turned to an increase after 1987 from the bottom in 1986.

The approved equity investment of Filipino companies increased to 3.5 billion pesos in 1987, which was 4.2 times greater than in the previous year, and further increased to 1.4-fold in 1988 and 3-fold in 1989. In this trend it is noticeable that the investment by 100% Filipino companies accounted for about 59% of the total domestic investment.

5) Regional Economy of Cavite Province

a) Regional Economy of Region IV

Region IV (Southern Tagalog Region) is located just south of the NCR (as shown inFigure 2-1-1). The Region IV, consist of ten provinces including the Cavite Province, had a population of 7,692,000 in 1988, representing 13% of the nation. This is by far the most populated region of the Philippines, and easily surpasses the NCR. The working population is 3,012,000.

According to the National Statistics Office (NSO) the Gross Regional Product (GRP) of Region IV was 14,929 million pesos giving a GRP per capita of 1,941 pesos. Both figures are second only to those of NCR. The sectoral composition of the region's GRP is 39% for manufacturing industries being the highest percentage followed by 31% for service industries, and 30% for agricultural and fisheries.

The poverty situation which is one indication of the standard of living (using the accounting for the bottom 30% of the low income households in the Philippines as a basic parameter to analyze a particular region to show what percentage of its population enters this category) was 27.1% for 1988 showing a higher standard than the national average.

b) Regional Economy of the Cavite Province

Cavite Province had an estimated population in 1989 of 1,075,000. The populations of major cities from which residents can commute to the CEPZ was as follows:

Bacoor	136,000
Cavite City	100,000
Tanza	58,000
Gen. Trias	54,000
Kawit	52,000
Rosario	45,000
Noveleta	19,000

Of the total population of 464,000 for the above cities it is estimated that the working population between the ages of 15 and 64 is about 250,000.

According to the National Economic and Development Authority (NEDA) there is no breakdown of the GDP on a provincial level.

The poverty situation for 1988 was 9.4% representing the highest standard of living in the Philippines.

2-2 Situation and Problems of Industrial Development

(1) Medium Term Philippine Development Plan

The Aquino Administration adopted in 1986 a Medium Term Philippine Development Plan (1987-1992) (MTPDP), and started the work of reforming economic policies. The MTPDP gave priority to development of the agricultural sector, aiming to create productive job opportunities to absorb the latent unemployment in rural areas and thereby both relieve the poverty afflicting rural areas and augment purchasing power. The industrial sector was also given priority in development second to agriculture. The Plan calls for the pursuance of immediate measures for dispersion of industry to the regions and promotion of local industries and medium- and small-scale industries, aiming to thereby ameliorate poverty and increase purchasing power in rural areas in the short term and thus stimulate continuous expansion of the domestic markets and lay down the base for the development of advanced industries in the medium term.

The MTPDP, as shown in Table 2-2-1, targets the growth of real GNP at 6.4% per year, to restore by 1991 the per capita GNP to the highest level recorded in the past. The target for investment in real terms is an annual increase of 10.2%, with the ratio of total investment in nominal terms to GNP set at 16.6% on average. The main element of this investment is to be private sector investment while public investment is targeted at 5-6% of GNP. The Plan also aims at expanding consumer expenditures to gear the restoration of the economic activities as discussed before, putting a growth target of the private consumption expenditures at an annual average of 5.6% in real terms and of government expenditures at an annual average of 6.4%.

Table 2-2-2 indicates the growth target of GDP by industrial origin set in the MTPDP. It plans to increase the real GDP to 135.3 billion pesos in 1972 constant prices by 1992, with an annual growth of 6.9% in average over the Plan period, in which the sectoral growth is targeted at an annual rate of 5.0% for the agriculture, forestry and fishery sector, 8.8% for the industrial sector and 6.6% for the service sector so that the contributions of these three sectors in 1992 account for 26.6%, 34.8% and 38.6% respectively. In comparison with the contributions of these three sectors in the average of the actual records over the three years of 1984 to 1986 (i.e., 28.7%, 32.6% and 38.7%), it is revealed that the Plan greatly emphasizes the growth of the industrial and agricultural sectors. In the industrial sector emphasis is laid on manufacturing and construction, which generate the majority of value added in the sector, by targeting annual growth of 7.6% for the manufacturing sector and 16.5% for the construction sector achieving these targets would make the contribution of manufacturing to GDP increase from 24.2% (the average of actual results for 1984 to 1986) to 24.9% in 1992 while increasing that of the construction sector from 4.9% to 6.7%. These targets reveal a strong desire for a substantial increase in the rate of growth of the economy beyond the actual growth recorded up to 1986. Growth of the Philippines' economy would be dependent largely on the growth of the manufacturing and construction

sectors, and increases in investment particularly in the private sector would be important to achieve the growth of these two sectors.

(2) Outline of Industrial Development Policies

The Department of Trade and Industry (DTI) pursues the implementation of the industrial development policies which the DTI have formulated to attain the goals of the industrial development in accordance with the MTPDP. These policies have been stated in the DTI's policy paper "Development and Industrialization : Our Vision", released in October, 1989.

The direction of industrial development guided in the MTPDP is:

a) Establishment of industries that are of strategic importance to the domestic market;

b) Establishment of industries that can be world competition; and

c) Revitalization of existing viable enterprises.

In line with the above direction the DTI sets the specific objectives of industrial development as follows:

a) To promote light manufacturing industries that can capture niches in the world market;

b) To promote core industries that process the primary products of the agriculture and mining sectors;

c) To promote industries that produce intermediate and capital goods;

d) To develop and harness the country's labor-intensive micro, cottage, small, and medium enterprises to generate increased employment and income;

e) To encourage dispersal of industries to the regions;

f) To develop and promote world-competitive products with high indigenous raw material content, which are produced outside the National Capital Region, and which have high backward linkages, so as to achieve higher foreign exchange earnings and employment impact;

g) To further expand exports by increasing market share in existing markets, especially those with high purchasing power, with special efforts for countries with which the Philippines has had chronic trade deficits;

h) To stimulate domestic investment and encourage;

i) To use bilateral and multilateral fora to increase market access;

j) To develop an efficient system to promote price stabilization without having to resort to price controls; and

k) To advocate reduced government participation/ intervention in business, in favor of more promotional and information dissemination activities.

The DTI's policy is to promote industrial development based on the foregoing development direction and also with the vision of reducing the poverty incidence from the 59% level of 1985 to a 10-15% level and to have a newly industrialized Philippines by the year 2000. In the pursuit of the above vision, the DTI pursues a strategy that revolves around the following four tasks:

a) Regional and small enterprises development

b) Domestic trade promotion and price stabilization

c) Industrial development and investment promotion

d) Strengthening of the export sector

The strategy emphasizes the primacy of its private sector in implementing industrial development and the role of the government is defined as merely serving as catalyst and providing policy guidelines.

Outline of the measures and major programs relating to a), c) and d) of the foregoing four tasks which directly relate to the present study, is given below.

1) Regional Development for Regional and Small Enterprises Development

The DTI pursues regional development which is one of the measures for the promotion of regional small enterprises development. In view of the fact that the areas outside of the NCR where 87% of the national population lives only accounts for the relatively low share of 47% of the total gross value added of the manufacturing industries, and also that in these areas 62% of Filipino families are in poverty and 48% of workers are unemployed or underemployed, the importance of promotion of regional and small enterprises development advocating the need for job-and income-creating facilities has been emphasized. The regional development will establish the infrastructure for industries to be located in the regions. The major programs involved are summarized below.

a) Regional Industrial Centers (RICs)

Regional development is focused on the development of infrastructure. As this involves huge capital expenditures, however, 16 locations in 13 regions have been selected, where provision of infrastructural facilities is undertaken with government support and the intensive cooperation of relevant institutions. It is aimed thereby to create centers for regional industrialization which will have a spillover effect on surrounding areas over the long term.

Table 2-2-3 is a list of the 16 RICs. As can be seen from this the CEPZ and three other EPZs are included.

A typical example of regional development is that of the CALABAR Special Development Project directed by the DTI. This is a program for the ten-year development (1990-1999) of four provinces (Cavite, Laguna, Batangas and Rizal) located to the southeast and southwest of NCR. Infrastructure is to be provided, private investment attracted from companies in the labor-intensive industries, and employment opportunities expanded. These measures will help achieve the aim of lowering the poverty level in the region.

In order to effect a greater dispersion of industrial investment which has been over-concentrated in the NCR and to promote relocation of industry in the RICs the BOI restricted in 1988 the provision of some of the incentives given to projects for location in the NCR by the Omnibus Investment Code. In 1990 the government, proceeding in the same sense, adopted the policy of applying no incentives in the NCR barring a few exceptions.

b) EPZs

In order to attract new investors and increase the convenience enjoyed by existing operators the four EPZs (BEPZ, BCEPZ, MEPZ, CEPZ) are undertaking improvement of the existing facilities and infrastructure.

c) Industrial Estates

The DTI supports and encourages the development of private industrial estates. As part of these functions, in September, 1989 the DTI included the Industrial Estates Development Project in the Investment Priorities Plan (IPP). In order to benefit from the IPP the Industrial Estate must be located outside of the Metro Manila area and to have a development site area in excess of 50 ha.

Under this new policy there are a large number of private industrial estate development projects which are to be located in the CALABAR area.

2) Promotion of Industrial Investment

In the continuing effort to develop new industries and revitalize existing industries, the DTI promotes private investment in the industries according to the sectoral planning approach which is vigorously pursued with maximum private sector participation.

The principal thrusts of the promotion are primarily to focus on (a) high manufacturing industries that can capture niches in the world market, and (b) core industries that process the primary products of agriculture and mining sectors, and then extend in gradual steps to (c) industries that produce intermediate and capital goods. These thrusts are contained in the Investment Priorities Plan. Under these thrusts, long-term development plans for 55 sectors are being prepared.

Besides the above, the main programs for the promotion of investment include the Privatization Program, Infrastructure Provision Program and also the following three programs:

a) Continuous review and improvement of the Omnibus Investment Code and the Investment Priorities Plan

b) Campaign for investment promotion presently focused on Japan, South Korea, Taiwan, Singapore and Hong Kong

c) Simplification of investment procedures for foreign investors

3) Measures for Export Promotion

Aiming to enhance the private export sector, the DTI assists the private sector in export environment development, export market development and export enterprise development.

Priority in export promotion efforts is directed to products with high indigenous raw material content, which are produced outside the NCR, and which have high backward linkages, so as to achieve higher net foreign exchange earnings. Outline of the government assistance to be provided in the foregoing areas is described below.

a) Export Environment Development

This program aims to assist the creation of an environment that is conducive for the private sector, and especially the small and medium enterprise segment, to venture into export business or expand on-going export operations and to improve competitiveness in the world market. The major activities in this program include:

i) Strengthening of export policies

ii) Dissemination of vital information relating to export business

iii) Formulation and adoption of guidelines, rules and regulations

iv) Facilitation in processing of export/import transactions

v) Extension of export-related services in the regions concerned

b) Export Market Development

This program aims to develop or expand export markets for the Philippines' products. The major measures in this connection are:

i) Government supports to raise in export market shares

ii) The removal of trade barriers and restrictions

iii) Diversification of the export items and export markets for finished products of the Philippines

c) Export Enterprise Development

The basic objectives for export enterprise development are to assist the maintenance and improvement of the competitiveness of Philippine exporters, especially of export-oriented small and medium enterprises located in regions outside NCR. The major activities include:

i) Assistance in product/package development, and design

ii) Dissemination of export market information

iii) Training of designers for export products

iv) Exporters' training on export business and practice

v) Extension of market and technical consultancy services

vi) Timely dissemination of trade information, including inquiries from abroad

(3) Present Situation and Issues of the Industrial Sector

1) Structural and Managerial Particularities of the Industrial Sector

The industrialization policy of the Philippines was an import-substitution policy focused on consumer goods up to the middle of the 1960s. Later, emphasis came to be concentrated on the promotion of non-traditional exports including industrial products, a more sophisticated import substitution focused on intermediate product sectors, and then on the industrial development of regional areas. As is shown in Table 2-2-4 the average annual increase of gross value added in the manufacturing industries for the 1970s (1972-1980) was 6.5%. However, the lull in world economy which opened the 1980s due to the second oil shock resulted in the low average annual value added of 1.1% for the same sector in the period 1980-1988. The only sectors which have shown a noticeable growth during the above period are the exports of garments and electric- and electronic-related products. The ratio of employees in the manufacturing industries in the total employed population was 10.3% in 1981 and failed to increase beyond 10.4% for 1988. This shows that the sector failed to create more employment (Table 2-2-5).

The characteristics of the manufacturing industries can be summarized as follows.

The industrial development which has been pursued with excessive protection of the domestic industries in the 1970s through the early 1980s can be seen as having had a powerful adverse effect on industrialization of the Philippines. As shown in Table 2-2-6, policies meant that customs tariffs on consumer goods were high, and those for intermediate goods and raw materials low. Protectionist policies resulted in high-cost domestic consumer goods of a low quality and so import substitution for consumer goods was not pursued. Further, the low level of customs tariffs on intermediate goods only increased the dependence on imports. Thus a more sophisticated approach involving import substitution for these intermediate goods was not initiated. As Table 2-2-7 shows, intermediate goods and raw materials normally accounted for more than 50% of the total import value for the period 1980-1987.

The percentage of total export value accounted for by non-traditional manufactured goods is an indication of their growth and as can be seen from Table 2-2-8 this share increased steadily from 47.6% in 1983 to 66% in 1988. Garments, electric- and electronic-related

products are typical non-traditional export manufactured goods. These were mainly consignment-based operations where raw materials and intermediate goods were imported and only final processing or assembling took place in the Philippines. The value added which the Philippines thus secured was limited to the cost of labor. Further, there was only slight linkage between various industries, and so ripple effect in supporting development of other sectors was not realized.

Dividing companies into those employing up to nine-employees and those with more than ten the regional distribution of companies in 1983 with such classification is shown in Table 2-2-9. Companies with more than ten-employees represent 48%, and 55% of these are concentrated in the Metro Manila region. On the other hand, there is no particularity in the distribution of those companies employing up to nine-employees. However, since there are a large number of companies with more than ten-employees in the Metro Manila area this area inevitably represents a high percentage (48%) of the total employment figures. Also, in terms of the percentage of regional value added Metro Manila has a high figure of 49%.

The high level of dependence on imported intermediate goods and the production of export consumer goods on a consignment basis implies the lack of linkage between the manufacturing industries of the Philippines. Development of inter-industrial linkages between industries using intermediate goods and especially the processed parts among these as input materials is expected to advance with improvement of the sophistication of industry. Comparison is made of Taiwan, Thailand and the Philippines in regard to the input quantities between industries with respect to molded rubber and plastic products and processed metal products which are all often used as input materials in the final production processes of products. Table 2-2-10 gives the US dollar equivalent value of input of the above products which has been calculated on the basis of the inter-industry relations (input/output) tables available for these countries. Whereas rubber and plastic products are 500 million US dollars in the Philippines, they are 400 million US dollars in Thailand, and 2,870 million US dollars in Taiwan; for processed metal products the figures are 390 million US dollars in the Philippines, 170 million US dollars in Thailand and 1,470 million US dollars in Taiwan. There is a considerable gap in the input value of these processed parts between Taiwan and the other two countries of Thailand and the Philippines. This illustrates the facts that the development of the industries for intermediate goods in the Philippines and Thailand is far behind Taiwan and in the former two countries there is no close linkage between industries for final consumer goods and these for intermediate goods.

In view of the above characteristics of the industrial sector of the Philippines, analyses are made of the structural and managerial particularities in the three main areas, namely (a) the intermediate goods manufacturing industries, (b) non-traditional exports manufacturing industries and (c) domestic-oriented consumer goods manufacturing industries.

a) Intermediate Goods Manufacturing Industries

Intermediate goods are divided into primary and secondary processed goods. With regard to the flow of goods of local industries, in primary and secondary processing sectors, there is generally only rarely any linkage with final consumer/ producer goods type industries requiring intermediate goods. Reasons for this absence of linkage include:

i) Limited domestic markets for final products so that large quantities of intermediate goods cannot be absorbed.

ii) Low quality of primary processed goods act to obstruct and upset production in the secondary processing sectors.

iii) Export manufacturing industries using imported intermediate goods which are too small in a scale to induce the domestic production of those intermediate goods for import substitution.

The following is an outline of the representative intermediate goods manufacturing industries; steel industry, petrochemical industry, and textile industry.

Steel Industry

As the primary processed goods produced by the NSC (National Steel Corporation) such as steel sheets, steel rods, shaped steel and pipes are of low quality, the metal working industries (the secondary processing sector) which require superior quality materials must rely on imports for the above primary materials.

Petrochemical Industry

Polyvinyl chloride (PVC) and polystyrene resins are produced in the Philippines, but these are only general purpose resins and of low quality. Thus, these resins are used for molding low-grade plastic sundries (such as calendered products or vacuum formed plastic goods). Polyethylene and polypropylene resins are in great demand, but all the demands for these resins are met by imports because there is no domestic production. Hence the processors are easily influenced by price changes in foreign markets and unstable supply.

Textile Industry

Most of the existing textile mills are equipped for suplying domestic markets and their manufacturing facilities are already old. Hence their products are not suited for exports. For raw materials a high level of dependency on imports is unavoidable. These situations have weakened competitiveness of the textile industries in the Philippines. Renovation of the existing mills is also lagging. Further, local-made fabrics are poor in dying and finishing compared to imports and the prices of these local fabrics are not competitive with imports. As such, the export garment manufacturers are obliged to use imported fabrics.

b) Non-traditional Export Industries

The non-traditional exports currently continue to increase annually and in 1988 their share amounted to 66%. As can be seen from Table 2-2-8 the largest share is that of electric- and electronic-related goods which account for 21%, followed by garments with 19%. Since these industries are labor-intensive, they expand employment but depend largely on imports of required parts and intermediates. Thus their contribution to growth of value added and net foreign exchange earnings is limited. The non-traditional industries can be classified by organization into the following three groups.

i) Production as the "overseas production bases" of foreign companies

This type of operation is to undertake final processing or assembling of parts and intermediates supplied by the parent companies abroad. The final products thus produced are taken off by the parent companies. Most semiconductor production in the Philippines is based on this type of operation, established by US semiconductor manufacturers.

ii) Consignment-based processing

This operation is to undertake final processing based on consignments from foreign buyers, using raw materials supplied by the foreign consignors and to re-export the products to them. A typical example of such consignment-based export manufacturing is the garment industry. The majority of garment manufacturers are either micro, small, or medium Filipino enterprises and carry out contract production in conformity with buyers' specifications.

iii) Manufacturing by large companies of high-class durable consumer goods for domestic markets, but with some of output exported

Some large companies manufacture high-class durable consumer goods such as electric appliances and automobiles by means of assembling imported components and parts. Some of have started to export products (final products or unit components) to the extent that facilities have capacity for export goods production. As only a few companies are capable to produce required parts in the Philippines, almost all are imported. However, because of the appreciation of the yen and the currencies of the NIEs has caused prices of parts and components imported from these countries to rise, and because of the increased labor costs in the above countries, some of the large assemblers, particularly those affiliated with manufacturers of Japan, Taiwan or South Korea have begun to establish a genuine system for the supply of components and parts by an international division of labor among the ASEAN and other countries.

c) Domestic Consumer Goods Manufacturing Industries

The food processing industries (cereal processing, beverages, dairy products, fruits and vegetable, seafoods, meats and spices) are the largest sector of the Philippines' manufacturing industries in terms of value added and numbers employed. The majority of production is consumed in the country. The only sectors where exports are undertaken are fruit processing, frozen seafoods, and a certain range of spices. In contrast to such multinational companies as Dole and Del Monte which have integrated production through all stages from cultivation, production, processing on to export, the majority of local food processing companies are small and medium enterprises or backyard operators. Therefore there is little linkage between producers (farmers cooperatives) and processing industries. In other areas of the domestic consumer goods manufacturing industries, only the foreign affiliated companies or large domestic companies can produce the products comparable to imports. Most of the manufacturers are small and medium manufacturers producing low-grade products for general consumers.

2) Present Situation and Major Problems of Industrial Linkages

The present situation and major problems of industrial linkage are reviewed below.

a) Supporting Industries

As only a few companies are capable to supply intermediate materials and parts to the foreign-affiliated large companies which are engaged in final processing or assembling high-grade consumer goods, the latter companies are obliged either to adopt in-house production or import those required intermediates and parts. The following are the main factors which inhibit the development of local industries so as to enable them to supply intermediate goods and parts.

i) The domestic production of steel and resin which are used to make metal goods and plastics is of small scale, and these materials locally available are of low quality.

ii) Many of the local industries are of small and medium size, operating repair services, or doing simple metalworking. There are few companies which can produce parts for precision machinery. Plastic processing also is for low-grade sundries. Therefore the awareness of the need for technical upgrading is weak.

iii) Most basic industries which produce industrial raw materials require a certain production scale for economic operation. Companies have less incentive to embark on the production of those materials since there is not a sufficient scale of market to attain economy of scale.

The present situations of metalworking, plastic processing and packaging industries which are representative of supporting industries are reviewed below.

i) Metalworking Industries

Metalworking industries mainly comprise intermediate metalworking industries (forging, casting, press work), die-making and machining industries. The local industries which are capable of producing precision machinery parts to be used for automobile, electric and electronic machinery, various machinery and other items of high-grade consumer or producer goods. Even those manufacturers face the need to improve production and product quality control. Indications of the present situation of the metalworking industries of the Philippines show that the scale of demand is small. For example in comparing the annual production per capita in 1987 of cast metal which is an intermediate good for further processing, while a very low productive output of 3 kg is the figure for the Philippines, South Korea recorded 26 kg, Taiwan 45 kg and Japan 54 kg. This implies that the demand for cast metal is small. The majority of cast metal made comprises wear-resisting cast iron used as a consumable in mining, cement and construction

industries. However, most of it is produced by mining companies or foreign-affiliated casting companies. The cast products of local industries are not integrated into the systems for production of machinery or automobile industries, etc.

With the more use of high-grade metal or plastic parts, the importance of die making will increase. At present in the Philippines there are only a handful of die-makers. Although some of the users which are large companies manufacture dies by themselves, many companies use imports. Therefore the dies are costly in the Philippines. Many small and medium enterprises use old dies because they cannot afford to replace them with new ones, causing loss of precision and quality of products.

ii) Plastic Processing Industry

As can be seen from Table 2-2-11 showing the quantity of raw material resin consumed, 70% of the total processed plastic product is produced by extrusion. Majority of the production is by a few leading companies which are comparatively large. Principal products are general sundries including film packs, plastic sheet products and plastic bags. Plastic packages for exports and plastic parts for machinery which require high quality are dependent on imports. In order to increase the value added it will be necessary to promote the domestic production of those plastic products. For this end it is essential for the plastic processors to acquire new molding machines, processing technology and improve production and quality control, while it is also essential to develop die makers which are capable to produce high-precision dies.

iii) Packaging Container Industries

The shares of raw materials used for the production of packaging containers, by value, are 45% for paper/cardboard, 20% for metals, 18% for glass, 15% for plastic, and 2% for others. Problems of the packaging container processing industries include (1) quality of raw materials, (2) finishing technology and (3) quality and precision of produced containers. Quality problems with raw materials include unevenness of tin plate thickness, insufficient elasticity, uneven coating in the case of cans; and the instability supply of high-quality imported resin in the case of plastics. With regard to finishing technology there are problems with dies and molds for injection and vacuum forming in the case of plastics, and with the sealing and closure in the case of cans. Further, there are no standards defining dimensions, construction or performance to standardize product quality and specifications of packaging containers.

b) Joint Activities or Horizontal Division of Labor among Manufacturers in the Same or Similar Product Line(s)

In the Philippines there are only a few cases where manufacturers being engaged in the same or similar product line(s) have joint activities or horizontal division of labor. Representative examples are the joint operation of kiln dryers and the joint purchase of lumber by a few small and medium furniture manufacturers and the joint purchase of materials and the joint operation of equipment for the design, pattern making and cutting by small and medium garment manufacturers. Most small and medium enterprises, however, are self-reliance. These hinders small and medium enterprises in application of advanced technology and modern equipment, limiting improvement of cost and quality. Further, for some products, there are the cases where they fail to get orders from large manufacturers, because of low production capacity. It is important to promote joint activities or horizontal division of labor among these enterprises.

c) Linkage of Agricultural Producers and Food Processing Companies

The food processing industries which process agricultural produces in line with the consumer trends in foreign and domestic markets as well as the needs of consumers has great growth potential. In order to produce superior quality agro-based products it is essential that the supply of high-quality agricultural products to be used as raw materials is assured. Through a linkage system between the producers of agricultural products (farmers cooperatives) and the processing companies it will become possible for the producers to supply high quality agricultural products from which the processing companies can produce superior quality agro-based products.

Under the contractual orchard plantation arrangement which is being used by a few fruit processors, producers are provided with credit and technology. The producers supply the quantity of product according to their contract with the processors. In this way the producers are assured of a stable income and through the abolition of the intermediaries it is possible to include part of the otherwise-paid distribution costs in their own revenue. For the processors the assurance of a stable supply is obviously an advantage. However, as small and medium food processors in general have not established such a system, they have been suffering from unstable supply of agricultural products used for raw materials, as well as a tendency toward increases in costs due to inferior quality of the processed products and losses in processing. In order to expand food processing industries especially for exports with the aim of efficient utilization of indigenous resources, the establishment of the foregoing linkages is a vital issue.

3) Importance of Developing the Linkage Industries and the Priority Sectors to be Developed

As observed above, industry in the Philippines tends to depend heavily on consumer goods manufacturing and development has been retarded for the parts and intermediate goods manufacturing industries, and the basic heavy and chemical industries producing raw materials. This existing structural imbalance results in an increase in imports of parts, intermediate goods and raw materials, and creates a burden on the international balance of payments and restricts the expansion of value added in industry. Increased local production of the parts, intermediate goods and raw materials will result in an increase in foreign exchange earnings and an expansion of value added, as long as the import substitutes can compete sufficiently in terms of quality and cost with the imports. Therefore, it is important to promote the domestic production especially of those parts, intermediate goods and raw materials which are directly or indirectly used for the production of finished goods and which will be economically feasible to be locally produced for import substitution.

One reason why development of the basic heavy and chemical industries has not proceeded to date in the Philippines is the small size of the market. Recently, plans were completed for a petrochemical complex to be constructed so that the raw material resins for plastic processing which had largely been imported to date can be supplied from a domestic source. However, other basic industries, especially in the ferrous and non-ferrous industries, are not in a position to change to domestic production. Moreover, problems relating to the quality of these raw materials as currently produced restrict the scope of their use, as has been pointed out above. The same remarks apply to the textile sector, as has been noted. Bearing this in mind, any immediate changeover to domestic production of such raw materials or materials is deemed impossible.

Nevertheless, the level of domestic production of the plastic and metal processed parts which are imported for use as parts, intermediate goods and packaging materials in the production of finished goods should be raised as much as possible. A gradual promotion of the advanced secondary processing industries which handle these items is well within the scope of what can be achieved. Unlike the basic heavy industries, these processing industries do not require a consecutive operation of process plants. They are therefore appropriate to be carried out by small- and middle-scale processing industries using small-unit processing machines. The same points apply in the case of die-making industries. By fostering the modernized small- and middle-scale industries equipped with the machinery and technology to produce the highly precise and excellent quality of parts, intermediate goods and packaging materials required, and through the development of the die-making industries which support the above industries, it will be possible to develop secondary processing industries with adequate competitiveness even if materials for processing are imported for the time being. Development of such secondary processing industries in turn will support the future development of the basic industries by expanding the future market.

It is therefore concluded on the basis of the above analysis that the most effective plan is to give priority to development of the advanced secondary processing industries which are involved in production of the parts, intermediate goods and packaging materials which are currently imported and which are used for the production of export finished goods. In particular, the sectors deserving encouragement are the modernized small- and middle-scale industries in metalworking and plastic processing together with the die-making industries which support the former.

(4) The Role of Foreign Investment in Industrial Development of the Philippines

1) The Main Function of the Foreign Investment

In general, in the case of developing economies the position and role expected of foreign investment changes with the industrial development of the country. Taking the example of the Philippines, the 1950s and 1960s were characterized by import substitution, and the introduction of foreign investment was chiefly given attention in relation to the major consumer goods industries of the home market. From the end of the 1960s with the worsening of the international balance of payments, a change was made to a more active encouragement of export-oriented industries.

The main functions of foreign investment of an export-oriented type in the industrial development of a developing country are as follows:

a) Compensation for insufficiencies in domestic capital accumulation

b) Creation of employment opportunities

c) Introduction of new equipment and technology

d) Creation of export markets

e) Transfer of managerial expertise

In addition to the above, other indirect benefits which can be expected to accrue from foreign investment include the nurture of subcontractor industries, the transfer of R & D facilities, etc.

2) The Role of Foreign Investment Evident in Trade and Investment Trends in the Philippines

The following summarizes the data from Table 2-2-13 and shows the total number of investment and the total investment amount (on an equity base 1/) to the manufacturing industries which were approved by the BOI over the six-year period of 1983 to 1988, together with the ratios accounted for by foreign and domestic investments.

Number of Total Projects	5,373
Total Project Cost (100 million pesos)	650 (100.0%)
Domestic capital	349 (53.7%)
Foreign capital	301 (46.3%)

The fact that foreign investment accounts for 46% of the total amount invested in the manufacturing industries shows the extent to which industrial investment in the Philippines in recent years is increasingly dependent on foreign capital. The following indicates the number of projects and their total investment amount (on an equity base) in the export-oriented industries which were approved by the BOI during the above period. The ratios of domestic and foreign capital of the totals is also shown.

Number of Projects to the Export-Oriented Industries:	1,263
[Share of total projects in the manufacturing industries accounted for by these]	[23.5%]
Investment Cost to the Export-Oriented Industries (in 100 millions pesos):	254
[Share of this in the total investment amount for the manufacturing industries]	[39.1%]
The Ratios of Domestic and Foreign Capital of the Investment Amount to the Export-Oriented Industries:	
Domestic Capital	54.7%
Foreign Capital	45.3%

Note: 1/ In order to calculate the ratios of foreign and domestic capital, as well as the new and expansion projects, applications for approval to the BOI from existing factories were included in the BOI approved project figures and investment amount.

The amount invested in the export-oriented industries accounts for about 39% of the total invested in manufacturing but of this 45% is from outside the country. This underlines the important role played by foreign capital in investments in the export-oriented industries.

As mentioned above, the exports of such non-traditional goods such as electric and electronic products or garments and textiles have shown considerable growth in recent years. Furthermore, steady growth is observed in exports of processed food products. The shares of these three sectors in the total number of investment projects and investment amount (on an equity base) for export-oriented industries, which were approved by the BOI in the period from 1983 to 1988, is summarized from Table 2-2-14 as follows.

		Garments and Textiles	Electrical and Electronic Goods	Processed Food Items	Other
a)	Projects	263	161	108	731
	Percent of total number of projects in export-oriented industries	20.8%	12.7%	8.6%	57.9%
b)	Investment Amount (in 100 million pesos)	9	71	8	166
	Percent of total investment in manufacturing	3.6%	27.8%	3.2%	65.4%
c)	Domestic/Foreign Capital Ratios				
	Domestic capital	55.6%	23.9%	73.6%	66.9%
	Foreign capital	44.4%	76.1%	26.4%	33.1%

In the export-orientaed sector of electrical and electronic devices there is a predominance of foreign capital investment -- 76% of the total. In the sector of garments manufacturing there is a large percentage accounted for by foreign investment, 44%. This shows the important role played by foreign capital in the expansion of the exporting industries.

However, despite this important role of foreign capital in the expansion of the non-traditional export-oriented sectors, since these sectors have been based on the import of

parts and intermediate goods, or buyer's specifications, they have not led to the promotion of related industries. It is therefore necessary to increase the local production of the parts and intermediate goods, and the potential contribution of foreign investment in this direction is also large.

Details of the annual number of investments and the total investment amount in the exportoriented industries which were approved by the BOI in the six-year period between 1983 and 1988 are shown in Table 2-2-13. The figures above are from this table.

3) Transfer of Technology through Foreign Investment

One of the roles played by foreign investment in the industrial development of the Philippines is the promotion of transfer of technology. Since 1978 the Bureau of Patents, Trademarks and Technology Transfer (BPTTT) of the DTI has been in charge of the supervision of the license agreements international for transfer of technology. As of October, 1988 the number of registrations made with the BPTTT is 844, and the total export value of the factories which were set up under such licenses in the seven-year period between 1978 and 1984 was 2,155 million dollars, while 71,000 jobs were created.

In terms nationality of the licensors of technology the USA share is 46%, Japan 18%, Switzerland 8% and UK 7%. There is a degree of correspondence between foreign investors and licensors of technology during the same period. This also underlines the important role played by foreign investment in the transfer of technology.

(5) Comparative Advantages of the Philippines

1) Comparison with the Industrial Conditions of the Other ASEAN Countries

Since 1986 foreign capital investment in manufacturing has shown a rapid increase in the Philippines. This trend, which is also evident in Thailand, Malaysia and Indonesia, is due to decisions by companies in Japan, Taiwan, South Korea, Hong Kong, and elsewhere to invest in these countries and transfer their international production bases to the ASEAN countries.

When these investors consider such a transfer it is natural for them to consider the conditions of the host countries and choose that which best realizes their needs. In this sense the Philippines is in competition with the other ASEAN countries. Therefore, in order to promote foreign investment, the Philippines must make an appeal based on the advantages of the Philippines over the other ASEAN countries, and at the same time to give greater attention to all industrial conditions which are of a disadvantageous nature.

In this connection, comparison is made of the industrial conditions of the Philippines in relation to its investment environment with those of Thailand, Indonesia and Malaysia with regard to three main points: 1) investment systems, 2) industrial cost factors, and 3) infrastructure (refer to Table 2-2-15). Further, the attached Annex 3 shows these industrial conditions for the four countries in list form.

First, considering the investment systems of the countries vary greatly from one country to another. It is noted that Indonesia has no incentive in the form of income tax exemption. The ownership of land in the Philippines is limited in the case of foreigners but also in Malaysia restrictions are in force because of the Bumiputra policy, while in Thailand the incentives to a regional distribution of investment are reflected in the systematic framework and act as reinforcement. Other than these points, however, conditions are largely similar. It is therefore concluded that there is little difference in terms of the investment systems of the four countries.

In the case of industrial cost, these are relatively expensive in the case of Malaysia compared with the other three countries, all of which are at about the same level. However, the recent investment boom in Thailand has resulted in an acceleration of cost increases. The minimum wage in Thailand was raised about 15% in April, 1990. The sales price of the industrial estate sites recently put up for sale has reached a quite high level of US$60 per square meter. It is expected that other industrial costs will also rise. In this sense the industrial costs of Thailand and Malaysia are considerably higher than those of the other two ASEAN countries. This means that the Philippines and Indonesia have a comparative advantage over Thailand and Malaysia in this aspect.

However, with regard to industrial infrastructure, the Philippines is considerably behind the other three ASEAN countries. The level of education of the work force is comparatively high in the Philippines. English-competent, relatively good quality and cheap and plentiful labor can be provided, and this is the primary advantage available to foreign investors in the Philippines. However, the insufficient preparation of infrastructure is one of the factors most discouraging to investment in the Philippines.

A more detailed analysis of labor costs and electricity costs which form the major indicators for industrial costs follows.

Labor Costs

Table 2-2-16 is a comparison of the standard wage structures of the ASEAN countries on the basis of the current minimum wage costs (except that the basic salary structure is used in the case of Malaysia which has no minimum wage act). From this it is evident that the highest level exists in Malaysia, followed in order by the Philippines and Thailand. When

viewed in the context of minimum wage costs the Philippines is slightly higher than Thailand.

Table 2-2-17 shows actual labor costs as indicated by the survey. The average costs for major industries are indicated, but with the exception of the electrical and electronic sectors it is noticeable that Thailand is more expensive than the Philippines. Also, since the figures indicated for Thailand do not include bonus payments it is expected that this gap is actually greater.

It is thus clear that, whereas in terms of minimum wages the Philippines seems to maintain a slightly higher level, the wage really paid is more expensive in Thailand than in the Philippines. In particular, with the recent investment boom in Thailand there is a trend to strictly enforce minimum wages and also inflationary tendencies generally in the economy which tend to encourage wage increases. It is therefore fair to conclude that for the time being the Philippines has a definite advantage in terms of wages.

Electricity Costs

Methods of calculating electricity costs differ from one region to another and according to industrial organization even within the same country. The average cost of electricity in the Philippines is shown in Table 2-2-18. The Cagayan de Oro region in the southern part of the Philippines has the lowest electricity costs in the country and is in fact in the cheapest in the whole South East Asian region. However, in the Metro Manila area (NCR) which has the greatest concentration of factories the average cost of electricity suplied by MERALCO is 1.45 pesos per kWh.

This MERALCO rate is compared to the unit costs of other South East Asian countries in Table 2-2-19. This cost is slightly higher than that of Indonesia and is just marginally cheaper than costs in Thailand or Malaysia. The Metropolitan Electricity Authority of Thailand (MEA) like MERALCO purchases the electricity from the power stations and then distributes it to customers. In view of the average rates charged by the power stations it is estimated that MEA makes a 32% mark-up while MERALCO's mark-up is on the order of 70%. The cost of generating electricity is therefore cheap in the Philippines but there are regional discrepancies in the cost of distribution in the country.

In conclusion, it is assessed that the Philippines has a comparative advantage in its unit cost of electricity, and it is possible to choose sites which are the cheapest and most advantageous in the whole South East Asian region.

2) The Comparative Advantages of the Philippines

According to the above comparison, the comparative advantages of the Philippines can be summarized as follows:

Advantages	Disadvantages
a) Industrial costs, including labor costs, are cheap	a) Provision of industrial infrastructure lags
b) Advantageous geogaphical position in Asia	b) Political instability
c) Plentiful English-speaking labor force	c) Restrictions on land ownership for foreigners and on foreign equity
d) Plentiful supply of primary resources, e.g., agricultural produce	d) Difficulties in obtaining loans from overseas
e) USA's GSP can be used.	e) Short supply of domestic industrial raw materials and intermediate goods

The delay in the provision of industrial infrastructure and political instability have traditionally been pointed out as impediments to comparative superiority. By means of the questionnaire survey to Japanese investors (refer to Annex 8), it become clear that a large number of Japanese investors are still hesitating to select the Philippines for their overseas production bases because of above impediments. The improvement of above two problems would seem to be the major task faced by the Philippines for the time being.

Foreign enterprises already in the Philippines were especially strong in their adverse opinion of the restrictions placed on land ownership and foreign equity to conduct their business. Countermeasures for those restrictions should be considered too.

Many investors show a great interest in the Philippines. The cheap, superior and plentiful labor force and its geographical position conducive to trading are big advantages for the Philippines. In particular, the Philippines is close to Japan, South Korea, Taiwan and Hongkong where economic and industrial growth and activities are at high levels. Further, the Philippines is located in a more advantageous spot than other ASEAN countries in terms of trading with Japan and USA which are the major markets for ASEAN goods and

with the West Pacific area which is expected to show the highest level of economic development in the 21st century. The Philippines could be a trading center in the South East Asian and West Pacific region.

As regards the advantage of its labor resources, international competitiveness is assured not only because of the cost element but there are administrative advantages for commercial business secured by the fact that this is an English speaking society. This is also big advantage for the Philippines. It is clear that if the above-mentioned problems could be alleviated, foreign investors' attitude to the Philippines will be changed remarkably.

(6) Major Considerations Relating to Promotion of Investment in Manufacturing in the Philippines

The promotion of investment in manufacturing from both the foreign and domestic private sectors is crucial to the industrial and economic development of the Philippines, as has been made clear in the preceding analysis. The following considerations relate to a further industrialization and promotion of foreign and domestic investment which has shown a rapid recovery since 1986. It is needless to say that assuring political stability, and relaxing restrictions of foreign land ownership and equities, are fundamentally big questions for the Philippines.

1) Furthering Active Promotion of Investment

As has been observed above, the Philippines enjoys advantages over the other ASEAN countries in terms of basic industrial conditions, but there are problems which cause investors to hesitate in their decision to invest. The following measures to further an active promotion of investment are therefore important to encourage investors.

a) Foreign capital

It is effective strategy to lure foreign capital which represents supply of the requisite managerial resources, as a means for the Philippines to gradually realize its targets of domestic capital accumulation, introduction of new technology, creation of export markets and mastery of managerial know-how.

Bearing in mind the environment of recent investment trends in various countries (Section 4-2) and for trend of the international relocation of production, consideration of Japan, Hong Kong, Singapore and South Korea as the highers-potential sources of investment is recommended.

Section 4-6 contains a detailed consideration of the selection of industrial sectors to be attracted. It is advisable to give priority to labor-intensive processing industries,

advanced technology industries that will transfer technology, and linkage type industries which will promote expansion of domestic industrial linkages. The DTI has already established nine categories of industrial sector for invitation (Section 4-6-(1)).

b) Domestic Capital

It is necessary to promote the investment of domestic capital with the view to efficient utilization of indigenous resources and a regional dispersion of industry. Possible sectors relating to the utilization of indigenous resources include food processing, wood working and furniture, accessories and the like. Other sectors which could be attracted for investment include agriculture, the marine products industries, mining, and the commercial sectors. Another promising target is with those traditional industries which possess a capital accumulation and are suffering from a contraction of their market.

2) Preparation of Industrial Sites

It is especially important to investors that factory sites be available where operations can be carried out economically and in stable, secure conditions. Industries make a final choice after comparing a wide range of sites and choose that which matches most closely their criteria and priorities. It is therefore important to adopt a policy for luring industrial investment from the private sector, and especially from abroad, by making available industrial sites which satisfy the required conditions.

The preparation and expansion of the CEPZ is an urgent issue in view of the large number of industries expressing a desire to be located in the CALABAR area. Also, the BEPZ already developed is relatively well equipped as to facilities although it does have the demerit of being situated at an inconvenient distance from the Metro Manila area. It is necessary to make known to potential investors the improvements and modifications which have been made in its facilities, and advertise BEPZ's merits. For this end, it would be useful to establish a data bank which can provide potential investors with data and information concerning not only the EPZs but also the private industrial estates (as to progress of development, provision of infrastructure, tenancy data and conditions, etc.), public institutions, and prospective private owned sites.

As has been indicated by the results of the questionnaire survey conducted on Potential Investors of the Philippines (refer to Annex 9) the most important problem involved in the provision of industrial sites is that of the transfer of agricultural land for industrial uses. This problem is of great concern of not only domestic investors but even more of foreign investors because of the possible effect on the progress of their projects. It is necessary for the Philippine government to make a clear statement of policy. Further, the rapid rise in land prices due to an increased demand for sites relating to the regional development

program for CALABAR has become a problem recently.

Chapter 7 contains a detailed examination of the problems of infrastructure provision essential to the preparation of sites.

3) Information Services

The provision of information is needed to determine the potential investors to choose the Philippines for investment out of the wide range of possible alternatives. The information to be provided will include the following:

a) Information concerning the Philippines (labor costs, geographical advantages, merits of an English-speaking labor force, etc.)

b) Information concerning the investment environment (investment systems such as investment incentives, data on investment sites, infrastructure conditions, etc.)

c) Information concerning partners (for joint-ventures, but also sub-contractors, raw material suppliers, etc.)

The establishment of an information system will be required, for collecting and timely providing of information, and giving practical consultation to potential investors. Details are described in Chapter 6.

Table 2-1-1 SOCIAL AND ECONOMIC INDICATORS, THE PHILIPPINES

Indicators	Unit	Philippines	Reference			
			Indonesia	Thailand	S.Korea	Japan
1) Land Area	1,000 sq.km	300.0	1,904.6	513.1	99.0	377.8
2) Population (a) *1	million	58.7	175.6	54.5	42.0	122.6
Ratio of Urban Population to Total Population *2	%	5.7	8.5	10.1	40.4	20.6
Population Density	persons/sq.km	196	92	106	424	325
3) GDP (b) *3	billion US$	32.8	86.5	38.3	86.2	1,345.6
Per Capita GDP (a/b)	US$	559	493	703	2,052	10,976
Percent of GDP by Sector:						
- Agriculture, Fishery and Forestry	%	26	24	17	14	3
- Mining and Manufacturing	%	28	31	25	33	34
- Construction	%	4	5	5	8	7
- Wholesale and Retail	%	21	15	22	13	14
- Transporte and Communication	%	6	7	9	8	6
- Others	%	15	18	22	24	36
4) Foreign Trade *4						
- Exports	billion US$	17.0	48.2	37.3	143.7	643.4
- Imports	billion US$	21.0	32.8	45.4	125.2	462.7

Notes: *1 Estimates of mid-year population, 1988
*2 Urban population means the population in cities with population more than one million.
*3 In 1985
*4 In 1988

Table 2-1-2 GROSS DOMESTIC PRODUCT BY SECTOR, THE PHILIPPINES

Unit: 1972 million pesos

	1972	1978	1983	1984	1985	1986	1987	1988
1. Agriculture, Fishery and Forestry	16,135	21,631	24,845	25,409	26,252	27,110	26,834	27,771
2. Industrial Sector	18,068	29,611	35,956	32,282	29,000	28,396	30,590	33,205
1) Mining & Quarrying	1,346	1,809	1,966	1,755	1,768	1,574	1,574	1,615
2) Manufacturing	14,014	21,108	25,108	23,319	21,541	21,717	23,168	25,251
3) Construction	2,240	5,944	7,689	5,866	4,258	3,382	3,967	4,344
4) Electricity, Gas and Water	468	750	1,193	1,342	1,433	1,723	1,908	1,995
3. Service Sector	22,261	31,542	39,120	36,236	34,652	35,674	38,039	40,558
1) Transportation	2,732	4,501	5,266	5,032	4,953	5,105	5,251	5,487
2) Trade	7,527	10,697	13,930	14,073	14,066	14,337	15,153	15,832
3) Finance & Housing	4,515	6,164	7,578	5,134	4,286	4,831	5,832	6,200
4) Services	7,487	10,180	12,346	11,997	11,347	11,401	11,803	13,039
4. Total Gross Output (1+2+3) (Gross Domestic Product)	56,464	82,784	99,921	93,927	89,904	91,180	95,463	101,534
Per Capita GDP (pesos)	1,450	1,808	1,920	1,761	1,645	1,628	1,664	1,729
Population (thousand)	38,928	45,794	52,055	53,351	54,668	56,004	57,356	58,721

Source: Philippine Statistical Yearbook 1989, Economic and Social Statistics Office, National Statistical Coordination Board.

Table 2-1-3 SHARE OF GDP BY INDUSTRIAL SECTOR, THE PHILIPPINES

Unit: %

	1972	1978	1983	1984	1985	1986	1987	1988
1. Agriculture, Fishery and Forestry	28.6	26.1	24.9	27.1	29.2	29.7	28.1	27.4
2. Industrial Sector	32.0	35.8	36.0	34.4	32.3	31.1	32.0	32.7
1) Mining & Quarrying	2.4	2.2	2.0	1.9	2.0	1.7	1.6	1.6
2) Manufacturing	24.8	25.5	25.1	24.8	24.0	23.8	24.2	24.9
3) Construction	4.0	7.2	7.7	6.2	4.7	3.7	4.2	4.3
4) Electricity, Gas and Water	0.8	0.9	1.2	1.4	1.6	1.9	2.0	1.9
3. Service Sector	39.4	38.1	39.2	38.6	38.5	39.1	39.9	39.9
1) Transportation	4.8	5.4	5.3	5.4	5.5	5.6	5.5	5.4
2) Trade	13.3	12.9	13.9	15.0	15.6	15.7	15.9	15.6
3) Finance & Housing	8.0	7.5	7.6	5.5	4.8	5.3	6.1	6.1
4) Services	13.3	12.3	12.4	12.8	12.6	12.5	12.4	12.8
4. Total Gross Output (1+2+3) (Gross Domestic Product)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Table 2-1-2

Table 2-1-4 BALANCE OF PAYMENT AND FOREIGN EXCHANGE RESERVES, THE PHILIPPINES

Unit: million US$

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
1. Trade Balance (1)-2))	-1,060	-764	-1,307	-1,541	-1,939	-2,224	-2,646	-2,482	-679	-482	-202	-1,017	-1,085
1) Exports of Goods	2,574	3,151	3,425	4,601	5,788	5,722	5,021	5,005	5,391	4,629	4,842	5,720	7,074
2) Imports of Goods	3,634	3,915	4,732	6,142	7,727	7,946	7,667	7,487	6,070	5,111	5,044	6,737	8,159
2. Services (Net)	-259	-248	-107	-311	-399	-309	-1,040	-730	-855	26	783	0	-77
1) Inflow	871	1,085	1,484	1,655	2,222	2,896	2,983	3,127	2,619	3,288	3,791	3,454	3,606
2) Outflow	1,130	1,333	1,591	1,966	2,621	3,205	4,023	3,857	3,474	3,262	3,008	3,454	3,683
3. Transfer (Net)	269	260	312	355	434	472	486	472	236	379	441	573	789
1) Inflow	280	273	322	369	451	485	498	483	237	388	445	575	791
2) Outflow	11	13	10	14	17	13	12	11	1	9	4	2	2
4. Current Account Balance (1+2-3)	-1,050	-752	-1,102	-1,497	-1,904	-2,061	-3,200	-2,740	-1,298	-77	1,022	-444	-373
5. Long-term Loans (Net)	1,040	662	891	1,151	1,032	1,332	1,548	1,392	539	2,787	815	159	-329
1) Inflow	1,407	1,242	1,850	2,110	1,579	2,072	2,533	2,336	1,308	3,962	2,545	2,598	2,372
2) Outflow	367	580	959	959	547	740	985	944	769	1,175	1,730	2,439	2,701
6. Direct Investments (Net)	144	216	100	20	-102	175	17	112	-7	-9	114	326	986
1) Inflow	185	236	134	146	119	248	194	255	121	124	186	439	1,077
2) Outflow	41	20	34	126	221	73	177	143	128	133	72	113	91
7. Short-term Capital (Net)	-332	-172	-90	-458	310	-219	-56	-618	623	-1,731	-814	80	-205
8. Errors and Omissions	37	210	115	145	126	-214	-207	-387	251	638	-101	-144	40
9. Non-monetary Account Balance (5-6-7-8)	889	916	1,016	858	1,366	1,074	1,302	499	1,406	1,685	14	421	492
10. Monetization of Gold	-	-	32	41	128	400	277	183	150	221	279	365	314
11. Allocation of SDR	-	-	-	28	29	27	-	-	-	-	-	-	-
12. Revaluation Adjustments	-	-	-	-	-	-	-	-	-	560	-68	-78	33
13. Overall Balance (4+9+10-11-12)	-161	164	-54	-570	-381	-560	-1,621	-2,058	258	2,389	1,247	264	516
Foreign Exchange Reserves	1,596.8	1,479.4	1,763.0	2,249.7	2,846.1	2,065.9	887.8	746.9	602.1	614.9	1,728.2	1,959.0	2,059.0
Debt Service Ratio (%) #1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	35.0	32.3	30.8	26.0
Officail Rate of Foreign Exchange (Peso/US$)	7.38	7.35	7.31	7.32	7.45	7.83	8.46	11.13	16.57	18.54	20.39	20.57	21.09

Sources: Philippine Statistical Yearbook 1989, NEDA
#1 World Debt Table 1987-88 Edition, IBRD

Table 2-1-5 EXPENDITURES ON GDP (CONSTANT 1972 PRICES) 1972-1988

Unit: Million Pesos

	1972	1978	1983	1984	1985	1986	1987	1988
Private consumption	40,013	54,098	65,348	66,032	65,977	66,597	70,409	74,646
Government consumption	5,260	7,710	8,788	8,255	8,221	8,187	8,774	9,769
Gross Domestic Capital Formation (GDCF)	10,890	22,928	25,119	14,215	11,124	10,111	13,171	15,705
A. Fixed capital formation	9,231	19,035	23,102	15,594	11,826	10,057	11,631	13,653
1. Construction	3,565	9,435	12,038	9,446	7,114	5,505	6,348	6,836
a. Government	1,034	4,406	4,465	2,985	2,342	2,161	2,290	2,299
b. Private	2,531	5,029	7,573	6,461	4,772	3,344	4,058	4,537
2. Durable equipment	5,666	9,600	11,064	6,148	4,712	4,552	5,283	6,817
B. Increase in stocks	1,659	3,893	2,017	-1,379	-702	54	1,540	2,052
Exports of goods and non-factor services	9,877	14,657	19,262	20,846	19,351	23,560	23,245	26,675
Less; Imports of goods and non-factor services	10,334	16,116	21,746	18,175	13,995	15,802	19,987	27,378
Statistical discrepancy	758	-493	3,150	2,754	-774	-1,473	-149	2,117
Gross Domestic Product (GDP)	56,464	82,784	99,921	93,927	89,904	91,180	95,463	101,534
Net factor income abroad	-525	-306	-1,301	-2,283	-2,037	-1,676	-666	-348
Gross National Product (GNP)	55,939	82,478	98,620	91,644	87,867	89,504	94,797	101,186
Gross Domestic Saving (GDS)	5,692	12,539	9,466	4,125	3,588	6,227	4,389	8,172
GDCF/GDP (%)	19.3	27.7	25.1	15.1	12.4	11.1	13.8	15.5

Source: Philippine Statistical Yearbook 1989, Economic and Social Statistics Office, National Statistical Coordination Board.

Table 2-1-6 EXPENDITURES ON GDP (CURRENT MARKET PRICES) 1972-1988

Unit: Million Pesos

	1972	1978	1983	1984	1985	1986	1987	1988
Private consumption	40,013	118,846	268,188	403,431	469,133	474,991	526,081	603,281
Government consumption	5,260	16,127	29,481	35,567	44,044	48,441	58,472	76,482
Gross Domestic Capital Formation (GDCF)	10,890	51,348	102,526	91,951	85,402	81,106	110,394	141,353
A. Fixed capital formation	9,231	42,306	95,254	100,095	89,974	80,817	98,588	124,568
1. Construction	3,565	22,735	54,361	63,907	56,228	46,199	56,930	67,839
a. Government	1,034	10,632	19,751	20,107	18,696	18,148	20,516	22,739
b. Private	2,531	12,103	34,610	43,800	37,532	28,051	36,414	45,100
2. Durable equipment	5,666	19,570	40,893	36,188	33,746	34,618	41,658	56,729
B. Increase in stocks	1,659	9,043	7,272	-8,144	-4,572	289	11,806	16,785
Exports of goods and non-factor services	9,877	32,420	75,267	117,701	126,571	155,104	163,472	200,868
Less; Imports of goods and non-factor services	10,334	41,321	101,138	118,382	108,506	116,188	157,397	198,137
Statistical discrepancy	758	249	9,772	10,198	-3,960	-16,325	7,346	2,902
Gross Domestic Product (GDP)	56,464	177,669	384,096	540,466	612,684	627,129	708,368	826,749
Net factor income abroad	-525	-647	-5,350	-13,111	-14,941	-12,426	-5,007	-2,982
Gross National Product (GNP)	55,939	177,022	378,746	527,355	597,743	614,703	703,361	823,767
Gross Domestic Saving (GDS)	5,692	26,959	36,350	23,718	24,433	42,843	32,569	66,519
GDCF/GDP (%)	19.3	28.9	26.7	17.0	13.9	12.9	15.6	17.1

Source: Philippine Statistical Yearbook 1989, Economic and Social Statistics Office, National Statistical Coordination Board.

Table 2-1-7 ECONOMIC INDICATORS, THE PHILIPPINES

	1983	1984	1985	1986	1987	1988
1. GDP Growth Rate (%)	—	-6.0	-4.3	+1.4	+4.7	+6.4
2. Fixed Capital Formation (FCF) Growth Rate (%)	—	-32.5	-24.2	-15.0	+15.7	+17.4
3. Government FCF Growth Rate (%)	—	-33.1	-21.5	-7.7	+6.0	+0.4
4. Private FCF Growth Rate (%)	—	-32.3	-24.8	-16.7	+18.3	+21.6
5. Share of Government FCF /Private FCF	19.3/80.7	19.1/80.9	19.8/80.2	21.5/78.5	19.7/80.3	16.8/83.2
6. Gross Domestic Savings (GDS) Growth Rate (%)	—	-56.4	-13.0	+73.6	-29.5	+86.2
7. GDS/GDP (%)	9.5	4.4	4.0	6.8	4.6	8.0
8. GDS/FCF (%)	41.1	26.5	30.3	61.9	37.7	59.9

Note : In 1972 constant prices

Source : Philippine Statistics Yearbook 1989, NSCB

Table 2-1-8 INFLOW OF FOREIGN EQUITY IN THE PHILIPPINES 1970-1988

Year	Levels (US $M)	Growth Rate (%)
1970	15.9	
1971	23.1	45.0
1972	46.3	100.3
1973	79.7	72.4
1974	210.6	164.2
1975	56.7	−73.1
1976	83.5	47.3
1977	45.7	−45.3
1978	79.3	73.6
1979	103.2	30.2
1980	236.4	129.0
1981	252.2	6.7
1982	255.6	1.4
1983	268.0	4.9
1984	233.6	−12.9
1985	131.7	−43.6
1986	78.2	−40.7
1987	166.6	113.2
1988	451.6	171.0

Source : Nat'l Income Accounts of the Phils.
National Statistical Coordination Board
Board of Investments

Table 2-1-9 TREND OF REGION-WISE MANUFACTURING SECTOR INVESTMENTS1/

Unit : Number, M. Peso, %

Region		1984	1985	1986	1987	1988	Total	(% to Grand Total)
N. C. R.	Number of Plants	64	69	60	255	306	754	(45. 7)
	Equity Total	1, 177	1, 030	721	2, 466	6, 037	11, 431	(39. 9)
	Foreign Equity	822	766	178	784	3, 414	5, 964	(50. 1)
Region Ⅲ	Number of Plants	6	14	—	38	57	115	(7. 0)
	Equity Total	258	173	—	803	2, 944	4, 178	(14. 6)
	Foreign Equity	—	1	—	186	1, 976	2, 163	(18. 2)
Region Ⅳ	Number of Plants	24	17	18	60	108	227	(13. 8)
	Equity Total	384	161	187	1, 674	2, 571	4, 977	(17. 4)
	Foreign Equity	53	62	68	409	960	1, 552	(13. 0)
Other Regions	Number of Plants	30	43	40	264	176	553	(33. 5)
	Equity Total	1, 321	206	446	3, 342	2, 761	8, 076	(28. 1)
	Foreign Equity	560	41	96	225	1, 309	2, 231	(18. 7)
Grand Total	Number of Plants	124	143	118	617	647	1, 649	(100. 0)
	Equity Total	3, 140	1, 570	1, 354	8, 285	14, 313	28, 662	(100. 0)
	Foreign Equity	1, 435	870	342	2, 332	7, 659	11, 910	(100. 0)
	(% to Total)	(45. 7)	(55. 4)	(25. 3)	(28. 1)	(53. 5)	(41. 6)	

Note : 1/Investments of New and Expansion

Source : BOI

Table 2-1-10 TREND OF BOI-APPROVED EQUITY INVESTMENTS
(MANUFACTURING SECTOR)

Unit: Million Pesos

Year	Total Philippines	(Growth Rate %)	Wholly Filipino-owned	(Growth Rate %)	Joint Venture with Foreigners	(Growth Rate %)
1983	1,007	(-)	618	(-)	389	(-)
1984	1,548	(153.7)	473	(76.5)	1,875	(482.0)
1985	1,140	(73.6)	409	(86.5)	731	(39.0)
1986	830	(72.8)	562	(137.4)	268	(36.7)
1987	3,475	(418.7)	2,463	(438.3)	1,012	(377.6)
1988	4,782	(137.6)	2,556	(103.8)	2,226	(220.0)
1989	14,715	(307.7)	8,604	(336.6)	6,111	(274.5)

Note : New Investment and Expansion

Source: BOI

Table 2-2-1 OUTLINE OF MID-TERM ECONOMIC DEVELOPMENT PLAN (1987-1992), THE PHILIPPINES

Unit: Annual Growth Rate in %

	1987	1988	1989	1990	1991	1992	Average, 1987-1992
GNP, Real	6.0	6.0	6.5	6.5	6.5	7.0	6.4
Per Capita GNP (pesos)	1,651	1,709	1,779	1,852	1,928	2,020	1,823
- Private Consumption Expenditure	4.7	5.3	5.7	5.7	5.7	6.2	5.6
- General Government Consumption Expenditure	6.0	6.5	6.5	6.5	6.5	6.5	6.4
- Total Consumption Expend.	10.6	9.7	9.7	9.9	10.6	10.6	10.2
Exports	6.0	6.5	7.0	7.0	7.3	7.9	7.0
Imports	5.0	7.0	7.0	7.0	8.0	9.0	7.2

Source: NEDA

Table 2-2-2 TARGET IN MEDIUM TERM PHILIPPINE DEVELOPMENT PLAN FOR GDP BY INDUSTRIAL ORIGIN, 1987-1992
(AT CONSTANT 1972 PRICES)

Unit: Billion Pesos

	Targets						Annual average
	1987	1988	1989	1990	1991	1992	1987 -1992
Gross Domestic Product	96.9	103.8	110.8	118.7	126.9	135.3	115.4
Growth rate (%)	6.7	7.1	6.7	7.1	6.9	6.7	6.9
I. Agriculture, Fishery and Forestry	27.9	29.1	30.6	32.2	34.0	35.9	31.6
Growth rate (%)	4.0	4.5	5.0	5.5	5.5	5.5	5.0
II. Industry	31.0	33.7	36.5	39.5	42.9	47.1	38.4
Growth rate (%)	9.1	8.9	8.2	8.3	8.5	9.7	8.8
1. Manufacturing	23.2	24.8	26.7	28.8	31.1	33.7	28.1
Growth rate (%)	7.0	7.0	7.5	7.8	8.0	8.4	7.6
2. Mining and quarrying	1.9	1.9	2.0	2.1	2.2	2.3	2.1
Growth rate (%)	3.0	3.5	4.0	4.6	4.9	5.0	4.2
3. Construction	4.5	5.5	6.2	6.9	7.7	9.0	6.6
Growth rate (%)	25.5	20.9	12.7	11.7	12.0	16.1	16.5
4. Electricity, gas and water	1.4	1.5	1.6	1.8	1.9	2.1	1.7
Growth rate (%)	6.5	8.0	8.0	9.0	9.0	10.0	8.4
III. Services	38.1	41.0	43.8	46.9	50.0	52.3	45.3
Growth rate (%)	6.8	7.6	6.7	7.2	6.5	4.9	6.6

Source: NEDA

Table 2-2-3 FINAL LIST OF RICS

Region	Province	Location
CAR	Baguio, Benguet	BCEPZ
I	San Fernando, La Union	Bungro-Tanguigan
II	Cauayan, Isabela	Bgy. Tagaran
III	Marivelez, Bataan	BEPZ
IV	A. Rosario, Cavite	CEPZ
	B. Batangas City	Bgy. Tabangao
V	Legaspi City	Bgy. Lamba
VI	Pavia, Iloilo	Bgy. Mali-ao
VII	Mactan, Cebu	MEPZ
VIII	Tacloban City	Bgy. New Kawayan
IX	Zamboanga City	Bgy. Ayala and Recado
X	Tagoloan, Mis. Or.	Phividec IE
XI	A. Davao City	Panacan
	B. Gen. Santos City	Tambler Area
XII	A. Parang, Maguindanao	Polloc
	B. Iligan City	Fuentes, Ma. Cristina

Note : CAR: Cordillera Administrative Region

Source: DTI

Table 2-2-4 GROSS VALUE ADDED IN MANUFACTURING BY INDUSTRY AT CONSTANT 1972 PRICES

Unit : Million Pesos

Industry Group	1972	1980	1981	1982	1983	1984	1985	1986	1987	1988
Food Manufactures	5,186	8,419	8,803	9,099	9,246	9,344	8,646	8,738	9,446	9,995
Bevarage Industries	448	732	730	747	763	805	796	733	808	842
Tobacco Manufactures	568	1,039	1,100	1,114	1,117	890	970	713	631	696
Texitile Manufactures	782	1,049	1,095	1,053	1,050	949	734	891	995	1,001
Footwear, Wearing Apparel	512	1,019	1,189	1,224	1,247	1,299	1,213	1,378	1,412	1,557
Wood and Cork Products	459	665	707	704	716	588	536	388	416	458
Furniture and Fixtures	104	132	139	140	142	142	109	120	138	155
Paper and Paper Products	107	191	188	172	196	182	158	172	187	232
Publishing and Printing	162	324	344	359	368	370	389	430	460	496
Leather and Leather Products	37	68	70	71	66	63	69	63	67	79
Rubber Products	252	302	311	324	316	334	281	290	305	345
Chemicals and Chemical Products	1,256	2,365	2,317	2,273	2,315	1,797	1,704	1,584	1,628	1,811
Products of Petroleum and Coal	1,063	1,373	1,287	1,313	1,351	1,259	1,153	1,156	1,230	1,369
Non-metallic Mineral Products	329	574	540	569	587	481	375	377	399	488
Basic Metal Industries	377	853	791	856	947	1,121	1,070	1,018	1,140	1,324
Metal Products	713	1,041	977	1,052	1,091	740	746	725	804	892
Machinery except Electlical	498	726	764	787	797	442	409	445	473	536
Electrical Machinery	538	1,153	1,401	1,475	1,717	1,964	1,600	1,913	2,000	2,323
Transport Equipment	456	885	910	883	742	124	136	135	168	179
Miscellaneous Manufactures	167	265	296	320	334	425	447	448	461	473
GROSS VALUE ADDED IN MANUFACTURING	14,014	23,175	23,959	24,535	25,108	23,319	21,541	21,717	23,168	25,251
Annual Growth Rate (%)	—	6.5	3.4	2.4	2.3	-7.1	-7.6	0.8	6.7	9.0
Average 1980-1988										1.1

Source : Statistical Yearbook, 1989

Table 2-2-5 SHARE OF EMPLOYED PERSONS BY MAJOR INDUSTRY

Unit: %

Industry	1981	1982	1983	1984	1985	1986	1987	1988*
Agriculture	51.1	51.3	51.4	49.6	49.0	50.0	48.6	46.7
Mining	0.5	0.4	0.5	0.7	0.6	0.7	0.7	0.8
Manufacturing	10.3	10.0	9.8	9.8	9.7	9.2	10.1	10.4
Utility	0.5	0.3	0.4	0.4	0.4	0.3	0.4	0.4
Construction	3.3	3.5	3.6	3.9	3.5	3.0	3.7	4.0
Sales Services	11.2	11.0	11.5	12.4	13.2	13.7	14.0	13.6
Transportation	4.2	4.4	4.3	4.5	4.7	4.1	4.5	4.8
Finance/Business	1.8	2.2	1.9	1.9	1.7	1.9	1.9	1.8
Social Services	16.9	16.9	16.6	16.8	17.2	17.1	16.1	17.5
Others	0.2	0	0	0	0	0	0	0
Total	100.0 (17,452)	100.0 (17,371)	100.0 (19,212)	100.0 (19,632)	100.0 (19,801)	100.0 (20,595)	100.0 (20,435)	100.0 (21,331)

Notes : Figures in parentheses indicate total of persons employed by major industry in thousand persons

*First three quarter average

Source : Statistical Yearbook, 1989

Table 2-2-6 CUSTOM TARIFF BY KINDS OF GOODS

Unit : %

Goods	1980	1983	1985
Consumer Goods	67.7	42.7	38.0
Intermediate Goods	33.3	25.4	24.1
Raw Material	35.6	23.0	21.7
Capital Goods	21.1	19.2	21.2
Automobile Parts	35.3	33.6	33.6
Others	42.5	30.0	30.0
Average	43.1	29.9	28.1

Source : Bureau of Custom

Table 2-2-7 SHARE OF IMPORTS BY KINDS OF GOODS

Unit : %

Goods	1980	1981	1982	1983	1984	1985	1986	1987
Consumer Goods	18.4	20.8	22.3	22.8	30.2	31.0	32.6	30.0
Capital Goods	25.7	24.2	23.3	22.7	15.9	15.4	17.1	18.0
Raw Material/ Intermediate Goods	55.9	55.0	54.4	54.5	50.9	53.6	50.3	52.0
Total	100.0 (7,726.9)	100.0 (7,945.7)	100.0 (7,666.9)	100.0 (7,486.6)	100.0 (6,069.6)	100.0 (5,110.7)	100.0 (5,043.6)	100.0 (6,737.0)

Note : Figures in parentheses indicate C & F value in million US dollars

Source : Statistical Yearbook, 1989

Table 2-2-8 PHILIPPINE EXPORTS, 1983-1988

(By commodity group)

Unit: F.O.B. US$ Million

	1983		1984		1985		1986		1987		1988	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
TRADITIONAL GOODS	2,024	40.5	1,953	36.2	1,368	29.6	1,387	28.6	1,449	25.3	1,659	23.5
Coconut Oil	516	10.3	580	10.8	347	7.5	333	6.9	380	6.6	408	5.8
Lumber	149	3.0	107	2.0	90	1.9	103	2.1	154	2.7	156	2.2
Copper Concentrates	249	5.0	115	2.1	84	1.8	90	1.9	109	1.9	216	3.0
Gold	154	3.1	104	1.9	100	2.2	140	2.9	90	1.6	118	1.7
Others	956	19.1	1,047	19.4	747	16.1	721	14.8	716	12.5	761	10.8
NONTRADITIONAL EXPORTS	2,981	59.5	3,438	63.8	3,261	70.4	3,455	71.4	4,271	74.7	5,415	76.5
NONTRADITIONAL MANUFACTURES	2,387	47.6	2,992	55.5	2,739	59.1	2,879	59.5	3,702	64.7	4,667	66.0
Electronic Equip. & Parts	1,053	21.0	1,329	24.7	1,056	22.8	919	19.0	1,119	19.6	1,476	20.9
Germents	545	10.9	603	11.2	623	13.4	751	15.5	1,098	19.2	1,317	18.6
Copper Metal	26	0.5	111	2.0	111	2.4	172	3.6	162	2.8	295	4.2
Chemicals	86	1.7	105	1.9	105	2.3	243	5.0	245	4.3	256	3.6
Others	677	13.5	844	15.7	844	18.2	794	16.4	1,078	18.8	1,323	18.7
NONTRADITIONAL NONMANUFACTURES	549	11.8	438	8.1	510	11.2	568	11.9	562	9.9	729	10.6
Bananas	105	2.1	122	2.2	113	2.4	130	2.7	121	2.1	146	2.1
Fish-Fresh and Preserved	77	1.5	69	1.2	99	2.1	143	2.9	207	3.6	307	4.3
Others	367	7.3	247	4.6	298	6.4	295	6.1	234	4.1	268	3.8
SPECIAL TRANSACTIONS	45	0.9	8	0.1	12	0.3	8	0.2	7	0.1	27	0.4
TOTAL	5,005	100%	5,391	100%	4,629	100%	4,842	100%	5,720	100%	7,074	100%

Source: Central Bank of the Philippines

Table 2-2-9 SUMMARY OF MANUFACTURING INDUSTRY BY REGION 1983

Unit: Number, Million Pesos, %

Region / Employment	No of Establishment 10<		No of Establishment 1-9		Employment 10<		Employment 1-9		Value Added 10<		Value Added 1-9	
NCR	2,728	(47.6)	7,889	(15.7)	388,657	(55.5)	34,640	(18.6)	27,122	(48.9)	307	(22.2)
ILOCOS	150	(2.6)	6,380	(12.7)	10,442	(1.5)	19,546	(10.5)	437	(0.8)	101	(7.3)
CAGAYAN VALLEY	114	(2.0)	2,197	(4.4)	10,808	(1.5)	6,362	(3.4)	254	(0.5)	36	(2.6)
CENTRAL LUZON	449	(7.8)	6,264	(12.5)	49,923	(7.1)	23,546	(12.6)	3,769	(6.8)	208	(15.1)
SOUTHERN TAGALOG	675	(11.8)	9,128	(18.1)	81,836	(11.7)	35,014	(18.8)	11,588	(20.9)	331	(24.0)
BICOL	166	(2.9)	2,773	(5.5)	5,348	(0.8)	9,372	(5.0)	256	(0.5)	43	(3.1)
VISAYAS	773	(13.5)	6,072	(12.1)	72,993	(10.4)	22,006	(11.8)	4,148	(7.5)	129	(9.3)
MINDANAO	678	(11.8)	9,610	(19.0)	80,798	(11.5)	36,247	(19.3)	7,897	(14.1)	225	(16.3)
Total	5,733		50,313		700,895		186,733		55,477		1,380	

Sources : Census of Establishment
Annual Survey of Establishments

Table 2-2-10 OUTPUT OF PROCESSED GOODS AS INTERMEDIATE GOODS

Unit : Million US$

	Taiwan	Thailand	Philippines
Rubber Products & Plastic	2,875	404	500
Fabricated Metal Products	1,470	170	396

Notes : The data on Taiwan is based on Input-Output table in 1984, Thailand 1982, and Philippines in 1983.
Exchange rates used for three countries are based on average of period in respective year.

Table 2-2-11 SYNTHETIC RESIN CONSUMED BY PLASTIC PRODUCTS

Unit: MT, %

Plastic Products	Synthetic Resins Consumed				
	Polyethylene	Polypropylene	Polyvinyl Chloride	Polystyrene	Total
Extrusion Process					
Film bags	60,000	25,000			85,000
Woven sacks		10,000	60,000		16,000
Pipes					-
Sheets		5,000			5,000
Netting and ropes	5,000	500			5,500
Wires and cables	1,500		1,500		3,000
Others	1,000	2,000			3,000
Sub-total	67,500	42,500	7,500		117,500
					(69.1)
Molding Process					
House wares	4,500	7,000			11,500
Industrial products	8,000			500	8,500
Packaging containers	1,500	1,000	4,000	2,000	8,500
Others	2,000	1,000		500	3,500
Sub-total	16,000	9,000	4,000	3,000	32,000
					(18.8)
Speciality Process					
Calendered products			15,000		15,000
Vacuum formed products				4,000	4,000
Others	1,500				1,500
Sub-total	1,500		15,000	4,000	20,500
					(12.1)
Grand Total	85,000	51,500	26,500	7,000	170,000
	(50.0)	(30.3)	(15.6)	(4.1)	

Source: BOI Sectoral Report

Table 2-2-12 PHILIPPINE IMPORTS, 1987-1988

Unit: F.O.B. US$ Million

	1987		1988		Growth Rate
	FOB Value	% of Total	FOB Value	% of Total	1987-88 (%)
CAPITAL GOODS	1,210	17.9	1,735	21.2	43.3
Non-electrical machinery	537	7.9	708	8.6	31.8
Electrical machinery	451	6.6	579	7.1	28.3
Transport equipment	116	1.7	234	2.8	101.7
Aircraft, ship & boats	33	0.4	123	1.5	272.7
Professional, scientiific & controlling instruments	73	1.0	91	1.1	24.6
RAW MATERIALS & INTERMEDIATE GOODS	3,426	50.8	4,174	51.1	21.8
Wheat	82	1.2	136	1.6	65.8
Crude materials, inedible	290	4.3	413	5.0	42.4
Cotton	48	0.7	72	0.8	50.0
Synthetic & artifical fibers	77	1.1	84	1.0	9.0
Others	165	2.4	257	3.1	55.7
Animal & vegetable oils & fats	13	0.1	18	0.2	38.4
Chemical	924	13.7	1,039	12.7	12.4
Chemical compounds	332	4.9	367	4.5	10.5
Medicinal & Pharmaceuticals	104	1.5	113	1.3	8.6
Urea	59	0.8	72	0.8	22.0
Fertilizer excluding urea	30	0.4	35	0.4	16.6
Others	399	5.9	452	5.5	13.2
Manufactures	957	14.2	1,238	15.1	29.3
Paper & paper products	102	1.5	111	1.3	8.8
Textile, yarns & fabric, etc.	279	4.1	324	3.9	16.1
Iron & steel	340	5.0	475	5.8	39.7
Metal products	63	0.9	85	1.0	34.9
others	173	2.5	243	2.9	40.4
Embroideries	334	4.9	377	4.6	12.8
Material/accessories for the manufacture of electronic equipment	767	11.3	910	11.1	18.6
Iron ore not agglomerated	59	0.8	43	0.5	-27.1
MINERAL FUELS & LUBRICANTS	1,249	18.5	1,096	13.4	-12.2
CONSUMER GOODS	547	8.5	740	9.0	35.2
SPECIAL TRANSACTIONS	305	4.5	414	5.0	35.7
TOTAL IMPORTS	6,737	100 %	8,159	100 %	21.1%

Source: Central Bank of the Philippines

Table 2-2-13 APPROVED EXPORT MANUFACTURING PROJECT (1983-1988), By Major Sector

Unit: Pesos Million

	Number of Projects		EQUITY INVESTMENTS						Number of workers	
	No.	%	Total		Local		Foreign			
a. 1983 GRAND TOTAL 1/	143		3,019.0		1,774.7		1,244.3		27,980	
b. EXPORT MANUFACTURING 2/	87	60.8	1,070.9	35.5%	280.2	15.8%	790.7	63.5%	18,554	66.3%
c. Processed foods 3/	14	16.1	120.8	11.3%	76.5	27.3%	44.3	5.6%	948	5.1%
d. Wearing apparel	13	14.9	35.3	3.3%	26.7	9.5%	8.6	1.1%	4,279	23.1%
e. Electrical & electronic	13	14.9	755.7	70.5%	38.0	13.6%	717.7	90.8%	6,953	37.5%
f. Other products for export	47	54.0	159.1	14.9%	139.0	49.6%	20.1	2.5%	6,374	34.3%
a. 1984 GRAND TOTAL	412		6,114.3		2,213.8		3,900.5		47,937	
b. EXPORT MANUFACTURING	89	21.6	2,302.0	37.6%	1,022.0	46.2%	1,280.0	32.8%	25,472	53.1%
c. Processed foods	11	12.4	56.5	2.5%	33.6	3.3%	22.9	1.8%	1,180	4.6%
d. Wearing apparel	19	21.3	62.8	2.7%	37.6	3.7%	25.2	2.0%	5,596	22.0%
e. Electrical & electronic	17	19.1	850.4	36.9%	177.0	17.3%	673.4	52.6%	11,582	45.5%
f. Other products for export	42	47.2	1,332.3	57.9%	773.8	75.7%	558.5	43.6%	7,114	27.9%
a. 1985 GRAND TOTAL	378		4,700.7		2,251.1		2,449.6		35,378	
b. EXPORT MANUFACTURING	111	29.4	1,231.5	26.2%	394.4	17.5%	837.1	34.2%	19,328	56.0%
c. Processed foods	14	12.6	110.6	9.0%	84.5	21.4%	26.2	3.1%	1,720	8.7%
d. Wearing apparel	11	9.9	25.7	2.1%	24.2	6.1%	1.5	0.2%	3,624	18.3%
e. Electrical & electronic	21	18.9	832.1	67.5%	121.1	30.7%	711.0	84.9%	7,320	36.9%
f. Other products for export	65	58.6	263.1	21.4%	164.6	41.7%	98.4	11.8%	7,164	36.1%
a. 1986 GRAND TOTAL	501		3,146.3		1,552.5		1,593.8		33,928	
b. EXPORT MANUFACTURING	89	17.8	774.2	24.6%	518.6	33.4%	255.6	16.0%	23,659	69.7%
c. Processed foods	13	14.6	61.8	8.0%	56.4	10.9%	5.4	2.1%	1,046	4.4%
d. Wearing apparel	20	22.5	64.3	8.3%	33.5	6.5%	30.8	12.0%	5,261	22.3%
e. Electrical & electronic	14	15.7	424.8	54.9%	269.9	52.0%	154.8	60.6%	11,983	50.6%
f. Other products for export	42	47.2	223.3	28.8%	158.8	30.6%	64.6	25.3%	5,369	22.7%
a. 1987 GRAND TOTAL	1,435		8,360.1		4,932.8		3,427.3		100,810	
b. EXPORT MANUFACTURING	193	13.4	1,923.1	23.0%	1,369.0	27.7%	554.2	16.2%	41,660	41.3%
c. Processed foods	16	8.3	125.8	6.5%	109.0	8.0%	16.7	3.0%	2,303	5.5%
d. Wearing apparel	70	36.3	222.5	11.6%	131.2	9.5%	91.3	16.5%	19,862	47.7%
e. Electrical & electronic	11	5.7	52.6	2.7%	35.6	2.6%	17.1	3.1%	3,350	8.0%
f. Other products for export	96	49.7	1,522.2	79.2%	1,093.2	79.9%	429.1	77.4%	16,145	38.8%
a. 1988 GRAND TOTAL	2,504		39,684.3		22,204.0		17,480.3		184,101	
b. EXPORT MANUFACTURING	694	27.7	18,100.3	45.6%	10,318.5	46.5%	7,781.7	44.5%	120,669	65.5%
c. Processed foods	40	5.8	335.1	1.9%	236.4	2.3%	98.7	1.3%	5,252	4.4%
d. Wearing apparel	130	18.7	497.8	2.8%	252.1	2.4%	245.7	3.2%	23,532	19.5%
e. Electrical & electronic	85	12.2	4,156.3	23.0%	1,047.0	10.1%	3,109.4	40.0%	21,364	17.7%
f. Other products for export	439	74.4	13,111.1	72.4%	8,783.0	85.1%	4,327.9	55.6%	70,521	58.4%

Notes : 1/: GRAND TOTAL includes domestic producers, existing project, increase in equity project and without incentive projects.
2/: % = of Grand Total
3/: % = of Export Manufacturing

Source: Central Bank of the Philippines

Table 2-2-14 SUMMARY APPROVED MANUFACTURING PROJECT, 1983-1988. By Major Sector

Unit: %

	Number of Projects	EQUITY INVESTMENTS			Number of Workers
		Total	Local	Foreign	
GRAND TOTAL	(100%)	(100%)	(100%)	(100%)	(100%)
EXPORT MANUFACTURING	(28. 45%)	(32. 1%)	(31. 2%)	(34. 5%)	(58. 7%)
	100%	100%	100%	100%	100%
Processed foods	11. 6%	6. 5%	12. 2%	2. 8%	5. 5%
Wearing apparel	20. 6%	5. 1%	6. 3%	5. 8%	25. 5%
Electrical & electronic	14. 4%	42. 6%	21. 1%	55. 4%	32. 7%
Other products for export	53. 3%	45. 8%	60. 4%	36. 0%	36. 4%

(Equity Ratio)

EXPORT MANUFACTURING		25, 402. 0	13, 902. 7	11, 499. 3
		100%	54. 7%	45. 3%
Processed foods		810. 6	596. 4	214. 2
		100%	73. 6%	26. 4%
Wearing apparel		908. 4	505. 3	403. 1
		100%	55. 6%	44. 4%
Electrical & electronic		7, 071. 9	1, 688. 6	5, 384. 4
		100%	23. 9%	76. 1%
Other products for export		16, 611. 1	11, 112. 4	5, 498. 6
		100%	66. 9%	33. 1%

Source: Central Bank of the Philippines

Table 2-2-15 COMPARISON OF MAJOR INDICATORS OF INVESTMENT ENVIRONMENT FOR THE FOUR ASEAN COUNTRIES

Drawn up Jan. 1990

ITEMS \ COUNTRIES	MALAYSIA	THAILAND	THE PHILIPPINES	INDONESIA
<Systematic Aspects>				
• Grace Period for Corps. (in case of max. preferencial treatment for investment)	Max. 10 years (1)	Max. 8 years (2)	Max. 10 years (2)	No grace period (4)
• Foreign Capital Equity (incl. investment to EPZ)	Up to 100% (1)	Up to 100% (1)	Up to 100% (1)	Up to 80% (2)
• Land Ownership by Foreigners	100% ownership with time limit (1)	100% ownership with certain conditions (1)	up to 40% ownership (4)	100% use rights, effectively same as ownership (2)
<Industrial Costs>				
• Avg Starting Salary for University Graduates	372US$/month (4)	194US$/month (3)	182US$/month (2)	168US$/month (1)
• Price of Industrial Sites	3.2～59.8US$/㎡ (3)	5.1～32.2US$/㎡ (1)	18.2～36.4US$/㎡ (2)	40～50US$/㎡ (4)
• Unit Price of Electricity (average)	0.078US$/kwh (2)	0.093US$/kwh (3)	0.051US$/kwh (1)	0.11US$/kwh (4)
• Unit Price of Industrial Water (average)	0.45US$/㎥ (4)	0.33US$/㎥ (1)	0.36US$/㎥ (3)	0.34US$/㎥ (2)
<Industrial Infrastructures>				
• No. of Industrial Estates	GIE 105 EPZ 12 (1)	GIE 22 EPZ 8 (2)	GIE 19 EPZ 4 (4)	GIE 25 EPZ 2 (3)
• Road : Total length % surfaced	39,069km 80% (1)	84,764km 40% (3)	157,810km 14% (4)	219,009km 62.3% (2)
• No. of Telephone Receivers Installed (/100 personnel)	5 (1)	1.7 (2)	1.5 (3)	0.4 (4)
• Ratio of Imported Raw Materials & Intermediate Goods	44% (3)	35% (1)	51% (4)	36% (2)
• Language Employed Illiterate Rate (1985)	Malay 26.6% (3)	Thai 9.0% (2)	English 14.3% (1)	Indonesian 25.9% (3)
Total Points	(25)	(22)	(31)	(33)

Sources: UNESCO Statistical Annual Report
Trade Statistics
JETRO Trading Market Series
National Investment Guidebooks
IRF Statistics

Table 2-2-16 WAGES COMPARISON

	Philippines	Thailand	Malaysia
(1) Legal Minimum Wages	P 89/day (Manila Metropolitan)	Bt. 90/day (Bangkok Metropolitan)	M$ 11/day (based on M. W. level)
Basic Salary / Year (based on 270 productive day a year)	24,030	24,300	2,970
Paid Legal Holiday	979 (11days)	1,170 (13days)	110 (10days)
Mandatory Paid Leave	445 (5days)	540 (6days)	88 (8days)
Optional Paid Sick Leave	1,335 (15days)	2,700 (30days)	242 (22days)
(2) Total Basic Salary & Mandatory Benefits / Year	26,789	28,710	3,410
(3) Allowance & Additional Fringe Benefits (average)	14,466	17,800	2,046
incl. Social Security, Medicare, Employee's Compensation, Thirteenth Month Pay	(2)×54%	(2)×62%	(2)×60%
(4) Total Annual Compensation (Equivalent US$)	P 41,255 (US$ 1,838.5)	Bt. 46,510 (US$ 1,810.4)	M$ 5,546 (US$ 2,021.5)

Source: THAILAND BOI, PHILIPINES BOI, MALAYSIAN INDUSTRIAL DEVLOPMENT AUTHORITY

Table 2-2-17 COMPARISON OF THE MONTHLY SALARY

	Thailand July, 1988	Philippines May, 1988
Automobile	Bt. 8,000 (US$ 311.4)	P 3,192 (US$ 142.2)
Textile	Bt. 4,500 (US$ 163.5)	P2,617 (US$ 116.6)
Electric & Electronics	Bt. 4,500 (US$ 175.2)	P 4,644 (US$ 207.0)
Machinery	Bt. 5,700 (US$ 221.9)	P 5,070 (US$ 225.9)
Other Mfg.	Bt. 4,400 (US$ 171.3)	P 2,436 (US$ 108.6)
Average	Bt. 5,360 (US$ 208.7)	P 3,592 (US$ 160.1)

Notes : • Philippines salary include allowances, fringe benefits and a bonus, Thailand include only allowances and fringe benefits.
• Exchange rate 1 US$=P22.44, Bt. 25.69

Sources: National Wages Council, Philippines
Japanese Chamber of Commerce, Bangkok

Table 2-2-18 COMPARISON OF AVERAGE RATES/KILOWATTHOUR WITH NINE POWER FIRMS IN THE PHILIPPINES As of January, 1989

CEPALCO	P 1.086
MERALCO	1.45
QUEZON I	1.65
BATANGAS I	1.76
PAMPANGA III	1.78
BATANGAS II	1.93
LAGUNA I	1.93
NUEVA ECIJA I	1.97
PAMPANGA I	2.01
NUEVA ECIJA II	2.14

Source: The Philippine Star, 12/23/88

Table 2-2-19 COMPARISON OF AVERAGE RATES/KILOWATTHOUR WITH POWER FIRMS IN NINE COUNTRIES As of January, 1989

CEPALCO, Cagayan de Oro	P 1.086
PULN, Indonesia	1.15
CLPCO, Hongkong	1.44
MERALCO, Metro Manila	1.45
MEA, Thailand	1.49
TAIPOWER, Taiwan	1.50
NEB, Malaysia	1.51
KEPCO, South Korea	1.68
KANSAI, Japan	2.85

Source: The Philippine Star, 12/23/88

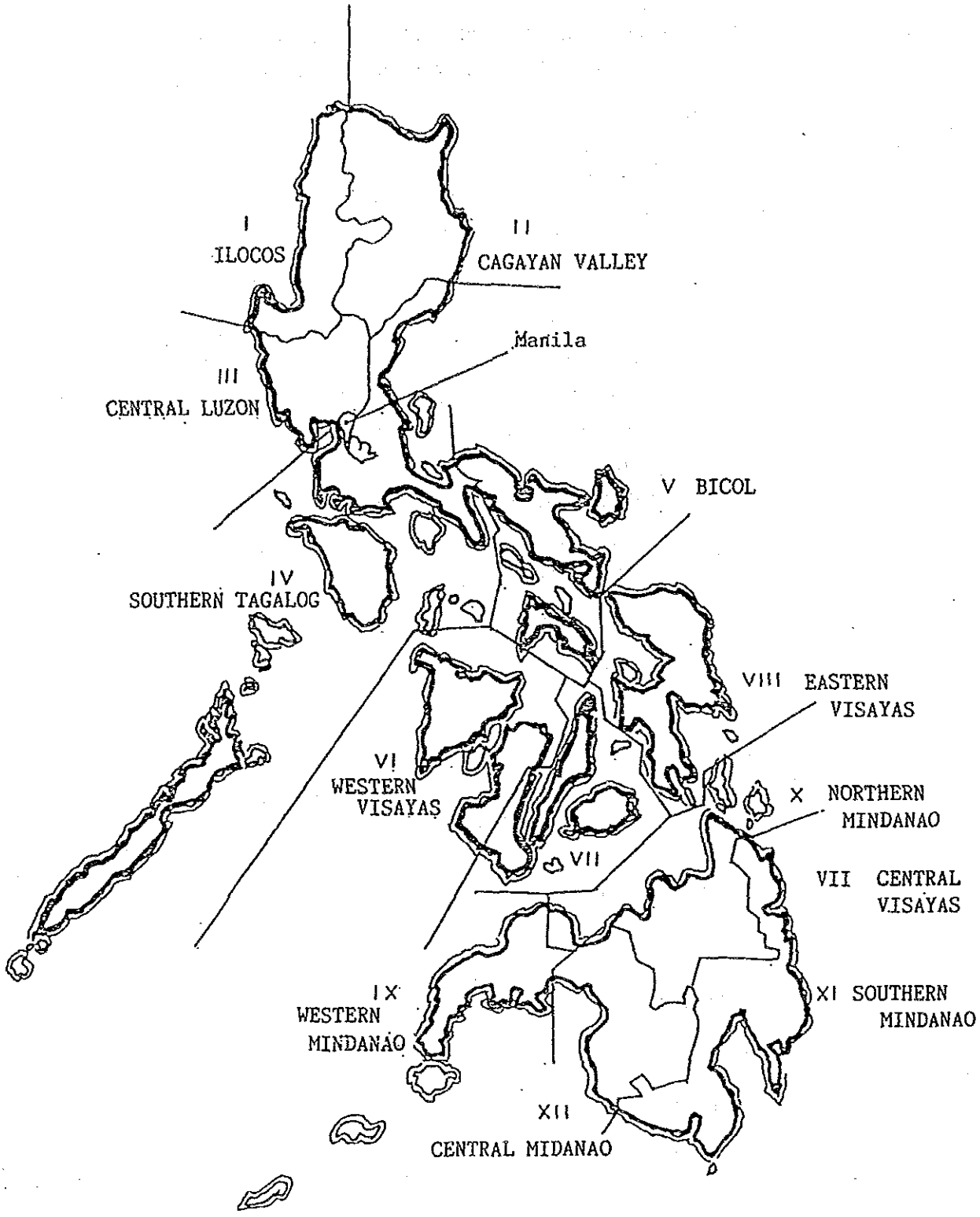

Figure 2-1-1 REGIONAL MAP OF THE PHILIPPINES

Chapter 3
PRESENT SITUATION OF THE EXPORT PROCESSING ZONE AUTHORITY (EPZA) AND THE INDIVIDUAL EPZS

Chapter 3 PRESENT SITUATION OF THE EXPORT PROCESSING ZONE AUTHORITY (EPZA) AND THE INDIVIDUAL EPZS

3-1 Outline of the Export Processing Zone Authority

(1) Establishment and Functions of the EPZA

The development of export processing zones was initiated by Republic Act No. 5490 enacted on Jan. 21, 1969. This act provided the basic policy to set up the Free Trade Zones (FTZ) under the control of the Bureau of Customs in order to realize regional development through the promotion of foreign investment. To this end the FTZA (Free Trade Zone Authority) was set up. However, because of the unstable political situation of the time the implementation of concrete plans was not carried through and to all intents an actual start in this direction was only made with the creation of the present Export Processing Zone Authority (EPZA) and the development of the Export Processing Zones (EPZs). The Presidential Decree No. 66 of September 21, 1972 revised Republic Act No. 5490 and provided the basic policy for development of the Bataan Export Processing Zone in Mariveles, in place of the development of FTZ previously envisaged. It also authorized reorganization of the FTZA as the EPZA.

In general there are three types of the free trade zones, namely; a) Free Port, b) Transit Zones and c) Export Processing Zones. Initially the development policy underlying the FTZ was close to that of a transit zone which provides non-tariff treatment for goods or bonded warehouses for goods to be used for re-export. According to the above Presidential Decree the government policy was directed to develop genuine export processing zones permitting delivery into the country after tariff procedures.

The Presidential Decree No. 66 stipulated five main development objectives for the EPZ:

1) Making the Philippines a center of international trade

2) Strengthening the Philippines' export trade and foreign exchange position

3) Hastening industrialization

4) Reducing domestic unemployment

5) Accelerating the development of the country, by establishing export processing zones

Thus the development of EPZs was envisaged as having a considerable role to play in the promotion of industrialization in the Philippines and in expanding exports.

The EPZA, established as an independent Public Corporation by the foregoing Presidential Decree, was placed under the control of the Ministry of Trade and Industry (the present Department of Trade and Industry). The Board of Commissioners of the EPZA is chaired by the Secretary of the DTI. The seven-person Board of Commissioners of the EPZA is made up of six members from the Public Corporations (including the EPZA Administrator) and one representive of the private sector, (refer to Figure 3-1-1). The main function of the EPZA is to pursue the implementation of the objectives laid down in the same Presidential decree, which include the planning, development, administration and management of the EPZs. The authorities of the EPZA and incentive measures for Zone Enterprises[1/] of the EPZA are outlined below.

1) Authorities of the EPZA

   a) Development and management of the EPZs in line with the objectives laid down in the Presidential Decree No. 66

   b) Acquisition and ownership of land for sites

   c) Determination of regulations concerning the Zone Enterprises and taking measures for their convenience

   d) Decisions on the conditions for use of the land and facilities by the Zone Enterprises, and collection of fees for use

   e) Judicial administrative and policing powers for the EPZ sites

Note: 1/ "Zone Enterprise" refers to any individual, firm, association, partnership or other form of business organization which has been authorized to establish and operate a business, or engage in an econonmic activity within the Export Processing Zone.

2) Main incentives extended to the Zone Enterprises

   a) Guarantee for 100% foreign capital investment

   b) Exemption from customs duties

   c) Tax deduction allowance (tax credit)

   d) Exemption from local taxes (except real estate tax) and license fees

e) Authorization of Employment of foreign nationals

f) Preferential foreign exchange quota

g) Accelerated depreciation

h) Net-operating loss carry-over

i) Freedom to send invested capital and profit dividends to home country

Further, zone enterprises are permitted to sell up to 30% of total production to the Philippine market, provided that they satisfy several conditions set by the EPZA, including assurance that they will not adversely affect domestic industries.

(2) Organization and Management of the EPZA

At present, the EPZA is administered as an autonomous public corporation, although a part of its funds is provided from the government. There are seven existing export processing zones in operation comprising four Export Processing Zones (EPZs) and three Special Export Processing Zones (SEPZs). The difference between these two categories is that whereas the EPZs are developed for unspecified export companies the SEPZs are developed by the specified private companies and are used by large-scale export industry for industrial complex sites. The three SEPZs are the Isabel SEPZ (Leyte) for copper smelting and phosphate fertilizers, the Tabangao SEPZ (Batangas) for liquefied petroleum gas, and the Subic SEPZ (Zambales) for shipbuilding. Further, the SEPZs are subject to the same incentives as those applied to the EPZs.

The main office of the EPZA is located in Manila and each of the EPZs and the Leyte SEPZ has administration offices on site. Regular employees numbered 597 in 1989, and 1,072 were employed on a temporary basis. This is quite a large scale of organization if one compares the above to the Industrial Estate Agency of Thailand in Thailand that has 250 employees. Particularly it is noted that about half of the entire staff are positioned at Bataan (BEPZ; refer to Table 3-1-1). A majority of the personnel assigned to each EPZ have been recruited from the local communities.

Figure 3-1-1 shows the organizational structure of the EPZA. Under the Administrator and Senior Deputy Adminstrator at the Head Office in Manila are placed three groups; Infrastructures Services Group, which is responsible for the maintenance and operation of facilities, the Support Services Group, responsible for administrative and financial management and the Corporate Services Group which reviews tenant applications from prospective zone enterprises and provides support for practical aspects of management. Three Deputy Administrators are appointed and supervise each group. These groups have seven departments.

Also, under the Administrator are directly placed five departments and offices. 300 staff, accounting for 29% of the total, are employed at the Head Office. Each Zone Office is administrated by the appointed Zone Manager. The above three groups also constitute the central pillar of the structure of the individual Zone Offices. There are only one or two staff members in each Zone Office who are in charge of Information and Promotion.

Companies submit their application for EPZs tenancy directly to the EPZA. The applications are primarily appraised by the Project Evaluation and Review Department under the Corporate Services Group, and then finally approved by the Board of Commissioners. Figure 3-1-2 shows the steps from application to approval. A 100% foreign equity can be accepted as a zone enterprise and in fact the majority of operating zone enterprises are fully owned by foreign companies.

The revenue of the EPZA, which is self-supporting, comes from rental fees received for use of land and buildings, fees for various services (escort fees, processing fees, etc.), and subsidies from local tax (real estate tax). In addition to these it receives financial support from the government budget. On the other hand the operational system of the individual EPZs is not self-supporting and the Head Office of the EPZA in Manila has budgetary control over the EPZs.

Looking at the managerial organization of the EPZ in the ASEAN countries, with the exception of Malaysia where this is delegated to the Economic Development Corporation of the individual states, the EPZ are controlled by special institutions set up by the central government (the EPZA in the Philippines, the IEAT in Thailand and the P.T. KBN in Indonesia). However, all of these institutions continue to experience budgetary problems and recently an increased activation of the private sector to further the development of the EPZ has been emphasized. This mainly involves private sector capital and joint development or acceptance of management of the private industrial estates. In the Philippines industrial estates which have part of the function of an EPZ have recently been developed by joint-venture companies established by the Philippine private capital and foreign private capital.

3-2 Development History and Present Situation of the EPZS

(1) Development History

It has already been noted that the EPZs were planned to attract foreign capital as part of the overall policy for an export-oriented industrialization and thus to realize an expansion of exports. In 1972 the actual implementation of the BEPZ development plan was started as the first such project. But already at that time in Taiwan the Kaosing EPZ, completed in 1965, was in full operation and the construction of two new EPZ, Nan-Tzu and Tai-chung, had been begun. Further, in South Korea the construction of the Masan Free Trade Zone began in 1970. The Philippines referred to these preceding achievements as reference for its own projects. Incidentally the Lat Krabang EPZ of Thailand and the Penang Free Trade Zone of Malaysia were both completed in 1979, and at that time the Philippines was ahead of these countries in EPZ development. An outline of the EPZs of South Korea, Taiwan and Hong Kong which served as models for the Philippine EPZ development is provided for reference as Annex 10.

1) Bataan Export Processing Zone (BEPZ)

The main financial sources for the development funds for the BEPZ came from the government (through 500 million pesos of EPZA Authorized Capital, August, 1974) domestic and foreign financial aid (including war reparations from Japan) and public bond issues. Further, the major part of the site was state-owned land transfered to the EPZA free of cost. The entry of enterprises began from May, 1973, and exports were shipped from the BEPZ began in the following year of 1974. In 1978 most of the existing facilities had been completed and the early 1980s was the most active period of the zone to date.

In the 1980s in its most active period there were 56 zone enterprises operating with a total personnel of 20,788, and an export value of 134.3 million US dollars was realized from the zone enterprises there. Reflecting the adverse trend of the world economy experienced after 1983 and the intensification of labor troubles in the BEPZ, the number of zone enterprises began to decrease. However, from 1988 work for repair and upgrading of the zone's facilities was begun with OECF funds and the number of companies seeking to locate there shows signs of increasing again.

2) Other Export Processing Zones

After this, the fairly satisfactory result of the BEPZ stimulated the development of second and third Export Processing Zones. In 1979 the Mactan EPZ (MEPZ) located in Mactan island of Cebu Province in the central-south part of the Philippines was developed. Then in the following year, 1980, the Export Processing Zone of Bagio City (BCEPZ) in the north

part of Luzon was developed. Each of these was developed around a core project, in the case of the MEPZ this was the wrist watch factory of TMX, Inc., an international watch manufacturer, and in the BCEPZ the semiconductor factory of Texas Instruments, a US electronics company. Further, another difference from the development of the BEPZ is that both these later Export Processing Zones were set up in proximity to a regional urban center.

At the same time as these two Export Processing Zones were being constructed the master plan for the development of the CEPZ in Cavite Province near Manila was being drawn up. Construction of this was began in 1983 and operations of zone enterprises started in 1986 making this the newest of the Export Processing Zones.

(2) Present Situation

Table 3-2-1 shows the development situation at the end of 1989 of the four Export Processing Zones in a tabular form. The dates when construction work was begun is different in each case but to date all of the development of sites has not encompassed the entire originally planned areas. The EPZA desires to proceed with the development of the remaining areas if financing is available. Recently, due to a shortage of development funds available to the EPZA, instead of a sales-on-completion, arrangement, has adopted a scheme whereby it proceeds with partial preparation of site facilities on the basis of advance payments received from companies scheduled for entry. Therefore, at present development work is proceeding in keeping with demand for the sites. With BEPZ, the first EPZ in the Philippines, preparations were not only for the basic site facilities but also included provision of related facilities such as hospital and hotel services, after which zone enterprises were invited. In recent years, by contrast, there has been a move towards development methods which reduce development risks as far as possible.

At present (as of 1989), the area already developed for industrial use in the four Export Processing Zones is 364 ha, representing 55.9% of the originally planned area. The BEPZ is the most advanced as to development, with 75% of the total scheduled site being completed. Following this in order are the MEPZ, BCEPZ and the CEPZ. However, none of these three have yet passed the 50% development mark. At present, the number of operating factories in the BEPZ is only barely in first place with 26 companies while the number in the MEPZ and CEPZ is increasing so that the EPZA looks for a reversal of relative positions to take place sometime in 1990. In particular for the MEPZ it is expected that all of the sites scheduled to be developed will be fully committed for lease sometime in 1990. The EPZA plans to begin development of an unopened adjacent area of 61 hectors, and also has under consideration a new project for reclaiming a 120 hector site.

Table 3-2-2 shows the performance of the EPZs over the last three years. In 1989, the total export value of the combined four EPZs amounted to 444.1 million US dollars. This represents

6.3% of the total export value for the Philippines for that year, or about 10% of the total exports of the manufacturing industries. Since the CEPZ will more closely approach full-scale operations in 1990, the EPZA Investment Promotion Dept. estimates that the total export value of the four EPZs will increase to 784.5 million US dollars, a considerable increase of 76% over the previous year's performance.

(3) Relative Importance of Each EPZ

1) Particularities of Scale

Export value and number of employed persons for each of the EPZs are shown in graph form for 1989 (actual) and 1990 (expected) in Figure 3-2-1. This reveals that the CEPZ will have a remarkable expansion in 1990, particularly by recording the greatest growth of the number of zone enterprises, export value and number of employees among the four EPZs. Also, the scale of the MEPZ will expand considerably thus gaining a firmly established position. Although no expansion is expected for the BCEPZ its export value remains the highest of the four EPZ and is expected to continue in the lead. On the other hand, the BEPZ is expected to remain the largest of the four in terms of actual size, numbers of zone enterprises and persons employed, despite its relative position becoming lower along with the expansion of MEPZ and CEPZ.

2) Particularities of the Industrial Sectors Represented.

The particularities of the types of industry found in each of the EPZs are as follows.

Bataan EPZ: (BEPZ)	Garment factories accounting for half of the total, followed by sectors for leather and rubber processing such as bags, gloves, shoes and sporting goods.
Bagio City EPZ: (BCEPZ)	Well known for semiconductors and electronic devices; but numerous number of garment manufacturers are operating in the SFB.
Mactan EPZ: (MEPZ)	Most numerous in electronics and precision machinery, followed by the garment sector. Others cover a wide range of sectors including accessories and buttons, etc.
Cavite EPZ : (CEPZ)	Garment factories accounting for 40%, machinery and metalworking factories are more prominent than in the other EPZ.

In overall terms garment factories are still predominant, but electronics and precision machinery factories are increasing in the MEPZ, while machinery and metalworking

factories are increasing in the CEPZ. There are frequent requests for locating electronics factories in the BCEPZ but expansion of the industries to be located there has not advanced due to the difficulties in assuring water supplies.

3) Environmental Particularities

The following environmental particularities are noted.

BEPZ:	Particularities	Has the best industrial infrastructure of the EPZs.
	Problems	Geographically distant from urban centers, there are transportation problems.
BCEPZ:	Particularities	Good climate, and superior natural environment. Availability of highly educated employees.
	Problems	restrictions on water and from physiography as this is on an inland.
MEPZ:	Particularities	Well placed for use of harbor and airport facilities; extremely good labor environment.
	Problems	Construction costs relatively high because in high bedrock. Difficult to assure housing and transport.
CEPZ:	Particularities	Close to the Manila Metropolitan area and existing industrial estates. Well favored by geographical conditions.
	Problems	Because of narrow access roads to Manila, interference with transportation.

At present, the particularities of the individual EPZ of the Philippines vary and they are dispersed in location. It would be possible to make use of the particularities and accomodate appropriate industrial sectors accordingly. However, the flow of materials and communications are decisive aspects in determining the superiority of a given location for export-oriented industries. In this sense, the CEPZ, the one closest to the Manila harbor facilities, can be said to have a slight advantage over the other two EPZs.

Profiles of the individual EPZs are described in more detail in Annex 5.

3-3 Outline of the Cavite Export Processing Zone

(1) Development History and Outline of the Cavite Export Processing Zone

The master plan for the CEPZ was drawn up in 1980 and construction work was started in 1983. The plan was divided into five phases, I to V. At present, Phase I is nearly completed and Phase II is being developed. The following is an outline of the land utilization plan in each phase and the present development status.

1) Situation as of February, 1990

a) Total Land Area: 283.1 ha of which 173.1 ha (61.4%) is scheduled as industrial sites.

b) Commencement of Construction Work: 1983

Tenants begin to more in: January, 1986

c) Estimated Total Project Costs: 706.2 million pesos (1982 estimate)

d) Target at Completion Date (five years after the initial location of factories):

Number of companies	90
Total export value	951 million US dollars
Total personnel employed	35,800 (directly employed)
	71,600 (indirectly employed)

e) Phase Planned (sq. m)

	I	II	III	IV	V	Total
Industrial Land	396,180	394,742	279,089	390,854	278,894	1,739,759
Road	106,109	84,098	97,312	89,055	68,424	444,998
Administ. Area	19,950	0	0	0	3,525	23,475
Utilities Area	22,780	0	0	36,300	9,830	68,910
Green & Open Space	89,975	162,584	28,409	185,261	88,079	554,308
Total	634,994	641,424	404,810	701,470	448,752	2,831,450

f) Existing Enterprises in Cavite EPZ

	No. of Companies	Reserved Area (m^2) Phase I	Phase II
Operational	13	111,055	
Under Construction	7	55,900	
Registered but without Physical Presence	7	77,435	30,000
Approved but not yet Registered	16	64,800	40,000
Under Evaluation	3	10,000	10,000
With Offical Reservation	10	5,000	90,000
Total	56	324,190	170,000
Occupancy Ratio		100 %	43 %

g) Number of Operating Companies 11 (in Feb., 1990)

Total export value	15.3 million US$
Total personnel employed	3,294
Average land area per factory	8,732 sq. m

Phase I was originally planned for development of a total of 396,180 sq. m of industrial land area, but the development of about 7 ha (Block 11) has been suspended until land acquisition is completed. According to EPZA, the Block 11 is located at the entrance road for Cavite College of Arts and Trade adjoining CEPZ, and therefore removal of the entrance road is needed for development of Block 11. Another reason is that a few houses existing in the Block have been not been removed yet. Nevertheless EPZA anticipates to finish all procedures for land acquisition by the end of 1990 at the latest.

Many companies have reserved land in Phase II and some already started factory construction. This development is proceeding from the area adjoining Phase I following progress in construction of the main road. Infrastructure in Phase II is hardly developed so far, but further development is expected soon. The land area already occupied and scheduled for occupation represents 64% of the planned development area of Phase I and II.

The overall development schedule is behind the initially plan. There are some 100 ha of site which remains and is scheduled for development. This is to be divided for development in Phase III hereafter. Further, there are delays in the creation or installation of surrounding road networks and electricity and telecommunications lines. These delays are exerting an adverse effect on the development of the CEPZ.

(2) Conditions of the Vicinity of the CEPZ

The CEPZ is located in Cavite Province in the central-west part of Luzon. It is bordered by Batangas Province to the south, Laguna Province to the east, and Manila harbor and Metro Manila to the north. It is approximately 30 km distance from Manila which takes about 50 to 60 minutes by car. The province population is 1.1 million (in 1989) of which 60% is of working age. As for industry, besides agriculture the main industries are the processing of agricultural products, metalworking and handicrafts.

At present, the development of Cavite Province forms part of the development of the area around Manila. Including the industrial estates already existing in the province, there are ten locations for which industrial estates are planned in 1989 to date. The CEPZ is to be developed as the central axis of these in the industrial development of the Cavite Province. On the other hand, the development of these industrial estates is to have a significant effect on the provision of industrial infrastructure in the region and in fact the majority of the problems encountered by the CEPZ such as telecommunication, nearby road networks, etc. are related to the inadequate provision of infrastructure. The future prospects relating to these major problems are as follows.

1) Electricity

a) Power Stations and Generating Capacity in Luzon

As of 1988 the power stations in operation in Luzon are as follows.

		Capacity
Fuel-oil-based thermal	4 stations	1,925 MW (47%)
Coal-based thermal	1 station	300 MW (7%)
Geothermal	2 stations	660 MW (16%)
Hydroelectric	11 stations	1,226 MW (30%)
TOTAL	18 stations	4,111 MW(100%)

Source: NPC, National Development Program June, 1987.

The fuel-oil-based thermal power stations which contribute 47% of the total power generating capacity are located in the suburbs of Metro Manila, the geothermal power stations are located at the southern Tiwi and at Mak-Ban in the suburbs of Los Banos. The coal-based thermal power station is at Calaca to the west of Batangas and the hydroelectric power stations are located around Metro Manila, with four in the south,

and seven located to the north. The regional distribution of these stations are as follows.

	Metro Manila (MW)	South District (MW)	North District (MW)
Fuel-oil-based	1,925	0	0
Coal-based	300	0	0
Geothermal	330	330	0
Hydroelectric	349	1.8	875.4
TOTAL	2,904 (70.6%)	331.8 (8.1%)	875.4 (21.3%)

Note: the Metro Manila district includes the Calabar region
Source: NPC, Power Development Program

b) Power Transmission and Substations

The length of the transmission lines and the capacity of the substations in Luzon is tabulated below. Transmission lines account for 60% of the entire system of the Philippines while the substation capacity is 74% of the total. All of the power stations of Luzon island are connected with the Luzon grid to distribute power to all areas of the island.

When the volume of power generated by each power station is matched to the amount of power consumed in the area it serves then there should be little transfer of electricity between regions. However, as the northern part of the island is only provided with hydroelectric power stations, the level of rainfall greatly affects the amount of electricity. A backup system has been set up with the Metro Manila region and the southern district for occasions when electricity supplies are low.

Transmission and substation facilities (Luzon Grid)

Voltage (kV)	Length of Transmission Lines (km)	Capacity of Substations (MVA)
500	490	-
230	3,310	7,328
115	499	1,977
69	2,705	666
under 69	528	200
TOTAL	7,532 km	10,171 MVA

Source: NPC, Annual Report for 1988

c) Electricity Supply to the CEPZ

Electricity for the CEPZ is directly transmitted from the NPC. Normally this is supplied from the Sucat Power Station (with generating capacity of 850 KW) located on the shore of Lake Laguna, east of the CEPZ. This is relayed through the substations of Binan (230 kV) and Dasmarinas (138 kV) and then sent on to the substation of Rosario (115 kV). The Rosario substation is located close to the CEPZ and is an exclusive facility serving it. It is equipped with a 50MVA 115 kV/ 34.5 kV transformer and two 34.5 kV transmitters. One of the transmitters is used for the CEPZ and for the time being while the consumption of the CEPZ is low the other is on loan to MERALCO.

The records showed that the maximum supply from this substation was 5MVA of which 1.2 MVA was supplied to the CEPZ. In future, as the supply volume to the CEPZ is increased the transmitter currently on loan to MERALCO will be returned to the NPC and used for CEPZ. In the CEPZ there were currently only ten factories operating and these are largely garment factories which consume little electricity. It is therefore difficult to use these figures as the basis for estimates of the future demand of electricity from the 90 or so factories scheduled to be opened in the CEPZ. However, with the existing equipment of the Rosario substation there would seem to be no problem regarding distribution facilities to the CEPZ in the future.

Nevertheless, the question is adequacy of the power generating capacity in Luzon. As mentioned above the Luzon grid connects all stations in the island and so the supply and demand balance for the whole island affects distribution to regions. The NPC intends to respond to an increase in demand by upgrading its present generating plants

and by constructing new power plants. It expects to realize an annual average 5% increase in capacity. As there is no detailed data concerning future demand on Luzon it is difficult to establish whether a 5% increase will be enough to balance demand and supply. However, this 5% falls below the target of 6.5% (or 9.1% for the industrial sector) set for the average annual growth rate of GNP for the MTPDP (1987-1992). Although it may be necessary to watch carefully developments in the demand situation hereafter, without a definite improvement in generating capacity the uncertainty of supply to the CEPZ will remain unsolved.

Another problem is that of voltage fluctuation. It was noted that voltage fluctuated over a range between 170 V to 260 V around the specified standard of 220 V. Reasons for the fluctuations were the imbalances in supply at peak demand times and a reduction in generating efficiency due to a deterioration of power plants.

This problem is of national importance and cannot be settled just in the context of the CEPZ. At present, there are a number of zone enterprises who have taken independent measures to protect themselves from such voltage fluctuations. Hereafter, such counter measures will continue to be necessary. It is also desirable that the supplier set up an adequate maintenance system.

2) Telecommunications

The qualitative and quantitative inadequacies in telecommunications facilities is not simply a problem of the CEPZ, and in fact the same situation exists for the other three EPZs. At present, there are 12 Long Distance Direct Dial lines (LDD) and 50 local lines installed in the CEPZ. The 12 LDD lines are linked directly to Manila by microwave. Further, the 50 local lines are linked to the Rosario telephone exchange circuit. The number of lines, especially of LDD lines, is insufficient for the number of zone enterprises served.

While the CEPZ is served by the Rosario telephone exchange, the latter uses an EMD type switchboard of an old type manufactured by the German company Siemens. This only has capacity for 950 terminals while 1,123 lines are connected so that there is no spare capacity available.

At present, the Rosario exchange is undertaking the replacement of the 950 line EMD type switchboard by a new SPCD type electronic switchboard as part of an improvement program. It expects to increase its capacity to 2,100 lines by the end of 1991. 600-700 of these lines will be allocated for CEPZ use (and at least 120 lines are scheduled for the CEPZ during 1990).

If the above improvements are carried out on schedule even if the number of zone enterprises in the CEPZ increases to 60 factories by the end of 1990 two LDD lines could be assured for each zone enterprise. Given that the remaining 500 lines are made available on schedule then it will be possible to assure sufficient telecommunication facilities to zone enterprises entering after Phase III (scheduled for after 1992).

3) Surrounding Road Networks

The primary problem facing the CEPZ is that of the provision of road networks in the surrounding area, and especially of access roads to Manila. Despite the closeness of the CEPZ to Manila (only 30 km or so) the poor condition of the roads result in a minimum travel time requirement of one hour. At present, the main roads connecting the CEPZ and Manila are as follows (refer to Figures 3-3-1 and 3-3-3).

a) Manila - Coastal Road - Talaba - Bacoor - Kawit - Noveleta to CEPZ

This is a 2-3 lane (on each side) road north to south along the Metro Manila harbor area, and is at present finished as far as Talaba on the south. After this the stretch passing Bacoor, Kawit and Noveleta towards Rosario and the CEPZ is a narrow one lane for both directions wide road. Not only is the road narrow along this stretch but there is no or little room at the road side so that the road is crowded with pedestrians, jeepneys, mini-buses, big buses, motor tricycles and tri-bicycles. Especially at rush hour times the presence of slow vehicles such as tricycles holds up traffic and causes a drastic reduction of transport speeds. According to a traffic survey carried out by the DPWH in 1988 (refer to Table 3-3-1) the Talaba (Zapota) - Kawit - Noveleta stretch has the largest amount of traffic in the entire state. Moreover, it is forbidden in principle for large vehicles to pass along the Talaba (Zapota) - Rosario stretch of road except at night at present.

b) Manila - Coastal Road - Talaba - Imus - Dasmarinas - Trece Martires - Tanza to CEPZ

The Aguinaldo Highway which branches off from Talaba towards Tagaytay City is a well-surfaced asphalt road of one lane in each direction with a relatively wide space on the sides of the roads, and compared to the above road is relatively uncongested with slow vehicles. However, the surface of the asphalt surfaced road running between Dasmarinas to Trece Martires - Tanza (one-lane on each side) is extremely poor and the road surface is uneven almost the entire length. In aaddition, as it passes through mountains there are a large number of mountain which obstruct the passing of vehicles. However, as there are almost no houses or villages along the sides of the road the volume of traffic is small. Further, a private industrial estate will be developed at the side of this road.

c) Manila - South Super Highway (Carmona Interchange) - Dasmarinas - Trece Martires - Tanza to CEPZ

This is a route using the South Super Highway from Manila to the Carmona Interchange and from there passing along the Carmona-Ternate road. This route has the merit of using the super highway but is the longest in terms of distance.

However, as is clear from the traffic survey (Table 3-3-1) the number of large trucks is relatively high compared to those of general motor cars along the Carmona - Dasmarinas - Mangahan and Trece Martires to Noveleta stretches. This reveals that rather than use route a) which is the shortest in distance, routes b) and c) tend to be more frequently used at present for the journey between Manila and CEPZ.

In any case, with the present road network hindrances to material handling and transport are easily foreseeable not only for the CEPZ but also for the other industrial estates scheduled for the future. For this reason the following construction plans for new roads have been established.

a) Plan for Extension and Widening of the Coastal Road

The coastal road at present extending from Manila to Talaba is to be extended up to Tanza, passing either by Noveleta or Rosario where the CEPZ is situated. There are also two plans one for widening the route from the south of Talaba (Zapote) which roughly follows the existing route together with another for a new route to go around Binakayan where the greatest traffic congestion occurs. In particular, the Binakayan by-pass route goes by the CEPZ on the east side and is scheduled to be located about 3 to 5 km distance from the east gate of the CEPZ. This is expected to make deliveries to the CEPZ much easier. The idea for such a plan already existed when the CEPZ was in planning stage but wasn't undertaken because of budgetary restrictions. At present, the realization of the plan is needed not only to support the CEPZ but also in order to relieve traffic congestion in the region.

b) Plan for Widening the Terenate - Carmona Stretch of Road

The Terenate - Naic - Terece Martires - Carmona stretch is at present a two-lane road. Hereafter, this will be an important road for the overall development of the CALABAR area and the present project has been accepted as an object of the 15th yen loan. At present selection of a consultant is underway and the details of the work include the following.

i) Increased the number of lanes on each side to two

ii) Renovate the road surface

The detailed work will be decided after a consultant has been selected. However, it is expected that it will be three years before work begins. The present project has the official title of "Regional Tourism Development Road".

The average monthly dispatch and delivery of goods to and from the CEPZ is 67 and 58 journeys respectively (in January, 1990, for the total 13 factories). There are a number of the 13 factories which were not operating at full capacity or which have expansion plans for their existing factory sites. It is therefore anticipated that the material handling will increase and that some 90 two-way journeys per month can be anticipated. Also the overall freightage and handling of the CEPZ can be expected to increase in the same way as the factories operating at 100% capacity are expected to double over the previous year's level so that in 1992 with a total of 52 factories there will be an average of 360 two way journeys monthly. This means that just forecasting two years from now there will be four to five times the present level, and without some measures to improve the existing road network it is clear that the CEPZ will be unable to function sufficiently.

The above completes the outline of the main present industrial infrastructure. The most urgent and significant among the three items outlined above is the problem of provision of the road networks. Since measures have already been initiated in regard to telecommunications and electricity, progress may be expected to some extent. Nevertheless, it is necessary that the actual implementation of these improvements be closely monitored.

3-4 Merits and Conveniences for the Zone Enterprises

(1) Merits of Locating Factories in the EPZs

The Export Processing Zone is one type of industrial estate but it clearly differs from normal industrial estates as regards its system and incentives. Such distinctions also exist in the Philippines and the main differences between EPZA registered enterprises and BOI approved enterprises are shown in Table 3-4-1.

The most important merit accorded to enterprises registered at the EPZA is that freight can be imported without tariffs and that the export procedures have been simplified.

In the Philippines if certain conditions are satisfied even export manufacturers operating outside of the EPZs can use the Bonded Manufacturing Warehouse (BMW) System. Applying this system means that bonded areas can possess the same function as the Export Processing Zones. Nevertheless, export and import procedures are unaltered and the advantage of the simplified procedures available to the factories registered with the EPZA is apparent. Further, general export companies can use drawback incentives (refund or tax credit shall be allowed for the duties and taxes paid on the imported materials). The drawback system is rather complicated and takes a time to obtain a refund, so that even compared to the above system, the companies registered in the EPZA are more advantageous.

This gap is even greater between the EPZA-registered enterprises and those normal export enterprises without bonded warehouse facilities. In the Philippines the following documents and procedures are necessary for normal export (refer to Figure 3-4-1).

1) Export

   a) Report of Foreign Sales duly registered with the exporter's bank or with the Central Bank, if necessary

   b) Export Declaration

   c) Export Entry

   d) Tax Clearance, which may be issued to exporters quarterly

   e) Commodity Clearance is handled by several government agencies such as the Bureau of Fisheries and Aquatic Resources, National Cottage Industries Development Authority, Philippine Coconut Authority, Garments and Textiles Export Board, International

Coffee Organization Certifying Agency, Bureau of Plant Industry, Philippine Sugar Commission, and Bureau of Forest Development. The Bureau of Product Standards also deals with the inspections that are not handled by the above offices. The clearances are issued to registered exporters for periods not exceeding one year.

f) Official Receipts showing payment of wharfage fees, except when the article is expressly exempted from the payment thereof.

In addition to these documentary requirements, special requirements are imposed on certain export products. The requirements are designed to prevent overshipment, to maintain standards of quality, and to control quota allocations.

The Export Entry, with all the required supporting documents except the proof of payment of the wharfage fee, is filed with the designated customs official at the port of exportation. After the processing of the Export Entry and payment of the wharfage fee, the shipment may be loaded onto the vessel. When loading has been completed, the exporter secures clearance from the customs inspector.

The exporter applies for an export permit from the central bank through an authorized agent bank. The export permit is checked by the Bureau of Customs, after which a commodity clearance is issued to the registered exporter. The registered exporter loads the goods and obtains clearance from the customs inspector.

2) Import

a) Consular invoice from the Philippine consulate in the country of origin for shipments over 500 pesos in export value

b) Certificate of Origin

c) Commercial Invoice

d) Bill of Lading

e) Inward Cargo Manifest

f) Delivery Permit

Goods are generally imported through letters of credit. Registered enterprises are required to obtain an import permit from the BOI or the EPZA, as appropriate, for tax- and duty-free importation.