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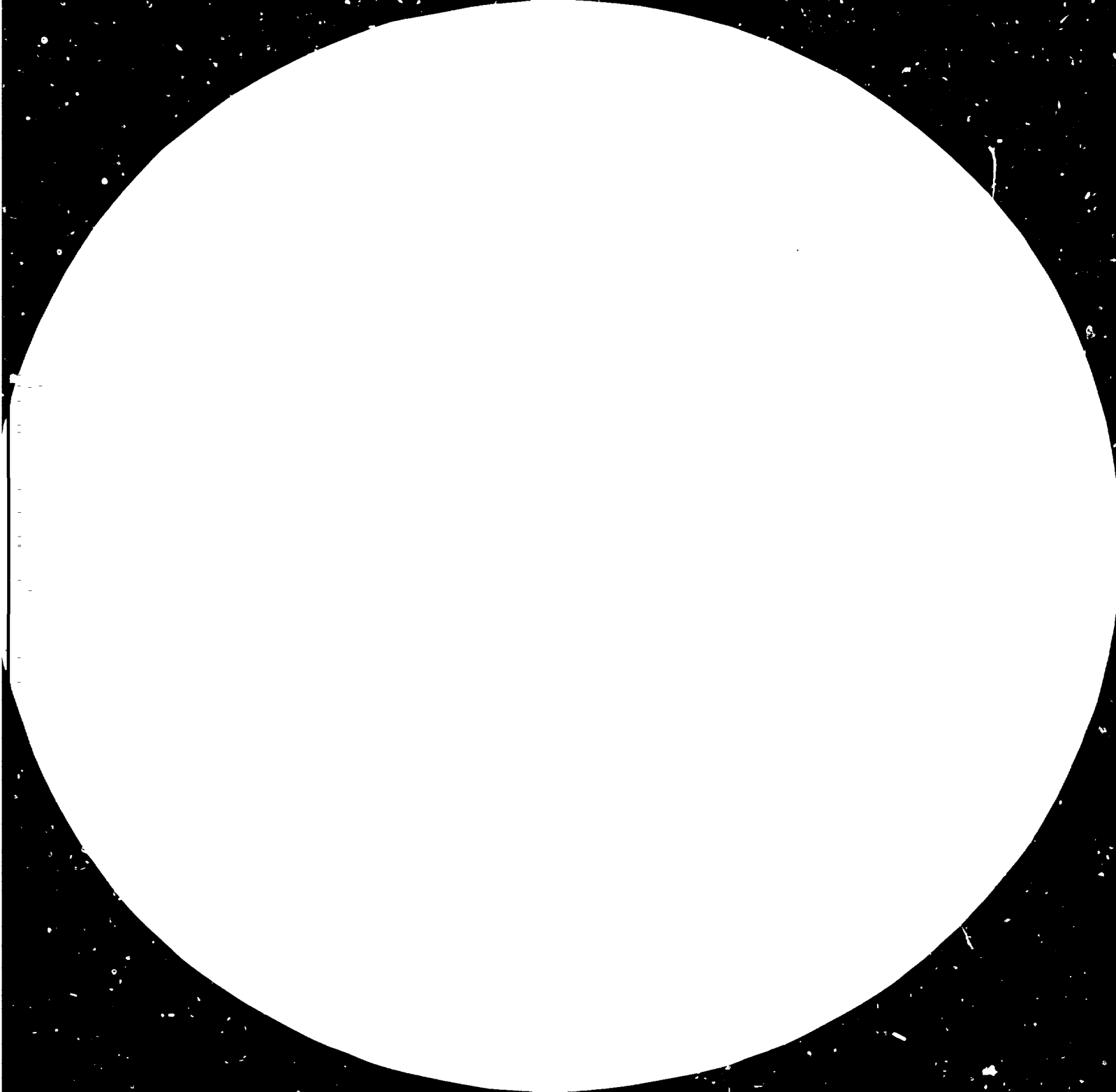
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COUNTRY INDUSTRIAL DEVELOPMENT PROFILE  
OF  
THE PHILIPPINES\*

Prepared by the

International Centre for Industrial Studies

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PREFACE

The International Centre for Industrial Studies, Regional and Country Studies Section, has undertaken, under its work programme, the preparation of a series of Country Industrial Development Profiles. The profiles are desk studies, providing statistical and economic analyses of the industry sector, its growth, present status and future prospects. It is hoped that the profiles will provide analyses of use to programming technical assistance, industrial redeployment and investment co-operation activities.

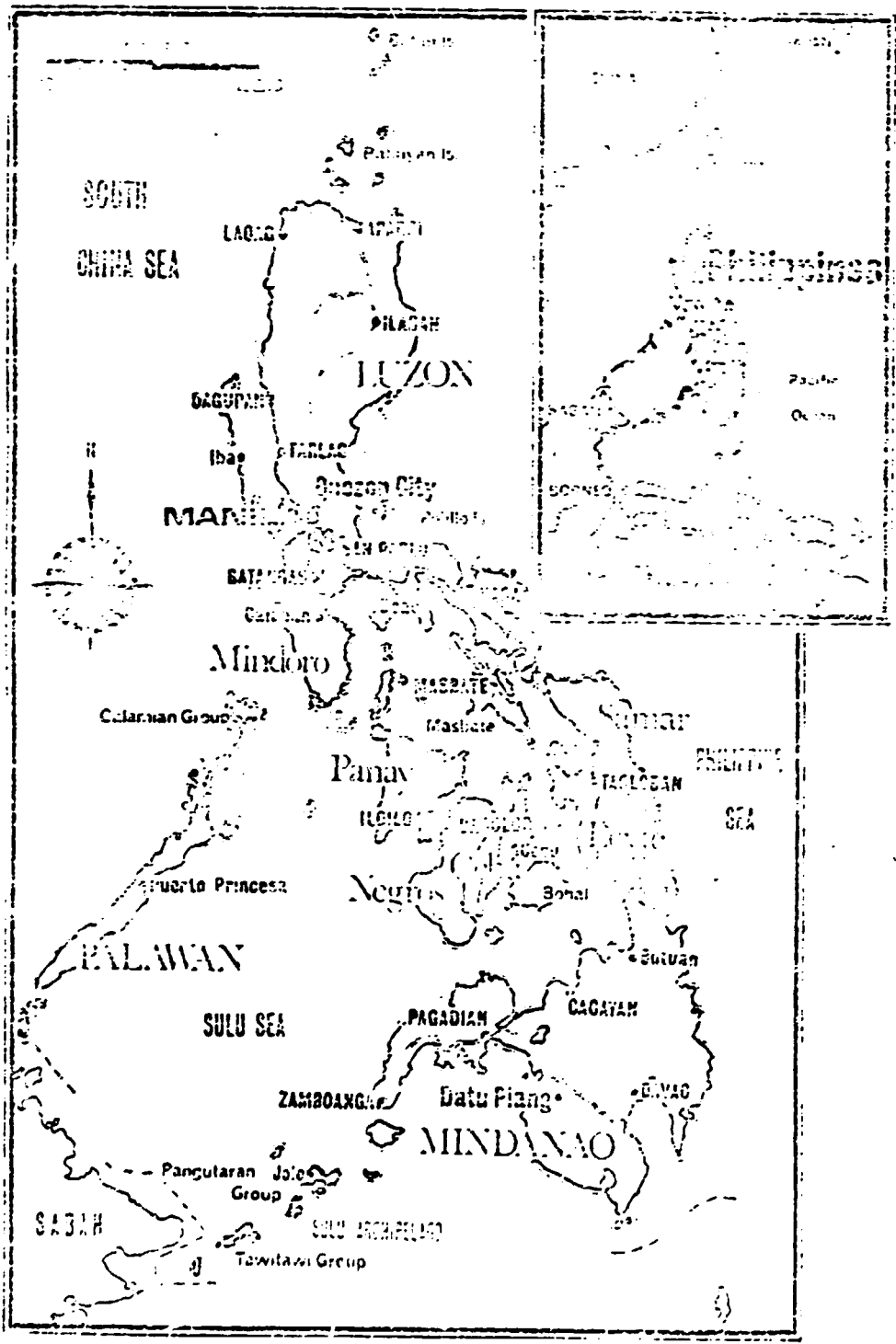
This profile on the Philippines is based on documents, reports and studies available at UNIDO Headquarters. No field survey has been undertaken and some of the data on industry are not up to date.

The views and comments contained in this document do not reflect those of the Government of the Philippines nor do they officially commit the United Nations Industrial Development Organization to any particular course of action.

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## Chapter I

### GENERAL ECONOMIC BACKGROUND

#### Geography

The Republic of the Philippines consists of approximately 7,100 islands, situated between the South China Sea and the Pacific Ocean. The total land area is 300,000 square kilometers. The two largest islands (Luzon in the north and Mindanao in the south) account for 66.4 per cent of its territory and the eleven largest ones account for 92.3 per cent of total area. Most of the islands are extremely small and are not inhabited.

Being of volcanic origin, the islands are crossed by mountain ranges and the extension of cultivatable land is fairly limited. About 65 per cent of the country is either mountainous or upland, the cultivated area comprises 30 per cent and another 5 per cent is under pasture. The largest plain is the island of Luzon, which has historically been the centre of the country.

The climatic is tropical and the western side of the country receives the southwest monsoon. Temperature is constantly high and provides the Philippines with a year-round growing season.

#### Population

The estimated population in 1976 was 43.7 million. The last census data are for 1975 and report a total population of 42 million.

The population is mainly of Malay origin, but it was variously mixed over the centuries with other ethnic groups, mostly Chinese and also Spanish settlers. The long-lasting Spanish colonization did not leave a strong cultural influence, besides religion, whereas U.S. administration had a stronger political and cultural influence on the country.

From an ethnic and cultural point of view, however, the population is fairly homogeneous. The largest minority group is represented by the Muslim Moros, who inhabit the Southwestern islands and constitute approximately 5 per cent of the population.

Population has been growing at a very high rate since independence. According to census data, total population was 19.2 million in 1948, 27.1 million in 1960, 36.7 million in 1970 and 42 million in 1975, which implies that the population has doubled in 23 years. The rate of growth was over 3 per cent per year up to 1970 and slightly decreased (2.7 per cent per year) between the last two censuses.

The average density is over 140 per square kilometre, which is nearly double the Southeast Asian average. Moreover, population is unevenly distributed and, particularly in the lowlands of Central Luzon, the pressure on the land is a serious problem. Urban population constituted 29 per cent of the total in 1975 and it is forecast to increase as a result of large internal migration flows. Over one-third of it is concentrated in the metropolitan area of Manila, which had a population of 4.5 million in 1975.

The Philippines have one of the highest fertility rates and, although child mortality is also very high, population growth is becoming a very serious problem and a matter of concern for the Government. An active birth control policy was started in 1970, and the first results seem to be encouraging. Even if the growth rate decreases slightly, the labour force will keep on increasing at a high rate in the near future. In 1975, about 43 per cent of the population was less than 15 years old. The working age population (those aged ten years and over) was 29.6 million and has been growing by more than 3 per cent per year.

#### Labour force and employment

The labour force participation rate, which was as high as 56.8 per cent in 1956, has been constantly declining over time and was 51.8 per cent in 1976. Even with this slightly lower participation rate, and assuming a slow-down of population growth, it is estimated that the number of new entrants into the labour market in the next fifteen years will be approximately 500,000 per year, which would require the creation of some 600,000 new jobs per year if the present unemployment rate of 5 per cent is to be reduced.<sup>1/</sup>

<sup>1/</sup> The projections of population growth are done by the National Census and Statistics Office; the labour force estimates are from the World Bank. See World Bank, The Philippines, Priorities and Prospects for Development, Washington, 1976.

The educational level is generally higher <sup>1/</sup> than in neighbouring East Asian countries, with the adult literacy rate at 87 per cent, the enrolment rate in primary school is 104 per cent, in secondary school it is 46 per cent and students in universities and colleges make up 1.7 per cent of total population (the corresponding figures for higher education are 0.5 per cent in Korea and 0.2 per cent in Thailand and Malaysia, where primary and secondary enrolment is also lower).<sup>2/</sup> Thus, the labour force has a good level of formal education and, according to ILO evaluation, it is actually overqualified for the needs of the country.

The rate of growth of employment over the period 1956-76 has been only 4.3 per cent per year, and most of the increase in employment was concentrated in the 1970s (5.8 per cent per year on average as opposed to an annual 2.7 per cent in the previous 14 years). This compares with a rate of growth of GDP of 6 per cent. Overall growth has implied very little labour absorption and particularly very limited employment creation in the modern sector.

Table 1 shows the composition of employment by sector over the period 1956-1976 and Table 2 the rates of growth in three sub-periods for the three main sectors.

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<sup>1/</sup> At least as far as the number of students is concerned.

<sup>2/</sup> These figures refer to the beginning of the 1970s. The 104 per cent enrolment rate means that children out of the 7-12 age group are also in primary school. Primary education is compulsory and free.

Table 1. Employment by sector and unemployment <sup>a/</sup>

	1956	1960	1965	1970	1973	1974	1975	1976
	(Thousands)							
Agriculture, fishery, forestry	4,938	5,777	6,272	6,260	7,310	7,730	7,630	8,130
Mining and quarrying	33	28	22	60	60	50	50	60
Manufacturing	1,035	1,142	1,205	1,380	1,410	1,440	1,550	1,680
Electricity, gas, water	24	18	22	30	40	40	40	50
Construction	215	254	320	390	440	390	440	490
Commerce	861	830	1,216	1,120	1,570	1,560	1,560	1,860
Transport communication and storage	248	302	376	500	510	510	510	550
Other services	927	1,038	1,570	1,690	2,130	2,170	2,330	2,610
<b>Total</b>	<b>8,281</b>	<b>9,389</b>	<b>11,003</b>	<b>11,430</b>	<b>13,470</b>	<b>13,890</b>	<b>14,110</b>	<b>15,430</b>
Unemployed	921	635	731	941	657	580	581	818
	Percentage distribution							
Agriculture	59.6	61.5	57.0	54.7	54.3	55.6	54.0	52.7
Mining	0.4	0.3	0.2	0.5	0.4	0.3	0.3	0.4
Manufacturing	12.5	12.2	10.9	12.1	10.5	10.4	10.9	10.9
Electricity, gas, water	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3
Construction	2.6	2.7	2.9	3.4	3.3	2.8	3.1	3.2
Commerce	10.4	8.8	11.0	9.8	11.6	11.2	11.3	12.1
Transport etc.	3.0	3.2	3.4	4.4	3.8	3.7	3.6	3.6
Other services	11.2	11.0	14.3	14.6	15.8	15.6	16.5	16.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Unemployed as percentage of labour force	10.0	6.3	6.2	7.6	4.8	4.1	3.9	5.0

Source: National Census and Statistics Office; ILO, Yearbook of Labour Statistics.

<sup>a/</sup> Figures for 1970 are from the Census; for the other years from the labour force surveys.

Table 2. Average annual rate of growth of employment

	1956/60	1960/70	1970/76
Total employment	3.3	2.2	5.8
Agriculture	4.2	0.8	4.9
Manufacturing	2.6	2.1	3.6
Commerce	-0.9	3.5	11.0

Sources: See Table 1.

The growth of total employment depends predominantly on the trend in agricultural employment. Manufacturing has always had a very low labour absorption, only slightly increasing in the last few years, and this is due to the capital-intensive type of industrialization which followed in the wake of the import-substitution policy adopted by the Government.<sup>1/</sup>

Agriculture can be roughly divided into two sectors: peasant and share-tenancy agriculture, producing food crops for the internal market and presumably having a very flexible labour absorption; and plantations producing export crops, of which coconut is land intensive and sugar is labour intensive, although it employs a large share of seasonal labour. Up to the mid-1960s, agricultural growth was characterized by outward expansion, with an increase of the cultivated area. Labour productivity is estimated to have grown very slowly (at a rate of 1.5 per cent per year over the period 1956/64<sup>2/</sup>), and labour absorption kept pace with population growth. Consequently, even if manufacturing was not very dynamic in job creation, there were not massive migrations from rural to urban areas and the rate of open unemployment, which was very high in 1956 (10 per cent), experienced a decreasing trend.

In the mid-1960s agricultural growth became more capital and land intensive. The growth of land under cultivation slowed and output growth became more dependent on the intensification of production through investment in irrigation and increases in the use of fertilizer and double-cropping, and

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<sup>1/</sup> Labour absorption in manufacturing will be dealt with in more detail in the next chapter.

<sup>2/</sup> Source: J. Maton, "Employment, Technical Progress, Income Distribution and Basic Needs," Ontwikkelingssamenwerking 2, 1977.

further on rapid increases in yield made possible by new rice varieties. Labour productivity increased (the same estimate as above gives an annual rate of 3.8 per cent from 1964 to 1971) and labour absorption became very much lower than population growth (agricultural employment actually declined from 1965 to 1970). This gave rise to a large migration flow from rural to urban areas. Since labour absorption in manufacturing was even lower than in the previous period (2.1 per cent per year throughout the 1960s), the inflow of migrants ended up in the tertiary sector and much of it in the tertiary informal sector. From 1965 to 1973 the service sector accounted for over 80 per cent of new urban jobs and in Metropolitan Manila in 1970 two-thirds of employment was in services. Moreover, the informal sector is estimated to account for over 60 per cent of total service employment in both urban and rural areas combined.<sup>1/</sup> The rate of unemployment increased only moderately, partly because of a decline in the labour force participation rate, and partly because the informal sector was a safety valve where employment could be created with virtually no capital.

This same trend seems to have continued in the last few years (employment in commerce increased by 11 per cent per year from 1970 to 1976). What is striking in the 1970s is, however, the increase in agricultural employment, which amounted to almost 2 million people in 6 years. From 1970 to 1976 agriculture absorbed 50 per cent of the additions to the workforce (i.e. of the increase in labour supply) whereas manufacturing absorbed only 7.9 per cent. (As a point of comparison, the corresponding figures for the period 1960-1970 were 21 per cent for agriculture and 10.3 per cent for manufacturing).

Although agricultural output also increased in these years and some expansion in the cultivated area is recorded, the persistence of such a high share of employment in agriculture seems to indicate that the primary sector functions as a residual source of employment. If this is true, the relatively low rate of open unemployment is likely to hide a much higher sub- and under-employment both in rural areas and in the urban informal sector.<sup>2/</sup> It is difficult to forecast how this excess supply could be absorbed. Manufacturing

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1/ Source: World Bank, The Philippines, Priorities and Prospects, op.cit., chapter 3.

2/ The last Plan estimates that 1.55 million are underemployed in the sense that they either work less than 40 hours a week or would anyway want additional work. This makes 10.7 per cent of the total employed.

has speeded up its job creation in the last few years (100,000 new jobs per year in 1975 and 1976) but its labour absorption is still inadequate, as it appears by comparing its share in GDP (25 per cent) with its share in total employment (11 per cent). The goal of creating 600,000 new jobs per year looks consequently very optimistic, unless drastic changes in the pattern of industrialization take place.

#### Income distribution

Not only has employment creation lagged behind the overall growth of the economy, but the benefits of growth have been very unequally distributed. Income distribution in the Philippines is among the most skewed in Asia and inequality does not tend to decrease.

As far as source of income is concerned, calculations by ILO for the period 1961-71 show that wage and salary income as percentage of GNP has not increased at all (it was 39.7 per cent in 1961 and 39.8 per cent in 1971), whereas the decrease in the share of income from self-employment (-6 percentage points in the decade) has benefitted undistributed corporate income (which has increased from 10.1 per cent to 16.2 per cent). As a rough indicator, this should point out that the factorial distribution of income between profits and wages has shifted in favour of profits and possibly also that unit income of self-employed has deteriorated.

As far as distribution of family income is concerned, the share of the lowest 40 per cent of families, which was already extremely low, deteriorated constantly in the past (from 12.6 per cent in 1957 to 11.5 per cent in 1965) and improved only in the last few years (it was 11.9 per cent in 1971 and 15 per cent in 1975). On the other hand, the income share of the top 20 per cent only slightly decreased until 1971 (from 55.1 per cent in 1957 to 53.9 per cent in 1971) and has remained about the same since then. Thus, if some redistribution of income has occurred in the last few years, it has been redistributed between very poor and middle-income families. The changes are attributable to different trends in the rural and urban sectors. Average rural income used to be less than half the urban average and income distribution in the rural areas is more skewed and is becoming increasingly so (the Gini coefficient for rural incomes increased by 21 per cent between 1957 and 1971). Poverty is concentrated in the rural areas, where 80 per cent of the Philippine families are estimated to live.

The slight improvement in income distribution in the 1970s is attributable to the improvement of the agricultural sector, both with regard to growth of production and more important, with regard to an improvement in terms of trade in favour of agriculture. As a result, the ratio of the average rural income to the average urban income rose from 48 per cent in 1974 to 57 per cent in 1975.

The present pattern of income distribution, however, seems unfavourable to the growth of domestic demand for manufactured goods and, if the only changes in income distribution occur among low income groups and in favour of the rural sector, this is unlikely to generate a sufficient increase in demand since income elasticity of rural expenditure on such goods is lower than unity.<sup>1/</sup> In the present conditions, and lacking redistribution in favour of urban wage-earners, the largest source of demand for labour-intensive manufactures remains the non-traditional export sector.

#### Natural resources

The major food-producing region is the central plain of Luzon. Many of the smaller lowlands are also intensively cultivated, but their soil is not very fertile. The fertility of the land has been eroded over time, partly by the system of shifting cultivation and partly by lack of crop rotation.

Rice is the most important single item and it occupies some 40 per cent of the cultivated area. Recently, the country has reached self-sufficiency in rice and in 1977 a small export surplus was achieved.<sup>2/</sup> Spanish colonization introduced maize as a food crop, and maize is still the leading crop in the islands with low rainfall.

Export crops include sugar, coconut, bananas and pineapples. Sugar used to be the country's major foreign exchange earner (\$535 million in 1977) and employs about 460,000 people, although over one-third of them are seasonal workers. However, due to the recent unfavourable world market conditions and the restrictions imposed by the International Sugar Agreement, the Government is encouraging the conversion of part of the sugar land into other crops.

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<sup>1/</sup> Estimated by the World Bank, op.cit., pp. 107-108.

<sup>2/</sup> In the ten previous years import dependence varied from a minimum of 1.3 per cent in 1968 to a maximum of 12.5 per cent in 1972.



In coconut products the Philippines accounts for almost three-quarters of world exports and the value of exports reached \$542 million in 1976. Coconut is also extensively consumed domestically as part of the diet and as an input for various handicraft products. Bananas have been produced commercially since 1969 and their export value grew to \$76 million in 1976 (from \$5 million in 1970). Pineapples are also exported and their export value reached \$56 million in 1977.

Meat production, estimated at 670,000 tons in 1977, lags behind domestic demand. The same applies to fishing production so that fish have to be imported in spite of the potential of Philippine waters.

About 32 per cent of the total surface of the country is covered by commercially exploitable forests, and valuable hardwoods are estimated at 465 million board feet. Only a minor part, however, is currently being exploited and forest resources are rapidly being depleted by shifting cultivation and illegal cutting. Output is partly exported to Japan, the Republic of Korea and the USA and partly processed domestically. The Government plans to phase out log exports and increase domestic processing capacity.

The Philippines have extensive deposits of various minerals. Only a minor part, however, have been surveyed and is presently exploited. The most important ones are copper, gold and silver, iron and chromite. The production of gold varies between 15 and 19 metric tons per year, lower than the pre-World-War-II level, when the Philippines were among the main producers. Copper production increased more than threefold from 1965 to 1977 (from 63,000 to 273,000 metric tons), in response to market demand and rising prices. The production of iron ore has been more or less stagnant for years. It dropped to 571,000 metric tons in 1976 (from 1,351,000 in 1975 and 2,250,000 in 1971). It was discontinued in 1977, although large reserves are estimated to exist. The extraction of chromite amounts to approximately 500,000 metric tons per year.

Altogether, a resource base for the industrial sector exists and could be more extensively exploited. Mineral processing capacity is, however, insufficient, although the Government is planning and encouraging mineral processing ventures. The other constraint is the lack of oil which has to be almost totally imported. In 1977 commercial petroleum deposits were found

off Palawan, but their output is expected to meet only 3 per cent of current domestic consumption. Present energy sources are hydroelectric and geothermal, and the exploitation of geothermal resources is particularly encouraged.

#### Growth and structural changes of the economy

Since independence in 1946 the Philippine economy has been growing at a rate of approximately 6 per cent per year in real terms (1952-1968). The rate of population growth has been 3 per cent per year, and consequently the average annual increase in per capita income has been around 3 per cent. The manufacturing growth rate was high in the 1950s (12.5 per cent annual growth during 1952-1956) but declined in the following decade. The declining effects of import substitution emerged quite clearly.

In the 1970s the growth in real gross national product, which had been about 5 per cent a year in 1970-72, doubled to almost 10 per cent in 1973 and then declined to about 6 per cent in the next three years. In 1977, real gross domestic product increased by 6.1 per cent (Table 3). The exceptional performance in 1973 was due to the international commodity boom which stimulated agricultural production and in turn stimulated internal demand, private investment and industrial production. The high price for sugar until late 1975 enabled the country to go through the oil price increase and the following world recession without being strongly affected. In the longer run, however, the collapse of sugar prices and the decline in the prices of other export commodities reversed the external situation and brought down the rate of growth to pre-1973 peak levels. The fluctuations of the economy depend very much on the external sector and on the trends in foreign demand. Increase in exports earnings, however, also generate a higher internal demand which has at least in the last few years partly compensated for the fluctuations of the external sector. Thus, although the balance of trade deficit has been growing since 1976, the economy has maintained a 6 per cent rate of growth. Good agricultural performance, due to weather conditions as well as acreage and irrigation development and the introduction of new varieties, has led to self-sufficiency in food grains and compensated with higher export quantities for the decline in some export prices. The manufacturing sector, after a peak in 1973, has experienced a moderate growth rate, due partly to the extensive investment which followed the 1973 export boom, and partly due to the good performance of non-traditional manufactured exports, which have been less affected by world recession.

Table 3. Growth rates of GDP by industrial origin at constant 1972 prices  
(Percentage)

	1971	1972	1973	1974 <sup>f/</sup>	1975 <sup>r/</sup>	1976 <sup>p/</sup>
Agriculture, fishery, forestry	4.9	3.8	6.1	2.6	4.3	6.8
Industrial sector						
Mining and quarrying	17.3	5.0	4.0	0.2	2.3	0.3
Manufacturing	6.7	6.2	13.9	4.8	3.5	5.8
Construction	8.7	18.6	8.6	12.8	49.4	24.8
Electricity, gas and water	11.7	6.4	7.1	16.0	6.4	5.7
Total industry	7.8	7.5	12.3	5.7	9.6	8.9
Service Sector						
Transportation, commu- nication + storage	6.2	10.7	9.9	10.4	11.7	8.6
Commerce	1.5	1.6	7.1	5.6	5.0	5.8
Other services	4.3	4.3	7.8	7.5	5.1	4.1
Total services	2.9	3.4	7.6	6.8	5.8	5.5
GDP at market prices	4.9	4.8	8.7	5.3	6.6	7.0
GNP at market prices	5.8	4.9	9.6	6.3	5.9	6.4
Indirect taxes less subsidies	15.2	3.7	25.1	20.9	6.9	-4.4
Capital consumption allowance	6.5	6.7	3.4	5.7	6.6	9.9
Net national product	4.8	4.8	8.9	4.8	5.7	7.4

Source: National Accounts Staff, NEDA, estimates as of May 1977

f/ final

r/ revised

p/ preliminary

The aggregate level of fixed investment in the Philippines has always been fairly high and has been substantially increasing over time. Fixed investment rose from about 13 per cent of GDP in the early 1950s to about 16 per cent during the late 1950s and early 1960s. In the second part of the 1960s heavy investment in steel, chemicals and cement pushed up the ratio to about 20 per cent of GDP. After a decline at the beginning of the 1970s, due to the slow growth of domestic demand and to the increase in the cost of imported capital goods, the fixed investment ratio went up again to over 24 per cent in 1975 and 1976 (see Table 4).

Correspondingly, private consumption as a percentage of GNP has been constantly declining. It reached an average of 80.1 per cent in the 1950s, 71.5 per cent in the 1960s and decreased to 65.7 per cent in 1976. The decrease has not been compensated by a substantial increase in government consumption, which maintains a fairly low share.

For a developing country with a per capita income of US \$410 (1976), the share of consumption is extremely low and the share of investment is exceptionally high. Two aspects of capital formation should be noted: One is that the contribution of the Government is very limited and it has been increasing only since 1975; private investment in the Philippines is undertaken also in sectors which are usually the responsibility of the State, such as power generation, roads, ports and communication facilities. The low level of government expenditure can be attributed to the low tax revenue, and to the public sector's weakness in preparing and implementing projects, which consequently fail to attract external financial support. Domestic tax revenue has just reached 9.9 per cent of GNP in 1976 and an estimated 10.7 per cent in 1977, and this has been obtained by raising excise taxes on some products. Export taxes and import duties, which are a substantial part of total tax revenue, are subject to the fluctuations of foreign trade. Moreover, fiscal incentives to the industrial sector has substantially eroded the tax base. Capital formation is thus almost totally private, with the result that basic infrastructural facilities have been neglected. The other aspect is the limited impact that such a high level of investment has on output and employment. The incremental capital/output ratio was an average 3.9 in the 1960s and approximately 3.4 in more recent years. The ratio is quite high considering that the largest share of investment goes directly to productive sectors. Only estimates are available on the sectoral allocation of investment in the first half of the 1970s.

Table 4. Per cent distribution of expenditure on Gross National Product at current prices

	1970	1971	1972	1973	1974 <sup>f/</sup>	1975 <sup>r/</sup>	1976 <sup>v/</sup>
Personal consumption	70.8	71.7	71.9	67.4	67.2	66.6	65.7
General government consumption	8.4	8.6	9.5	8.7	9.0	10.0	10.1
Gross domestic capital formation							
Fixed capital formation							
Construction							
Government	1.0	1.2	1.9	2.0	2.9	3.8	4.9
Private	5.2	4.6	4.6	4.2	4.7	6.4	7.6
Total construction	6.2	5.8	6.4	6.2	7.6	10.2	12.5
Durable equipment	9.3	10.7	9.5	9.3	11.1	14.1	12.4
Total fixed capital	16.0	16.6	15.9	15.4	18.7	24.3	24.9
Increase in stocks	5.5	4.6	4.9	6.1	8.2	6.9	6.3
Total capital formation	21.5	21.1	20.8	21.6	26.9	31.2	31.3
Exports of goods and non-factor services	19.4	18.7	17.8	22.2	22.3	18.6	17.7
Imports of goods and non-factor services	-19.7	-19.5	-18.6	-13.7	-25.4	-25.4	-24.2
Expenditure on gross domestic product	100.4	100.6	101.4	101.2	99.9	101.0	100.4
Net factor income from the rest of the world	-1.7	-1.1	-1.0	-0.2	0.3	-0.3	-0.9
Statistical discrepancy	1.3	0.4	-0.4	-0.9	-0.3	-0.7	0.5
Expenditure on gross national product	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Accounts Staff, NEDA, estimates as of May 1977.

f/ final  
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v/ preliminary

According to these estimates manufacturing and mining have received 41.7 per cent of total investment (no public investment is recorded in this sector), transport has received 22.2 per cent (74.8 per cent of which is private) and agriculture only 10 per cent (of which 89.2 per cent is private).<sup>1/</sup> Possible reasons for the low productivity of capital are the relatively low cost of imported capital goods, which tends to favour capital-intensive investment, and low utilization of existing capacity, particularly in industries such as steel, wood products, pulp and paper, and cement.

The Philippine economy went through a period of marked structural change in the 1950s, when the first stage of the import-substitution policy was implemented. These changes, however, were continued in the 1960s and 1970s, when only slight modifications occurred in the shares of the different sectors in GDP. Manufacturing has kept on improving its contribution, though at a much slower pace. The contribution of agriculture has remained constant or even slightly increasing. The following data are only rough indicators of trends since they are drawn from different sources and show a number of discrepancies. The share of agriculture (including fishing and forestries) in net domestic product was 36.4 per cent in 1950. It decreased to 31.6 per cent in 1960 and then increased again to 32 per cent in 1965, 33.1 per cent in 1970 and 35.7 per cent in 1976. The share of manufacturing in NDP was 13.2 per cent in 1950, rose to 18.9 per cent in 1960, kept more or less constant until the end of the 1960s, rose to 20.9 per cent in 1970 and again to 30.2 per cent in 1976.<sup>2/</sup> Measured at constant 1972 prices the shares of agriculture and manufacturing in NDP in 1977 were 30.2 per cent and 28.7 per cent respectively.

Table 5 and 6 show the composition of gross domestic product since 1970 for all sectors. The overall increase of the industrial sector appears to be

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<sup>1/</sup> Source: World Bank, op.cit.

<sup>2/</sup> The contribution of the sectors from 1970 onwards is calculated at market prices, whereas for the previous years it is at factor cost. This has the effect of overvaluing the share of manufacturing and undervaluing the one of agriculture in the last few years. Consequently, the growing share of agriculture is even more striking, whereas the increase in the share of industry is likely to be slightly boosted. The trend seems, however, to be correct, as it also emerges from Table 4, where the shares are calculated over gross domestic product. The sources of data are: J.H. Power and G.P. Sicat, The Philippines, Industrialization and Trade Policies, Oxford University Press, 1971, World Bank, op.cit.; NEDA (National Economic Development Authority) estimates, as reported by The Philippines, Country Economic Memorandum, World Bank, 1977.

Table 5. GDP by Industrial Origin, GNP, and NNP at Current Prices  
(in billion pesos)

	1970	1971	1972	1973	1974 <sup>f/</sup>	1975 <sup>r/</sup>	1976 <sup>p/</sup>
Agriculture, fishery & forestry	11.8	14.8	16.0	21.1	29.4	33.0	38.4
Industrial sector							
Mining & quarrying	1.2	1.2	1.3	2.4	3.1	2.0	1.8
Manufacturing	9.6	11.4	13.4	17.7	24.6	28.5	32.5
Construction	1.5	1.8	2.2	2.7	4.7	7.1	9.4
Electricity, gas & water	0.3	0.4	0.5	0.6	0.9	1.1	1.2
Total industry	12.6	14.8	17.4	23.4	33.3	38.7	44.9
Service sector							
Transport, communi- cation & storage	1.8	2.2	2.4	2.9	3.7	4.8	5.6
Commerce	10.5	11.6	12.7	15.8	22.4	25.4	28.7
Other services	5.8	6.8	7.5	8.6	10.3	12.3	14.9
Total services	18.1	20.6	22.6	27.3	36.9	43.0	49.2
GDP at market prices	42.5	50.2	56.0	71.8	99.6	114.7	132.5
Net factor income from the rest of the world	-0.7	-0.5	-0.5	-0.2	0.3	-0.3	-1.2
GNP at market prices	41.8	49.7	55.5	71.6	99.9	114.4	131.3
Indirect taxes less subsidies	3.2	4.0	4.4	6.4	10.4	11.8	12.2
Capital consumption allowance	3.7	4.7	5.3	6.5	8.5	11.1	12.9
Net national product	34.9	41.0	45.8	58.7	81.0	91.5	106.2

Source: National Accounts Staff, NEDA, op.cit.

f/ final

r/ revised

p/ preliminary

Table 6. Per cent distribution of GDP by industrial origin.  
at current prices

	1970	1971	1972	1973	1974 <sup>f/</sup>	1975 <sup>r/</sup>	1976 <sup>p/</sup>
Agriculture, fishery, & forestry	27.8	29.5	28.6	29.4	29.5	28.8	29.0
Industrial sector							
Mining and quarrying	2.8	2.4	2.4	3.4	3.1	1.8	1.4
Manufacturing	22.6	22.8	23.9	24.7	24.7	24.9	24.6
Construction	3.6	3.6	4.0	3.8	4.7	6.2	7.1
Electricity, gas and water	0.7	0.7	0.8	0.8	0.9	0.9	0.9
Total industry	29.6	29.4	31.1	32.7	33.5	33.7	33.9
Service sector							
Transportation, communication & storage	4.2	4.3	4.3	4.1	3.7	4.2	4.2
Commerce	24.8	23.2	22.6	22.0	22.5	22.2	21.6
Other services	13.6	13.5	13.4	11.9	10.8	11.2	11.2
Total services	42.6	41.1	40.3	38.0	37.0	37.5	37.1
GDP at market prices	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Accounts Staff, NEDA, op.cit.

f/ final

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p/ preliminary



at the expense of the service sector. The whole pattern, however, is somehow unusual as it shows that the process of structural transformation is blocked. Growth is not bringing about the expected decline in the still high share of agriculture, as far as both output and employment are concerned. This in turn has slowed down the overall rate of growth, since productivity in agriculture is one-fourth of that in the industrial sector.

#### The external sector

The Philippine economy is a relatively open one. Exports are equal to about 22 per cent and imports to 26 per cent of GNP. The performance of the external sector and the related foreign exchange problems have been one of the main determinants of the industrialization policy of the country and in the last few years the wide fluctuations in the prices of its main traditional exports have posed major problems for the management of the economy.

The balance of trade had recorded a limited annual deficit until the end of the 1960s with exports growing an average of 6 per cent per year in value. Imports, which grew slowly until decontrol, increased at a higher rate thereafter (on average of 8 per cent per year in value). The trend towards a growing merchandise trade deficit has been reversed by two devaluations of the currency, but in both cases with short-term effects. Transfer payments (which include a significant volume of remittances of migrant workers) and inflows of foreign capital have partly compensated for the deficit. The long-term capital inflow, however, also decreased in the 1960s, corresponding to a diminishing share of imports, and after the first stage of import substitution was completed, the country became less attractive to foreign investors.

The situation has been partly modified in the last few years. The current account was roughly in balance during 1970-1972 and had a considerable surplus in 1973 due to the improvement in commodity prices (see Table 7). Prices, however, and particularly sugar prices, dropped in subsequent years, whereas imports of oil and capital goods kept on growing as a result of the investment boom in 1974-75 and subsequently at an average annual rate of 8 per cent. Although non-traditional exports rose impressively (by 65 per cent in 1976 and by 30 per cent in 1977) the balance of trade is again in a growing structural deficit which can be expected to continue given the composition

Table 7. Balance of payments  
(Million US dollars)

	1960	1965	1970	1973	1974	1975	1976	1977
<u>Merchandise Trade</u>	-29	-24	-7	274	-449	-1,196	-1,117	-839
Exports f.o.b.	575	784	1,083	1,871	2,694	2,263	2,516	3,075
Imports f.o.b.	604	808	1,090	1,597	3,143	3,459	3,633	3,914
<u>Services</u>	-115	62	-141	-	-32	-46	-256	-251
Private transfers	80	73	93	169	201	252	237	241
Official transfers	60	26	26	77	75	66	32	20
<u>Current Account</u>	-4	137	-29	520	-205	-924	-1,107	-829
Director investment	29	-10	-28	64	28	125	144	213
Other long-term capital	36	50	131	71	144	359	1,039	656
Short-term capital	-1	-117	76	74	231	102	-96	120
<u>Capital Account</u>	64	-77	179	209	403	586	1,087	989
Errors and omissions	-33	-113	-146	-65	-88	-183	-140	-186
Allocation of SDRs	-	-	19	-	-	-	-	-
Overall balance	27	-53	23	664	110	-521	-160	-26

Source: Central Bank of the Philippines, IMF International Financial Statistics

of imports. Net long-term capital inflows and investment have, however, increased substantially, almost covering the current account deficit, and they will have to continue at the same order of magnitude in order to maintain the present import capacity of the country. The World Bank estimates that a net inflow of at least \$1 billion per year will be necessary.

The efforts to modify the composition of exports have been to some extent successful (see Table 8). The two main traditional exports, i.e. coconut, sugar and their products, still account for 40 per cent of the total, but their share is decreasing over time. Agricultural production for export has been slightly diversified with the introduction of new products (mainly fruit, vegetables and marine products). The most dramatic change has, however, occurred in manufactured exports which were negligible in the 1960s and increased by 800 per cent from 1970 to 1976. They are mostly non-traditional products, i.e. garments, handicraft products and electronic and electrical components. The destination of exports has also been diversified. The traditional export partner, the USA, which accounted for 50.7 per cent of the Philippine exports in 1960, decreased its share to 35.9 per cent in 1976, Japan has become an important partner receiving on average in the 1970s 34-35 per cent of Philippine exports (the figure for 1976 was, however, lower—24 per cent). The concentration on these two countries is very high. Other importers of the Philippine goods are European countries (approximately 15 per cent), Australia, China and Hong Kong. Trade with other developing countries is almost non-existent.

The composition of imports reflects the import substitution policy and the increasing reliance on foreign investment goods and industrial raw materials, as shown in Table 9. The share of consumer goods has been constantly declining, the share of capital goods dramatically increased during the import-substitution period. The increase in the share of raw materials and intermediate goods in the 1970s is due to two factors: one is the increase in oil prices (petroleum accounts for 18.7 per cent of total imports); the other factor is the growth of export-oriented industries which often perform only a stage of the productive process and are consequently dependent on import of semi-processed goods. Thus the present export-oriented industrialization policy does not seem to reduce import dependence on manufactured and semi-manufactured goods. It only somewhat modifies their internal composition.

Table 8. Percentage composition of exports by major commodity groups  
(At current prices)

	1960	1965	1970	1974	1975	1976
Coconut products	32.0	35.1	19.7	22.6	20.6	21.5
Sugar and products	25.5	19.1	18.5	28.4	27.3	18.1
Forest products	18.2	25.4	27.8	12.4	11.1	12.3
Mineral products	10.9	10.0	21.1	19.3	16.0	17.1
Fruit and vegetables	1.8	1.9	3.2	3.4	5.5	5.6
Other raw material industries	9.3	5.5	3.0	2.4	2.5	2.2
Manufactures	2.3	2.7	6.4	11.4	18.2	25.2
(of which non-traditional)					(16.5)	(21.7)
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Central Bank of the Philippines.

Table 9. Percentage composition of imports by end-use  
(At current prices)

	1951-53	1960	1970	1975	1976	1977 <sup>a/</sup>
Consumer goods	23.2	16.5	12.0	10.8	9.4	10.5
Raw materials and intermediate	67.6	46.5	50.0	55.9	59.5	63.0
Capital goods	9.1	36.9	38.0	33.2	31.0	24.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Central Bank of the Philippines; National Census and Statistics Office.

a/ Estimate.

The origin of imports is again predominantly USA and Japan (together they account for 49 per cent of the total), with a decreasing share of the USA over time. Saudi Arabia and Kuwait account for approximately 15 per cent and the rest comes from Europe. As in the case of exports, trade with non-oil-producing developing countries is non-existent.

The behaviour of the external terms of trade has very much affected import capacity of the Philippine economy. After having experienced a modest secular decline of about 2 per cent a year during the 1950s and little change in the 1960s, the net barter terms of trade went through significant fluctuations in the 1970s. They declined about 20 per cent in 1970-72, recovered in 1973 and 1974 and dropped again by 25 per cent in 1975 and by another 11 per cent in 1976. The increase in export quantity has to a certain extent compensated for the change in relative prices so that income terms of trade have deteriorated less than net terms of trade. Such compensation cannot, however, be expected to continue, since sugar - the main foreign exchange earner - is subject to a quota under the International Sugar Agreement. Thus the diversification of exports will have to be speeded up, to provide a better cushion for possible future fluctuations of commodity prices.

#### Evolution of Philippine economic policy

The Spanish colonization lasting almost four centuries did not substantially change the Philippine economy. USA administration, on the other hand, had a stronger and longer-lasting influence. The economy experienced high rates of growth. The country entered into international trade and the economy was transformed into a source of cheap raw materials. In 1946 the Philippines became an independent Republic.

As in many other developing countries the import-substitution policy started, not so much as a deliberate pattern of industrialization, but rather as a by-product of policies aimed at redressing balance of payment disequilibria. Import controls were adopted in 1949, and in 1950, following a foreign exchange crisis, they were accompanied by the adoption of foreign exchange controls. These policies favoured imports of capital and intermediate goods. The result was high protection for consumer goods industries which were extensively created in this period. They produced only for the internal market and relied on imports of intermediate and capital goods.

Manufacturing output increased at high rates in the first half of the 1950s. Subsequently, the scope for import substitution decreased, and the manufacturing sector became more diversified. The process of industrial growth, however, had all the negative aspects usually related to an import-substitution type of industrialization, i.e. high import dependence, low efficiency and quality and consequent inability to break into the export market, bias in favour of capital-intensive techniques and relatively low labour absorption. Exports of primary and semi-processed goods grew throughout the 1950s, but their growth decelerated in the second half of the decade. Primary exports were supposedly negatively affected by the overvalued exchange rate. By the beginning of the 60s the policy of import substitution had reached its limit and the foreign exchange reserves of the country had dropped to a very low level, requiring a change in policy and a re-determination of the exchange rate.

In 1962, exchange controls were abolished and the peso was devalued partly to redress the balance of payments. These efforts, however, did not mark a clear change in industrialization policy. The system of exchange controls was substituted by a tariff structure which had the same protective effects. Consumption goods were protected by very high rates, while intermediate goods had substantially less protection, and most capital goods and raw materials had virtually none at all. No incentive was offered either to create backward integration by developing a capital goods sector, or to expand manufacturing production for export. Traditional exports rose sharply although the export response lasted only until 1966. In manufacturing, the decline in the rate of growth of manufacturing output continued. Some manufactured exports had a remarkable increase after 1962, but these were mostly the traditional ones (coconut oil, plywood products and canned pineapples) and the overall effect on the balance of trade was irrelevant.

Faced with a continuous deterioration of the balance of trade, the Government tried towards the end of the 1960s to introduce some policy changes and give more incentives to exports. The Investment Incentives Act, passed in 1967, is primarily intended to provide tax exemptions and other incentives (such as anti-dumping protection and protection from government competition) to registered enterprises ("engaged in a preferred area of investment") and

enterprises registered in pioneer activities (i.e. engaged in the manufacture of goods not previously produced or using new techniques). It also guarantees investment repatriation and remittance of earnings aimed at attracting foreign firms. Some additional incentives, in the form of tax credits and deduction of shipping costs, are provided for enterprises exporting their finished products. The Export Incentives Act, introduced in 1970, provides additional tax exemptions and tax credits to firms that export at least 50 per cent of their output and which may undergo an export-oriented expansion or can create new production facilities in sectors with export potential.<sup>1/</sup>

Faced with another foreign exchange crisis, the Government devalued the peso by 40 per cent in 1970 and let it float subsequently. In order to further induce exports, tariffs were realigned in 1972. Moreover, an Export Processing Zone was established in Bataan and American investment increased substantially. Thus, the industrialization policy has shifted progressively from import substitution to export promotion and in fact the export sector was the most dynamic one in the 1970s. The Philippines has become one of the countries where "footlose" industries, i.e. foreign investment for export, have preferably located in the last few years. However, the overall economy has not benefited very much and economic difficulties continue.

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<sup>1/</sup> The activities entitled to receive incentives are listed in the Export Priorities Plan.

Chapter II

STRUCTURE OF THE MANUFACTURING SECTOR

Growth and composition of the manufacturing sector

Industrialization in the Philippines dates back to a relatively early period. The manufacturing sector developed rapidly since independence in 1946 up to the mid 1950s, as a result of the Government's import substitution policy; it subsequently went through a period of slow growth up to the beginning of the 1970s. The exceptional conditions of the economy in 1972 and 1973 induced higher investment and growth rates in manufacturing. The growth rates, however, fell sharply after the 1974 recession and have had only a limited recovery in the last few years. The growth rate of gross value added at constant prices in manufacturing, which had reached 13.9 per cent in 1973, was 4.8 per cent in 1974, 3.5 per cent in 1975, 5.8 per cent in 1976, 7.5 per cent in 1977 and 6.6 per cent in 1978.

The manufacturing sector is now the second largest sector in the Philippine economy, accounting for 24.7 per cent of GDP, about 30 per cent of fixed investment and 10.4 per cent of total employment (1977). Cross-country comparisons<sup>1/</sup> show that, given the country's size and income level, the Philippine manufacturing sector as a whole is relatively larger (measured as percentage of GNP) than one would expect, while its service sector is relatively smaller. Within the manufacturing sector this seems to be mainly the result of the relatively large size of resource based industries (food and wood). On the other hand, the textiles, clothing and metal industries appear to be considerably smaller than expected from international comparisons.

As previously noted, the contribution of manufacturing to GDP has only marginally increased in the last few years and since 1974 its growth rate has lagged behind the overall growth of the economy. The role of manufacturing as the dynamic sector of the economy, which was prominent in the 1950s, appears to have terminated with the first stage of the import substitution policy, and in 1977 the sector absorbed a lower share of total employment than it did in the mid 1950s.

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<sup>1/</sup> Hollis B. Chenery and Moises Syrquin, Patterns of Development, 1950-70, New York (Oxford University Press), 1975.



The sectoral composition of value added in manufacturing is shown in Table 10. More than half of manufacturing production is accounted for by consumer goods, and the share of durable and capital goods is still quite low. Moreover, the present structure of industry is not substantially different from that of the mid 1950s.<sup>1/</sup> As far as the last seven years are concerned, intermediate goods slightly increased their share in total value added initially at the expense of consumer goods, but this trend was subsequently reversed and no substantial change is discernible at the end of the period.

Within the major groupings, however, some sectors have been more dynamic. This is particularly the case with chemical and rubber products (with a 16.3 compound annual growth rate), beverages and tobacco (+9.2 per cent p.a.), transport equipment (+9.2 per cent p.a.), printing and publishing and paper (both around 7 per cent p.a.).<sup>2/</sup>

All these sectors mainly produce for the domestic market. Although exports of non-traditional manufactures have enormously increased in these same years, their impact upon the composition of industrial output has been very limited (non-traditional exports are included in the textiles-apparel and electrical machinery sectors, which have both experienced a below-average rate of growth) and traditional manufactured exports such as wood products have proved very vulnerable to slackening of demand in export markets. The largest single sector remains food processing, although its share is slightly decreasing overtime; it produces both for the internal market and for export.

All in all, it appears that a backward shift of import substitution from the consumer to the capital goods sector has never occurred. A coherent policy in this direction has actually never been engineered, although the Government attempted a shift to secondary import substitution in the early

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<sup>1/</sup> See World Bank, The Philippines, op.cit., ch.8. Year-to-year comparisons for longer time periods are difficult to make because of differences in the coverage and methodology. As far as previous years are concerned, anyway, the distribution between consumer, intermediate and capital goods has shown some changes over limited time periods to go back to the original shares in the longer run. In particular the contribution of the consumer goods sector declined until the end of the 1960s and then increased again between 1968 and 1972. The intermediate goods sector followed the opposite trend, whereas the capital goods sector maintained its share at a fairly constant level.

<sup>2/</sup> The compound annual growth rate for total manufacturing value added has been 6.8 per cent.

Table 10. Sectoral composition of manufacturing value added  
(value added in million pesos at constant 1972 prices)

	1970		1973		1976		1977	
	VA	%	VA	%	VA	%	VA	%
<u>Consumer goods</u>	6,379	53.9	7,669	50.3	9,184	52.6	9,619	51.2
Food	3,552	30.0	3,871	25.4	4,558	26.1	4,814	25.6
Beverage tobacco	1,393	11.8	2,049	13.4	2,415	13.8	2,587	13.8
Textiles, apparel, leather	1,172	9.9	1,410	9.3	1,756	10.1	1,794	9.5
Printing publishing	262	2.2	339	2.2	455	2.6	424	2.3
<u>Intermediate goods</u>	4,159	35.2	6,174	40.4	6,557	37.5	7,325	39.0
Paper and products	341	2.9	420	2.8	538	3.1	547	2.9
Wood and cork products	497	4.2	627	4.1	558	3.2	714	3.8
Chemicals and rubber products	1,096	9.3	2,232	14.6	2,697	15.4	3,157	16.8
Petroleum	858	7.3	1,358	8.9	1,134	6.5	1,069	5.7
Non-metallic mineral products	394	3.2	597	3.9	613	3.5	626	3.3
Basic metals and metal products	872	7.3	940	6.1	1,020	5.8	1,212	6.5
<u>Durable and capital goods</u>	1,029	8.7	1,143	7.6	1,443	8.2	1,567	8.3
Machinery	532	4.5	582	3.9	589	3.3	544	3.4
Transport equipment	497	4.2	561	3.7	854	4.9	923	4.9
Miscellaneous	256	2.2	266	1.7	297	1.7	282	1.5
<b>Total</b>	<b>11,823</b>	<b>100.0</b>	<b>15,252</b>	<b>100.0</b>	<b>17,501</b>	<b>100.0</b>	<b>18,793</b>	<b>100.0</b>

Source: World Bank, Philippines Staff Appraisal Report on the Second Small and Medium Industries Development Project. Report No 2417-PH, May 18, 1979, p.2.

1960s, since currency devaluations and lifting of exchange controls have not been accompanied by a modification of the tariff structure aimed at favouring the domestic production of capital goods.

Manufacturing employment

Employment creation in manufacturing has been slow and insufficient to meet the growing urban labour supply. The manufacturing sector provided around 1,7 million jobs in 1976 or slightly more than 10 per cent of national employment. Employment in organized (factory) manufacturing has tended to rise more than three times as fast as the unorganized (cottage industry) sector. The most labour-intensive sector, the cottage industries, have remained the most predominant employment source, but in terms of employment growth they have lagged behind the more capital intensive medium- and large-scale industries (Table 11). The following analysis is limited to the organized sector since data on cottage industries is scarce.

Table 11. Rates of employment growth in Phillipine manufactuirng, 1956-1976

Size (employment)	Employment				Annual growth 1956-76 (per-centage)	Incremental growth 1956-76 (percentage)
	1956		1976			
	'000	Per-centage	'000	Per-centage		
<u>Organized (factory)</u>						
5-19	55	5.7	80	4.8	1.9	3.5
20+	151	15.7	550	32.7	6.7	55.6
Subtotal	(206)	(21.4)	(630)	(37.5)	(5.8)	(59.1)
<u>Unorganized (cottage industries)</u>						
1-4	756	78.6	1,050	62.5	1.7	40.9
<u>Total</u>	<u>962</u>	<u>100.0</u>	<u>1,680</u>	<u>100.0</u>	<u>2.8</u>	<u>100.0</u>

Source: NEDA

The rate of growth of employment in the organized sector was particularly low in the 1960s, whereas a slightly more dynamic trend emerged in the 1970s.

As far as the distribution of employment is concerned (Table 12), more than half is in the consumer goods sector (and the share would probably be much higher if unorganized manufacturing were also considered), and only 9 per cent is in the durable and capital goods sector. The intermediate goods sector, which has experienced in the last few years the highest rate of growth of value added, shows a diminishing contribution to labour absorption due to the fact that the most dynamic sectors are the capital-intensive ones (primarily chemicals). Among the non-traditional export sectors, electrical machinery is increasing its employment at a higher-than-average rate. Within the consumer goods sector, food processing contributes more to value added than to employment, showing a generally higher productivity than the other traditional industries. The most labour-absorbing industry is textiles apparel and leather, which gives a much higher contribution to employment than to value added, although its increase in employment is not matched by an equivalent growth of value added and consequently seems to indicate a fairly low efficiency. Besides the latter group of industries, employment prospects do not appear very encouraging: the low labour absorption in previous years has been generally attributed to distortions brought about by the import substitution policy, namely the relatively low cost of imported capital goods and low interest rates which induced capital-intensive investment. The recent expansion of the intermediate goods sector, however, has had the effect of increasing the degree of capital-intensiveness of the economy, and the growth of the non-traditional export sectors seems to be having a limited impact on job creation, at least as far as organized manufacturing is concerned. Further, the most labour-intensive sector, the cottage industries, has steadily lagged behind in employment growth.

Concomitant with the growth of labour-intensive non-traditional manufactured exports after 1970, however, labour absorption of Philippine manufacturing sector has improved and an increasing proportion of industry became labour-intensive. The employment elasticity during the period 1970-1977 in non-traditional export manufactures was 1.0 as against 0.6 for processed primary exports and 0.32 for industries producing for the home market. Consequently, exports of non-traditional manufactures accounted for more than 30 per cent of manufacturing employment creation during 1970-1977 while accounting for less than 8 per cent of manufacturing investment.<sup>1/</sup>

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1/ Source: Barend A. de Vries: Transition toward More Rapid and Labour-intensive Industrial Development, The Case of the Philippines (Draft dated 15 October 1979, forthcoming in UNIDO Industry and Development).

Table 12. Distribution of employment by sector  
(Establishment with 5 or more persons engaged)

	1960 <sup>a/</sup>		1965		1970		1973		1974	
	Percentage share	Persons	Percentage share	Persons	Percentage share	Persons	Percentage share	Persons	Percentage share	
<b>Consumer goods</b>										
311 Food products	18.1	65,300	20.8	79,400	20.4	111,000	21.3	105,000	20.4	
313 Beverages	4.0	12,100	3.9	15,100	3.9	17,700	3.4	18,800	3.7	
314 Tobacco	5.8	13,800	4.4	22,600	5.8	22,300	4.3	22,000	4.3	
321 Textiles	10.7	33,700	10.8	52,300	13.5	84,400	16.2	86,400	16.8	
322 - 324 Apparel and footwear	13.1	25,600	8.2	29,700	7.6	35,800	6.8	36,100	7.0	
323 Leather and products	0.7	2,100	0.7	1,700	0.4	2,100	0.4	2,200	0.4	
342 Printing and publishing	5.3	14,400	4.6	15,500	4.0	16,200	3.1	14,300	2.8	
Total	57.7	167,000	53.4	216,300	55.6	283,500	55.5	284,800	55.4	
<b>Intermediate goods</b>										
341 Paper and products	2.0	6,400	2.0	8,800	2.3	12,000	2.3	12,100	2.4	
331 Wood products	8.5	32,500	10.4	38,400	9.9	46,900	9.0	41,900	8.1	
332 Furniture and fixtures	2.5	7,400	2.4	6,400	1.6	10,000	1.9	10,600	2.1	
351 - 52 Chemicals	5.5	19,500	6.2	22,700	5.8	28,300	5.4	28,800	5.6	
353 - 54 Petroleum and coal products	0.3	1,100	0.4	1,500	0.4	1,200	0.2	1,300	0.2	
355 Rubber products	2.2	6,700	2.1	8,600	2.2	12,700	2.4	12,900	2.5	
361-362-369 Non-metal products	3.5	13,300	4.2	18,000	4.6	26,900	5.1	25,000	4.8	
371-372-381 Metal industries	7.8	22,500	7.2	26,900	6.9	36,800	7.1	33,600	6.5	
Total	32.3	109,400	34.9	131,300	33.7	174,800	33.4	166,200	32.2	
<b>Durable and capital goods</b>										
382 Machinery	1.7	3,900	1.2	6,500	1.7	10,900	2.1	11,800	2.3	
383 Electrical machinery	3.3	13,900	4.4	13,300	3.4	17,200	3.3	19,300	3.7	
384 Transport equipment	3.2	12,500	4.0	12,700	3.3	13,800	2.6	15,200	3.0	
Total	8.2	30,300	9.6	32,500	8.4	41,900	8.0	46,300	9.0	
356-385-390 Other industries	1.0	6,600	2.1	8,900	2.3	15,900	3.1	17,500	3.4	
TOTAL	100.0	313,300	100.0	389,000	100.0	522,100	100.0	514,800	100.0	

Source: For 1960, World Bank, *The Philippines, Priorities and Prospects for Development*, op.cit., p.192.  
For the other years, UNIDO computer print-out.

<sup>a/</sup> Absolute figures not available for 1960.

Size distribution of manufacturing enterprises

The Philippine manufacturing structure is highly dualistic. It is characterized by a few large-scale firms, accounting for a very high share of value added and "organized" employment, and by a large number of small units, besides the cottage industries. The latter do not contribute much to value added but are considered very important for "unorganized" employment generation. The official classification is based on fixed assets and defines small industries as those with assets of pesos 100,000 to pesos 1.0 million, medium industries as those with assets between 1.0 and 4.0 million pesos, and large industries as those with assets over 4.0 million pesos. A classification more commonly used, and which will be employed here, is based on the number of workers, respectively 20-99 for the small ones, 100-199 for the medium ones, and over 200 for the large ones: it has been found to correspond fairly well with the official classification. Small-scale industries accounted in 1975 for 93.6 per cent of all establishments, but only for 12.0 per cent of value added (1974) and 30.2 per cent of employment (Table 13). On the other hand, large-scale units are only 3.6 per cent of the total, but account for almost 60 per cent of employment and 78 per cent of value added.

By sector, small- and medium-sized units are more extensively present in the consumer goods sector (up to the maximum of leather products, where they represent the whole branch) but they are fairly important also in the intermediate and capital goods sectors (see Table 14, which, however, covers only the "modern" manufacturing sector, i.e. the establishments with more than 20 employees). In the long term, the large-scale sector has been constantly growing both in terms of employment and particularly in terms of value added, whereas the medium- and small-scale ones have showed an erratic trend contributing less and less to value added and, in the case of the small-scale industries, also to employment.

Some indicators of factor intensity by size are shown in Table 15. Here again, small-scale refers only to the modern sector, i.e. units with more than 20 employees. The capital : labour ratio is, not surprisingly, much higher in large share in small units, and labour productivity appears correlated to capital intensity. Labour productivity, however, has increased much faster in large-scale units, and the productivity differential between large and small ones has gone up from 1.78 in 1971 to 2.30 in 1974. On the other hand, large-scale firms have considerably increased

**Table 13. Number of manufacturing establishments, employment and value added by size**

	Establishments				Employment				Value Added (million pesos)					
	1961 Number	1961 Percentage share	1973 Number	1973 Percentage share	1961 Number(000)	1961 Percentage share	1974 Number(000)	1974 Percentage share	1961 Value added	1961 Percentage share	1974 Value added	1974 Percentage share	1974 Value added	1974 Percentage share
Small-scale industries (1-99 workers)	9,400	93.4	11,900	94.2	15,900	93.6	130.6	35.2	131.1	32.5	160.8	30.2	792	17.7
Medium-scale industries (100-199 workers)	218	2.7	306	2.4	467	2.8	38.4	9.7	37.7	9.3	54.2	10.2	527	11.7
Large-scale industries (200 and above)	304	3.0	429	3.4	604	3.6	217.3	55.1	235.2	58.2	317.0	59.6	3,111	70.6
TOTAL manufacturing	10,922	100.0	12,635	100.0	16,971	100.0	394.3	100.0	403.9	100.0	532.0	100.0	4,491	100.0
Annual growth rate <sup>2/</sup>								Percentage						
ESI														15.6
XSI														20.0
LSI														25.7
TOTAL														23.1

SOURCE: Lorna S. Crasco, Profile of Philippine Small- and Medium-scale Industries, Small Industry Journal Vol. 10, 4.3, July-September 1971, p. 14.

2. Percentage share for the period 1962-1974.

their capital efficiency, which was the lowest in 1971. Also the small-scale ones seem to use their capital more efficiently, which might indicate that they have tended to develop in more suitable areas. Average annual wages have increased at a higher rate in large-scale units (+42 per cent from 1970 to 1974) but the wage differential between these and the small-scale one is lower than productivity differential. Wages in medium-scale units have increased at a lower rate but they are still higher than the average of the manufacturing sector (4.7 thousand pesos per year as opposed

Table 14. Shares of SMI in modern manufacturing employment and value added by major product groups, 1968-75 a/

	Employment			Value Added		
	1968	1971	1975	1968	1971	1975
<u>Consumer Goods</u>	<u>27</u>	<u>20</u>	<u>22</u>	<u>17</u>	<u>12</u>	<u>35</u>
Food	25	17	27	16	9	13
Beverages	17	13	4	12	9	7
Tobacco	10	8	7	2	2	2
Textiles	10	11	19	10	12	25
Footwear and apparel	55	39	29	54	35	31
Furniture	73	67	76	77	60	78
Printing	56	54	85	41	44	41
Leather	100	100	100	100	100	100
<u>Intermediate Goods</u>	<u>39</u>	<u>35</u>	<u>38</u>	<u>34</u>	<u>32</u>	<u>27</u>
Wood and cork	35	24	34	36	25	35
Paper	50	44	36	45	46	51
Rubber	27	33	46	16	19	18
Chemicals	41	42	32	34	36	25
Petroleum and coal	30	37	17	20	34	9
Nonmetallic minerals	26	15	31	16	7	12
Basic metals	42	35	43	35	30	25
Metal products	41	48	49	42	40	46
Miscellaneous	91	77	44	91	84	40
<u>Capital Goods</u>	<u>49</u>	<u>39</u>	<u>35</u>	<u>36</u>	<u>26</u>	<u>18</u>
Machinery	80	72	34	76	54	16
Electrical machinery	43	34	30	36	23	15
Transport equipment	45	35	42	37	24	25

Source: World Bank, Philippines, Staff Appraisal Report , op.cit., p.10.

a/ Where data available are only partially broken down by size of establishments for reasons of confidentiality, estimates have been made.



to 4.5 thousand).<sup>1/</sup> Thus there is a clear productivity advantage for large-scale capital intensive firms, while the medium-scale ones show the worst performance in terms of efficiency of capital and are presumably affected by relatively high wages. The small-scale ones have been successful in some sectors in which they managed to attain a higher growth rate of value added than the average of the sector (metal products, beverages, clothing and footwear, leather products), they have improved their capital productivity and can compensate by much lower wages for the differential in labour productivity. They have, however, a diminishing importance in the manufacturing sector also as far as labour absorption is concerned.

The Government is taking active steps to foster the development of the small-scale sector, in order to counteract the increasing degree of capital intensiveness of the industrial sector as a whole and to ease the employment problem. A Commission on Small and Medium Industries was created in 1974 in the Ministry of Industry with the aim of promoting and assisting the small-scale sector. The measures undertaken are described in the chapter on industrial infrastructure; it is, however, not possible to assess the impact of such measures because of the lack of data for the last four years.

Table 15. Factor intensity and productivity by size  
in 1971 and 1974

Scale	Capital/Labour		Output/Capital Ratio		Output/Labour Ratio	
	1971 (P 000)	1974 (worker)	1971	1974	1971 (P 000)	1974 (worker)
Small	11.4	11.8	1.1	1.4	12.3	16.6
Medium	14.5	19.8	1.4	1.4	19.6	28.6
Large	22.3	26.2	1.0	1.5	22.0	38.2
All firms	19.6	22.7	1.0	1.5	20.2	33.0

Source: World Bank, Philippines, Appraisal of a Small and Medium Industries Development Project, April 18, 1975, p.10.

<sup>1/</sup> L.C. Cenyon, Profile of Philippine Small- and Medium-scale Industries, op. cit., Table 7.

Location of manufacturing

Manufacturing enterprises are heavily concentrated in metropolitan Manila and in the adjoining provinces of Central and Southern Luzon. This concentration dates back to the 1950s, and, in spite of various measures adopted in order to induce geographical dispersion, including a ban on the establishment of new non-export oriented plants within 50 kilometres of metropolitan Manila, it does not appear to have decreased to any significant extent. Metropolitan Manila in 1975 accounted for 52 per cent of all manufacturing establishments employing more than 10 workers, 51 per cent of total industrial employment, 59 per cent of gross value added and 38 per cent of total fixed assets. If the adjoining provinces are also included, these percentages would rise by a further 20 - 30 per cent. The concentration is even higher for small- and medium-scale industries which have a lower degree of vertical integration. They tend to locate close to sources of raw materials, spare parts and markets. Metropolitan Manila alone accounted in 1975 for 63 per cent of all small and medium industries.

Geographical concentration is considered a serious problem. It distorts the pattern of urban growth. It also creates a large excess capacity mainly in resource-based industries. Further, neither linkages nor multiplier effects are generated in the peripheral areas. On the other hand the incentives offered by the Government to induce geographical dispersion, basically fiscal and credit incentives, have scarcely proved effective because of lack of infrastructures, non-availability of qualified labour and in general lack of external economies in the less developed areas.

An attempt to generate external economies in some selected areas and to induce a set of export-oriented investment is being done through the creation of export processing zones. As in other developing countries, the prime aim of export processing zones is to attract foreign investment and foster labour-intensive production for export. However, they have also some effects on industrial relocation and geographical decentralization insofar as they allow the country to concentrate the provision of infrastructures on certain specific areas.

The only export processing zone to date in operation is the Bataan Export Processing Zone in Mariveles, planned in 1969 but actually set up in 1972. Two additional zones are planned in the Southern Philippines.

One is planned on Mactan Island in the Visayas close to Cebu city. A feasibility study has already been done. The processing zone is expected to be completed by the early 1980s. The other zone is planned in Mindanao, which also has port facilities and an abundant supply of low-cost labour. In the long run, the Government is considering the establishment of 16 export processing zones throughout the country. The Bataan Export Processing Zone is considered extremely successful. It started in 1972 with an initial capitalization of 200 million pesos, which was doubled in 1976 to 400 million and is now 750 million. It is divided into three phases, of which one is for the development of light industries, the second for medium industries and third one for heavy industry. It offers standard factory buildings for lease, industrial and social infrastructures, besides tax and foreign exchange benefits, and maintains a manpower register in order to guarantee a readily available and adequate supply of labour. The inflow of firms has proceeded at a high speed: in 1973-74 there were less than 10 establishments, in 1978 there were 46 manufacturing firms in operation and three others in the process of setting up, plus nine Filipino service firms including a warehousing company, banks, accounting and auditing firms. The investment totals more than US\$200 million.<sup>1/</sup>

Nearly half of the manufacturing firms are joint ventures between Filipinos and foreign investors, and a number of wholly foreign-owned companies have also obtained approval.<sup>2/</sup> Foreign investors are from Japan, Germany, Australia, the UK, Canada, Norway, Hong Kong, Austria, the USA. The sectoral composition (Table 16) is mostly in Phase I, i.e. light industries, with textiles, garment and related products accounting for about 56 per cent of the total. Phase II was actually started even before the completion of Phase I, when the Government decided to rationalize the car manufacturing industry by allowing the assembling of motor cars under the condition that the assemblers would progressively increase the local content of the cars. Ford Motor Company decided to locate its car body stamping plant in the BEPZ. The only heavy industry is a Philippine ship-building and ship-repair company. Most of the zone's industries are thus labour intensive, enjoying the advantage of low labour costs (wages being about 12 pesos a day), a seven-day work week and a ban on strikes.

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1/ Source: Business Asia, June 23, 1978.

2/ One of the provisions of the export processing zone is in fact the acceptance of fully foreign-owned enterprises.

Table 16. Bataan Export Processing Zone - industry composition, end 1977

	Number of establishments	Percentage of total
<b>Phase I - Light Industry</b>		
Wearing apparel	20	45.46
Handicrafts	5	11.36
Electronics/electrical products	4	9.09
Light metal fabrication	1	2.27
Plastic products	2	4.55
Leather products	1	2.27
Sports products	3	6.82
Jewelry, ornaments	2	4.55
<b>Phase II - Medium Industry</b>		
Automotive	1	2.27
Metalwork	1	2.27
Woodcraft	2	4.55
Textiles	1	2.27
<b>Phase III - Heavy Industry</b>		
Shipyards	1	2.27
<b>Total</b>	<b>44</b>	<b>100.00</b>

Source: Business Asia, June 23, 1978.

Employment reached about 19,000 in 1978, 77 per cent of which are factory workers and the others are employed by the various construction and support firms within the zone.<sup>1/</sup> Labour demand is specific and concentrated on particular sectors of the workforce, since out of the total factory employment, in 1978, 71 per cent were women and mostly single women. This situation has created some labour shortages. Total employment planned in the zone when it is in full operation is 147,000, of which 41,000 will be factory workers. Indirect employment generation is calculated by using a factor of 2.6 for every direct employee and includes all the activities generated by the multiplier effect of the income produced in the zone.

Exports from the zone have performed quite well; being an export processing zone, of course, exports are almost the only outlet. The sale of zone products in the domestic market is prohibited, except where a particular commodity is not manufactured on a commercial scale in the domestic market.

<sup>1/</sup> Source: Bataan Zone, published by the Export Processing Zone Authority, August 1978.

Export receipts have gone up from US\$ 4 million in 1974 to a total of US \$11.3 million in 1975, US\$ 43.2 million in 1976, US\$ 60.1 million in the first half of 1977<sup>1/</sup> and this trend is expected to continue, in spite of uncertain export outlook on the world market.

Some problems have arisen with the increased scale of operation of the zone, namely transport bottlenecks and lack of input-producing industries. Thus the new locations for the two planned export processing zones have been chosen because of proximity to urban centres which may be partly conflicting with the aim of industrial decentralization.

#### Capital formation and capacity utilization in manufacturing

Table 17 shows gross fixed capital formation in manufacturing for the latest years for which disaggregated data are available. Towards the end of the 1960s, capital formation accelerated due to large-scale investment in heavy industry (chemicals being the largest single sector as far as investment is concerned) declined at the beginning of the 1970s and increased impressively after 1973 (in spite of the fact that 1974 was a recession year). The composition of investment by sector showed some change in this period: investment was stagnant in traditional consumer goods sectors, whereas a shift towards the durable and capital goods sector emerged clearly in the 1970s, although they still represented a minor share.

Investment in manufacturing increased by 27 per cent in 1975, continuing the trend of the two previous years. But from 1975 onwards the level of new investment declined as a consequence of the 1974 recession. This also reflected in a drop in new projects registered with the Board of Investment from 217 in 1974 to 152 in 1975 and 86 in 1976, and in a decrease in the number of newly registered business organizations from 49,367 in 1974 to 31,136 in 1975 and 30,813 in 1976. Consequently, the growth of expenditure on durable equipment fell from 27 per cent in 1975 to 5 per cent in 1976 and is not expected to have grown significantly in 1977 and 1978.

Looking at the composition of fixed assets (unfortunately only for the years 1967 and 1972, when census data are available, and only for establishments with 10 or more persons employed - Table 18), investment in machinery and equipment have increased at a much higher rate than in buildings and structures, which is a rough indicator of a capital-deepening, rather than

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<sup>1/</sup> Source: Manufacturing and Service Industries, April 30, 1978.

Table 17. Gross fixed capital formation in manufacturing and in some selected sub-sectors <sup>a/</sup>  
 (Establishments with more than 5 employees)  
 (Million pesos)

	1968	1969	1970	1971	1973	1974
Total manufacturing	669.5	822.8	1342.4	1178.9	1462.7	2133.6
Food products	192.0	128.3	255.3	309.2	388.2	370.9
Wearing apparel and footwear	1.6	10.5	8.8	10.9	11.0	9.7
Wood products	21.6	47.9	57.2	74.8	106.9	109.4
Chemicals and petroleum products	103.9	47.2	244.0	272.7	248.0	240.8
Machinery non-electrical	4.6	4.2	6.6	13.0	12.0	58.4
Electrical machinery	10.5	11.8	56.7	40.6	31.5	45.2
Transport equipment	27.8	19.2	9.7	16.2	35.5	80.2

Source: UN Yearbook of Industrial Statistics, various years.

<sup>a/</sup> 1972 has been omitted because of different coverage.

Table 18. Fixed assets of large manufacturing establishments, 1972 and 1967

(Establishments with 100 and more persons employed)

	1972		1967		Average per establishment		Per cent increase/ (decrease)
	Pl,000	Percentage distribution	Pl,000	Percentage distribution	1972	1967	
Book value	8,672,223	100.0	4,411,933	100.0	1,937	1,106	95.6
Building, structures and land improvements	1,758,902	20.3	1,252,256	28.4	393	314	40.5
Transport equipment	448,732	5.2	248,689	5.3	100	62	80.4
Machinery and other equipment	5,851,909	67.5	2,565,432	58.2	1,307	643	128.1
Others	611,725	7.0	345,553	7.8	137	87	77.0
Capital expenditures	1,887,212	100.0	902,139	100.0	422	226	118.5

Source: 1972 Census, vol.III, Manufacturing.

a capital-widening pattern of accumulating (Tables 16 + 17). The changing composition both by sector and by type of investment would somehow confirm that the manufacturing sector was becoming, at the beginning of the 1970s, increasingly capital-intensive. This is also confirmed by a recent study<sup>1/</sup> which revealed that the share of investment in industries with relatively low capital :labour ratios, remained constant between 1960-1969 and 1970-1975 while both output and employment growth accelerated sharply during 1970-1975. On the other hand, growth of output in industries with relatively higher capital:labour ratios fell considerably during 1970-1975 while their employment growth stagnated. This would suggest that recent investment was channelled into comparatively more capital-efficient production processes with lower capital : labour ratios, implying a relative production of the pronounced bias in favour of capital intensity prevailing in the two previous decades.

Table 19 shows that average capital investment per unit of labour tends to rise with the size of establishment, except in the case of the furniture industry. Small establishments are more efficient in the use of capital than larger enterprises in such industries as tobacco, textiles and wood manufacturing. While large establishments appear to be more capital efficient in the food and beverage industries, furniture, and in capital-intensive industries such as chemicals, oil and coal products and transport equipment.

Two surveys of capacity utilization have been carried out in 1972 and 1973/1974 respectively on a sample of 400 large- and medium-scale firms (with over 20 employees) and a sample of 91 export-oriented, BOI registered firms.<sup>2/</sup> The results are shown in Table 20.

The average rate of capacity utilization is quite low, showing that a considerable excess capacity had already been built up before the investment boom of 1974-1975. Industries producing for export seem to utilize their capital more efficiently in all sectors. Capital-intensive industries, which are to be found mainly in the intermediate goods sector, are also more efficient and work on more shifts than the labour-intensive ones. Capacity utilization is particularly low in the capital goods sector in those years where investment was increasing at a higher pace.

Imports of industrial inputs do not, on the other hand, seem to create any bottleneck, since there is no significant difference between import-dependent industries and industries obtaining their inputs from the domestic market.

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<sup>1/</sup> Barend A.de Vries, Transition toward more rapid and labour-intensive industrial development: The case of the Philippines. October 15, 1979 (Forthcoming in UNIDO Industry and Development).

<sup>2/</sup> The BOI approves all private sector projects which are eligible for assistance under the Investment Act and Export Incentive Act.



Table 19. MANUFACTURING: CAPITAL PER WORKER, LABOR PRODUCTIVITY AND CAPITAL EFFICIENCY IN THE FACTORY SECTOR, 1974 (AT CURRENT PRICES) /a

	<u>Capital per worker (Kb/N)</u>			<u>Labor productivity (VA/N)</u>			<u>Capital efficiency (VA/Kb)</u>		
	<u>Number of workers</u>			<u>Number of workers</u>			<u>Number of workers</u>		
	<u>5-19</u>	<u>20+</u>	<u>Total</u>	<u>5-19</u>	<u>20+</u>	<u>Total</u>	<u>5-19</u>	<u>20+</u>	<u>Total</u>
Food	5,934	30,009	24,469	4,089	55,332	43,523	0.689	1.844	1.779
Beverages	3,269	12,547	12,494	5,361	46,416	46,182	1.640	3.699	3.696
Tobacco	667	9,524	9,519	5,667	44,035	44,014	8.500	4.624	4.624
Textiles	2,227	13,493	13,157	3,847	13,965	13,661	1.727	1.035	1.038
Footwear/clothing	1,978	2,815	2,341	2,767	5,923	4,136	1.399	2.104	1.767
Wood	3,022	12,974	11,874	5,175	12,126	11,365	1.712	0.935	0.957
Furniture	4,836	3,932	4,294	4,212	8,075	6,527	0.871	2.054	1.520
Paper	7,231	57,436	57,793	10,323	46,163	45,303	0.143	0.804	0.784
Printing	4,760	12,128	11,041	6,694	20,001	18,039	1.406	1.649	1.634
Leather	4,777	6,976	6,502	4,586	8,750	7,852	0.960	1.254	1.208
Rubber	8,337	13,571	13,435	11,185	25,085	24,726	1.342	1.848	1.840
Chemicals	19,380	23,929	23,771	17,869	55,336	54,348	0.922	2.313	2.206
Oil & coal products	98,687	627,743	621,191	16,563	1,003,515	991,293	0.168	1.596	1.596
Nonmetallic products	7,084	78,751	70,314	4,602	27,820	25,097	0.650	0.353	0.357
Basic metals	7,398	24,104	23,777	9,585	33,432	33,092	1.296	1.587	1.392
Metal products	5,690	11,624	10,424	8,779	21,791	19,134	1.543	1.875	1.836
Machinery	5,658	11,911	10,933	9,089	30,357	26,926	1.606	2.549	2.463
Electrical machinery	7,832	10,101	10,036	9,154	25,040	24,639	1.169	2.479	2.455
Transport equipment	7,483	15,490	15,033	3,064	31,556	30,215	0.409	2.037	2.010
Miscellaneous	3,537	10,659	9,821	7,689	14,270	13,496	2.174	1.271	1.374
<u>Total</u> (Average)	<u>4,689</u>	<u>22,571</u>	<u>19,957</u>	<u>4,514</u>	<u>33,677</u>	<u>29,414</u>	<u>0.963</u>	<u>1.492</u>	<u>1.474</u>

/a Establishments employing at least 5 workers.

Note: VA = Value added; N = Employment; Kb = Book value of fixed assets.

Source: NCSO, Annual Survey of Establishments.

Table 20. Average capital utilization rates <sup>a/</sup>  
(Percentage)

	General industry survey (1972)	Export industry survey (1973-74)
Capital-intensive industries	43.4	55.7
Labour-intensive industries	40.5	50.4
Consumer goods industries	39.2	48.3
Intermediate goods industries	49.4	61.6
Capital goods industries	27.0	35.6
Import-dependent industries	41.9	51.8
Industries depending on local inputs	41.2	53.2
Export-oriented industries	50.8	52.7
Non-export-oriented industries	38.6	- <sup>b/</sup>
Average rate	41.6	52.7

Source: R.M. Bautista, "Industrial Capital Utilization in the Philippines" and B. Diokno, "Capital Utilization in Government 'Favour' Export-oriented Firms", Report no.74-8, Manila, University of the Philippines, 10 July 1974.

<sup>a/</sup> Capital utilization rates in this table are based on the proportion of time the plants are in operation and on the intensity of use of the equipment installed. These rates represent simple averages for the firms in the samples; the capital-weighted mean of capital utilization rates would be considerably higher (by 19 per cent in the case of the 1972 survey), reflecting better capital utilization by larger plants.

<sup>b/</sup> Not applicable.

Value added content in manufacturing

The share of value added in gross output (Table 21) is fairly high in the consumer goods sector and is generally low in the capital goods sectors with the exception of non-electrical machinery. The relatively low share of value added in gross output for sectors such as electrical machinery, transport equipment and professional goods is explained by their reliance on imports and low local content of the products. The relatively high share for many consumer goods seems to point to the existence of well-developed industries with intra-sectoral linkages. The shares are, however, generally decreasing over time, with the noticeable exception of petroleum and coal products.

Industrial wages, productivity and labour intensity

A minimum wage legislation was introduced in the Philippines as early as 1951 and was subsequently reviewed in 1970 and 1972. In 1976, the effective minimum level wage was about 11 pesos a day. The legislation is not, however, fully implemented. A survey of the wage commission in 1971-1973 found that the majority of wage earners received little more than the minimum wage and a considerable proportion earned less.

Actual wages increased slowly in the 1960s, but the rate of inflation was also very low. The situation changed in the 1970s. The rate of inflation accelerated sharply, recording the highest increase in 1974 following the international rise in oil and commodity prices. Although the externally determined price increase slowed down in 1975, domestic inflationary pressures continued in spite of the existence since 1970 of a Price Control Council which sets the prices for basic commodities that are consumed by low-income groups. The other factor which affected wage trends in the last few years is the ban on strikes in almost all industries, which followed the declaration of martial law, and the creation of the National Labour Relations Commission (NLRC) in 1974, which was established to guarantee speedy settlement of labour disputes. The overall result of the slower increase in money wages and of the much higher growth of consumer prices was a sharp fall in real wages in the years 1973-1975 (see Table 22).

Table 21. Share of value added in gross output  
(In producers' values, at current prices;  
all establishments with 5 or more persons engaged)

	1966	1970	1974
311 Food products	0.35	0.38	0.33
313 Beverages	0.61	0.59	0.49
314 Tobacco	0.42	0.48	0.45
321 Textiles	0.35	0.36	0.34
322 Wearing apparel <sup>a/</sup>	0.41	0.37	0.40
323 Leather and products	0.39	0.33	0.30
324 Footwear	-	-	0.41
331 Wood products	0.43	0.38	0.37
332 Furniture and fixtures	0.46	0.48	0.38
341 Paper and products	0.33	0.36	0.34
342 Printing publishing <sup>b/</sup>	0.52	0.52	0.39
351 Industrial chemicals <sup>b/</sup>	0.32	0.36	0.24
352 Other chemical products	-	-	0.39
353 Petroleum refineries <sup>c/</sup>	0.24	0.34	0.20
354 Petroleum coal products	-	0.20	0.40
355 Rubber products	0.43	0.43	0.37
356 Plastic products	-	0.35	0.32
361 Pottery, china	-	0.71	0.54
362 Glass and products	-	0.55	0.40
369 Non-metal products	-	0.49	0.37
371 Iron and steel <sup>d/</sup>	0.30	0.25	0.21
372 Non-ferrous metals	-	0.42	0.35
381 Metal products	0.34	0.31	0.26
382 Machinery	0.56	0.51	0.51
383 Electrical machinery	0.41	0.43	0.39
384 Transport equipment	0.27	0.34	0.24
385 Professional goods <sup>e/</sup>	0.48	0.50	0.46
390 Other industries	-	0.52	0.38

<sup>a/</sup> Includes footwear in 1966 and 1970.

<sup>b/</sup> Includes other chemical products in 1966 and 1970.

<sup>c/</sup> Includes petroleum products in 1966.

<sup>d/</sup> Includes non-ferrous metals in 1966.

<sup>e/</sup> Includes plastic products and other industries in 1966.

Source: UNCTAD computer print-out from United Nations Yearbooks of Industrial Statistics.

Table 22. Wages in manufacturing

Year	Wages		Consumer price index 1970=100 <sup>a/</sup>	Real wage index 1970=100
	Pesos per month	Index 1970=100		
1968	182	84.6	92.2	91.7
1969	190	88.4	94.8	93.2
1970	215	100.0	100.0	100.0
1971	245	113.9	123.3	92.4
1972	275	127.9	142.7	89.6
1973	301	140.0	166.2 <sup>b/</sup>	84.2
1974	317	147.4	223.0	66.1
1975	334	155.3	238.2	55.2

Source: ILO, Yearbook of Labour Statistics, 1978.

a/ Prior to 1973; Manila only.

b/ Change in series.

Table 23 gives a summary picture of the trends in labour productivity and wages by branch of industry and of relative labour intensity of each industry branch. The share of wages and salaries in value added is used here as a proxy of relative labour intensity of the sectors. This method avoids the problem of measuring capital. However, it is only a rough indicator since it does not differentiate between labour of different qualifications and skills. Moreover, the inter-industry comparison and the inter-temporal comparison assumes fully competitive factor and product markets. Many other influences are at work in determining the relative share of wages and profits both between sectors and over time. Thus a general decrease in the share of wages and salaries in value added in the Philippines, which is common to all sectors, does not necessarily imply a general increase in the degree of capital intensiveness of the manufacturing sector since other factors may have affected the shares of wages and profits.

Taking all the limitations into account, however, some comments can be made on Table 23. The least labour-intensive sectors are, not surprisingly, the chemical-petroleum group of industries. The most labour-intensive ones

Table 23. Labour share, productivity and wages by sector  
(Establishments with more than 5 employees)

	Share of wages and salaries in value added				Value added/employee (in thousand pesos)				Average remuneration of employees (in thousand pesos)				Average annual growth rate of productivity	Average annual growth rate of unit remuneration
	1965	1968	1971	1974	1965	1968	1971	1974	1965	1968	1971	1974		
311 Food products	0.21	0.18	0.15	0.90	10.09	13.57	22.59	46.29	2.20	2.50	3.51	4.54	39.7	11.8
313 Beverages	0.16	0.14	0.14	0.15	22.31	28.75	36.91	46.38	3.63	4.06	5.34	7.02	11.9	10.3
314 Tobacco	0.16	0.13	0.12	0.08	11.01	15.29	25.66	44.00	1.81	2.13	3.25	3.77	33.2	12.0
321 Textiles	0.36	0.34	0.29	0.26	5.37	6.77	10.51	13.73	1.95	2.36	3.09	3.63	17.3	9.5
322 Wearing apparel	0.41	0.48	0.42	0.43	3.12	3.17	4.96	4.98	1.28	1.52	2.11	2.17	6.6	7.7
323 Leather and products <sup>a/</sup>	0.44	0.45	0.41	0.33	4.28	5.00	6.66	8.18	1.90	2.27	2.77	2.72	10.1	4.8
324 Footwear	-	-	-	0.45	-	-	-	4.13	-	-	-	1.89	-	-
331 Wood products	0.43	0.37	0.40	0.31	4.76	6.31	7.63	11.57	2.09	2.34	3.11	3.62	15.9	8.1
332 Furniture and fixtures	0.47	0.53	0.18	0.44	3.10	3.78	5.25	7.07	1.48	2.02	2.54	3.11	14.2	12.2
341 Paper and products	0.26	0.20	0.24	0.12	10.78	16.05	19.51	45.45	2.81	3.28	4.75	5.78	35.7	11.7
342 Printing and publishing	0.38	0.40	0.39	0.26	8.19	8.95	12.14	18.39	3.12	3.61	4.83	4.96	13.8	6.5
351 Industrial chemicals	0.24	0.21	0.17	0.12	16.46	23.16	38.17	57.30	4.05	5.06	6.73	7.17	27.5	8.5
352 Other chemical products <sup>b/</sup>	-	-	-	0.18	-	-	-	53.38	-	-	-	9.95	-	-
353 Petroleum refineries	0.07	0.05	0.04	0.01	108.18	214.00	399.09	1,110.00	8.18	12.00	17.27	22.72	105.9	19.7
354 Petroleum coal products <sup>c/</sup>	-	0.14	0.15	0.03	-	70.00	27.14	130.00	-	10.00	4.28	5.00	-	-
355 Rubber products	0.22	0.22	0.21	0.19	12.38	13.95	17.14	24.80	2.83	3.07	3.73	4.72	11.1	7.4
356 Plastic products	-	0.33	0.26	0.26	-	6.15	12.57	16.00	-	2.05	3.33	4.27	26.6	13.0
361 Pottery, china <sup>d/</sup>	0.24	0.16	0.30	0.25	11.72	15.00	14.28	19.04	2.85	2.50	4.28	4.76	6.9	7.4
362 Glass and products	-	0.28	0.25	0.26	-	11.55	18.15	25.22	-	3.27	4.60	6.56	19.7	15.7
369 Non-metal products	-	0.20	0.24	0.16	-	15.91	15.84	26.60	-	3.26	3.92	4.44	11.2	6.0
371 Iron and steel <sup>e/</sup>	0.22	0.29	0.31	0.17	11.83	11.21	13.91	30.88	2.65	3.33	4.43	5.40	17.9	11.5
372 Non-ferrous metals	-	0.19	0.24	0.16	-	24.11	26.31	43.66	-	4.70	6.31	7.33	13.5	9.3
381 Metal products	0.39	0.38	0.32	0.23	7.44	8.65	13.20	19.82	2.95	3.30	4.32	4.56	18.5	6.1
382 Machinery (non-electrical)	0.47	0.38	0.33	0.19	4.87	7.50	10.75	27.37	2.30	2.85	3.63	5.33	51.3	14.6
383 Electrical machinery	0.31	0.27	0.22	0.22	8.63	11.47	19.25	24.61	2.73	3.17	4.42	5.54	20.6	11.4
384 Transport equipment	0.35	0.31	0.23	0.20	8.56	11.39	17.21	30.32	3.04	3.56	4.00	6.18	28.2	11.5
385 Professional goods	0.31	0.33	0.50	0.26	6.66	6.00	6.66	12.50	2.12	2.00	3.33	3.33	9.7	6.3
390 Other industries <sup>f/</sup>	-	0.41	0.30	0.35	-	5.86	8.00	9.05	-	2.41	2.40	3.20	9.1	5.4
Total manufacturing	0.26	0.23	0.20	0.15	9.21	11.85	18.38	30.39	2.44	2.83	3.82	4.65	25.5	10.0

Source: UNIDO computer print-outs.

a/ Includes footwear in 1965, 1968 and 1971.

b/ Includes other chemical products in 1965, 1968, and 1971.

c/ Includes petroleum products in 1965.

d/ Includes glass and non-metal products in 1965.

e/ Includes non-ferrous metals in 1965.

f/ Includes other industries and plastic products in 1965.

are the textile-clothing-footwear group, also furniture and - at least at the beginning of the period - the capital goods sectors. A relatively low labour intensity is to be found in food, beverages and tobacco which have tended to increase their contribution to value added more than their contribution to employment.

The highest labour productivity (productivity measured by value added per employee, including both waged and salaried employees) is to be found in the capital-intensive sectors and mainly at the end of the period in food, beverages and tobacco. On the other hand, productivity is relatively low in the investment goods sectors and extremely low and hardly increasing in the textiles-clothing-footwear industries. Productivity differentials have been widening over time and among branches of industries. The sectors which have recorded higher than average growth rate in productivity are, besides petroleum refineries, food and tobacco, paper, chemicals and plastic, non-electrical machinery and transport equipment.

Average wages (including salaries) are also higher in the capital-intensive sector, but they do not seem otherwise to be correlated to productivity. Sectors with above average labour productivity, such as food and tobacco, have a below average unit remuneration, thus enjoying a relatively lower labour cost per unit of output. The intermediate and capital goods sectors, whatever their productivity, have a higher wage level. Wage differentials have also been increasing during the period under consideration, but much less than productivity differentials.

The highest increases in wages have been recorded in petroleum and plastic, glass and non-electrical machinery. However, wage increases in all sectors have been much lower than the increases in labour productivity and it appears that a remarkable shift has occurred in favour of profits. All in all, some of the sectors which have been most dynamic in terms of value added in the last few years (chemicals, tobacco, paper, transport equipment) are also among the ones with the highest productivity gains, but the same does not hold true for all dynamic sectors. On the other hand, traditional labour-intensive sectors do not seem to be able to raise their labour productivity and can only rely on lower wages. The gap between the two groups of sectors appears to be widening, however.

Imports and exports of manufactured goods

Overall, the Philippine manufacturing sector is not particularly open to external trade. In 1974, about one-fourth of total domestic demand was met by imports, while one-fifth of gross output was exported (Table 24).

Import dependence, however, is very high in metal industries (52 per cent) and engineering goods (48 per cent), while the demand in consumer goods is almost totally met by domestic sources.

The sectors in which a high share of output is exported are the raw material-based ones: food (37 per cent) and wood products (30 per cent). Exports are almost nil for the investment goods sectors and the exported share is quite low for textiles and apparel, showing that the Philippines was still, in 1974, left behind in the export drive in garments which had benefitted other Asian countries with export-oriented policies since the second half of the 1960s. One of the main reasons for the poor export performance of garment manufacturers was the high protection granted to the domestic textile industry which produces low-quality cloth at high prices. Their performance, however, has improved considerably since 1974 with the use of bonded warehouses, where exporters can get duty-free imported raw materials for processing without having to go through tariff drawbacks or having to shift physically to the export processing zone. Also, for the other more traditional export sector, the incentives introduced since 1970 started to be felt after 1973, and as a result exports of non-traditional manufactures more than tripled in four years (at current values, the increase in volume would be lower since prices also rose considerably).

Table 25 shows the trend in exports of non-traditional manufactures in the last few years. The most successful exports are concentrated in three sectors: garments, handicraft, electronic and electrical equipment and components. The garment industry is partly linked to traditional cottage industry (embroidery, children's wear). Most of the production is now being sub-contracted and re-exported which involves raw materials being shipped from abroad for processing and then being re-exported. The bulk of the productive process is in turn sub-contracted to cottage-type producers in the rural areas. It is very labour-intensive and employs very little capital. The domestic value added per unit of output, however, is low. On the other hand, its source of competitiveness lies precisely in working on imported



Table 24. Imports and exports of manufactured goods, 1974  
(in million pesos)

Sector	Gross output (1)	Imports <sup>a/</sup> (2)	Exports <sup>b/</sup> (3)	Domestic demand (4) = (1+2-3)	Import ratio (2)/(4) (percentage)	Export ratio (3)/(1) (percentage)
Basic metal industries	1,448	1,596	... <sup>d/</sup>	3,044	52.4	... <sup>d/</sup>
Chemicals and oil products	8,508	2,856	224	11,140	25.6	2.6
Engineering	6,625	5,985	70	12,540	47.7	1.0
Food, beverages, tobacco	24,095	1,162	8,967	16,290	7.1	37.2
Non-metallic mineral products	1,152	140	154	1,138	12.3	13.4
Pulp and paper	1,158	399	49	1,508	26.5	4.2
Textiles and apparel	5,086	483	245	5,324	9.1	4.8
Wood processing	2,779	... <sup>d/</sup>	847	1,932	... <sup>d/</sup>	30.5
Other light industries <sup>c/</sup>	3,691	1,099	238	4,552	24.1	6.4
Total	54,542	14,720	10,794	57,468	23.9	19.8

Source: World Bank, Priorities and Prospects for Development, p. 200.

a/ Includes finished and semifinished manufactures, but not raw materials used by industry.

b/ Estimate based on incomplete data.

c/ Printing and publishing, leather and rubber products, footwear, plastic products, and miscellaneous industries.

d/ Zero or negligible.

Table 25 Exports of non-traditional manufactures, 1970-1978  
(in million US dollars)

Sector	1970	1971	1972	1973	1974	1975	1976	1977 <sup>a/</sup>	1978 <sup>b/</sup>
Garments	36	36	39	58	94	107	185	281	320
Handicrafts	7	9	13	27	46	78	95	85	102
Electrical and electronics equipment and components	-	-	-	11	27	47	84	118	171
Non-metallic mineral manufactures, particularly cement	3	11	10	25	36	32	27	32	36
Chemicals	5	7	6	11	16	22	28	43	65
Wood manufactures, excluding plywood, veneer and lumber	4	6	8	17	25	17	24	28	34
Food products and beverages	8	9	11	15	18	15	20	32	50
Machinery and transport equipment	1	2	2	3	5	10	15	16	19
Textile yarn, fabrics and other related products	3	5	4	17	7	9	15	18	21
Cordage, cable, ropes and twine	2	2	3	5	10	8	10	14	21
Others	25	20	20	37	43	30	42	38	51
Total	94	107	116	226	327	375	545	705	890

Source: World Bank, The Philippines, Country Economic Memorandum, Report No. 1765-PH, 26 October 1979, Annex A, page 3.

a/ Estimate.

b/ Projection.

semi-processed materials since the domestic textiles industry is scarcely efficient, and wages in the clothing sector have been growing much less in the Philippines than in its Asian competitor countries. In fact, Philippine wages have declined significantly relative to those in both competitor and customer countries. For example, Philippine wages are about one-third to one-half of those in competing countries such as Republic of Korea and Hong Kong. The comparative advantages of Philippines therefore lies in the utilization of skilled low-cost labour.

Exports are mostly directed towards the United States (60 per cent in 1976) and increasingly towards Western European countries. Export prospects for the sector are likely to be affected by import restrictions adopted by many developed countries. Philippine exports could, however, be favoured, especially on the EEC market, by country-specific quota restrictions on major exporters such as Hong Kong and Korea.

Handicraft exports are based on local raw materials and constitute an expansion of a traditional industry. Their performance, however, is subject to fluctuations due to stiff competition by other East Asian countries and the artistic structure of the sector creates some marketing problems.

Finally electronics exports, mostly semi conductors, are totally based on imports of semi-processed goods provided by contractors in the United States and Japan. The prospects for this sector will depend, in the Philippines as in other East Asian countries engaged in this type of assembling process, on technological change in the developed countries.

The expansion of non-traditional exports has a significant impact on employment since they are based primarily upon labour inputs. The Government relies heavily on these labour-intensive processes as a source of job creation. However, they do not have any multiplier effect on employment in the rest of the economy since they have no linkages with the domestic manufacturing sector.

#### The manufacturing sector in perspective

The Philippines is a middle income country with a moderate sized market permitting some economic operation of large-scale capital-intensive industry. The manufacturing sector, however, must necessarily depend upon the world market to maintain its impressive performance in the past. Continued export growth is also essential for long-term balance of payments stability. While

tariff protection is still high, the Philippines has conducted a flexible exchange rate policy which has contributed to a highly successful debut in export promotion. The Philippines has a substantial supply of low-cost labour which has proven highly productive and easily amendable to training. A competent technical staff has been built up in government ministries dealing with industry, which has facilitated industrial planning, policy making and implementation. Formidable problems exist in overcoming poverty and income disparities. Industrial planning, therefore, has to strive for a balance between large-scale capital-intensive industries basic to further industrialization on the one hand, and labour-intensive industries on the other. Measures for small-scale industries and regional development have been initiated to help overcome these problems.

Chapter III

INDUSTRIAL DEVELOPMENT PLANS AND POLICY MEASURES

Four-Year Plan 1974-77: Achievements

The planning process in the Philippines started in 1966, when a Four-Year Economic Programme was drawn up for the fiscal years 1967-70, which summarized plans, programmes and projects for implementation. After this, four-year plans were prepared every year by rolling over plan targets from one plan period to another.

This procedure was discontinued in 1974 when a four-year plan covering the period 1974-77 was prepared. The macro targets of the Plan were:

- (i) a 7 per cent annual GNP growth rate which in terms of per capita income, corresponded to an average 3.6 annual increase (the population was expected to grow at an annual rate of 3 per cent);
- (ii) maintenance of acceptable levels of price and balance of payments stability, with a maximum acceptable rate of inflation of 8 per cent;
- (iii) promotion of employment at a rate of 4 to 4.5 per cent per year, in order to reduce the open unemployment rate from 7 per cent in 1972 to 3 per cent in 1977;
- (iv) related to (iii), attainment of a more equitable income distribution - this target was not quantified;
- (v) regional development and industrialization (no quantified target);
- (vi) promotion of social development: provision of facilities for education, health, electrification, etc.

For the manufacturing sector, a 10 per cent annual growth rate was planned, which would have increased the share of manufacturing in net domestic product from 20.5 per cent in 1973 to 23.2 per cent in 1977.

The growth of manufacturing was to be based on: export oriented industries, labour-intensive industries and techniques of production, the promotion of backward integration, and regional dispersal of industries. The finishing phase import-substitution strategy was to be abandoned, and intermediate and capital goods industries with forward and backward linkages were to be promoted. Thus, on one side the industrial strategy was based on increasing the degree of labour intensity of the manufacturing sector, particularly in the finishing phase, while on the other side, it was founded on backward integration towards the intermediate goods sector.

The policy measures to implement this strategy were:

- (i) maintenance of a flexible foreign exchange rate in order to adjust prices of exports and imports to approximate their true market value;
- (ii) amendment of the 1967 Investment Incentives Act to correct its bias in favour of capital intensive techniques, by including a deduction for direct labour cost and labour training expenses;
- (iii) revision of the tariff code to correct the bias against export products and backward integration;
- (iv) revision of the minimum wage policy aimed at introducing a 'regional wage pattern';
- (v) revision of the interest rate policy in order to raise the maximum rate of interest which was keeping the cost of capital artificially low;
- (vi) promotion of exports and support of the growth of medium and small-scale industries considered crucial to the attainment of the regional dispersal.

The attainment of the targets of the 1976-77 Plan has been profoundly affected, as the present Plan document points out,<sup>1/</sup> by the recent developments in the world economy. The increases in oil and raw materials prices constrained the growth of the Philippine economy, which is almost totally dependent on imported oil and heavily dependent on foreign raw materials. On the other hand, the international commodity boom also benefitted the economy in the short run (and produced the record growth of 1973), but,

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1/ Five-Year Philippine Development Plan, 1978-1982, Manila, September 1977.

being primary exports based on sugar, they could not compensate in the long run for the higher price of industrial raw material imports.

From the point of view of export promotion, the post-oil-crisis deflationary policies in major developed countries limited the demand for exports from the Philippines. Although non-traditional exports were not strongly affected, traditional exports have met a slackening demand on the world market. In spite of the external situation, the overall performance of the economy has been fairly satisfactory and, although the targets have not been met, the gap between planned targets and actual achievements is not large. So much as far as the macro targets are concerned. The attainment of the more qualitative objectives of economic growth - such as growth of employment, changes in income distribution, regional balance - appears much less successful.

Looking at the macro targets listed above, real GNP grew at a compound annual growth rate of 6.2 per cent, slightly lower than the planned rate of 7 per cent; <sup>1/</sup> population increased by 2.9 per cent p.a. and per capita GNP by 3.2 per cent p.a. <sup>2/</sup>

The stability targets, i.e. the targets related to balance of payments and inflation, have not been achieved since the balance of trade has gone through a growing deficit starting in 1974 (partly compensated by higher capital inflows). The rate of inflation was higher than 30 per cent in 1974 but decreased to about 8 per cent afterwards.

What was more successful than the planned target was the investment ratio: gross domestic capital formation was planned at 21 per cent of GNP, whereas it kept on increasing to reach 31.3 per cent of GNP at current prices in 1976.

As far as the manufacturing sector is concerned, its performance was much below expectations: the target was a 10 per cent annual growth rate, whereas the real actual growth rate was 4.8 per cent in 1974; 3.5 per cent in 1975; 5.8 per cent in 1976 and 7.5 per cent in 1977. As a result its

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<sup>1/</sup> The comparison is somehow distorted by the fact that the planned rate is at constant 1967 prices and the actual one is at constant 1972 prices.

<sup>2/</sup> These data are provided by the 1978-1982 Plan and they refer to the period 1973-1976.

contribution to NDP was an average 19.9 per cent, as against a planned increase in its contribution from 20.5 to 23.2 per cent. Equally disappointing was employment generation during the Plan period: total employment grew by 3.8 per cent per year (the target was 4 - 4.5 per cent) and the unemployment rate in 1976 was 5.2 per cent (as opposed to a planned 3 per cent for 1977). Moreover, the present plan estimated that 5.3 per cent of the employed are visibly underemployed (working less than 40 hours a week) and another 5.4 per cent are invisibly underemployed (working 40 hours a week and still wanting additional work), making up a total underemployment of 1.6 million.

Personal income distribution has slightly improved in the period 1971-75 but the present Plan deems that such redistribution is still unsatisfactory. In the industrial sector factor distribution between labour and capital incomes is shifting in favour of capital incomes, which can be expected to bring about a more skewed distribution. As far as regional development is concerned, the geographic distribution of the country's domestic output during the Plan period did not register the desired dramatic change. In 1977, the three dominant regions (Metro Manila, Southern Tagalog and Western Visayas) continued to contribute more than half of domestic output (as in 1973) with the share of Metro Manila Area increasing by three percentage points at the expenses of the three lagging regions (Cagayan Valley, Bicol Region and Central Mindanao). Per capita output of the poorest region (Central Mindanao) in 1977 was only 20.2 per cent of the per capita output of Metro Manila, a decrease of 1.9 per cent since 1973. In the industrial sector, Metro Manila and Central Luzon accounted in 1977 for 51.6 of national gross value added and their share has not changed since 1973 (it was 51.9 per cent in 1973).

#### Five-Year Development Plan 1978-82.

##### Objectives, Strategies and Targets

The 1978- 2 Plan outlines the long-term goals over the period 1978-1987, and, more specifically, the targets for the five-year period 1978-1982. Over the ten years, real GNP is expected to grow at an annual rate of 8 per cent, with an acceleration after the first three years (the targets are 7.5 in 1979 and 1980, 8 per cent in 1981 and 1982).



By 1982 GNP is expected to reach a level of 112,214 million pesos; assuming a constant rate of population growth of 2.9 per cent, real per capita GNP should record 2,157 pesos in the same year. Real per capita GNP in 1987 should be nearly double of what it was in 1976.

Table 26 summarizes the macro targets of the Plan. The accumulation process is expected to proceed at a very high rate, due to a larger availability of domestic resources (oil in the first place) and to an expected improvement in the world economic situation. The planned investment ratio is in fact very high (over 30 per cent), although not higher than what was achieved in the last two years of the previous plan. Such a high share of investment is justified by the need to provide basic infrastructure both for agriculture and for industry, and in fact the Government's share is planned to increase slightly, although the bulk of investment is still expected from the private sector. The domestic savings ratio is also expected to rise and the investment-savings gap should decrease over time, with the effect that net foreign capital inflow as per centage of GNP is expected to fall from 4.9 per cent in 1978 to 3 per cent in 1982 and eventually 1 per cent in 1987.

Besides investment, the other main source of aggregate demand is exports. The export promotion drive is planned to be continued and the composition of exports is planned to move increasingly towards manufactured products. Since the demand for non-traditional manufactured exports is more income-elastic than traditional exports, the overall expected increase (+9.1 per cent per year) depends upon favourable assumptions on the world economy. The export ratio to GNP will thus be higher at the end of the Plan period (19.0 in 1982) and is further expected to rise to 20.3 per cent in 1987. Imports will also rise by 8.1 per cent p.a., reflecting growing input requirements for the rapid expansion of manufacturing. The trade balance in current US dollars is expected to deteriorate further during the five years, but eventually the deficit is expected to decrease by 1987.

Table 26. Five-year Development Plan 1978-1982. Macroeconomic targets

	1977	1978	1979	1980	1981	1982
Gross national product (million pesos at constant 1972 prices)	77,804.0	83,250.0	89,494.0	96,206.0	103,902.0	112,214.0
Annual growth rate %		7.0	7.5	7.5	8.0	8.0
Total Population (000)	45,028.0	46,350.0	47,719.0	49,137.0	50,557.0	52,026.0
Per capita GNP (pesos at constant 1972 prices)	1,728.0	1,796.0	1,875.0	1,958.0	2,055.0	2,157.0
Annual growth rate %		3.9	4.4	4.4	5.0	5.0
Gross domestic capital formation (% of GNP at current prices)		30.5	30.9	31.2	31.4	31.4
of which:						
Fixed capital formation (% of GNP)		24.9	25.5	26.2	26.8	27.1
Gross domestic savings (% of GNP at current prices)		25.6	26.4	27.1	27.7	28.4
Share of agriculture in NDP at constant 1972 prices %	30.2	30.2	29.5	28.8	28.2	27.5
Annual growth rate %		5.2	5.2	5.2	5.2	5.2
Share of industry in NDP %	28.7	29.2	29.7	30.3	31.0	31.8
Annual growth rate %		10.0	10.0	10.0	10.0	10.0
of which:						
Manufacturing	19.1	19.2	19.4	19.7	19.9	20.3
Annual growth rate %		9.2	9.2	9.2	9.2	9.2
Share of services in NDP %	40.5	40.6	40.8	40.9	40.8	40.7
Annual growth rate %		7.8	7.8	7.8	7.8	7.8
Exports as % of GNP at constant prices	17.6	18.1	18.3	18.6	18.8	19.0
Annual growth rate %		9.1	9.1	9.1	9.1	9.1
Imports as % of GNP at constant prices	18.0	17.5	17.6	17.7	17.7	17.7
Annual Growth rate %		8.1	8.1	8.1	8.1	8.1
Employment (000)	15,348.0	15,922.0	16,521.0	17,138.0	17,720.0	18,330.0
Annual growth rate %		3.7	3.7	3.7	3.4	3.4
Rate of open unemployment	4.1	4.0	4.0	4.0	4.0	4.0
Share of agriculture in total employment	50.1	49.3	48.4	47.5	46.7	46.0
Share of industry in total employment	14.4	14.4	14.4	14.5	14.8	15.1
Of which:						
Manufacturing	10.4	10.4	10.4	10.4	10.5	10.6
Share of services in total employment	35.5	36.3	37.2	38.0	38.5	38.9

Source: Five-Year Philippine Development Plan, 1978-1982, Manila, September 1977, chapter 2

As far as sectoral growth is concerned, the highest growth rate is planned for the industrial sector (10.0 per cent p.a.; the growth rate for manufacturing is, however, slightly lower: 9.2 per cent p.a.) and industry is expected to be the growth pace setter. By 1979 industry is planned to contribute the same share of NDP as agriculture, and by 1987 manufacturing alone is expected to be as important as agriculture in income generation. Thus the five-year period should witness a marked structural change and reverse the trends of the previous decade. Agriculture is expected to be the slowest-growing sector, although its contribution is still considered very important as input supplier, source of internal demand and source of employment. Services will remain the largest sector. Changes in the internal composition is expected towards a growing importance of 'productive' services (transport communication and storage) and a qualitative improvement of the branches which are now mostly residual employment opportunities for redundant labour.

The picture changes when looking at employment generation by sector. The share of persons employed in agriculture is planned to decrease, but the only relative gain is to be expected in services. The industrial sector as a whole is going to improve its contribution to labour absorption only very marginally, and the share of manufacturing is expected to remain constant. Also in absolute terms, the task of job creation is left to agriculture and services, which together are expected to generate more than 4 times the number of new industrial jobs over the five-year period. Thus, even if industry is planned to be the dynamic sector in the economy, it will not determine any significant change in the pattern of labour absorption. Moreover the overall employment projections are on the optimistic side. Approximately 600,000 new jobs are planned for each year. However, this will not reduce the rate of open unemployment, which is to be kept at 4 per cent and absorb a share of the underemployed workers (the rate of visible underemployment, calculated over total employed, is planned to decrease from 5.2 per cent in 1977 to 3.6 per cent in 1982).

With regard to forestry, wood is an important input for the manufacturing sector. The original plan to phase out log exports and to process the whole production domestically has not yet been implemented. The present Five-Year Plan forecasts a continuation of log exports, though slightly decreasing over time, until 1987. The linkages between the forestry sector and wood processing industry have thus to be strengthened and a better utilization of productive capacity in wood processing is required. Forestry has, however, some problems of its own, brought about by past forest destruction, illegal logging and shifting cultivation. The Plan envisages a programme of reforestation and replanting, and plans to check more carefully illegal logging and shifting cultivation in order to reach by 1987 a log production of 14 million cubic metres from the present estimated production of 9 million.

As far as energy is concerned the availability of energy sources is increasingly becoming a constraint on the future growth of the Philippine economy.

Faced with the international oil crisis, the government formulated, in 1973, a National Energy Plan based on accelerated exploration of indigenous energy resources and better management of imported energy resources in the short-term. In the long run emphasis was placed on the development of domestic alternative energy sources especially in renewable forms. The projected total commercial energy requirement is 190.0 million barrels of oil equivalent by 1987, i.e. more than double the present level. Industry absorbs, and will keep on absorbing, slightly less than half of total consumption. The oil dependency ratio should decrease to 69 per cent by 1987 [compared with 87 per cent in 1960]; the remainder should come from other diversified energy sources, as shown in Table 27. A nuclear power plant is planned to start operation in 1982. There is a programme of developing energy sources in the rural areas based on small-scale locally available sources. Total electrification of the country is planned for 1990. In rural areas the non-oil share of energy sources is targeted at 63 per cent to be attained by the exploitation of solar and wind energy,

Table 27. Projected energy source mix, 1977, 1982 and 1987  
(in million barrels oil/million barrels oil equivalent)

	1977		1982		1987	
	MMB	Percentage distribution	MMB	Percentage distribution	MMB	Percentage distribution
Total energy	83.40		127.10		190.00	
Electric generation	22.98	27.5	49.40	39.0	66.16	34.8
Hydro	4.42	5.3	9.76	7.7	20.79	10.9
Oil	18.55	22.2	29.33	23.1	21.55	11.4
Coal	0.01	0.0	2.00	1.6	3.90	2.1
Geothermal	-	-	4.80	3.8	10.62	5.6
Nuclear	-	-	2.51	2.0	6.00	3.1
Non-conventional <sup>a/</sup>	-	-	1.00	0.8	3.30	1.7
Non-electric generation	60.43	72.5	77.70	61.1	123.84	65.2
Oil	59.93	71.9	72.00	56.6	107.64	56.7
Coal	0.50	0.6	4.20	3.3	10.00	5.3
Non-conventional <sup>a/</sup>	-	-	1.50	1.1	6.70	3.2
Oil share		94.1		79.8		68.1

Source: Five-Year Philippine Development Plan, 1978-1982, p. 333.

<sup>a/</sup> Includes only usage of non-conventional energy sources attributable to usage proliferation programme for non-conventional energy.

bio-gas from rural wastes, alcohol from wastes, which is important for the dispersal of small-scale industry and rural industrialization.

With regard to the agricultural sector, overall production has performed quite well in the last few years with favourable trends in export crops. The two main export crops and inputs to the domestic food processing industry are coconut and sugar. The Philippines is the largest world exporter of copra and coconut oil. The Five-Year Plan targets a 6 per cent annual increase in copra production. The end products and expansion into new markets is envisaged. Diversification of the sugar industry is dominated by large estates and its good performance at the beginning of the 1970's has been reversed by poor yields in recent years. Export prospects are limited by restrictions on the international market. It is planned to step up productivity by increased application of industrial inputs and to diversify the end product. The overall projections for food production during the plan period are very optimistic [Table 28]. Internal demand is expected to be fully met by domestic supply. An increasing exportable surplus is planned to be generated. In addition to credit, expansion services and the provision of agricultural infrastructure, higher productivity is expected from the agrarian reform, cooperative development and increased use of industrial inputs.

The development objectives for the industrial sector, as outlined by the Plan are:

- a) employment generation;
- b) increases in net foreign exchange earnings;
- c) greater self-reliance in the supply of important commodities, including energy sources.

As we have seen above, the quantitative target for employment generation (561,000 over 5 years) is still very limited. The task of job creation is assigned to small- and medium-scale industries and to subcontracting procedures both at the national and the international level. Foreign exchange earnings are expected to originate from non-traditional manufactured exports and the third objective is a matter of higher backward integration within manufacturing and between primary and secondary sector.

Table 28. Projected domestic demand and supply of selected food commodities, 1978-1982 and 1987

Commodity	1978	1979	1980	1981	1982	1987
<u>Demand</u>						
(in thousand metric tons)						
Rice	4,140	4,260	4,380	4,510	4,640	5,350
Corn and feedgrains	2,240	2,300	2,370	2,440	2,510	2,930
White corn <sup>a/</sup>	1,810	1,850	1,900	1,950	2,000	2,280
Yellow corn and other feed-grains	430	450	470	490	510	650
Fish and other marine products	1,580	1,650	1,730	1,820	1,910	2,330
Fruits	2,030	2,130	2,290	2,340	2,440	2,970
Vegetables	3,330	3,450	3,570	3,720	3,860	4,520
Meat	706	740	778	817	860	1,108
<u>Supply</u>						
(in thousand metric tons)						
Palay	6,720	7,013	7,323	7,646	7,999	9,870
Rice equivalent	4,166	4,318	4,613	4,816	5,119	6,514
Corn and feedgrains	2,930	3,030	3,150	3,270	3,370	3,794
White corn	2,600	2,660	2,710	2,770	2,800	2,790
Yellow corn and other feed-grains	330	370	440	500	570	1,004
Fish and other marine products	1,571	1,658	1,749	1,845	1,950	2,449
Fruits	3,580	3,790	4,000	4,220	4,440	5,500
Vegetables	3,450	3,800	4,180	4,590	5,050	8,140
Meat	859	904	949	1,004	1,063	1,350

Source: Five-Year Philippine Development Plan, 1978-1982, page 113.

<sup>a/</sup> Includes food, seeds, feeds, and industrial requirements.

The Plan stresses the need to provide additional non-farm sources of income in rural areas. The regional industrial dispersal programme should support this strategy. The problem of rural industrialization, however, is twofold: first, there is the need to create industries with backward and forward linkages with the local economy. This is intended to be done, as far as backward linkages are concerned, through the creation of small-scale agro-based industries. Second, the need for the creation of a higher level of incomes and a more equitable income distribution in the rural areas, which could increase demand for basic manufactures locally produced.

The strategies for industrial development are as follows:

- a) the establishment of cottage, small- and medium-scale industries outside Metropolitan Manila, and the setting up of a number of large industries to produce key commodities, particularly those processing domestic raw materials and enhancing technological capabilities;
- b) the utilization of an increasing proportion of a larger number of mineral resources in domestic production of semi-finished and finished products for internal and external markets;
- c) a reduction of dependence on imported petroleum oil, selected raw materials and intermediate goods;
- d) the development of higher efficiency to reduce the cost of manufactured products and maintain construction services at internationally competitive levels;
- e) the domestic production of presently imported intermediate goods or the second stage import substitution.

De facto the sectors which are planned to contribute most to the increase in manufacturing value added are, as in the previous period, those dealing with intermediate goods: rubber, chemicals and all the mineral processing sectors have an above-average targeted growth rate. The increase in productive capacity of these sectors is already under way, since a number of projects have already been started or are due to start during the Plan period. High growth rates are also targeted for paper, printing and publishing, and transport equipment (Table 29).



Table 29. Targets of net value added in manufacturing, 1978-82 and 1987  
(In millions of pesos at constant 1972 prices)

	Targets						Average Annual Growth Rate	
	1978	1979	1980	1981	1982	1987	1978-82	1978-87
	(mill. pesos)						(percentage)	
TOTAL	13,161	14,285	15,548	17,000	18,707	31,579	9.2	10.2
Food	3,928	4,217	4,539	4,901	5,310	8,340	7.8	8.7
Beverages	737	786	839	900	968	1,437	7.1	7.7
Tobacco	895	933	972	1,016	1,067	1,371	4.5	4.9
Textiles	693	758	825	900	986	1,643	9.2	9.8
Footwear	487	521	560	612	671	1,044	8.3	8.8
Wood	420	457	497	543	596	970	9.1	9.7
Furniture	78	84	91	99	108	178	8.5	9.6
Paper	250	278	310	347	391	721	11.8	12.5
Printing	355	392	433	479	533	912	10.7	11.1
Leather	27	29	32	35	38	63	8.9	9.9
Rubber	342	376	414	457	507	863	10.3	10.8
Chemical	1,606	1,779	1,984	2,217	2,501	5,041	11.7	13.6
Petroleum	592	670	759	863	989	1,925	13.7	14.0
Non-metals	501	531	606	669	745	1,252	10.4	10.7
Basic metals	369	424	490	570	670	1,536	16.1	17.2
Metal products	363	392	424	461	505	833	8.6	9.7
Machinery	144	157	171	187	206	347	9.4	10.3
Electrical machinery	658	709	767	824	899	1,386	8.1	8.6
Transport	487	540	600	670	754	1,387	11.5	12.3
Miscellaneous	224	232	240	250	263	330	4.1	4.4

Source: Five Year Philippine Development Plan, 1978-1982, p. 129.

The most dynamic industries are thus the capital-intensive ones, but their contribution to employment generation will be minimal. Out of the additional 300,000 jobs that the Plan attributed to manufacturing during 1978-82, only 50,000 are to be provided by the large-scale industrial projects and the other 250,000 are expected from the small- and medium-scale industries.

The main projects which are expected to be operational within the five years of the Plan are:

- (i) an intensified vertical integration of mining extraction activities with corresponding processing requirements of metal-based industries. Two of the most important projects targeted for the industrial sector are in the mineral-based industries, namely a copper smelter and an integrated steel mill complex. The copper smelter undertaken by a consortium of 11 copper producing mining firms and the Government produced copper cathodes and sulphuric acid for the fertilizer industry. An expansion of mining operations is planned and the target is a 8.9 per cent average annual growth of the production of copper metal over the five-year period. Most of the production of the copper smelter will be for export, in line with the target of a higher domestic value added in resource-based exports.

An integrated steel mill complex in Misamis Oriental is expected to be operational by 1983 and to double its capacity in another five years; it is also expected to stimulate downstream fabricating industries particularly in Mindanao. The steel mill will utilize mostly iron ore and coking coal and the type of linkages it is expected to create are forward linkages, i.e. the generation of downstream industries, rather than backward ones. Other minerals, whose production is going to be substantially expanded during the Plan period, are nickel and chromite.

- (ii) in the agro-based sectors, the sugar industry is planned to expand its productive capacity and diversify its end products, particularly sucro-chemicals and sugar by-products to be used as alternative

sources of energy. An increase of processing capacity and a diversification of the end products is also planned for the coconut industry in order to phase out the export of copra and to start production of coco-chemicals.

Other projects in the agro-based sector refer to the abaca industry, which is labour-intensive and is the basis for much of the handicraft sector, and to animal feed processing;

- (iii) in the engineering sector, three progressive manufacturing programmes are underway for motorcycles and trucks. They are all aimed at raising the local content of the products, which is going to be 62.5 per cent for cars and 50 per cent for motorcycles. A local Content Programme is being implemented also in Electronics with the aim of expanding the use of locally manufactured components and fostering horizontal integration with small- and medium-sized component manufacturers. It covers television receiving sets, sound-producing appliances, radio-receivers, and components.

In machine tools, it is planned that a second manufacturer start operation and together with the existing one, domestic demand is expected to be met.

- (iv) in the wage goods sectors, food processing will expand into meat and fish processing and fruit and vegetable canning for the export market. In textiles, quality improvements are to be achieved in the production of fabrics, both synthetic and cotton, also in order to provide better inputs to the garment export industry and to reduce its import dependence.

In wood industries the focus is on increasing processing capacity and developing secondary processing in furniture and other finished wood components for export;

- (v) in chemicals, a phosphatic fertilizer project is expected to be operational in 1981. An ammonia - urea project will be initiated upon discovery of sufficient quantities of natural gas; and a government petro-chemical complex is proposed which should initiate the development of the petro-chemical industry.

Policy Measures for the Implementation  
of Industrial Development Objectives

The Industrial Policy Package

The major policy measures envisaged in the Five-Year Plan to implement the industrial development strategy are as follows:

- (a) adjustment of tariff duties and other protective measures extended to manufacturing industries, so as to provide adequate protection for firms with average efficiency, while at the same time, the industrial climate invigorates the level of industrial efficiency in all firms;
- (b) improvement of support activities, including but not limited to fiscal and credit incentives, for the expansion of exports of manufactured goods;
- (c) requirement of domestic market-oriented firms in mature industries to generate export earnings in specified and gradually increasing proportion to their allocation of foreign exchange for imported materials;
- (d) active government support and, where necessary, direct participation in the establishment of key industries, including manufacture of intermediate industrial goods, exploration for and exploitation of mineral resources;
- (e) promotion of industrial co-operation with ASEAN countries;
- (f) attraction of foreign investment to supplement domestic capital in identified areas;
- (g) survey and adoption of other technologies as appropriate to improve international competitiveness of Philippine industries; and/or development of adaptive technology as required, taking into account local resources including manpower;
- (h) minimization of ecological imbalance that may be brought about by industrialization;
- (i) establishment of key industries, particularly those with direct government participation in suitable areas throughout the country, which will serve as industrialization growth poles and become nuclei for industrial complexes in those areas.

These policies are listed in the Plan at a fairly general level and no further details are given about specific measures for implementation. On the other hand policy measures adopted in previous years will presumably be carried over, possibly with some amendments.

The main instruments which the government uses to influence the patterns of industrial growth are in the field of tariffs, investment incentives, export incentives, specific measures for small-scale industry, and incentives to induce geographical decentralization.

#### Investment Incentives

The backbone of the investment incentives policy is the 1967 Investment Incentives Act. The Act determined the basic rights and guarantees of foreign and local investors and the incentives granted to 'preferred' enterprises and 'pioneer' enterprises. It also created the Board of Investment [BOI] which registers enterprises qualifying incentives and which prepares a yearly Investment Priorities Plan. The purpose of the legislation is to stimulate projects where domestic capacity falls short of domestic demand and prospects with export potential.

The registration with the Board of Investment in effect constitutes a governmental recognition and tacit approval of the firm and its activities, which may facilitate the latter's dealing with other Government bodies, the Central Bank and financial institutions in order to qualify for registration corporations should have at least 60 per cent of the capital stock in Philippine holdings, 60 per cent of the members of the Board of Directors should be nationals of the country, and the enterprise should engage in a preferred area of investment, as defined by the BOI. All registered enterprises are granted protection of patents and other property rights, and an exemption from the capital gains tax. The financial incentives offered to them are: deduction of organizational and pre-operating expenses from taxation income, accelerated depreciation allowance, deduction of the net operating loss from the net taxable income of the following years, tax exemption on imported capital equipment, tax credit for import taxes on products used in export production, tax credit on domestic capital equipment, plus other provisions such as anti-dumping protection and protection from government

competition. Furthermore, tax exemptions on imports used in export production are permitted under three additional programmes: [i] the permission for some BOI registered firms to operate bonded warehouses; [ii] the drawback scheme which refunds the tariffs paid; and [iii] export processing zones.

#### The Tariff Structure

Protection of domestic industry from import competition has been the key element characterizing Philippine industrial policy since the early 1950s. The average level of effective protection for manufacturing increased from 51 per cent in 1965 to 125 per cent in 1974, primarily due to an increase in effective protection for consumption goods, which reached an average of 247 per cent in 1974 (Table 30). During the same period there was a decline in the effective protection granted to both intermediate goods (from 65 per cent to 23 per cent), and to the capital goods sector (from 34 per cent to 18 per cent). The tariff structure has thus favoured a relatively more capital intensive import substitution, but the level of effective protection in the Philippines seems to be in the middle range when compared with other countries. In countries with high rates of effective protection a correlation with poor economic and export performance has quite often been observed. A

Table 30. Effective Rates of Protection for Major Product and End Use Groups

	1965 (%)	1974 (%)
Exports	- 19	- 16
Manufacturing	51	125
Capital goods	34	18
Intermediate goods	65	23
Consumption goods	86	247

Source: Barend A. de Vries, Transition toward more rapid and labour-intensive industrial development: The Case of Philippines (forthcoming in the UNIDO journal Industry and Development).

reform to the tariff system was undertaken in January 1973, when 271 specific tariff rates were reduced to 2, and all the ad valorem rates were grouped into 6 levels ranging from 10 to 100 per cent depending on the stage reached in the processing of the product and the existence of local production. Rates of 10 to 20 per cent are imposed on basic necessities such as food products and medicines, raw materials not available in the country, and industrial equipment not manufactured within the country. Rates of 30 to 60 per cent are levied on a vast range of intermediate and capital goods, and rates of 70 to 100 per cent are applied to luxury goods and products available within the country.

After the 1973 reform, the government has repeatedly stated its intention to reduce protective tariffs for consumer goods industries and increase them for export-related and capital goods products. It moved, however, more slowly than planned because of pressure from the protected industries. Some measures have been implemented. New tax and customs duty exemptions have been decided for export-related and labour intensive industries, and the number of items subject to the highest protective rates of 70 per cent and 100 per cent have been reduced. Tariff reductions have also been implemented on some specified imports from the ASEAN countries in the framework of the ASEAN preferential trade agreement.

In general, import protection has had an average impact on manufacturing in the sense that it has channelled resources into capital-intensive industries where the Philippines has relatively less comparative advantage, penalized relatively labour-intensive products, encouraged high costs, inefficient use of capital and excess capacity and penalized exports by taxing imported inputs or permitting domestic inputs to be produced at high cost and low quality.

Additional incentives are granted to 'pioneer' enterprises, i.e. those engaged in the manufacturing of goods not produced in the Philippines on a commercial basis or those which use a manufacturing technique to the Philippines provided that the final product involves substantial utilization of domestic raw materials. For 'pioneer' enterprises, the condition of 60 per cent Filipino ownership is lifted, but they must acquire Filipino participation under a prescribed time schedule. The additional incentives they receive are exempted from all national taxes, except income tax that

graduates in diminishing rates, the right to employ foreign nationals and a post-operative tariff protection.

Being based on tax exemptions and fiscal incentives on capital equipment, the Investment Incentives Act seems to have produced, together with the credit and tariff policy, a bias in favour of capital intensive investment and one in favour of capital goods relative to consumer goods. The incentive system has also greatly favoured production for the home market and penalized export industries except those with access to duty-free imports. In order to reduce this propensity, the government amended the Act in September 1972 to include among other things a deduction for direct labour cost and labour training expenses incurred for upgrading the productivity and efficiency of unskilled labour. In spite of this amendment, however, BOI registered projects have maintained a high level of capital intensity: the World Bank mission, by examining the BOI expansion programme for the last years (1976 - 1978), discovered that the investment cost per worker of the projects under the Priorities Plan was extremely high (653 thousand pesos at 1974 prices) and that such a high capital-labour ratio is rarely found in countries at a similar stage of development.<sup>1/</sup>

Some special incentives for multinational corporations were introduced in 1973 in a bid to attract regional and area headquarters of these companies to Manila. They include some income tax exemptions and exemption from various residential obligations for expatriate staff.

In general the protective effect of the investment incentives system has been small in the aggregate. It has been estimated that the tariff equivalent of tax subsidies averages only 1.4 per cent. However, from the point of view of the individual firm, BOI benefits can be an important factor in its profitability, especially in the case of large investments. The benefits under the investment incentives act have tended to be to the larger and more capital-intensive firms. Of those producing for the domestic market and primary export processing firms, a relatively small proportion went to smaller firms. On the other hand, benefits under the Export Incentives Act have been more evenly distributed over firms of varying size and have gone to more labour-intensive ones. Finally, as mentioned above, the capital intensity of BOI preferred prospects were generally higher than industry averages, while capital efficiency estimates were lower.

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<sup>1/</sup> World Bank, The Philippines, Priorities and Prospects for Development op.cit., pp. 196-201.



As the manufacturing sector grows it is essential that the fiscal incentive system be simplified, that the range of possible incentives be narrowed down and that decisions increasingly be governed by considerations of employment creation, comparative advantage and regional dispersion. The provision of adequate long-term financing may be more important than special fiscal incentives. Furthermore, there appears to be a need for linking subsector planning and investment decisions with the extension of long-term financing.

#### Export Incentives

The Investment Incentives Act also accorded some additional incentives to export producers, in the form of tax credit on taxes and duties paid on the supplies, raw materials and semi-manufactured products used in export production, as well as a double deduction of promotional expenses for exports. In the export promotion drive of the 1970s the government introduced a more consistent set of provisions in favour of export production.

The 1970 Export Incentives Act exempted industrial exports from export taxes and provided additional tax credits on export sales and excise taxes on inputs. A 1973 decree made the total cost of direct labour and local raw materials used in export production deductible from income before taxes. Incentives under the Act are in principle available to firms that export at least 50 per cent of their output and whose activities are listed in the Export Priorities Plan, prepared each year by the BOI. The Export Priorities Plan lists two types of exportable products: those produced in existing facilities which may undergo an export-oriented expansion (List A), and those in preferred areas of investment whose export potential warrants the establishment of new production facilities (List B). The latter overlaps with the Investment Priorities Plan. The benefits which exporters receive under this Plan are only slightly greater than those enjoyed by all enterprises in the preferred areas.

The Bataan Export Processing Zone offers investors special conditions, more favourable than the ones under the Export Incentives Act. They can be grouped under four headings:

- (i) tax benefits: tax free and customs duty free importation of machineries, equipment, raw materials and supplies; exemption from export taxes; exemption from local taxes; deduction of net-operating loss incurred in the first five years and accelerated depreciation as in the EIA;
- (ii) foreign exchange and financing benefits: priority in the allocation of foreign exchange; loans from financial institutions whose foreign loans are guaranteed by the Philippine government;
- (iii) special provisions for foreign investors: Zone enterprises can be 100 per cent foreign owned; easier residential terms for investors, technicians and supervisory personnel; repatriation of foreign investment and remittance of profits and dividends in full at any time; no expropriation or requisition of property;
- (iv) simplified administrative procedures: assurance of release of all imports and exports within 48 hours; simplified billing procedures.

The effects of the protection system in the Philippines have been to impose the equivalent of a tax on the export sector. However, since the early 1970s the tariff and tax disincentives for export industries have been partly offset by putting approved export producers on a free-trade basis. Bonded warehouses, which are not subject to tax or duty on imported inputs, have benefitted many industries. However, as a group, potential direct and indirect export industries that are subject to tariffs still pay a significant penalty on export sales. Continued export growth would in part rely on product diversification and require elimination of this penalty.

Several procedural improvements are needed in the present export promotion system to reduce overhead expenses, delays, and to eliminate disincentives for exporters. Furthermore, there is a need to reduce the cost of export financing facilities and to improve the access to such facilities, especially for smaller or newly established exporters. The present system is restricted to selected firms in direct export manufacturing and tends to place smaller firms as well as "indirect exports" (i.e. domestic supplies to export firms) at a disadvantage.

Provision for Small- and Medium-Scale Industries

Small- and medium-scale industries receive special attention in the government's programs, both from the technical and from the financial viewpoint.

(i) Technical assistance:

The Medium and Small Industries Coordinated Action Programme (MASICAP) of the Ministry of Industry assists small entrepreneurs in project feasibility studies and in applying to financial institutions for loans. Since its establishment in 1973 until September 1978 MASICAP has assisted 5,300 projects most of which were submitted to financial institutions.

In 1975 the Ministry of Industry established 12 Small Business Advisory Centers (SBAC), one in each administrative region, to provide managerial and technical consultancy services to small business enterprises.

The Ministry of Trade has organized the establishment of Trade Assistance Centers to work in coordination with the SBAC in providing marketing assistance to small business enterprises. The Design Center of the Philippines and the Food Terminal Inc. also provide marketing related assistance to small and medium-scale industries for product design and development, storage and distribution.

In conjunction with the Commission on Small and Medium Industries (CSMI), the Economic and Social Commission for Asia and the Pacific (ESCAP) is attempting to identify growth centers in non-metropolitan areas and specific industries which have significant forward and backward linkages; ESCAP will provide the funds while CSMI will be in charge of project management. A CSMI Technology Services Delivery System has been prepared by UNIDO to transfer relevant technology to end-users in rural areas. Other programs include a collective marketing scheme by the Ministry of Trade to enable small and medium-scale industries to take advantage of economies of scale in marketing and distribution, a subcontracting promotion programme by the same Ministry and an industrial estate development programme by NEDA.

(ii) Financial assistance:

The two major sources of medium and long term credit for small and medium-scale industries are the Development Bank of the Philippines (DBP) and the Industrial Guarantee and Loan Fund (IGLF), of which the former is the more important. They provide credit at low interest rates, working capital loans extended for a maximum of three years, and longer repayment periods.

Between July 1975 and September 1978, total approvals for small and medium-scale industry loans by DBP amounted to 466.4 million pesos for 1,119 projects. During the same period, IGLF approved 384 projects for 37.8 million pesos.

Geographical Decentralization

Besides the creation of Export Processing Zones, the government has taken several steps towards geographical decentralization to check expansion in the Manila area and create conditions for more balanced growth. They include: fiscal incentives to encourage projects to locate in less developed areas, promotional measures by the BOI such as regional seminars, negotiation of the project location before BOI approval, a ban on new plants within a 50 km radius of Manila (except for export industries), and the requirement that financing institutions in the provinces allocate 75 per cent of their accumulated deposits for loans to projects in their respective areas. These policies have actually been implemented (as an example, the share of industrial lending of the Development Bank of the Philippines allocated in the Manila area decreased from 35.2 per cent in 1974 to 23.4 per cent in 1977). It does not seem, however, that fiscal and credit incentives are sufficient to overcome the disadvantage of operating in peripheral areas, where all the other facilities are often not present or are totally missing.

One of the main problems in industrial decentralization and the development of the poorer regions is the inadequate provision of economic infrastructure and the low level of public expenditure in this field. Only in the last few years the government has increased its contribution to the provision of infrastructure and transport in particular is a serious problem given the geographical characteristics of the country.

In the Five-Year Plan, priority is given to the provision of basic transport services in new growth centers and depressed areas with rich potentials, especially where improved transport facilities will eliminate severe constraints to increase productivity. In rural areas, the strategy centers on the intensive construction of feeder and farm-to-market roads, whereas in urban areas the emphasis will focus on traffic management and the elimination of bottlenecks in the most congested areas. For interisland transport, the plan envisages the construction of national and regional seaports and trunkline, secondary airports, complementary ferry services, and access roads.

#### Policies for Accelerating Growth

To realize the potential of industrial development in the Philippines, new policies need to be evolved through adaptation to new conditions and opportunities. The main elements in any new policy approach for accelerating growth have been enunciated in a recent study by Barend A. de Vries: "Transition toward more rapid and labour-intensive industrial development - The case of the Philippines".<sup>1/</sup> The main conclusions emanating from this analysis are briefly summarized in the following paragraphs.

The major problems in the Philippines to which future industrial policies must be addressed are the sluggish employment record in manufacturing, the slow growth of output in domestic industries, and the heavy concentration of manufacturing in the Manila metropolitan area (except resource-based industries). These forces combined have resulted in a high degree of industrial concentration. Several industries are no longer in need of special incentives (e.g. food processing and canning), which makes the pursuit of adequate general policies more essential. Certain industries have grown rapidly, but others have lagged behind, notably producer goods industries, and these should receive more incentives. A number of industries are in need of rehabilitation or new investment to become more efficient and competitive. Some industries suffer from a state of excess capacity. While emphasis is placed on expanding labour-intensive industries, attention is also required to correct certain imbalances in the basic industrial structure, which will require substantial investment. In capital-intensive industries such as cement, integrated steel industry and petrochemicals, failure to correct these imbalances may eventually impose a costly burden on the industrializing economy.

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<sup>1/</sup> 15 October 1979. Forthcoming in the UNIDO journal Industry and Development.

In industrial strategy, vigorous manufacturing export growth is essential to industrial growth, employment, balance of payments, as well as efficient resource utilization for longer-term development of the entire manufacturing sector. The export sector is moderate in comparison with the achievement of some other developing countries in Asia and the Pacific and well within the potential of the Philippines. International experience has demonstrated that an export strategy can be successful in an expanding and "open" international environment and in countries with reasonably low-cost and well-trained labour supply and relatively free entry of capable entrepreneurs into the export sector. While the Philippines meets these conditions, there is a genuine concern that export growth may be frustrated by protectionism and economic constraints in the industrialized countries. This would point to the importance of strengthening the competitiveness and the productive and technological capacity of both the domestic and export industries.

The modernization, rehabilitation and restructuring of domestic industries holds the key to increasing the capital efficiency and investment returns in the economy. It includes the more capital-intensive industries which are needed to assure a reliable supply of intermediate goods and industrial raw materials at economic prices. Through more emphasis on labour-intensive industries and geographical dispersion and cottage industries, the manufacturing sector can play an essential role in providing direct and indirect employment, improving the conditions of the poorer population groups and the economic prospects of outlying regions and small cities. Many opportunities exist to increase the links between manufacturing and the rest of the economy and between industrial and other aspects of development policy. Greater agricultural supplies, especially from the small farmer to the important food processing industries, are essential. Export industries can increasingly rely on domestic industries for the supply of raw materials and intermediate inputs.

The central policy element for accelerating industrial growth will necessarily have to be a gradual but broad reduction in import protection, evening out present differences in effective rates. Cost competitiveness and efficiency in several industries (e.g. textiles and steel) will need to be simultaneously improved through rehabilitation and new investment. On the

other hand, protection could be increased selectively and gradually in certain simple producer goods industries where the Philippines' dynamic comparative advantage is currently underutilized. In other cases, present levels of effective protection might be permitted to continue on certain conditions. The full impact of changes in industrial policies will only be realized as they are matched by corresponding expansion by private commercial credit and allocation of investment credit. Technical and technological assistance should be supplied more effectively to individual firms. The specialized institutes should maintain close contact at the individual enterprise level and their operations should be linked to the small industry programme. Furthermore, the technical institutes may be instrumental in improving vocational training in selected industries. The adaptations and reforms in the incentive system will require concerted action. These tariff changes are carried to specific industry conditions they must be associated with simultaneous related improvements in investment credit, import licensing, export promotion and other policies.

It is essential that the policy reforms as outlined above be accompanied by increased investments in priority industries:

- (i) Top priority should be assigned to continued expansion of labour-intensive manufactured export industries and broader participation in this export drive. Domestic industries should increasingly be able to supply a larger share of the requirements of export industries. If backward linkages are to be successfully developed, the capital efficiency and cost levels of input-producing home industries will have to be simultaneously improved. In Addition, the proportion of value added and the skill component will have to be increased and the product mix diversified.
- (ii) Of equal priority are special industry programmes for the footwear and furniture industries envisaged as a component of the small industry programme and small-scale weaving. The smaller enterprise, in both industries requiring more technical and marketing assistance, moderate improvement in equipment, help in improving domestic raw material supplies and are suitable for more extensive regional dispersal.

- (iii) The food processing industry, being the largest single industry in terms of output and employment, has a significant role to push in improving utilization of rich domestic resources for domestic consumption, greater production of nutritious low-cost foods, exports, direct and indirect employment and regional (resource-oriented) development. While new investment in this industry may be moderate, substantial additional efforts are needed to improve raw material supplies.
- (iv) Next in priority is a group of industries where necessary new investment or rehabilitation should be undertaken to correct conditions which at least in part have been caused by excessive protection and/or excessive financing, or excessive neglect by the incentive system. Investment in these industries is likely to have a high economic return because they will have possible considerably lower costs and increased capital efficiency, and enable the industries to supply at least part of their output to export industries or enable the Philippines to exploit a comparative advantage.

The industry programmes relevant to this priority category include

- (a) The textile industry rehabilitation programme - about half the industry is efficient, but the rest suffers from obsolete machinery and can at present only survive as a result of high protection. Rehabilitation would go hand in hand with a lowering of protection, be combined with increased product specialization and would result in cost reduction, improved utilization of capacity and export.
- (b) The steel rolling industry requires modernization and investment which would expand the capacity of national steel's cold rolling mill to its ultimate potential of 700,000 tons/year. This investment would permit the company to increase productivity, lower costs of production and prices which still producing an economic returns.
- (c) The mechanical engineering industry is in need of greater incentives from the Government including more technical assistance and long-term investment financing in the interest of efficient longer-run development.



- (d) A rehabilitation programme for the cement industry is needed to restore run-down facilities. The programme should also include improvements in pollution control and have a coal conversion component.
- (e) Finally, there are several capital-intensive industries deserving attention in the next 5-10 years, including integrated steel (\$1.3 billion) and cement (\$1 billion). The proposed integrated steel project would ensure a more reliable supply of steel to Philippine industry over a period when steel-using branches will gain importance. The large investment in steel would not necessarily come at the expense of other high priority claims in infrastructure, agriculture and other branches of manufacturing, but a balance must be struck among competing priority claims lest the efforts of continued manufactured export growth and necessary industrial rehabilitation fail.

Chapter IV

THE INSTITUTIONAL INFRASTRUCTURE FOR INDUSTRY;  
OWNERSHIP STATUS AND REGIONAL INDUSTRIAL CO-OPERATION

The Institutional Infrastructure for Industry

The Philippines have a rich and fairly complex system of public institutions directly or indirectly involved in promotion and assistance to industry. Only the most important aspects of national planning, investment and financing, small-scale and cottage industries, export promotion, and industrial research are dealt with in the present chapter.

National Planning: the National Economic and Development Authority (NEDA)

NEDA was created in 1973 to replace previous institutions concerned with national economic planning. It is responsible for the formulation and updating of long- and short-term national development plans as well as for the identification and coordination of policies at the national and regional levels. The main functions of NEDA are:

- (a) to formulate, in consultation with the private sector and other government agencies, definite and consistent long-range and annual economic and social development plans and programmes;
- (b) to coordinate the formulation and implementation of national policies in fiscal, budgetary, monetary, credit, tariff, investment, production, price, manpower, trade and other economic matters;
- (c) to analyze, coordinate and initiate major development projects on government funds;
- (d) to coordinate the implementation of national, sectoral and regional plans;
- (e) to coordinate and integrate foreign economic and technical assistance programs and to maintain working relationships with international financial institutions;

- (f) to review and recommend to the President the Investment Priorities Plans, Export Priorities Plan and Public Utilities Plan prepared by the Board of Investments.

The planning procedure is an iterative process of decision making between NEDA and other governmental and private institutions. NEDA prepares the macroeconomic plan, setting the targets of sectoral value added, consumption, investment, employment, etc., and defining the resource constraints. Simultaneously, implementing agencies prepare sectoral plans which are subsequently channelled to NEDA for collation and co-ordination.

At the decentralized level, regional and local units also formulate plans according to the various sectors, which NEDA finally checks for consistency at the national level.

Although actual planning works less smoothly than the ideal set-up described here, the process is designed as a simultaneous process of planning from above and from below and should guarantee decentralization and consistency.

#### Investment and Financing Institutions

The central institution which coordinates investment policy is the Board of Investment (BOI). The BOI was created with the 1967 Investment Incentives Act to implement the investment incentive policy. Its main functions can be grouped under three headings:

- (a) investment promotion and evaluation - to identify and promote investment in preferred areas; to prepare project feasibility studies and the annual Investment Priorities Plan, Export Priorities Plan, Public Utilities Priorities Plan and Agro-Business Priorities Plan, to evaluate and subsequently supervise the projects registered under the four priorities plans; to promote the authorization of foreign investment in industrial projects; to disseminate information on investment opportunities.
- (b) Assistance to BOI-registered projects - to process and

evaluate applications for incentives; to assist prospective investors and registered enterprises in the compliance of the requirements of other government offices and financial institutions in order to facilitate joint ventures and the registration of foreign investment.

- (c) Export promotion - to organize product adaptation missions; to spread information about non-traditional export products; to facilitate joint ventures between local and foreign entrepreneurs or subcontracting agreements in developing markets abroad and in acquiring technological assistance.

The BOI also administers the granting of incentives to firms that undertake projects in preferred areas of investment and enforces the Foreign Business Regulation Act which covers the entry of foreign investment in the country.

Development Bank of The Philippines (DBP) is a long-term financing institution originally created to provide credit facilities for the rehabilitation and development of agriculture and industry (including the reconstruction from war damages), and to promote the establishment of private development banks in the provinces and cities. Three of the operating departments of DBP are responsible for the evaluation of projects and for providing financial assistance to industry, in the form of loans and guarantees to projects. It also makes equity investments in selected projects and provides financing to government enterprises. The Bank has specifically given priority to projects which are export-oriented and labour-intensive, and gives special attention to those which process agricultural products and contribute to regional dispersal.

#### Small-scale and Cottage Industries Institutions

Two institutions deal specifically with small-scale and cottage industries:

The National Cottage Industry Development Authority (NACIDA) was created in 1962. NACIDA is responsible for the overall planning,

promotion and development of cottage industries. Cottage industries (defined as industries with total assets of less than 100,000 pesos) are deemed to be very important for employment generation. They need, however, special support on the technical side, financial assistance and marketing organizations. The tasks of NACIDA are to promote the establishment of cottage industries, to survey existing skills, machinery and equipment and raw materials available, to promote standardization and marketing of cottage products, to give small loans to cottage industries and provide them with assistance in their problems of financing, to provide them with technical know-how and field assistance.

The Commission on Small- and Medium Industries (CSMI) was created in 1974 in the Ministry of Industry to provide a coordinated, integrated and comprehensive multi-agency approach to the development of small and medium industries. It co-ordinates 12 agencies, each one with its own budget, all wholly or partly involved in the Government's small- and medium-scale industry development program. Its task is to promote, assist and develop small- and medium-scale industries by co-ordinating the programs of the member-agencies for technical, financial, marketing, purchasing and promotional assistance. It has recently emphasized the importance of establishing links with large industries to encourage subcontracting, transfer of technology and management skills. The CSMI proposes to establish 10,000 new SMI enterprises in manufacturing and industrial services during the Five-year Plan period (1978-82), which are expected to generate the additional 250,000 jobs in the small-scale sector targeted by the Plan.

#### Export Promotion, Research and Other Institutions

The Philippine Export Council was created in 1976 with the aim of contributing to the implementation of the export promotion policy. Its functions are to develop a national export strategy, to prepare short and long term programmes of developmental and promotional activities for export products, to study and recommend government assistance measures that will encourage increased production and enable exportable commodities to become more competitive in international markets, to assist producers,

exporters and government agencies in the promotion of Philippine products, and to encourage the creation of co-operative trading organizations. The FEC is articulated into 18 permanent committees for products or product groups, composed mainly of members from the private sector, which provide recommendations for the respective product group.

The National Science Development Board was set up to promote scientific and technological research both for the agricultural and the industrial sector. It supervises various research agencies, including, inter alia, the National Institute of Science and Technology which offers technical services in industrial R and D, engineering research, testing and standardization services, techno-economic evaluation services; the Philippine Inventions Commission; the Philippine Textile Research Institute; the Metals Industry Development Centre. The Board also provides financial support for research and development and finances the training of adequate scientific and technological manpower. Among its recent specific goals are the search for new export products which could be produced by labour intensive cottage industries from indigenous raw materials, the search for alternative sources of energy, and the development of new processes for the utilization of waste products from agriculture and industry.

The National Manpower and Youth Council was created in 1969. Its task is to develop human resources, establish training institutions and formulate plans to ensure efficient allocation, development and utilization of the nation's manpower. It formulates plans on manpower development, maintains a manpower skills centre and regional training centres, supervises technical assistance programmes.

The Development Academy of the Philippines was established in 1973. It has various institutional tasks, some of which are directly related to industry: training programs, for local management and professional expertise; technical assistance in setting up industrial projects integrated into the overall socio-economic development scheme; and feasibility studies on projects intended to pioneer new industries of government undertakings aimed at accelerating the socio-economic growth of the country.

Participation of the Public and Private  
Sector and Foreign Investment in Industrial Development

The Public and the Private Industrial Sector

The Philippine economy is mostly in private hands. State direct involvement has traditionally been very limited, not only in the industrial sector, but also in sectors which are usually mostly public, such as infrastructures and utilities. On the other hand, the Philippines seem to be endowed with a relatively good entrepreneurial capacity. Many of these entrepreneurs were historically engaged in trade and traditional exports, and were induced to move into industrial activities through the import substitution policy. All the measures undertaken to create favourable conditions for the setting up of new industries (protection, exchange rate policy, low interest rates) had the effect of shifting profits and resources towards the industrial sector and thus to favour the emergence of a new industrial society.

This does not imply that the State has no role in determining the level and pattern of capital accumulation. On the contrary, the extensive utilization of monetary fiscal and credit policy gives the State a large power in determining the pattern of growth of the industrial sector; it only uses it preferably in an indirect way. Thus the whole stage of infant industry protection placed the direction of the new investment into the hands of the Government which was allocating foreign exchange and determining the specific protection rates. When the prospects for the finishing stage import substitution were exhausted, it was again the Government which had to engineer the shift to secondary import substitution to avoid a decline in entrepreneurial profits. And the present export promotion policy is associated with a continued heavy reliance on government direction, placing a heavier burden on fiscal incentives, as provided by the BOI, and credit rationing at low interest rates, as provided by the banks. <sup>1/</sup>

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<sup>1/</sup> This interpretation of the state role is drawn from ILO, Sharing in Development, etc., op. cit.

Where monetary, fiscal and credit policies do not suffice to induce the private sector to enter industrial activities, the Government engineers specific programs of entrepreneurs development. This is particularly important in the case of small-scale industries, which encounter bigger problems in getting access to credit and other facilities. Beside the institutions already described which specifically deal with small-scale and cottage industry, it is worth mentioning the UP ISSI-NMYC-DBP Program, designed to stimulate entrepreneurial activities in the rural areas. Launched in 1973, it is organized by the University of the Philippines Institute for Small-Scale Industries (UP ISSI) in co-operation with the National Manpower and Youth Council (NMYC) and the Development Bank of Philippines (DBP). They conduct courses in specific rural areas identified as growth centers. Participants are carefully selected among the local business community and professionals on the basis not only of their financial resources but also of their psychological traits and attitudes. The courses are aimed at developing the managerial skills of the participants, along with providing them with training in feasibility studies and project preparation and making them aware of the sources of assistance for new enterprises. Successful participants will subsequently receive financial assistance by DBP and IGLF, and marketing, technical and managerial assistance by the various agencies of CSMI.

Direct state participation in manufacturing has been and still is negligible. The situation was different in the first decade of independence, when the Government was directly producing many manufactures such as coal, cement, steel and paper, and textiles, and had substantial investment in other manufacturing enterprises. From 1954 onward most of the government enterprises were sold to the private sector and the Government confined its activity to public utilities.

Government intervention is becoming an issue again with the large-scale projects which are to be started in the next five years. This is because the large-scale heavy industry projects require too large an equity to be feasible for domestic private investors. Consequently, a government majority share is planned in the urea fertilizer project and in the integrated steel project, and 49 per cent government participation is planned in the copper-smelter project.



### Foreign Investment

Foreign investment is in principle welcome in the Philippines and the conditions offered to foreign capital are generally regarded as favourable. New investment in which the foreign equity participation is in excess of 30 per cent, require the prior approval of the BOI. As stated earlier, foreign participation is in principle limited to 40 per cent of equity, however, 100 per cent foreign ownership is permitted in pioneer industries, in export-oriented industries where more than 70 per cent of output is exported and in non-pioneer preferred industries where Filipino nationals show themselves unwilling to supply the local market after a period of three years. In all those cases, foreign equity participation must be reduced over a long time schedule (30-40 years). Foreign investment in the above mentioned industries enjoy the same incentives as domestic capital.

Full remittance of profits and dividends and full repatriation of capital are allowed for new investment made since March 1973. For foreign investment in existence at that date repatriation would need to be on a staggered schedule. According to the constitution, expropriation for public use is allowed but only with payment of just compensation.

The aggregate foreign investment registered with BOI since its inception in 1968 up to the end of 1973, classified by country and major industry grouping, is shown in table 31. US investors have been the more active historically and also in recent years. The Japanese share substantially increased (and Japan is now the second biggest foreign investor in the country) after 1974, when a treaty on commerce and friendship was ratified. Other investors are Spain, UK and Switzerland. Most foreign investment is in heavy industry (mineral processing and chemical based industries). Again the distribution is likely to have somewhat changed in the last few years, as a result of the establishment of footlose industries mainly in the engineering sector (electrical-electronics).

After the declaration of martial law, foreign investment has been very much fluctuating following changing business expectations in regard to political stability of the country. The first impact of martial law

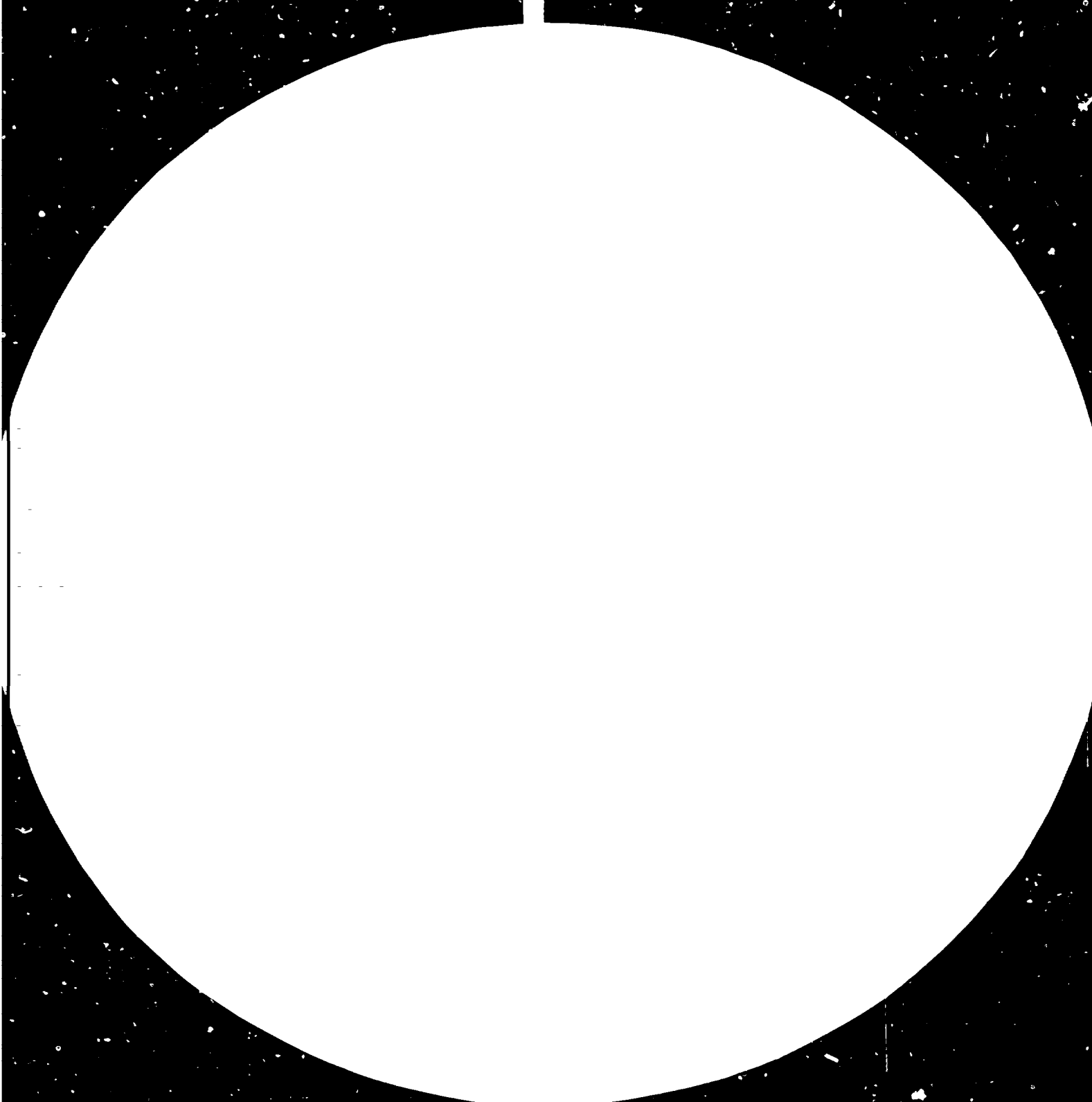
Table 31. Total subscribed capital of BOT-registered projects until end-1973

	Agri-based		Mining- mineral proc.		Engineering		Chemical-based		Total	
	P millions	% of total	P millions	% of total	P millions	% of total	P millions	% of total	P millions	%
Total local and foreign	517	32.0	424	26.2	255	15.8	422	26.0	1,618	100
Total foreign only	72	21.1	107	31.4	39	11.4	123	36.1	341	100
US (12.4% of grand total)	59	29.4	54	26.9	29	14.4	59	29.4	201	100
Spain (1.6% of grand total)	7	26.9	3	11.5	-	0.0	16	61.5	26	100
Japan (1.3% of grand total)	1	4.8	5	23.8	1	4.8	14	66.7	21	100
UK (0.6% of grand total)	1	10.0	2	20.0	7	70.0	0	0.0	10	100
Switzerland (0.3% of grand total)	-	0.0	3	60.0	-	0.0	2	40.0	5	100
Other (3.8% of grand total)	3	4.8	33	53.2	1	1.6	25	40.3	62	100

Source: Business International, The Philippines: Operating for Profit in the New Society, 1974, p. 70.

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was a sharp increase in foreign investment, due to the improvement in the investment climate and the more favourable attitude of the Government. Overall they increased by 60 per cent with respect to the eleven months preceding the martial law. US investment was at a standstill in 1974, when the Laurel - Langley Agreement expired, subsequently resumed and still represents the largest share. From data provided by the Central Bank covering the period February 1970 - September 1977, direct foreign investment amounted to roughly \$771 million, of which \$352 million (i.e. almost one-half) is from the US, \$175 from Japan, \$52 million from Canada, \$38 million from Hong Kong, \$37 million from the UK, \$27 million from Switzerland and the balance from other countries. Of those, over 50 per cent went to manufacturing and, within manufacturing, mostly into export-oriented ventures.<sup>1/</sup> Japanese investment, representing the highest increases in the last few years, is often minority shares (and sometimes partnerships with American investors). They now have a major role in the car industry, electrical appliances and textiles.

An opposite trend has been, however, emerging in the last two years (1978 and first quarter 1979): according to the Central Bank, withdrawal of foreign investment from the Philippines rose from US \$7.9 million in January-August 1977 to \$11.59 million in the same period of 1978 to \$37.21 million in the first four months of 1979. In addition, new investment has been slow. In the first quarter of 1979, approved foreign investment in new ventures was only a third of the level in the same period of the previous year. The interpretations of this new trend vary. The Government claims that the only reason is to be found in the high rate of inflation and worldwide recessionary trends, whereas critics of government policies point out that the general investment climate has worsened (which would be proved also by the drop in domestic investment, see Table 32) and the foreign business community has lower expectations about the

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<sup>1/</sup> "Focus on the Philippines", A special report by International Herald Tribune, Zurich, February 1978.

political stability of the country.<sup>1/</sup>

Table 32. Approved new investments in 1978 and 1979

(P'000)	Jan.-Mar. 78	Jan.-Mar. 79	% change
Joint ventures	300,106	81,172	-73
Wholly foreign	166,852	59,668	-64
Wholly local	101,481	67,931	-33
TOTAL	568,439	208,771	-63

Source: Far Eastern Economic Review, June 29, 1979.

Regional Co-operation for Industrial Development

The Philippines is a member of the Association of South East Asian Nations (ASEAN, created in 1967), along with Indonesia, Malaysia, Singapore and Thailand. The aim of ASEAN is to promote active collaboration and mutual assistance in economic, technical and scientific fields. The two main achievements in economic co-operation are trade liberalization and industrial complementarity agreements. In trade, the long term goal is to create a free trade area or a common market, through a gradual step-by-step and item-by-item approach. Active consideration is being given also to setting up, buying and selling co-operatives in order to improve the terms of trade of ASEAN vis-à-vis developed countries. The purpose of industrial complementarity agreements, on the other hand, is the creation of a larger-than-national market for certain large-scale industries, which allows economies of scale and economic viability for projects that would not otherwise be undertaken by a single country. An additional purpose is to avoid duplication of industries and encourage

1/ Far Eastern Economic Review, Asia 1979 Yearbook; and Far Eastern Economic Review, 29 June 1979.

specialization between member countries. <sup>1/</sup>

#### Regional Co-operation in Trade

Within the step-by-step approach to trade liberalization, ASEAN countries signed a Preferential Trade Agreement in February 1977. The instruments for the implementation of the Agreement have been identified as follows: extension of tariff preferences, liberalization of non-tariff measures on a preferential basis, long-term quantity contracts, purchase finance support at preferential interest rates, preference in procurement by government entities.

Under the Preferential Trade Agreement, 71 items have been identified for preferential trading according to two lists, one being a list of 21 products which have been agreed upon by all countries for preferential trading and the other being a list of 50 products offered voluntarily by each of the countries for preferential treatment. Whether ASEAN trade agreements can have a trade creation effect between member countries is uncertain. As has been the case with other free trade areas among developing countries, the problem is how successfully economies at more or less the same level of development can integrate their markets. In ASEAN, Singapore is highly industrialized with respect to the other member countries and its economy is very much dependent on external trade, whereas the exports of the other members tend to be competitive rather than complementary. Philippine trade with ASEAN is 6 per cent of its total trade (in 1978) and is expected to increase to 10 per cent by 1987. Philippines' most important trading partner is Indonesia: 99 per cent of Philippines' imports from Indonesia consist of oil (1976), which, however, are a minor part of the country's total oil imports. The Philippines' exports to Indonesia mainly consist of light industrial products (included in SITC 6: 71 per cent in 1976). Philippines' trade with Thailand is dominated by food

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<sup>1/</sup> For a comprehensive description of ASEAN co-operation and institutions see ASEAN Industrial Co-operation, prepared by the International Centre for Industrial Studies, UNIDO 1978, mimeo.



(85 per cent of Philippine imports in 1976), which the Philippines import when local production is insufficient, whereas in the opposite direction the Philippines exports chemicals and SITC 6 manufactures (67.8 per cent of the total). From Malaysia the Philippines import again mainly food (72 per cent of total), whereas its exports to Malaysia are more evenly distributed (63 per cent of them are manufactures - SITC 5 to 8).

Trade with Singapore is more difficult to analyse since much consists of re-exports. Around 44 per cent of Philippine imports from Singapore are machinery and transport equipment (SITC 7), while 37.8 per cent of Philippine exports to Singapore is food. Thus, with the only exception of Singapore, from the other member countries the Philippines imports mainly raw materials and exports mainly manufactured goods.

Overall, the Philippines imports much more from its partners than it exports to them. The composition of trade, however, would indicate a relative specialization in manufactures. Taking as a rough indicator SITC groups 1 to 4 for primary commodities and SITC 5 to 8 for manufactures, the Philippines' exports to ASEAN in 1976 were 60 per cent manufactures and 39 per cent primary goods, while its imports from ASEAN in the same year were 77 per cent commodities and 21 per cent manufactured goods.

#### Industrial Complementmentation Schemes

Much of ASEAN industrial co-operation is implemented by the private sector. An ASEAN Chamber of Commerce and Industry was organized in 1971. connected herewith are Regional Industry Clubs, representing each of the identified industries for possible regional industrial complementmentation. The sectors where such clubs are by now present are automotive, electrical and electronics industries, food processing, rubber and glass. They identify products from the existing plants in the member countries that can be traded among them and negotiate preliminarily the extent of tariffs and other trading preferences needed to stimulate this trade.

A further aspect of ASEAN industrial co-operation is the establishment of ASEAN Industrial Projects. These are large scale and generally

heavy industry projects undertaken by the Governments. In the first five projects, the host country will have 60 per cent of total equity, the balance being shared equally by the other ASEAN countries. The products are assured preferential access to the member countries through the various instruments of preferential trade agreements. The first five projects are: an ammonia-urea plant each in Indonesia and Malaysia, a diesel engine project in Singapore, a rock-salt and soda ash project in Thailand, and a phosphatic fertilizer project in the Philippines.

The Philippine phosphatic fertilizer plant is proposed to be in commercial operation by 1981 with a capacity of 105,000 metric tons per year. It will utilize sulfuric acid from the proposed national copper smelter project.

Among the other ASEAN projects for which feasibility studies are to be undertaken (newsprint, potash, metal working machine tools, fisheries, electrolytic tin-plating, heavy duty rubber tyres, and TV picture tubes), Philippines has been designated the preparation of feasibility studies for newsprint and electrolytic tin-plating.

#### Other Regional Agreements

The Philippines is actively taking part in regional and sub-regional arrangements in the field of Technical Co-operation among Developing Countries.

In the Colombo Plan, the Philippines is both a donor and a recipient. As a donor, it has a standing offer of 10 training slots yearly, but these are mainly concentrated in agricultural studies. As a recipient, it has sent out about 440 students since 1968, mainly to developed-country Plan members. It has also received about 1,300 foreign technical experts since 1950, advisers from Colombo Plan members and technical equipment.

In the Third Country Training Schemes, the Philippines is involved in a USAID/Philippines Regional Training project, under which it is receiving trainees from 18 Colombo Plan members. Additional training facilities are being provided under the various United Nations training

programmes.

In the field of technical co-operation among developing countries, various bilateral arrangements exist with Egypt, Romania, Gabon, Israel, Brazil, Lybia, Indonesia, Mexico, Spain, Nigeria, and Gambia.<sup>1/</sup>

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<sup>1/</sup> For details, see "Technical Co-operation among Developing Countries: National Report for the Philippines", in Philippine Development, Vol. VI, No. 7, August 31, 1978.

Chapter V

REVIEW OF OFFICIAL DEVELOPMENT ASSISTANCE AND UNIDO CO-OPERATION

Foreign aid has been important in the economic development of the Philippines since the 1950s and 1960s. Most of the foreign assistance during the 1950 came from the United States. During the 1960s a significant proportion came from multilateral sources. In the span of both decades foreign aid provided about 10 per cent of the foreign exchange requirements of the Philippines, and the total inflow was equal to about one per cent of GNP.

The importance of foreign aid increased domestically after the creation of the Consultative Group for the Philippines in 1971. The Consultative Group is chaired by the World Bank and co-ordinates external aid from major national and international sources. Member countries are Australia, Belgium, Canada, France, the Federal Republic of Germany, Iran, Italy, Japan, New Zealand, Spain, the UK, the US and Yugoslavia. Member institutions include besides the World Bank and IMF, the Asian Development Bank, EEC, OECD and UNDP. In the period 1970-1974 foreign aid provided about 14 per cent of the foreign exchange requirements (against 7 per cent in 1965/1969) and a loan from multinational sources provided about half the total (as opposed to one-third in the earlier period). Development loans became much more important with respect to grants. As far as the sectoral distribution is concerned, industry received in 1970-74, 14 per cent of the total, decreasing its share from the previous period in favour of transport and other infrastructure. Data on official development assistance for the last five years are given in Table 33. The increasing trend continues particularly for multilateral assistance (80 per cent in 1976). Development loans are becoming increasingly important (90 per cent) with respect to grants. Japan emerged as a major aid donor in the 1970s, although its share is not increasing. The major and increasing shares are provided by the World Bank Group and the Asian Development Bank, while the share of UN agencies is a minor one.

Table 33. Official development assistance on  
a commitment basis, 1973-1977  
(million US dollars)

	Actual				Estimates
	1973	1974	1975	1976	1977
<b>GRAND TOTAL</b>	<b>312.4</b>	<b>454.0</b>	<b>384.3</b>	<b>570.2</b>	<b>657.2</b>
<b>A. Bilateral</b>	<b>149.6</b>	<b>134.4</b>	<b>154.1</b>	<b>112.1</b>	<b>147.2</b>
1. United States	81.0	57.5	69.5	70.8	78.1
Technical assistance	46.7	13.2	3.8	14.3	8.8
Development loans	25.2	33.0	50.0	42.0	36.9
PL 480 Title I	-	3.5	-	-	12.0
PL 480 Title II	8.1	7.8	15.7	14.5	20.4
2. Japan	64.3	57.7	62.6	31.0	61.7
Technical assistance	2.5	1.5	1.5	1.6	1.7
Loans	61.8	56.2	61.1	29.4	60.0
3. Others	4.3	19.2	22.0	10.3	7.4
Technical assistance	3.0	3.0	7.5	9.0	6.0
Development loans	1.3	16.2	14.5	1.3	1.4
<b>B. Multilateral</b>	<b>162.8</b>	<b>319.6</b>	<b>230.2</b>	<b>458.1</b>	<b>510.0</b>
1. World Bank Group	98.4	227.0	114.0	336.0	350.0
2. Asian Development Bank	53.6	83.1	106.0	116.2	155.0
3. UNDP	4.1	6.1	6.5	3.5	2.1
4. UNWFP	3.8	0.7	0.7	0.7	1.6
5. UNICEF	0.7	1.2	1.1	0.6	1.0
6. UNFPA	2.2	1.5	1.9	1.1	0.3

Source: Five Year Philippine Development Plan, 1978-1982, p. 402.

Unfortunately no breakdown by sector is available.

UNIDO assistance to the Philippines since 1972 includes two major projects whose value exceeded US\$ 100,000, namely assistance to the metals industry research and development centre (US\$ 763,292) and assistance in the field of mobile testing unit with provision of fellowships (US\$ 122,212). UNIDO has provided assistance through a number of medium-sized projects, whose value ranged between US \$ 15,000 - 100,000 in the following fields: footwear, fertilizers, garments, sugar (research), Institute of Small-scale Industries, Textile Research Institute, industrial fermentation, Central Industry Data Bank, industrial standards, National Institute of Science and Technology (testing), Productivity and Development Centre (value analysis, quality control), National Science Development Board (research), Study for West Laguna Industrial Estate, Metric Board System, National Steel Corporation (operations research), and indigenous energy resources. Further, UNIDO has provided assistance through a number of smaller projects whose value was less than US \$ 15,000 in the fields of cottage industries, footwear, garments, packaging, wooden prefabricated housing, organization and administration of industrial services, industrial studies promotion, industrial policies, identification and preparation of industrial projects, industrial programming, research, industrial investment promotion, promotion of chemical investment projects, analysis and decision-making system, export products identification, product adaptation for export, industrial estates organization, transfer of technology, assistance to Board of Investments, Electrical and Electronics Testing Centre, industrial extension services for small-scale industry, bio-gas technology, organization of standards norms, identification of training activities, Institute of Small-scale Industries, mould design and making for plastics industry, pollution, study tours, and finally fellowships in the field of industrial management courses and small-scale enterprises.

The UNDP Second Country Programme covers the period 1977-1981 and consequently takes into account the objectives of the 1978-1982 Plan, along with the guidelines of medium-term and perspective plans. Out of a total planned expenditure of US\$ 29.5 million, industry, energy, science

and technology receive an allocation of \$4.09 million or 14 per cent (\$ 1,285,000 for on-going projects and \$ 2,805,000 for new projects). The largest share - 22 per cent - goes to agriculture, followed by general and regional development with 18 per cent. The projects for execution by UNIDO are one on-going and three new ones, for a total of \$ 2,316,000, which makes 9 per cent of the total amount programmed and 56 per cent of resources allocated to industry.

The on-going UNIDO programme in the UNDP Country Programme refers to Assistance to the Metal Industry Research and Development Centre, Phase II (PHI/74/004). Total duration is 3 years. The approved UNDP contribution amounts to US\$ 1,777,450. This project is an expansion of the preceding Phase I (PHI/69/530). The objective is to strengthen the technical development of domestic metal industries. The immediate objectives of the Phase II project are (a) to sustain and expand research and extension services provided by the Centre in tool-making, heat treatment, instrumentation, mechanical maintenance and other technical fields; and (b) to develop new programmes in such areas as metal casting, tool design, machine rebuilding and production engineering. The government co-operating agency is the National Science Development Board.

The UNDP Country Programming includes three new projects for which UNIDO has been designated as executing agency:

- i) Assistance to Small- and Medium-scale Industry (SI/PEI/77/004). The project, which was expected to have a total duration of 4 years and total estimated UNDP contribution of US\$ 400,000, was originally intended to support regional industrialization and maximum labour-force utilization, with particular attention to rural areas. The concept was changed and emphasis placed on setting up a system to assist rural-based small and medium industries in improving quality and productivity. The project is operational.
- ii) General Assistance to Industry. This project was expected to have a total duration of five years and an estimated total UNDP contribution of US\$ 600,000. The basic aim was to support development and technological transfer in a range of industrial sub-sectors, primarily through the provision of advisory

services and training. The project was to be of an "umbrella" nature, with the specific sub-sectors to be identified and serviced on an ad hoc basis, as required during the implementation of the project. However, the Government ultimately decided to break it into smaller projects, which are indicated below.

iii) Promotion of Industrial Sub-contracting (PHI/78/010).

The project is expected to have a total duration of one year. Total UNDP contribution is estimated at US\$ 75,000. The basic purpose is to encourage fuller utilization of Philippine industrial capacity by encouraging: (a) sub-contracting production for enterprises in economically advanced countries; (b) closer linkages between domestic industries; (c) an increased flow of industrial technology into the Philippines. Its immediate focus is on the metal industry sector. The project is now on-going. One industrial sub-contracting expert has been assigned to the project since September 1979.

A list of approved and operational UNIDO projects in the Philippines as of January 1980 is given in Table 34. Three of the four UNIDO projects included in the country programme are now operational. As of January 1980 the project for strengthening the Technology Transfer Board of the Ministry of Industry, one of the four projects which replaced that in General Assistance to Industry (see sub-paragraph above) has been approved and is now operational. The project documents for the other three, namely, Assistance in the Development of Barangay Industries, Packaging Research and Development, and Sectoral Studies and Technical Assistance to Industry, are awaiting the endorsement of the Government. An additional project on training in investment promotion was approved and is under implementation.

A number of other UNIDO activities are being examined, formulated and developed in co-operation with the Government. These new projects are at various stages of project preparation and include inter alia the following pipeline projects:

1. Assistance in the Development of Barangay Industries;
2. Pilot and Demonstration Centre for the Leather Goods Industry;
3. Packaging Research and Development Centre;



Table 34. UNIDO approved and operational projects in the Philippines  
(as of January 1980)

Project Number	Title	Total expenditure
DP/PHI/74/004	Assistance to the Metals Industry Research and Development Centre, Phase II (Total allotment: US 31,365,585 <sup>a/</sup> )	US 31,237,817 <sup>a/</sup>
DP/PHI/77/004	Quality control and productivity improvement (Total allotment: US 3400,000 <sup>a/</sup> )	56,414 <sup>a/</sup>
DP/PHI/78/008	Strengthening of the Technology Transfer Board of the Ministry of Industry (Total allotment: US 2133,000 <sup>a/</sup> )	- <sup>a/</sup>
DP/PHI/78/010	Promotion of Industrial Subcontracting (Total allotment: US 166,900 <sup>a/</sup> )	14,770 <sup>a/</sup>
DP/PHI/79/006	Training in Investment Promotion (Total allotment: US 120,650 <sup>a/</sup> )	5,213 <sup>a/</sup>
RP/PHI/79/002	Fellowship in the Field of Food Technology and Food Processing (Total allotment: US 39,470 <sup>a/</sup> )	- <sup>a/</sup>
SI/PHI/79/301	Assistance to the Commission of Small and Medium-Scale Industries (Total allotment: US 129,100 <sup>a/</sup> )	17,968 <sup>a/</sup>
TS/PHI/79/001	Preparatory Mission to Establish a Footwear Training and Demonstration Centre (Total allotment: US 32,750 <sup>a/</sup> )	2,537 <sup>a/</sup>
SI/PHI/78/801	Assistance to the National Steel Corporation	-
SI/PHI/79/302	Two local wood industries projects	-

<sup>a/</sup> Based on computer print-out UNIDO-UNAF02, dated 3 January 1980 (status of allotments for projects as of 31 December 1979).

4. Sectoral Studies and Technical Assistance to Industry;
5. Assistance to Energy Production from Biomass Waste Material;
6. Feasibility Study of the Production of Single Cell Protein;
7. Assistance to the Establishment of a Testing and Quality Control Centre for the Electric and Electronics Industries;
8. Research Development and Training Centre for Wood Furniture and Joinery Industry;
9. Semi-synthetic Penicillin Manufacturing Feasibility Study;
10. Development of an Integrated Silk Processing Industry;
11. Preparatory Mission to a Feasibility Study on Pyrethrum Processing;
12. Strengthening of the National Scientific Information System;
13. Feasibility study of an Asean Paper Mill;
14. Consultant to the Association of Development Finance Institutions in Asia and the Pacific;
15. Joint UNIDO/FAO Explanatory Mission on Hides and Skins.

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