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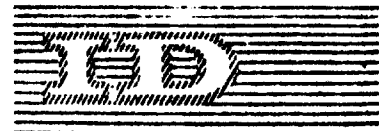
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INDUSTRIAL DEVELOPMENT STRATEGY AND POLICIES:  
THE EXPERIENCE OF PARAGUAY, 1950-1972 <sup>1/</sup>

by

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<sup>1/</sup> The views and opinions expressed in this paper are those of the author and  
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## Chapter I

### PRE-CONDITIONS FOR INDUSTRIALIZATION

#### A. The market

A factor of basic importance can be seen in the population of Paraguay in 1950. The figure of no more than 1.2 million inhabitants in a territory of 406,000 square kilometres indicates the size of the national market. It was naturally impossible to promote an industrialization process for so restricted a market, and for the same reason the few enterprises that did exist were geared for the processing of very small volumes of raw materials at a virtually insignificant level of activity.

By 1972, despite a relatively high rate of growth, the population had reached a level of only slightly more than 2 million. However, as will be evident from the statistical material presented later on, this figure has represented an important milestone for production activities in the manufacturing sector.

Historically, the size of Paraguay's internal market has been a key factor in impeding the kind of industrial development that might otherwise have been possible. Mention should also be made, by way of explanation, of the underlying reason for this state of affairs. During the period in question, the Paraguayan population was emerging from three years of world war and from internal upheavals and commotions typical of a time when the political structure of government has yet to become firmly established.

Beginning in 1965-1966, the country embarked on a process which, through both a quickening of the rate of investment and the introduction of some degree of diversification in production, established a more clearly defined trend in the direction of industrialization.

The internal market continues to be the major limiting factor, because of the very intimate relationship between supply and demand in the context of such a market.

The great majority of the enterprises established in the recent past have been faced with the need, inter alia, to attempt to gain some foothold in the foreign market, as the sole alternative to discontinuing their operations. At the same time, the establishment of a de facto or de jure system of monopoly makes the domestic market a closed reserve - especially that part of it represented by the public sector, as a major consumer of different goods.

## B. Transport

In this area, the first point to mention is the need for an infrastructure, including both such basic physical assets as a road system, navigable rivers, railways and airports, and the rolling stock and vehicles to be operated over them. Despite the advantages of its location at the heart of the continent, a terrain largely free from major changes of level, a geography relatively favourable to the construction of roads and railways, and the navigability of its principal rivers, Paraguay suffered over a very long period of its history from a total lack of the kind of communications that are essential for planned economic and social development.

In the light of these conditions, it was inevitable that basic production should become concentrated in an area of intensive activity, with the land coming to be divided up into a large number of small holdings.

As an alternative to operations centralized under the effect of the principal market, a market consisting of industry and the population itself, one might cite a number of efforts at decentralization, particularly in livestock breeding, timber cutting and the working of the wild-growing palmetto forests.

The development of the nation's road system provides a good illustration of how the country advanced from a state of backwardness in the 1950s, picking up a momentum in the sixties - and particularly towards the end of that decade - which resulted in genuinely solid achievements.

In 1950, the total extent of asphalted roads in Paraguay was no more than 89 km. Given the nature of basic commodities, with their great weight and bulk, there is no doubt that this fact constituted a serious obstacle to the expansion of primary supply and limited it to certain areas. There was also no denying the fact that industrialization was inhibited by this physical factor.

To round out the picture of the road network available for the transport of goods to the internal market, it should be mentioned that there was also 474 km of gravel-covered roads and 288 km of dirt roads, giving the country a total, including the asphalted system, of 851 km.

By 1960 the road system had reached the following lengths, for different types of surface: asphalt 195 km, gravel 653 km and dirt 1,318 km, for a total of 2,166 km.

By the end of the sixties and the early seventies, the country had succeeded in increasing substantially the amount of asphalted highways by improving existing roads and completing new ones. As a result, the asphalt highway network rose to 810 km, a figure almost equal to the country's total road system in 1950. With 601 km of gravel-covered and 4,899 km of unsurfaced roads, Paraguay thus had 6,310 km of road for the movement of its goods and products, enabling it to open up vast areas for basic production.

During the period 1950-1970, the country thus increased its road network more than sixfold, a fact which was in some measure instrumental in making possible the achievement of the industrial production levels to be referred to below.

Turning now to the other aspect of this problem - namely, the availability of the actual transport facilities - the point to be stressed is that, apart from the old national railway system (1844) with a permanent way of 374 km crossing an important zone in the eastern region of the country, the organization of private transport had failed even to keep pace with the road-building programme.

The lack of road transport to bring industry the resources it required was for a long time another obstacle to establishing regular and sufficiently abundant supplies of raw materials of diverse provenance and type.

The following figures have been taken from a study of road transport capacity made in 1965:

EXPANSION OF THE NATIONAL ROAD NETWORK UP TO 31 DECEMBER 1969

Year	INCREASE		INCREASE		INCREASE		INCREASE		INCREASE	
	ASPHALT	Relative km.	GRAVEL	Relative km.	DIRT	Relative km.	GRAVEL	Relative km.	DIRT	Relative km.
	km.	%	km.	%	km.	%	km.	%	km.	%
1950	88.5	4.14	474.4	119.6	288.4	3.37	33.4	14.81	850.8	156.3
1960*	194.5	-	653.2	-	1,317.8	-	-	-	2,165.5	-
1965	470.0	141.6	963.5	316.3	3,234.3	47.5	1,916.5	145.4	4,667.8	2,502.3
1969	810.0	316.4	601.4**	51.8	4,898.5	-7.9	3,580.7	271.7	6,309.9	4,144.4
									(Average)	Annual growth rate
										21.3

\* Growth has been calculated using 1950 as the base year.

\*\* The reason for the negative figure in the case of the gravel-surfaced roads is that most of them are being asphalted.



GROWTH IN THE NUMBER OF VEHICLES ON THE ROAD

Vehicle type	1965 Number	1967 Number	1969 Number	Average annual percentage increase over 4 years
Motor cars	5,707	7,075	8,267	11.2
Taxis	386	480	630	15.8
Jeeps	885	1,022	1,163	7.8
Minibuses	914	1,384	1,750	22.9
Buses	777	1,140	1,430	21.0
Motorcycles	3,838	5,864	8,091	29.5
Small lorries	3,167	4,698	6,354	25.1
Lorries	2,690	3,380	4,136	13.4
<b>Total</b>	<b>18,364</b>	<b>25,043</b>	<b>31,821</b>	<b>18.3</b>

As is evident from these data, the industrialization effort was not sufficient to make good these nationwide deficiencies in the short term, and for this reason it would be superfluous to comment on the vitally important role played by this factor in the industrialization process, especially in view of the fact that 75 per cent of all goods moved within the country depend on the road system.

### C. Power and water

In discussing these two factors, it is necessary to distinguish between them, as regards their respective roles in the economy. The discussion may in fact be confined exclusively to the question of power, since water, while certainly of relative importance, is not a limiting factor of any consequence.

Throughout the country's history, the production of power has lagged behind the level needed to support the industrialization effort.

Most of the power produced was derived from a State-owned thermal plant located in the capital.

The tariff schedule can in no sense be regarded as having been a stimulus to industrial consumption, in view of the fact that no policy favouring the interests of this newly emergent sector had been formulated.

The great majority of the industrial plants situated on the outskirts of the capital, as well as those located in the interior of the country, were equipped to generate their own power, and indeed until quite recently functioned as the suppliers of electric power to the local population as well.

This arrangement virtually amounted to a subsidy to the industries' power production costs even though, with furnaces generally fired by the plant's own by-products, the cost of power was in any case lower than it would have been for furnaces fuelled with petroleum derivatives, for which there is no domestic source.

While it would be incorrect to state that the inadequate power supply was a decisive factor in limiting the level of industrial development, it would be equally wrong to overlook the fact that for a long time it was responsible for a highly unusual pattern of industrial location.

It is altogether safe to say that almost 70 per cent of the plants making a significant contribution to the country's industrial output formerly had their own power supply sources.

ANALYSIS OF THE POWER GENERATED AND SOLD BY THE NATIONAL  
ELECTRICITY ADMINISTRATION (ANDE) ACCORDING TO CONSUMER CATEGORY

Category	1961		1971		Cumulative annual growth, %
	kWh	%	kWh	%	
Gross power generated	72,500		172,809		8.6
Total power sold	54,564	100	139,508	100	9.4
Residential consumption	27,830	51.0	82,961	59.47	10.8
Industrial consumption	15,927	29.32	40,296	28.88	9.2
Government and municipal consumption	6,415	11.76	9,763	7.00	4.2
Public lighting	2,874	5.27	6,048	4.34	7.4
Tramway operation	1,448	2.65	440	0.31	-

\* In thousands

PER CAPITA CONSUMPTION OF ELECTRIC POWER

<u>Year</u>	<u>kWh per capita</u>
1960	46
1961	48
1962	51
1963	53
1964	55
1965	57
1966	61
1967	67
1968	71
1969	79
1970	87
1971	92
1972	100

DELIVERY SYSTEM - LOW-TENSION POWER LINES (220 OR 380 V)  
INDUSTRIAL AND RURAL CONSUMPTION

Declared load kW	Block	Limits of each block kWh		Unit price per block guaranis/kWh
		from	to	
0 to 40	1st	1	100	7.95
	Following	101	200	7.75
	Following	201	500	7.45
	Following	501	750	7.20
	Following	751	1,500	6.90
	Following	1,501	2,250	6.60
	Following	2,251	3,500	6.35
	Following	3,501	5,500	6.00
	Following	5,501	and above	5.80

Note: ANDE will levy a mandatory minimum charge of 45 kWh per month for each kilowatt of declared industrial load and of 30 kWh in the case of rural loads.  
1 US\$ = 126 guaranis.

D. Industrial sites

The most marked pattern evident in the location of the country's industrial plants is a tendency to seek out sites closest to the sources of raw materials (such as limestone deposits, sugar cane fields, tree stands capable of being worked for woods, yerba mate production areas, regions rich in palmetto, etc.), with the exception of the textile, oil and beef-processing industries, where the preference has been for proximity to the principal domestic market and the availability of the necessary infrastructure for transporting the finished products.

In the light of the factors briefly discussed above, such as the road system and transport facilities, the market and the sources of power, it may be inferred that, despite the abundant supply of land, site selection was in fact governed by the constraining effect of these factors.

The idea of an industrial estate is still only a fond hope. The effort has just begun to establish a kind of overall co-ordination aimed at the effective use of integrated resources.

E. Raw materials

1. The most representative of the country's industrial activities during the 1950s may be summarized as follows: meat processing, leather tanning, tannin production, primary processing of wood, cigar and cigarette manufacturing, textiles to 40 denier, vegetable oils, essential oils, sugar and alcohol production, limestone working for grey Portland cement and lime, household soap production and other activities of less importance.

This entire productive effort was based on an installed capacity primarily oriented towards the domestic market - and, above all, the residents of the capital - with the specific exception of the meat-packing industry, which, controlled by British and United States financial interests, was responsive to foreign demand.

2. On the other hand, the limited volume of domestic demand was unable to provide the conditions that might have triggered a progressive growth in industrial output. This affected the whole process of production, all the way down to the raw material sector. While the supply of raw materials cannot be said to have acted as a bottleneck, it can certainly be said that there was a lack of promotional programmes aimed at expanding it significantly.

Nevertheless, apart from certain exceptional periods when supply dropped off sharply because of climatic conditions which reduced harvests and disrupted the regular flow of goods to the intermediate processing centres, it would be incorrect to regard the raw material factor as responsible for Paraguay's slow rate of industrialization.

During the 1960s, in addition to opening up new manufacturing branches, it became possible to achieve more favourable conditions for the utilization of available resources from various standpoints, including raw materials, skills, markets and modernization of plant.

3. The expansion of agriculture resulting from the availability of new and more numerous transport facilities and the establishment of production units using more highly integrated processes, opened the way to a greater supply of raw materials, which in turn gave rise to a gradual diversification in the supply of manufactured goods.

4. Other activities which added to the supplies available to the country included the exploitation of the palmetto palm, bone meal processing, soya bean production, the growing of citrus fruits, prospecting for new wood varieties, coffee bean production in a recently opened-up region, the beginnings of mint cultivation and others of less consequence.

Until very recently, industries based on the processing of imported raw materials were of almost no importance. The fact is that there has always been a shortage of such complementary items as the entire range of paper goods, cardboard, sheet metal of different kinds, chemical products, etc. - all products which the country continues to lack to this very day and which have followed the general pattern of development.

5. It was not until a year ago that the country established a permanent policy regarding the importation of raw materials under special arrangements. Even though the trade system was amply liberal, there was no general machinery in effect during this entire period to promote the industrial processing of imported materials.

Since 1957 the country has placed no restrictions on imports of finished goods or goods for industrial processing. Before that time, the system in effect was one of exchange control, under which imports were subject to contracts regulated exclusively by the Bank of Paraguay. It is reasonable to say that during this period there was no safety margin for imports of goods which might be required by industry, and as a consequence of this situation, shortly after 1957 a proper arrangement was devised for the stabilization of international trade.

The relative uncertainty generated in the past by the exchange control arrangement probably constituted the sole limiting factor in Paraguay's dealings with foreign countries and was largely responsible for encouraging the tendency to consume already processed imported goods.

As already pointed out elsewhere in this analysis, during the entire period of the fifties and sixties, and for part of the seventies, there was a problem with regard to qualified manpower - especially in midlevel management, where the manufacturing sector specifically requires a supply of suitable personnel.

The same thing may be said of the factory foreman, a position which must very often be improperly assigned to a man of very high technical qualifications unable to find work in his own special field, or conversely to a worker with practical experience but with little academic background.

These comments do not apply to the availability of general administrative or accounting services, even though these vitally important aspects of business management had not yet reached the level of skill achieved at the present time.

In point of fact, at a time when programmed production did not yet exist, administrative and accounting activities merely figured as a kind of appendix to the system, which was ultimately one of unilateral decisions by the owner, or owners, who were generally members of the same family, this being the case with virtually all the corporations founded for business purposes in Paraguay.

With respect to financial resources, it is important to note that, since 1960, the principal source of financing has been the National Development Bank. Before that time, there are no instances of long-term or medium-term lines of credit being extended as an incentive to private efforts in the industrial sector.

These lines of credit are granted under the following conditions:

<u>Conditions</u>	<u>Source: IDB/NDB</u>	<u>Source: KFW/NDB</u>
Term	12 years	12 years
Annual interest rate	9%	9%
Grace period	6 months/2 years	6 months/2 years
Commission	1%	1%
Proportion of project value financed	Up to 74%	Up to 74%

Finally, mention should also be made of the lack of a source of working capital to finance the resources required in addition to plant. This has certainly been an obstacle in the way of achieving the dynamism and competitiveness necessary for any genuine industrialization effort.

During most of the period under review, the behaviour of the private sector has not been promising, although it must be acknowledged that the climate of insecurity that formerly prevailed tended to discourage the slight disposition towards investment that did exist.

In certain sectors of the national economy the most representative enterprises are under foreign management. This was the case, especially before 1970, in the meat and meat products industry and, during the same period, in the wood products sector. Also to be considered are the textile mills and the oil-manufacturing plants, which,

although run by national personnel, have been financed by foreign interests under supplier-credit arrangements, as well as the other firms and enterprises which in almost all cases conform to the pattern of businesses run by closed family groups interested only in their own affairs, and hence having no tendency to promote the involvement of idle resources outside that sphere.

Since there has also been no progress towards any degree of rationalization of the capital market, no other channel is available to give new businessmen a share in undertakings which might thus attain a reasonable size, through machinery similar to that of a stock exchange.

## Chapter II

### INDUSTRIALIZATION ACHIEVEMENTS IN THE PERIOD 1950-1972

1. The activities which have acquired some importance in the last 20 years are, for the most part, industries processing domestic raw materials to meet the needs of the internal market and for foreign trade. Prominent in this regard are such activities as the production of sugar, textiles, meat, tobacco products, furniture, footwear, flour-mill products, beverages and vegetable oils.

The increase in foreign demand experienced during and after the Second World War led to a relative expansion of industrial activity in Paraguay, followed by an interval of stagnation and then another upturn during the period 1960-1970, particularly at the turn of the decade.

2. New industries were established in the country towards the end of the 1960s, while existing ones expanded, especially those which had become obsolete and now replaced their old equipment and machinery. Among the industries in which new technology was introduced at this time, the following might be mentioned: frozen meat, cement, petroleum processing, fruit and vegetable packaging, cooking oil manufacture, woodworking, etc. The country's largest industries are those which produce goods, especially semi-finished goods, for export. In recent years, gradual import substitution, especially in those sectors for which the country has its own sources of raw materials, has served as a stimulus to industrial development.



### 3. Categories of industrial production

As a result of Paraguayan industry's historical evolution, two categories of industry have come into being having markedly different characteristics - factory production and artisan production. The differences between the two reside basically in the system of production, the technology used, the destination of the goods produced and the manpower employed.

Factory production consists of small and medium-sized enterprises, with the former predominating. Establishments employing more than five persons are considered to fall within the definition of factory industry.

Approximately 62 per cent of the country's industrial product is derived from this sphere, which, in addition to meeting part of the internal demand, produces goods for export and is also the area in which import substitution is being pursued. It processes both domestic and imported raw materials. The larger enterprises are generally relatively modern, well equipped and more efficient.

The small and medium-sized firms are basically engaged in the production of goods for internal consumption, many of them with obsolete machinery and, low productivity. These enterprises absorb large quantities of manpower.

Within the sphere of artisan production, a distinction is drawn between urban producers, on the one hand, and rural and domestic producers, on the other.

Urban artisan activities, which account for 37 per cent of the goods produced in this manner, are plied in small workshops and by groups of independent workers. The importance of this kind of production is reflected in the type of demand which it meets and the number of jobs which it provides. Because it is subject to no taxes or social charges, urban artisan production is able to compete with small and medium industry. Such activities emerge when certain goods, frequently of poor quality and destined for low-income consumers, can be produced manually and on a small scale.

Rural and domestic artisan activities constitute a marginal and supplementary system of production by housewives and small farmers. Since their labour costs are so low, it is hardly possible for organized enterprises to compete with them.

#### 4. Structure

Of the 20 branches considered in the industrial classification, nine accounted for 95.3 per cent of the total gross industrial product in 1950. These industries were: foods, beverages, tobacco, textiles, footwear and clothing, wood, leather, chemicals and non-metallic minerals.

During the period under examination, from 1950 to 1970, certain traditional branches were expanded and new ones created, such as the petroleum derivatives industry, a refinery for which was put into operation in 1966.

Nevertheless, taking only five of these industries - namely, foods, beverages, textiles, chemicals and petroleum derivatives - it will be found that these account for two-thirds of Paraguay's gross industrial product and that the first-mentioned branch - foods - so predominates as to represent almost one-fourth of all goods produced.

These facts highlight the lack of diversification in the country's industry.

#### 5. Size of the establishments

There is a marked predominance in the country of artisan and small industries. Considering factory industry alone, the data of the 1955 and 1963 industrial censuses show that enterprises with from 5 to 9 employees represented 52 and 68 per cent of the total, respectively; enterprises with from 10 to 49 employees, 41 and 27 per cent; enterprises with from 50 to 99 employees, 4 and 3 per cent; while the share of the largest enterprises, employing 100 persons or so, represented only 3 and 2 per cent respectively. These figures shed light on one of the salient features of Paraguay's industrial structure - namely, the fact that it is based on the output of small productive units, with the establishment of medium and large enterprises proceeding at a relatively slow pace.

#### 6. Contribution of the sector to the GNP

As indicated by studies prepared by the Central Bank of Paraguay, the contribution of the industrial sector to the gross national product was 16.3 per cent in 1950 and averaged 17.3 per cent during the next three-year period from 1950 to 1953. This was followed by a pronounced downturn, resulting from a period of production stagnation, reaching a low of 15.1 per cent in 1960. Thereafter, the industrial contribution continued to rise until it stood at 18.7 per cent in 1970. This increase in its share of

the GNP was due to the establishment of new enterprises during this period and to the higher degree of industrial processing given to export products, in line with the Government's policy of exporting goods which have undergone at least some degree of processing.

Taking into account the average per capita income of our country, the averages indicated above are higher in Paraguay than is normally the case in other Latin American countries. This indicates that the country is rather favourably situated in this respect and that there are no structural imbalances between the industrial sector and the rest of the nation's economy.

7. Supply and demand of manufactured goods

During the period under consideration, there has been a substantial increase in the contribution of foreign-produced goods to the total internal supply of manufactured goods. What has happened is that the contribution of domestically manufactured products to total internal supply went down from 81 per cent during the period 1950-1960 to only 79.4 per cent during the period 1960-1972, while during those same two periods imports accounted for 19.0 and 20.6 per cent respectively.

During the period 1960-1972, 16.2 per cent of national production was for export.

It will be observed that most of the increase in internal demand during the period under consideration was satisfied through imports.

During the period 1960-1972, 69 per cent of demand was covered by domestically produced goods, while in the period 1950-1960 the figure was 71 per cent.

Almost 70 per cent of domestic goods produced for the internal market are finished consumer products, 20 per cent are in the form of semi-finished products, and the remaining 10 per cent consist of capital goods.

During the period 1950-1960 the pattern for imports of manufactured goods was 35 per cent for consumer goods, 35 per cent for capital goods and 30 per cent for semi-finished goods, while for the period 1960-1970 the figures were 22.4 per cent, 56.7 per cent and 20.9 per cent respectively.

TOTAL SUPPLY OF MANUFACTURED GOODS  
(Millions of 1967 guaranis)

	<u>1950-1960</u>	<u>Average</u>	<u>1960-1972</u>
Production .....	22,004.2		32,803.8
Imports .....	<u>4,408.7</u>		<u>7,099.4</u>
Total supply .....	26,412.9		39,903.2
Exports .....	<u>3,265.7</u>		<u>5,329.5</u>
Supply to internal market produced domestically ....	18,738.5		27,474.3
Total supply to internal market .....	23,147.2		34,573.7

8. Employment

The work force employed in the industrial sector represents approximately 17 per cent of the total number of economically active persons in the country. The majority of employed persons work in artisan-type activities, which it is estimated account for 60 per cent of the total employment.

The highest employment levels in factory industry are found in food, textiles, footwear and clothing, chemicals and non-metallic minerals, which represent more than 73 per cent of the total employed work force.

The individual productivity of the factory employee is approximately 150,000 guaranis a year, a figure far higher than that of the artisan worker at less than 60,000 guaranis a year.

COMPOSITION OF GROSS INDUSTRIAL PRODUCT (%)

	1950	1960	1970	1972
20 Foods .....	44.3	50.6	39.8	38.4
21 Beverages .....	6.2	3.8	6.2	6.1
22 Tobacco .....	10.0	7.1	4.4	4.6
23 Textiles .....	7.8	6.6	6.3	6.4
24 Footwear and clothes .....	4.3	4.9	4.1	4.1
25 Wood .....	3.6	4.1	5.3	5.4
26 Furniture .....	1.1	1.2	1.3	1.2
27 Paper and cardboard .....	-	-	0.1	0.1
28 Printing industry .....	1.6	1.8	2.0	2.5
29 Leather .....	5.9	6.7	5.9	5.7
30 Rubber products .....	0.1	0.1	0.04	0.04
31 Chemicals .....	10.1	6.8	7.6	8.0
32 Petroleum products .....	-	-	5.7	6.3
33 Non-metallic minerals .....	3.1	3.9	3.9	4.1
34 Basic metals .....	-	-	0.2	0.2
35 Metal products .....	0.8	0.9	1.3	1.4
36 Electrical machinery .....	-	-	0.3	0.3
37 Machine building .....	-	-	1.3	1.3
38 Transport .....	0.7	1.5	3.5	3.0
39 Miscellaneous .....	-	-	0.8	0.9
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

**GROSS DOMESTIC PRODUCT**  
In thousands of guaranis (1967)

	1950	%	1960	%	1970	%	1972	%
Agriculture	7,012,380	20.3	8,943,660	19.8	12,529,490	17.4	13,242,100	17.5
Animal husbandry	4,487,140	13.0	5,322,140	11.8	6,862,700	9.5	7,400,350	9.3
Forestry	2,128,710	6.1	2,180,620	4.8	2,855,850	4.0	3,043,410	3.8
Fish and game	29,900	0.1	40,050	0.1	86,520	0.1	83,910	0.1
Mining	7,120	-	77,270	0.2	83,160	0.1	194,910	0.2
Industry	5,639,920	16.3	6,835,080	15.1	12,051,200	16.7	13,234,300	16.7
<b>Building</b>	437,500	1.3	985,690	2.2	2,071,590	2.9	2,425,000	3.1
Total goods produced	19,742,670	57.1	24,384,510	54.0	36,540,510	50.7	40,223,980	50.7
Basic services	1,625,320	4.7	1,975,420	4.4	3,729,390	5.2	4,520,390	5.7
Other services	13,201,190	38.2	18,796,910	41.6	31,687,160	44.1	34,520,770	43.6
Gross domestic product	34,569,180	100	45,155,840	100	71,957,060	100	79,265,140	100
Population (in thousands)	1,343		1,751		2,279		2,329	

**NUMBER OF PERSONS EMPLOYED IN THE INDUSTRIAL SECTOR**

	Industrial census 1955	Industrial census 1963
<u>Enterprises employing more than 100 persons</u>		
No. of enterprises	34	29
Total persons employed	6,343	8,966
<u>Enterprises employing from 10 to 100 persons</u>		
No. of enterprises	511	452
Total persons employed	18,851	20,694
<u>Enterprises employing less than 10 persons</u>		
No. of enterprises	591	1,026
Total persons employed	3,126	7,754
<b>TOTAL FACTORY INDUSTRY</b>	<b>28,320</b>	<b>34,714</b>

NUMBER OF ECONOMICALLY ACTIVE PERSONS IN THE COUNTRY

	1962	1972
Agriculture .....	320,857	433,108
Mining .....	476	792
Petroleum .....	-	166
Manufacturing .....	88,486	119,560
Other sectors .....	176,596	238,163
TOTAL .....	586,415	791,789

FOREIGN TRADE BALANCE  
In thousands of dollars (1967)

	1953	1960	1970	1972
Exports .....	30,655	26,978	64,071	86,188
Imports .....	22,877	32,463	63,834	69,849
Trade balance .....	7,778	-5,485	237	16,339
Exports of manufactured goods	21,380	19,246	45,386	69,769
Imports of manufactured goods	15,759	27,356	58,240	65,356

Rate of exchange: 1 US\$ = 126 guaranis.



### Chapter III

#### THE STRATEGY OF INDUSTRIALIZATION, 1950-1972

##### A. Selection of priority industries

The formulation of the first plan for the period 1965-1966 marked the beginnings of a process aimed at ordering and rationalizing the country's internal efforts to develop a more efficient basis for the implementation of programmes designed to promote the industrial sector.

While it had been established that the initial phase should be mainly concerned with the industrial processing of agricultural, livestock and forestry products, it was envisaged that a reasonable medium-term goal might be not only a higher degree of raw materials processing, but also the gradual transformation of the factory sector with a view towards import substitution and the production of exportable items.

The attainment of these objectives implied an immediate need for the re-equipping of the principal existing industries and the establishment of guidelines and criteria for the introduction of new product lines to promote diversification.

The provisions of the plan called for an estimated cumulative increase in factory production of 7.2 per cent a year for the two-year period 1965-1966, with the figure expected to rise to 9.0 per cent between 1966 and 1970.

On the basis of these indicators, the share of the industrial sector in the gross national product was to move from 16.4 per cent in 1962 to 18.7 per cent by the end of 1966, reaching 20.5 per cent in 1970.

As a result of this expansion, the gross industrial product was expected to increase from 7,200 million guaranis in 1962 to 9,600 million in 1966, reaching an estimated total of 13,400 million in 1970.

In addition, the plan placed major emphasis on the formulation of proposals and recommendations concerning industries in keeping with the destination of the goods which these industries produced.

This resulted in the drawing of a distinction between those industries which were to be exclusively designed to satisfy internal demand as opposed to those which were to be geared to the export of their output.

The first group - that is, the domestically oriented industries - was to include the following activities: fresh meat, pasteurized milk, edible oils, textiles, reconstituted woods, paper and cardboard, pharmaceuticals and petroleum derivatives.

The list of exporting industries, on the other hand, included those supplying such products as canned and frozen meat, juices and canned fruits, sugar, textile fibres, processed woods, structural carpentry, essential oils, industrial oils, soap, grey Portland cement, and lime for civil engineering.

The following figures represent the estimated growth rates for the most dynamic industries on a sector-by-sector basis:

	<u>1962-1966</u>	<u>1966-1970</u>
Food	8.6%	7.6%
Textiles	7.5%	10.1%
Wood	11.0%	13.1%
Chemical products	6.0%	8.0%
Non-metallic mineral products	9.1%	14.1%

The industries which produce paper, cardboard and derivatives and those engaged in petroleum processing were classified as "New Industries".

From estimates of the value of output in the various priority activities, the following upper limits or goals were tentatively set for the years 1962-1966:

	<u>1962</u>	<u>1965</u>	<u>1966</u>
	<u>(millions of guaranis at 1962 prices)</u>		
Gross value of factory production	13,043.8	15,349.1	17,268.8
Gross value of artisan production	6,509.6	7,369.4	7,711.7
Gross value of manufacturing production	19,553.4	22,718.5	24,980.5

As is evident from the foregoing discussion, the chief aim and recommendation of the plan was more processing of the abundant supply of raw materials and greater employment of labour as an indirect consequence of the kinds of production proposed, particularly for the second phase of the projected development programme.

The industrial expansion anticipated for the years of the plan was calculated to have a stimulating effect on employment. It was estimated that factory industry's demand for labour would rise by 4.4 per cent during 1965-1966 and at a cumulative annual rate of 5.5 per cent over the period from 1962 to 1970. In absolute terms, the outlook was for 7,100 and 21,000 new jobs respectively.

In 1962, factory employment rose to 37,414 persons, of whom some 32 per cent were working in the food sector. Projections for 1966 pointed to a possible increase to 44,500 persons, distributed by industrial sectors in much the same manner as during the preceding period, while the factory work force required for 1970 was estimated at 58,000.

#### B. Implementation of industrial projects

During the initial marshalling of resources essential for the creation of a suitable context for a rapidly developing industrial sector, it is unwise to set one's aims too high. For this reason, the recommendations of this first national plan took the form of basic declarations of a general nature designed to serve as guidelines for the framing, of the as yet undefined industrial policy, at a later date.

These recommendations, therefore, referred to such factors as the need to consider how best to bring about conditions favourable to the effective utilization of human and physical resources, to stimulate domestic savings and their investment in industrial production, to raise the population's standard of living, etc. Attention was also directed to the need for institutional co-ordination and to the question of relations between the institutional bodies and the private sector.

One important aspect of this first stage is perhaps specifically the recommendation calling for the creation of technical and institutional conditions to permit action based on investment programmes and projects and the preparation of feasibility studies for the whole operation.

Another salient feature of the recommendations is that they are aimed at the formulation of an industrial credit policy to encourage the participation of private savings and of internal and international credit.

Finally, mention should also be made of the very important topic of technical manpower development and training at different levels, in keeping with the country's needs and the requirements of the industries to be built up.

Given the existing economic system in Paraguay, in most instances the decision-making power with respect to projects lay with the private sector. This fact is at the basis of the general recommendation regarding the type of role to be played by the public sector. It was suggested that what the State should do was to guide the activities of the private sector by indirect means, assuming the primary responsibility only in the case of those projects which, because of their scope and strategic significance, might be more easily managed by the State.

#### Strategy of the national development plan

It has been pointed out that the successive national development plans were drawn up in such a way as to take into account the stage the country was going through, during the process of reviving sectors of the economy, which for a variety of circumstances were at different stages of development.

Thus, it is evident from the provisions of the first national plan that, in the specific area with which we are concerned, the underlying strategy was one, firstly, of promoting industrial growth, so as to expand production capacity and at the same time absorb manpower, and secondly, of encouraging regional specialization as a first systematic effort towards the decentralization of activities which, as mentioned elsewhere in this paper, had been concentrated in the central area of the country, because of market considerations and the availability of basic services.

Another fundamental premise of this strategy concerned the possibility of making greater use of potential raw material resources and founding permanent new communities as the result of the increased need for manpower in the development areas.

Short-range and long-range goals were established. Making an intelligent appraisal of the ultimate objectives and the means to achieve them, planners gradually devised a time-table of different target dates for the industrialization of the country.

The immediate aim was to create the right conditions for greater productivity, higher levels of production and increased exports, and to reallocate public and private resources so that the long-term goals could later be achieved.

Over the long term, the aim was to achieve a rate of growth in per capita income higher than that which hitherto had been recorded (gross national income per capita - US\$188) and a better income distribution pattern, to enable the population to enjoy an improved standard of living. It will be clear that these were the first steps in what was to be a concerted national effort to provide a better quality of life for the citizens of Paraguay. This effort was to be based, among other factors, on the principle that the country should process its own natural resources, because it was very conscious of the highly dependent status imposed on it by a colonial type of economic system, under which it was merely a supplier of raw materials and imported all consumer goods.

1. No fundamental changes were introduced in the second plan; the approach was rather one of reiterating principles which remained valid in the light of the original analysis and the partial implementation of the recommendations of the first plan.

Unquestionably, one of the recommendations emphasizing the intention of expanding the raw materials processing sector is that which calls for greater study of the feasibility of channelling the supply of basic manufactured goods towards the foreign market as a logical measure to offset the limited nature of domestic demand.

The possibility of exporting such goods was greatly strengthened by the performance, during the first years of its existence, of the Latin American Free Trade Association (LAFTA) in promoting intra-regional trade, the prospects for which in the initial phase were truly encouraging.

2. The idea of pursuing a policy of faster industrialization in order to exploit the country's basic resources became more clearly established and led to the negotiation of concessions within LAFTA, which had classified Paraguay as a relatively less developed country and thus as eligible for a certain degree of preferential treatment in the area of import duty levels.

More serious attention was also directed to the task of gradually putting to use the new infrastructure facilities, such as transport and communications, which had begun to become available to the country and to provide a basis for the expansion of primary production.

In summary, the effect of the second plan may be said to have been to confirm the existence of a propitious climate and popular awareness with respect to the objectives set in the plan, which taken together constituted an effective programme for the elimination of the obstacles which in the past had hindered the industrialization of the country.

### Progress achieved as a result of the recommendations of the plan

In attempting to make an in-depth assessment of the direct consequences of the plan's recommendations, there is a risk of leaving some things out and putting others in, when reviewing the successive achievements in the nation's economy. Nevertheless, these recommendations deserve great credit for having marked a first step by spelling out the direction to be followed by the economy as a whole if it was gradually to overcome the stagnation which had characterized it during the previous period.

The following achievements, among others, may be noted:

- Development of land and river communications to open up new areas of the country;
- Organization of the institutional machinery of the public sector to serve the basic needs of producers more efficiently;
- Settlement of new areas for the twofold purpose of forming new communities with better employment opportunities and increasing the supply of goods to the economy;
- Drafting of laws and other legal instruments defining the incentives offered to private enterprise by the public sector;
- Provision of basic services by the State, notably in education, public health and technical assistance;
- Creation of specialized agencies to run special programmes, such as the eradication of diseases affecting crops and livestock, basic studies on the standardization of factory production, export promotion, specialization of entrepreneurs with a view to increased production, etc.;
- Production programming of such strategic products as grain, cotton, soyabeans, wood and others;
- Establishment of such basic industrial sectors as Portland cement production and hydro-electric power generation;
- Greater institutional co-ordination for the reassignment of resources with a view to maximum utilization of the facilities available to the country in order to raise the general standard of living and undertake more ambitious projects in support of foreign trade.

### The strategy of the 1971-1975 plan

The five-year plan for the period indicated highlights the great importance to be attached to exports.

The justification for this strategy of outward-directed growth is based on the following factors:

- The commitments entered into with other countries for the implementation of a large number of infrastructure projects, all of which will take a long time to yield returns;
- The new needs created by accelerated development, with the corollary requirement for massive imports of capital goods for the maintenance and further expansion of the various programmes.

Both these factors are certain to have a considerable effect on the country's foreign trade balance.

Finally, the plan reaffirms the position that, in response to general conditions, gradual changes will become necessary with respect to the allocation of resources to public investment fund programmes, with greater emphasis placed on those relating to the production sector.

Anticipating the outcome of this policy, it may be tentatively concluded that genuine progress has been achieved in the industrial sector, even though the goals set were not always as consistently pursued as one might have hoped. Nevertheless, objective and pragmatic analysis of the variables in the Paraguayan situation supports the view that the gains made, although not wholly up to the aspirations of the plans discussed, represent a tangible success.

#### Exports of manufactured goods

Mention has been made elsewhere in this report of a series of laws adopted at different times to serve as a legal basis for the promotion of industrial development.

These laws contained provisions designed to promote exports of manufactured goods by exempting them from fiscal charges, which has the effect of establishing a kind of tax discrimination between industries according to whether their sales are made in the domestic or foreign market.

Similarly, the concessions granted under these laws were intended to create more favourable conditions for broadening the range of exports. This is evident from a selective statistical summary indicating foreign sales of non-traditional products.

In addition to the removal of fiscal charges from the products exported by such industries, a policy of "temporary admission" was applied quite often for complementary inputs, so that sales could keep pace with market conditions.

Until the adoption of Law No. 216 on Investment, there cannot be said to have been any general set of provisions as a basis for promoting the large-scale employment of manpower. Even now that this law has been passed, the type of technology best suited to manpower utilization during a period of emerging industrialization has not been clearly defined.

With respect to the location of industrial plants the decision is essentially an ad hoc one, depending, for example, on the availability of certain natural resources - and it is thus the wishes of private enterprise that prevail.

Some effort is being made to correct this situation by setting up regional development centres where spokesmen from the interior can raise matters of concern to them and steps can be taken to work towards the decentralization of production.

### Manufacturing technology

Two recently significant factors have each in their own way given a specific direction in recent years to manufacturing technology - the foreign market for Paraguayan goods and the existence of the National Institute of Technology and Standardization. One should also not overlook, however, the availability since about 1965 of two major sources of financing for capital goods, one of them the Inter-American Development Bank and the other the Bank of Germany, which have lent their support both to projects promoted by the Institute and to those generated by the actual needs of the foreign market, to which Paraguay has been able to export new items.

### Training of labour

No incentives have been offered to stimulate an improvement in industrial manpower skills beyond the level slowly attained under the pressure of direct practical needs.

Workers receive some specialized training as apprentices on a full-time on-the-job basis. The result is in most cases that the training fails to provide the basis of theory that is essential if the necessary roster of skills is to be established.

In a few individual cases, such as in a number of industries employing new processes never used before, personnel have been trained at specialized centres abroad. This has been done, for example, in such areas as chemical processing, Portland cement production and the preparation of juices and fruit concentrates as the result of individual initiative by the private sector directly concerned.



The role of the State in this sphere must be recognized as having been very ineffective. This has been due to the difficulties with which it was everywhere confronted in its efforts to establish institutions providing basic general education - an area in which the country was extremely deficient and in which some progress has been made only during the most recent years covered by this analysis.

#### Chapter IV

### INDUSTRIAL POLICIES AND MEASURES, 1950-1972

1. It has been pointed out in another chapter of this study that most of the decisions regarding the mobilization of resources and productive factors were taken by the private sector.

Possible exceptions to this general rule for the country would include such activities as the large-scale production of electric power, international river transport and quarry operations for grey Portland cement and lime. In such sectors, providing industrial products and services which require considerable investment, the projects involved were sponsored by the public sector.

The procedure whereby enterprises are established in such sectors depends on the way the sectors operate. A distinguishing feature of the relationship between the public sector and the national market is the obligation to use or consume whatever these enterprises produce. This fact partially explains the reason for the adoption of a supply policy which is not always based on the economic formula of minimum costs and minimum earnings, but rather on other considerations deriving from the policy behind the projects.

These conditions, however, were not of sufficient weight to pose an insuperable obstacle to the establishment of such industries.

The size of these projects, the shortage of financial and technical resources, the embryonic state of plant management, the restrictions of the domestic market and other factors combined in large measure to justify this type of public undertaking.

2. It has been mentioned elsewhere in this analysis that the Secretariat of Finance, through its actions and area of jurisdiction, had a profound effect on the evolution to be anticipated in other specific policies and especially in the area of investment for industrialization.

The central government's budget was always largely dependent on income from indirect taxation and, within this category, on taxes, duties, and other charges levied on foreign trade - a revenue source of major importance.

The point here is that, without there being any deliberate policy to that effect, custom duties inevitably increased to levels which were protectionist in character, although of a very special kind, since no distinction was drawn between the tariffs levied on raw materials and those applied to semi-finished or fully finished products.

The most common pattern of customs charges is the following: exchange premium (average) - 32 per cent CIF, surcharge - 15 per cent CIF, consular - 5 per cent (FOB), supplementary - 18 per cent CIF and miscellaneous - 7 per cent, which, together with general service charges, gives an average total of about 79-80 per cent, with the exception of luxury items, which are taxed at a rate of about 100 per cent, on the one hand, and such basic consumer products as wheat, flour, crude fuels, etc., where the rate sinks to a minimum of no more than 15 per cent, on the other.

3. The first changes in tariff policy came as a result of negotiations within the framework of the Latin American Free Trade Association (LAFTA), which began in late 1961 and provided a basis for certain modifications with respect to products not processed in the country which were on the national list. Subsequently, as the ordinary negotiations progressed, a larger number of products were included.

It can be said, however, that even before this multilateral agreement there was already machinery in existence for the reduction of tariff levels in the cases specifically contemplated in Law No. 202 on Industrial Development, which dates back to 1953, and Law No. 246 on Capital Incorporation, which was enacted in 1955. On the other hand, in addition to the fact that these laws were limited strictly to the area of capital goods proper, no regulations were adopted to provide for their application and they remained virtually without effect in the role which they were later to play.

4. For a long time, commercial and industrial policy measures, such as customs duties, were not employed for promotional or protectionist purposes, at least not deliberately.

The reductions provided for in the laws previously cited, which in 1970 were further improved to some extent, mark an important stage in promotion by means of the customs duty mechanism.

Once regulations had been adopted to give effect first to Laws 202 and 246, and later to Law 216/70, somewhat more favourable treatment began to be applied to imports of such goods as helped improve the level, quality, volume and value of all industrial output as a whole.

By way of illustration, we give below details of some of the arrangements introduced in application of the above-mentioned laws, in chronological order.

5. Law 202: A basic distinction was made between two categories of beneficiaries - so-called "new industries" and "existing industries".

For new industries

Exemption from customs duties, surcharges and any other taxes levied on imports of industrial machinery, accessories and spare parts, provided such equipment is required for the installation and operation of industrial plant and is used exclusively for these purposes;

The exemption previously granted for materials which are essential for the establishment of industry and which cannot be obtained within the country;

Exemption from customs duties and surcharges and any other taxes levied on exports of products or by-products of the new industry.

For existing industries

Owners of existing industrial plants in Paraguay who expand and modernize their facilities by at least 40 per cent of their value shall be entitled to the same benefits granted to "new industries".

6. Law 246 - For the incorporation of private capital originating from abroad

Incorporated capital shall be entitled, in whole or in part, to the following guarantees and benefits (Article 5):

Exemption from customs duties and surcharges on imports of machinery, accessories and spare parts; instruments; gear and equipment for transmission, communication and transport, and other capital goods brought in by researchers, technical specialists and workers to be used for work of a permanent nature;

Exemption from customs duties and surcharges on exports of products and byproducts, provided they were not on the list of regular exports at the time this law was enacted;

Exemption from taxes on the establishment of companies, partnership contracts, registration in the Public Register of Commerce and other charges relating to stocks and bonds;

25 per cent reduction in income tax.

7. Law 216 on investment for economic and social development

This law superseded the two previous laws and was aimed, among other things, at achieving equal treatment for national and foreign investment and at putting into effect basic principles appropriate to the kinds of industrial activities required to meet the goals of the economic and social development plans.

The first point to be made in this connexion is that this law is applied in line with the ranking of production and service activities on the annual list prepared for this purpose by the Technical Secretariat of Planning, which comes under the Office of the President.

These lists distinguish between two basic categories - necessary industries and desirable industries. The former enjoy priority status and are entitled to preferential treatment, whereas the latter merely represent a subsidiary aspect of the process of industrialization and help to attain certain other objectives, such as manpower employment and import substitution.

Necessary investment (Article 3). This is investment having high priority for the country's economic development which will promote the processing or production of domestic raw materials and help to increase exports.

Article 10: Necessary investment shall be entitled to the following benefits:

- (a) Total exemption from taxes and other charges on exchange operations resulting from the incorporation of capital;
- (b) Total exemption from customs duties, surcharges and other additional charges on imports of the capital goods mentioned in ...;
- (c) Total exemption from exchange surcharges on imports of the capital goods mentioned in ...;
- (d) Total exemption from advance deposits on imports of the capital goods mentioned in ...;

- (e) Reduction of 50 per cent in income tax, for a period of five years beginning with the date of the first balance-sheet, on income derived from investment made under the terms of this Law,
- (f) Total exemption from customs duties, surcharges and other additional charges, exchange surcharges and advance deposits on imports of raw materials, packaging and other inputs which are produced in the country either not at all or in insufficient quantities, in the amounts required to support five years of production;
- (g) Exemptions and concessions provided for in the Customs Code, with reference to the application of the temporary admission arrangement for inputs imported under the terms of this Law;
- (h) Total exemption from customs duties, surcharges and other taxes on exports;
- (i) Total exemption from taxes on the establishment of enterprises, partnership contracts and registration in the Public Register of Commerce and other national registers, and on the issue, floating and transfer of shares to the degree that these activities are related to acts of incorporation.

Desirable investment (Article 4). This investment which contributes to import substitution, absorbs a larger percentage of local manpower and permits a greater utilization of national resources.

Article 11: Desirable investment shall be entitled to the following benefits:

- (a) and (b) Benefits similar to those granted in the case of "necessary investments" under points (a) and (b) above;
- (c) 75 per cent exemption from the exchange surcharges on the CIF value of imports of capital goods;
- (d) Benefits similar to those granted in the case of "necessary investments";
- (e) 35 per cent reduction in income tax, for a period of five years ... etc., etc.;
- (f) 75 per cent exemption from customs duties, surcharges and other additional charges, total exemption from advance deposits, and 70 per cent reduction in the exchange surcharge on imports of raw materials, packaging and other inputs which are produced in the country either not at all or in insufficient quantities, in the amounts required to support four years of production;

(g), (h) and (i) Exemptions and concessions similar to those granted in the case of "necessary investments".

As already stated, investments are channelled according to a "list of activities", which is drawn up to establish the country's goals in the area of goods and services, in line with the recommendations of the economic development plan.

The following is the list in force for the two categories in 1970:

NECESSARY	DESIRABLE
Meat and meat by-products	Maize products
Milk products	Leguminous products
Fruit and vegetables	Livestock and poultry fodder
Cereal milling	Production of bread, noodles and pastry
Hydrogenated oils and fats	Confectionery
Tea	Ice
Cañ He-ó (sweet herb)	Yeast
Glucose	Starch
Sugar	Vinegars
Vegetable textile fibres	Yerba mate and coffee
Vegetable-fibre yarn and fabric	Gelatine
Silk spinning and weaving	Fermented fruit drinks
Wood	Alcohols
Pulp, cellulose, paper and cardboard	Yarns and fabrics
Hide and skin tanning	Clothing
Printing	Leather footwear
Fertilizers	Soaps
Common salt	Calcium carbide
Agricultural chemicals	Carbon dioxide
Fatty acids and glycerine	Oxygen
Vegetable oils	Paints (based on domestic oils)
Essential oils	Medical and pharmaceutical products
Papain	Iron and steel wire, bars, rods and shapes
Glass	
Kaolin	
Marble	
Ceramic construction materials	
Portland cement production	
Gypsum	
Iron	
Agricultural tools and machinery	
Shipbuilding and repair	
Local handicrafts using domestic raw materials	

#### 8. Other industrial development policy instruments

A number of measures were gradually and selectively adopted to provide a fuller range of policy instruments, in line with the wider range of benefits that the public sector could grant in the area of industrial development. These measures applied particularly to exemptions, as already discussed.

By Decree No. 30.760/67 the Executive ordered the gradual prohibition of the export of unfinished wood (rolls). This provision encouraged an increase in production and employment at the industrial plants affected and stimulated investment in this sector along with foreign sales of manufactured products.

In view of the results achieved with this highly successful measure, consideration was given to additional possibilities with products for which there existed a significant intermediate demand in the country, such as raw cowhide, soya seeds, essential oils and limestone.

Similar measures continued to be adopted in the course of time, and the country is now engaged in carrying out the provisions of the industrial plan, with special emphasis on the utilization of natural resources in plentiful domestic supply, the capitalization and equipping of manufacturing enterprises, import substitution and outward-directed growth as a formula to offset the limited size and consumption capacity of the internal market.

By way of illustration, the following is a concise breakdown of the products which have benefited from the terms of this promotional instrument in the first two years during which the investment law has been in effect.

<u>Nature of the activity</u>	<u>1971 Investment,</u> <u>millions of</u> <u>guaranis</u>	<u>Per</u> <u>cent</u>	<u>1972 Investment</u> <u>millions of</u> <u>guaranis</u>	<u>Per</u> <u>cent</u>
Production of various foodstuffs	166.03	60	815.3	47
Wood	13.6	5	235.0	14
Printing	14.1	5	7.0	0.4
Chemicals	44.1	16	-	-
Construction materials	18.6	7	36.8	2.1
Animal husbandry	-	-	157.0	9
Non-metallic minerals	-	-	140.0	8.1
Tourism	-	-	92.5	5.4
Tobacco	-	-	71.2	4.1
Miscellaneous	-	7	-	10.9
		<u>100.0</u>		<u>100.0</u>

Total gross investment for 1971 amounted to 276,800,000 guaranis, while in 1972 it rose to 1,718,999,000 guaranis.

9. A brief table is also given below of the products generated by these new activities, the industrial processing of goods resulting in greater diversification of traditional exports.

EXPANSION OF EXPORTS OF "NON-TRADITIONAL" PRODUCTS  
1967-1970 (in thousands of US\$, FOB)

<u>Products</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
Processed woods	1,523	2,447	5,407	6,040
Frozen meat	77	12	784	5,798
Edible soya oil	-	-	-	416
Fruit derivatives	207	376	240	770
Dry silk cocoons	-	-	-	37
Portland cement	-	-	-	318
Packaged palmetto	1,919	2,057	2,625	4,111
Yearly totals	48,259	47,575	50,953	64,070

It will be seen that the greatest advance was recorded between 1969 and 1970, with an increase of 26 per cent. Products processed by manufacturing enterprises accounted for 27 per cent of the whole, these products being classified as "non-traditional" in accordance with the foregoing discussion.

10. In summary, it is fair to say that, although limited thus far to a general policy aimed at the creation of the necessary preconditions for a moderate rate of industrialization, the country has been carrying out its policy of industrial development, albeit somewhat unevenly. The encouraging results achieved confirm the method adopted as the most suitable in line with the human, technical and financial resources available.

Chapter V

INSTITUTIONS AND INDUSTRIALIZATION, 1950-1972

1. During the period prior to 1950 the country was plagued by a continual succession of coups d'état, which had the inevitable effect of creating an unfavourable climate for the establishment of any kind of institutional organization to serve as a basis for the framing of an economic policy. In addition, the country had scarcely begun the task of reviving a number of activities adversely affected by the Second World War,



the outbreak of which had found Paraguay in a state of general unpreparedness. Later on, during the period of de facto governments mentioned above, the situation was not one which would have encouraged investment in any sectors of production. The last such civil upheaval in the life of the country occurred during the period from March to August 1947, with inevitable effects on the economy.

2. From that year until 1954, it is impossible to overlook the impact of the preceding events; apart from a few isolated efforts to institutionalize the system for the promotion of production activities within both the public and private sectors, the period in question offers little sign of progress from this standpoint.

The action taken simply to put the legal and political system in order during the 1950s marked no more than a first step in a process which by the end of 1969 was to become comparatively well defined.

3. The Ministry of Industry and Commerce was created as an outgrowth of the former Department of Economic Affairs, which was expanded into two new institutions - the Ministry mentioned above and the Ministry of Agriculture, which in this way acquired an institutional form of its own.

The area of activity originally entrusted to the Ministry of Industry and Commerce reflects clearly the spirit which prevailed at the time it was set up, as well as the basic goals pursued by the Government in establishing it. The function assigned to this Ministry was largely a policing role, particularly in view of the intense speculative activity in basic goods for internal consumption.

As far as its administrative organization was concerned, the Ministry consisted of the following departments: industry, commerce, distribution, administration, laboratory, price control and others.

Its basic task was to supervise the distribution of domestically produced goods and such imported products as were subject, in addition to rationing, to a mechanism setting price ceilings at various stages in the marketing chain.

For exports of certain processed materials, previously issued permits or licences were required, which opened the way to large-scale State intervention.

4. It goes without saying that no organized planning was in effect during the entire period of the 1950s and that the control exercised over trade and industrial production was limited to isolated and contingent action to co-ordinate the machinery.

In late 1953 an industrial development law was drawn up and enacted as the first effort to give form to an as yet undefined industrialization policy. At the same time, in order to attract the resources necessary to promote industrialization, a new legal system was adopted regarding foreign investment, the fundamental provisions of which are summarized elsewhere.

The Ministry of Industry and Commerce had begun functioning as a secretariat of state in 1950 and was therefore made responsible for the administration of the different legal instruments which have been mentioned above.

Before 1962 the country lacked an agency to take charge of economic planning. Early in that year the first and only such organization was created, with the title of Technical Secretariat of Economic and Social Development Planning; it comes under the Office of the President.

This agency immediately set about preparing the first comprehensive survey of the nation's economy, using the conclusions reached to draft a plan for the 1963-1965 period, which thus became the first serious effort to establish institutional guidelines for socio-economic action, and hence, for industry.

This plan was conceived with the intention of providing the country with a guide to be used in drawing up projects in production and services which would promote the gradual development of the economy. At heart, its terms of reference were those of a period in which the country looked ahead to the promise of success in the near future, although fully aware of the limited nature of its internal resources and of the difficulties to be overcome in securing foreign financial assistance to carry out the plan's recommendations.

The formulation of specific policies is not, generally speaking, an area in which the Latin American countries excel, and Paraguay is no exception to this rule.

5. It would be incorrect to say that the country had decided to adopt either protectionist or promotional measures in the strict sense. What took place was rather the slow and gradual application of an unco-ordinated series of provisions originating haphazardly in one administrative body or another, which did not amount to a clearly defined policy.

The Central Bank of Paraguay, for example, always acted as guarantor of foreign loans for the implementation of certain projects. Similarly, the National Development Bank - the country's sole institution for promoting production programmes - would, in exceptional cases, make available some funds to supplement investment in the private sector, which was also short of resources for financing industrial projects.

Fiscal policy, framed in accordance with the budgetary requirements of the public sector, failed to make allowance for its restrictive or beneficial effects on investment in the industrial sector. Rather than achieving any kind of discrimination in favour of domestic industry, taxes were levied in such a way as to secure higher levels of revenue, in order to support public expenditure, the main components of which were provision for the consumer needs of an increasingly large State apparatus and such basic public services as education, health and so on.

6. Nevertheless, the Secretariat of Finance always had a considerable influence in the implementation of any of the production programmes initiated during the period in question, since the country, lacking such fundamental means of production as machinery, equipment, complementary inputs and implements for farming and the exploitation of other natural resources, was dependent on supplies from abroad, with the result that duties on foreign trade were an important factor in the cost of investment in the industrial sector.

At the same time, until very recently no lines of credit were open to the country for obtaining or facilitating the financing required for the plant and equipment needed in the national economy. Among the reasons for this, one might cite the climate of uncertainty surrounding previous Governments. Additional causes of this unsatisfactory state of affairs may be found in the lack of project planning, limitations in raw material production, the restricted capacity of the domestic market and the high propensity to import.

It cannot be said that there was no plan for financing new activities, since in general terms any investment could be described in part as such; there was, however, no proposal, and still less any specific project, to set up machinery for diversification.

7. The training of high-level skilled manpower is and always has been the task of the universities, which produce specialists in the fields of industrial engineering, economics, civil engineering, industrial chemistry and agronomy.

These institutions have responded firstly to a growing need to make available to the country a reservoir of persons acquainted with the technological advances achieved in other countries, secondly, to the pressures being brought to bear by people with intermediate and secondary education, and, finally, to the altogether understandable aspirations of a people experiencing a cultural thirst generated by the general movement of their society.

Nevertheless, it must be said that the idea of undertaking a programme of mid-level technical education to bridge the gap between skilled and unskilled manpower has failed to gain ground, and to this day it has not been possible to firmly establish any institution, public or private, to meet this urgent need.

It cannot be said that there was no plan for financing new activities, since in general terms any investment could be described in part as such; there was, however, no proposal, and still less any specific project, to set up machinery for diversification.

It has been observed, for example, that the shortage of foremen has led to two economic and social consequences of importance. On the one hand, one finds that in some sectors of factory production high-level technical personnel are forced to act as foremen in charge of very routine operations because of the absence of mid-level staff to attend to these matters, or else because there may sometimes be only a limited need for skilled personnel, so that such persons have to accept lower and less remunerative positions in industry.

On other occasions, enterprises may act irresponsibly and inconsistently, training apprentices in certain areas of industrial production and then, because specialists with higher qualifications are not available, entrusting them with responsibilities for which they are not prepared.

Although this problem has been overcome on the university or advanced-training level, it persists on the level below, because of the absence of training opportunities mentioned above.

Beginning in the early sixties and continuing until the present time, the Government, working through technical institutions, has attacked the problem of extending greater assistance to the industrialization effort and, particularly as more information became available, formulating guidelines and proposals through the planning system which gradually took shape in the first two two-year development plans.

8. The approach to the promotion of private investment was through tax relief based on the laws which we have already discussed. Administrative responsibility in this area rested with the Ministry of Industry and Commerce, in consultation with other bodies, such as the National Development Bank, the Central Bank of Paraguay and the Secretariat of Finance.

The laws referred to are Law No. 202 on Industrial Development and Law No. 246 on Capital Incorporation.

In 1969 the Government created the Centre for Export Promotion, within the Ministry of Industry and Commerce, as the executive body of the National Council for Export Promotion.

The Council, which is made up of spokesmen from the public and private sectors, is a high-level consultative organ for the formulation of export policy.

The Centre (CEPEX) is a technical body which carries out research and provides assistance on a permanent basis, seeking to promote all kinds of private activity in the interests of expanding exports.

CEPEX's achievements include: the streamlining of administrative procedures in the processing of commercial documents relating to exports, participation in international trade fairs and expositions, market analysis for domestically produced manufactured goods, permanent assistance to the private sector in the discovery of business opportunities, the preparation of projects for the introduction of work incentives in the export sector, the identification and evaluation of the supply of exportable goods, and other activities.

For its part, the Council, following a very dynamic initial period, slackened its efforts and at the present time plays practically no role - a fact which has to some degree left the initiative in this area with the Ministry of Industry and Commerce.

The creation of the National Institute of Technology and Standardization within the framework of UNIDO's programme with the Government of Paraguay constitutes the first step in making available to the industrial production sector a source of advice adequate to its real and urgent needs.

This statement is substantiated by the fact that the institute's work was based on the recognition of the overriding importance of industrial development and on the definition of priority sectors in line with the magnitude of the contribution expected of each of these sectors to the gross domestic product.

At the present time, this programme constitutes one of the most valuable means by which the Government and international technical assistance can influence those directly concerned with industrial production.

The National Institute for Technology and Standardization received its official charter under Law No. 862 of 26 June 1963, although its origins date back to the agreement concluded on 22 June 1961. The regulations governing the Institute's routine operations were approved by a resolution of the Ministry of Industry and Commerce on 16 November 1967.

The functions entrusted to the Institute may be summarized as follows:

- (1) Technological research and technical assistance to industries to facilitate the application of the most up-to-date technology;
- (2) Preparation and application of Paraguayan technical standards, so that the national economy can benefit from the stimulating effects of technical standardization.

From a practical standpoint, the Institute is organized around the following research departments: wood, tanning, foodstuffs, construction materials, standardization, industrial engineering and textile fibres.

The work of the Institute since its foundation may be said to have been extremely useful. Not only does it enjoy the unqualified support of the public sector, but it has also definitely won the esteem and respect of private business circles, to whose assistance it has devoted all its resources and in whose successes it has played a very important role.

It will be seen that the Institute has been organized in the manner best designed to promote manufacturing activities in those areas in which the country's short and medium-range potential is greatest. Elsewhere in this study it has been shown that these basic industrial sectors are precisely those where the most diligent efforts have been made in the areas of technology and standardization.

9. The foregoing remarks will be sufficient to illustrate the great responsibility entrusted to the Ministry of Industry and Commerce for the promotion of industrial development, in light of this organization's role as the focal point for much of the administrative work in this sector and as the centre in control of the technical support agencies.

On the other hand, it is not the various recommendations or programmes of this Institute that govern or guide the channelling of basic resources to the private sector in order to provide it with new inputs for expanding plant and equipment, increasing

the volume of supply and other purposes contingent on a source of financing. Moreover, the great influence that the practical administration of fiscal policy continues to exert very largely undercuts any measures the Ministry of Industry and Commerce might take to encourage greater business activity.

In the application of the basic instruments evolved to deal with various aspects of industrial development policy, the influence and importance of fiscal machinery is very much evident, which gives some idea of the extent to which the different sectors have failed to co-ordinate their policies.

Unquestionably, a comparison of the situation as it existed in the past with the present position will show that considerable progress has been achieved. The criticism presented in this study is based simply on an objective analysis of those aspects which have required improvement and those which yet remain to be tackled in order to give greater impetus to the country's industrialization.

In recognition of the Government's efforts during this period, it may be said it was with the Government that the action taken to foster industrialization originated, while the business community demonstrated very little interest in preparing for the future of the nation's industry.

The enactment of Law No. 216/70 on investment for economic and social development, and the establishment of the Investment Council under the Ministry of Industry and Commerce, created the means for more effective co-ordination between institutions in the interests of industrialization. Represented in this Council are the Secretariats of Finance, Agriculture, Health and Welfare, and National Defence, the Technical Secretariat of Planning, the Paraguayan Industrial Union (a private organization), the Federation of Production, Industry and Commerce - FEPRINCO (also a private organization) and the Office of the Minister of Industry and Commerce.

It will be noted, however, that the financial agencies are not represented, so that the opportunity of securing their contribution to effective co-ordination in the implementation of specific policy measures has once again been missed.

Summary of institutional organization for industrial development

1. The Ministry of Industry and Commerce, an agency of the Executive charged with the responsibility for the execution of policy.
2. The Technical Secretariat of Economic and Social Development Planning, a technical agency engaged in the preparation of plans for this sector.
3. The National Development Bank, the only financial body through which resources can be obtained for capital goods.
4. The National Institute of Technology and Standardization, an agency for technical assistance in the industrial sector, which comes under the Ministry of Industry and Commerce.
5. Private agencies for channelling resources to different levels.
6. The National Projects Office, a technical evaluation and co-ordination agency coming under the Technical Secretariat of Planning.

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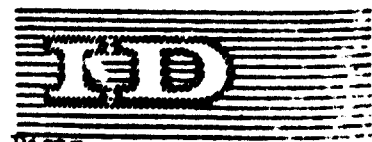
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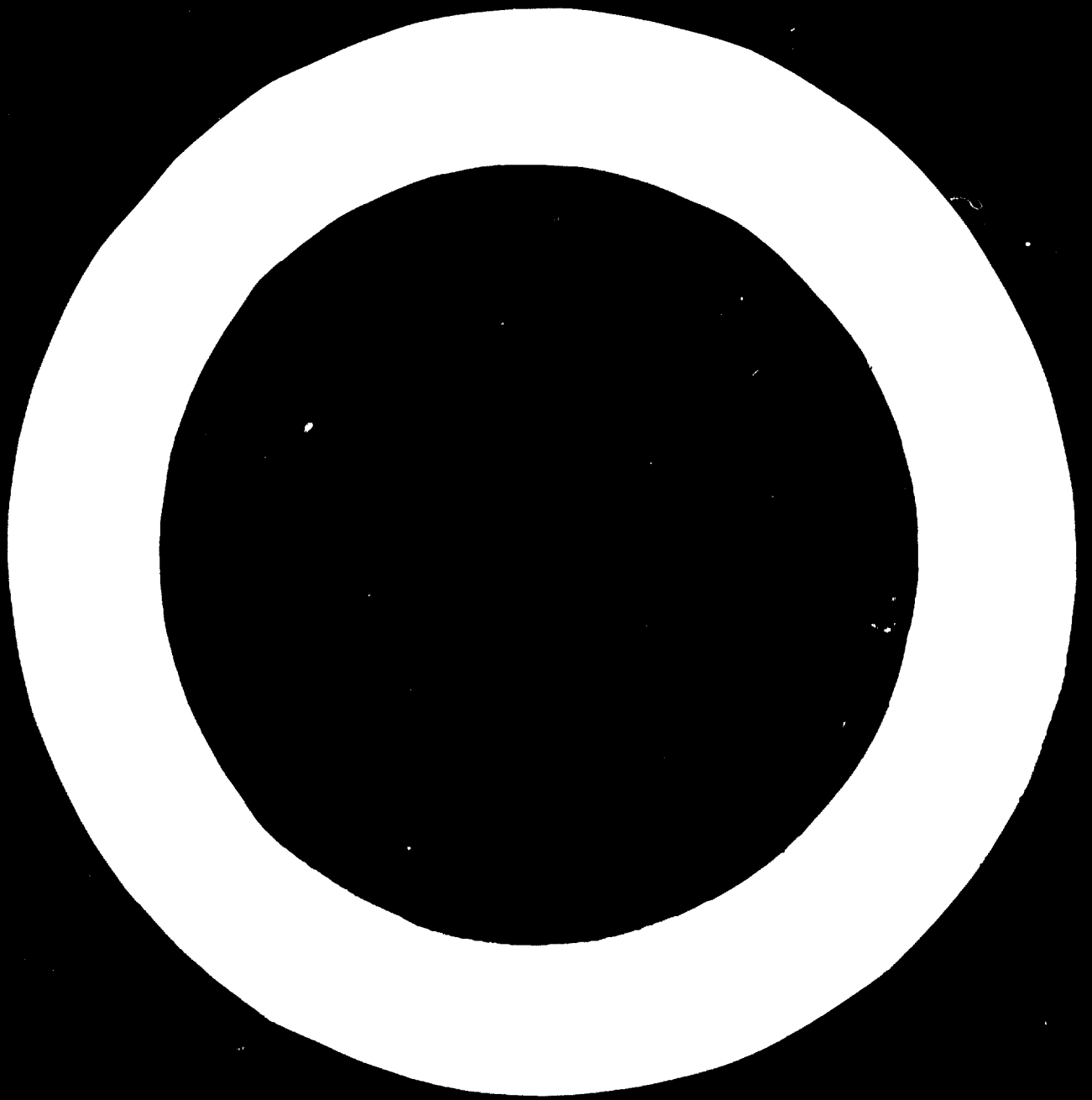
by

**Blas R. Chamorro**

**Annex A**

**List of Leading Industrial Enterprises, 1971**

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LIST OF LEADING INDUSTRIAL ENTERPRISES, 1971

<u>Name</u>	<u>Location</u>	<u>Gross value of pro- duction in thousands of Guaranis</u>	<u>Principal activities</u>
Capsa	Dpto. Central (Capiatá)	2,670,444	Crude and refined oil of coconut, peanut, cotton, soya, tung, spurge; coconut hearts, ginned cotton, oil settlings, fibre linters, coconut pulp, molasses pellets, flour, expeller cake, mixed edible oil, butter, tobacco.
Aceitera Itauguá	Dpto. Central (Itauguá)	239,543	Crude and refined oil of coconut, peanut, cotton seed, soya, tung, spurge; coconut hearts, expeller cake.
La Industrial del	Dpto. Central (Ypacarai- Cerro Guy)	219,223	Crude and refined oil of coconut, cotton seed and soya; coconut hearts, ginned cotton, oil settlings, fibre linters, common soap, coconut pulp, cotton seed, expeller cake.
Azucarera Paraguaya, S.A.	Dpto. Guairá (Cnel. Martínez) Villarrica	379,925	Sugar, cane rum, rectified and denatured alcohol, molasses, sawn wood, firebrick, electric power, carbon dioxide gas.
Censi Pirootta	Villa Hayes - Benjamín Aceval	68,584	Sugar, molasses, rectified and denatured alcohol, electric power.
Azucarera Friedmann, S.A.	Dpto. de Guairá - Villarrica	271,964	Sugar, molasses, rectified and denatured alcohol.
Ingenio María Auxiliadora, S.A.C.I.	Dpto. de Paraguari - Carapeguá	140,070	Sugar, molasses, denatured and rectified alcohol, sawn wood, honey.
Azucarera Iturbe	Dpto. de Guairá - Iturbe	175,075	Sugar, denatured alcohol, molasses.
Azucarera Guarambaré	Dpto. Central - Guarambaré	80,940	Sugar, molasses, denatured and rectified alcohol.
Molino Harinero del Paraguay	Asunción - El Paraguay Independiente 898	821,108	Wheat flour, animal feed, wheat bran.
San Celestino	Asunción - Choferes del Chaco y Teniente Farina	82,090	Processed natural milk, cream, <u>dulces de leche</u> (milk desserts), butter, yogurt.

<u>Name</u>	<u>Location</u>	<u>Gross value of production in thousands of Guaranis</u>	<u>Principal activities</u>
E. P. A.	Asunción - Choferes del Chaco y Eusebio Ayala	77,326	Processed natural milk, cream, butter, cheese, yogurt and similar dairy products.
Paraguay Refresco, S.A.	Asunción - Avenida España 2179	306,825	Refreshments, soft drinks, unflavoured carbonated water.
Industrializadora Guaraní, S.A.	Avenida General Genes 1236	143,289	Carbonated beverages.
Cervecería Paraguaya, S.A.	Asunción - Palma 1139	521,478	Beer in bottles and casks, ice.
Industria Paraguaya de Carne, S.A.	Dpto. Central - Limpio Piquete-cué	340,031	Frozen and preserved beef, fresh skins and hides, meat extract, edible suet, meat meal, bone meal, blood meal, frozen sausage meat, industrial fat, concentrated ox-gall, 2 1/2% and 4 1/4% C.H. flour, industrial bone, curcubijcs bone, horns, hooves and bristles.
Pampa Paraguaya Meat Packers, S.A.	Asunción - Bañado y Teniente Bernal, Santísima Trinidad	476,004	Frozen beef, salted hides, carbon dioxide gas, sausage meat.
Meat Packing Division of International Products Corporation	Dpto. Central - San Antonio	963,382	Preserved meat, meat extract, potted meats, cubed beef, roast beef, brisket, salted tripe, edible oil, industrial fat, meat's-foot oil, meat meal, dried blood, concentrated ox-gall, industrial bones and hooves, salted cowhides, cow bristles, ice, tin containers, electric power.
APAL (Administración Paraguaya de Alcoholes)	Asunción - Palma y Garibaldi	448,596	Cane rum, denatured and rectified alcohol.
Cerámica Paraguaya	Asunción - Santísimo Sacramento casi via ferrea	21,010	Clay pipes and tubes, firebrick.
Compañía Exportadora e Importadora del Paraguay, S.A.	Dpto. Central - San Lorenzo	11,098	Tanned hides and sole leather.

<u>Name</u>	<u>Location</u>	<u>Gross value of pro- duction in thousands of Guaranis</u>	<u>Principal activities</u>
Mario Barone, S.A.C.I.	Asunción - Avenida Militar y Primer Presidente	8,415	Tanned hides.
Iris, S.A.C.I.	Asunción - Gobernador Irala y Teniente Prieto	16,131	Detergents, insecticides, paints.
Pinturas Opal	Asunción - Fernando de la Mora	11,859	Paints.
Pintura Iux	Avenida Venezuela	10,744	Paints.
Vicente Scavone y Cía. Com. e Industrial, S.A.	Km. 9 - San Lorenzo	88,300	Pharmaceuticals.
Laboratorio Catedral	Avenida General Genes y San Martín	79,998	Pharmaceuticals, soap.
Heisecke y Cía.	Avenida Mariscal López y Avenida Perú	42,960	Pharmaceuticals.
Iciera	Santísimo Sacramento 1293	181,983	Galvanized and non-galvanized wire, nails, blackplate, plane galvanized and corru- gated sheet.
Industria Nacional de Cemento	Puerto Valle-mf-Alto Paraguay- Concepción, San Lázaro	416,135	Cement, clinker, processed plaster, electric power.
Crown Cork Para- guaya, S.A.	Ruta Mariscal Estigarribia, km. 5½	92,363	Crown corks and tin containers.
R.E.P.S.A.	Dpto. Central - Villa Elisa	1,562,934	Gasoline, asphalt material, fuel oil, gas oil, kerosene, liquefied gas, turbo fuel.
Manufactura Pilar S.A.	Dpto. Ñeembucú - Pilar	1,402,676	Crude and refined cotton seed oil, soya oil, treated water, ginned cotton, cotton linters, oil settlings, electric power, fibre linters, cotton thread, common soap, cotton fabric.



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