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EVALUATION REPORT ON INDUSTRIAL ESTATES NO. 3
ECUADOR 1/

by

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Consultant

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TABLE OF CONTENTS

APPENDICES

INTRODUCTION

This study of the contribution of industrial estates in Ecuador to the nation's industrial development is one of a programme of six such studies undertaken by the United Nations Industrial Development Organisation in the autumn of 1975. The programme is financed by the Swedish International Development Agency. The study was carried out by Mr. C.R.Wynne-Roberts, Consultant, during the period 22 November - 7 December, 1975.

Many people contributed to the study. On the national side, the study was sponsored by the Centro de Desarrollo Industrial del Ecuador, (CENDES), whose Executive Director, Economista Marcelo Avila Orejuela, provided generously the staff and facilities necessary for the study and gave much valuable guidance. Special acknowledgement must also be made to Economista Franklin Lopez P., who accompanied the Consultant throughout the study, and who w s responsible for all the local arrangements and contacts. He was in the few leisure moments, a most pleasant companion.

Officials and industrialists in Quito and in the provinces gave freely of their time to answer questions and provide data. As their were often descended upon at very short notice and probably had not always a very clear idea of the object of the visit and ensuing interrogation, their goodwill and helpfulness are the more remarkable.

Valuable information was obtained in the initial stages of the mission from the Chargé d'Affaires at the Royal Swedish Embassy, Mr. Ragnar Petri, and the Commercial Counsellor of the British Embassy, Mr. David Walters.

Mr. Juan Pascoe, Resident Representative, UNDP and his Programme officer, Mr. Jan Heiram, were helpful through the consultant's stay in Ecuador. Mr. John W. Mocogain Clark, Project Manager of the UNIDO Project attached to the CENDES was also very kind and cooperative.

Finally, acknowledgement must be made to someone who was not there, Mr. Gian Carlo Guarda, UNIDO industrial estates expert, who visited Ecuador for three months in 1968, and whose report has proved a mine of useful information and whose conclusions foreshadowed by some seven years many of those contained in the present Report.

SUMMARY OF CONCLUSIONS

1. The officially sponsored industrial estate programme in Ecuador has so far failed to get off the ground.

2. Markets in Ecuador are very restricted by the small population and concentration of the limited wealth in a few hands.

3-5. The more substantial oil revenues of the past two or three years and in future will permit greater industrial development. This will be further encouraged by the Andean Group Agreements. Industrial estates have a role to play but expansion may be curbed by lack of qualified personnel.

6-7. One of the reasons for the failure has been a lack of clear-cut and consistent policies on the part of the Government. Feasibility studies do not seem to have been deep enough nor to have covered non-economic aspects of the question.

8. Cooperation does not seem to have been very successful in the past. Cooperatives have tended to break down quickly.

9. The policy of selection of industries appears restrictive and excludes firms which might offer employment opportunities. It is widely believed to exclude small firms and existing firms.

10. Most of the estates envisaged are too small to be worth the expense. The original programme planned elaborate facilities but has never been carried out.

11-12. Policies regarding location of estates have changed but earlier locations have continued. There seems to have been some rigidity on building size which may not suit smaller firms.

13-14. The present system of incentives is more attractive for large firms than small. Setting up estates and inviting firms to join may be the right policy to attract new and foreign firms, but for existing firms the desire to create an estate should arise from the entrepreneurs themselves.

15-16. Priority for technical assistance should be offered to firms on estates and special facilities for training workers and staff provided.

17. The time may now be ripe for a relaunching of the industrial estates programme. Before doing so, much more intensive and extensive studies should be done.

18. There would appear to be a continuing need for high quality counselling on industrial estates which should cover all aspects of policy and practice.

1. THE NATIONAL BACKGROUND

1. Basic Statistics

Area[1]	301,139	km[2]
Population[1] (1972 est.)	6,598,300	
Gross Domestic Product[2] (1974) U.S.$	4,326,000,000	
GDP per capita (1974)[3] U.S.$	655	
Growth Rate (Real GDP/capita, 1974)[2]	9.5-10	per cent
Imports c.i.f.	See below	
Exports f.o.b.	See below	
Employment (1973)[2]		
Agriculture	55.4	per cent
Public Sector	13.7	" "
Industry	13.1	" "
Commerce	7.2	" "
Construction	4.5	" "
Transportation and Communications	3.4	" "
Other	2.7	" "
	100.0	" "
Adult Literacy (1970)[1]	68.0	" "
Distribution of National Income[2] (1970)		
Lowest 20% of Population	2.7	" "
Highest 20% of Population	73.2	" "

Currency - Sucres 26 = U.S.$ 1 (Nov.1975)

2. General Information

Ecuador lies on the Pacific Coast of the South American continent, across the Equator. It is bounded on the north by Colombia and on the south and east by Peru. A very large area of eastern territory was ceded to Peru after a short war in 1941, a loss which has never been accepted by the Ecuadorians.

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1 The News: The World Almanach and Book of Facts, 1974, New York, Newspaper Enterprise Association, Inc. 1974. p.560

2 Confederation of British Industries: Ecuador Now, Report of the CBI Mission to Ecuador 15-21 March 1975. London May 1975. The figures for the GDP are converted from pounds sterling at the rate of U.S.$ 2.1 = £1.

3 Calculated from GDP and population figures. The CBI Report gives the per capita income as £310.

The country is divided north and south more or less down the middle by the cordillera of the Andes, with an average height of 2,500 to 3,000 metres and peaks rising to over 6,000 metres. The coastal plain to the west is rich agricultural land and produces the principal export crops which, until the increased oil exports of the last three years, represented 80 per cent of the country's exports. These include bananas, of which Ecuador is the world's largest producer. It is semi-tropical, but the Humboldt Current flowing up the coast keeps the coastal temperatures from rising excessively high. This is the region of the great landed estates which are very highly mechanised. The eastern province is composed mainly of rain forest and lies between several of the headwaters of the Amazon. The major oil production comes from this region close to the Colombian border. The cordillera is also good agricultural country over a large part of its length, much of it farmed in small units. As may be seen from the statistics above, agriculture still accounts for a major part of the employment. In addition to bananas, Ecuador exports coffee, cocoa, sugar, fish products, pyrethrum, rice, balsa wood and castor seeds. Maniec, barley, corn, wheat and potatoes are grown for domestic consumption.[1] The manufacturing sector is still very under-developed, but textiles and clothing are produced on a fairly large scale and some luxury imports are assembled behind high tariff barriers.

The per capita income varies greatly throughout the country. Of the population, estimated to be approaching 7,000,000 in 1975, about three million are considered to be outside the money economy, including most of the primitive Indians living in the eastern province.

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1 CBI op.cit.

The population is mixed. Ecuador was settled by Spaniards in the 16th century and the upper classes are still mainly of Spanish descent. Of recent years there has been immigration from Italy, Northern Europe and, to a limited extent, from the Near East, the last-named being strongly commercial and entrepreneurial. In the last two or three years a certain number of immigrants have come from other countries in Latin America, notably Chile; these are mainly from the entrepreneurial and professional classes. The total population divides approximately into one third white, one third of mixed descent and one third Indian.

The Indians of the cordillera, who form the major part of the rural population in that region, are almost entirely agriculturalists, engaging in cottage industries generally as a sideline or part time activity. In general they do not seem to be commercially enterprising. A notable exception are the Peguiche Indians of Otovalo, of whom more is said below.

The principal cities are[1]

Quito (capital)	pop.	528,000
Guayaquil	"	994,300

Other cities with more than 100,000 inhabitants are Cuenca and Porto Viejo.

[1] World Almanach, op. cit.

The discovery of major oilfields in the eastern province has given a great fillip to the economy, as may be seen from Table I below.

TABLE I

World Trade with Ecuador (U.S.$ millions)

	1969	1970	1971	1972	1974
Exports f.o.b.	152	201	217	301	1,050
Imports c.i.f.	175	243	257	249	618
	-23	-42	-40	52	432

1973 was the first year in which oil exports really began to dominate the export field, but they were to some extent offset by heavy imports of luxury goods, to which the Government put a stop the following year. In fact, oil exports suffered some setback in 1974. The first cause was the fact that Ecuador, as a member of OPEC, was forced to charge OPEC prices and found itself at a disadvantage in exporting to the U.S.A. in relation to Venezuela, by reason of its greater distance from U.S. ports. Secondly, there was a dispute with the Texaco Company, exploiting the eastern oilfields, which resulted in the company cutting back on its operations. The third factor was a break in the pipeline carrying the oil from these fields to the port of shipment, which caused a further slowing down of exports. It seems, however, that these latter problems have been overcome and Ecuador is seeking alternative markets for its oil.

Ecuador is a member of the Andean Common Market, in which it shares with Bolivia special concessions as a "less developed" country. It has been allocated a wide range of products to manufacture under the Andean Group Sectoral Agreements, which includes many engineering products and components. However, the country is very short of qualified and experienced professional personnel at all levels, particularly at the top level, administrators and planners, and at the next level of engineers, agronomists, extension officers and supervisors.

In the labour force, in spite of much natural aptitude, there is an acute shortage of people with factory skills and knowhow.[1] The impression is gained that the present boom resulting from a trade surplus and thus the possibility of importing capital equipment in substantial quantities as well as the allocations under the Andean Agreements have caught the Government completely unprepared, and that there will be a continuing need to rely on international and bilateral advice and assistance, especially managerial and technical skills, for many years to come.

A five year plan was prepared for 1973-77 which is already acknowledged to be out of date. It nevertheless gives some indication of expectation and performance. The aim was to raise the GNP by nine per cent per annum and exports, mainly oil, by 15.9 per cent. 560,000 jobs were to be generated in the five years. Land reform and bringing into productive use more land were provided for, but so far little has been done. Total investment over five years was foreseen at U.S. $ 2,550 million, of which industry and construction would receive about 23 per cent.[2]

3. The Industrial Background

Statistical data on industry are not satisfactory. Table 2 provides some information, but this is already out of date. It can be seen that it is mainly small scale with about 67 per cent of employment in the industries traditionally among the earliest in developing countries, textiles and clothing and food and drink. The engineering industry is still very small. The figures do not include artisan industries; it will be noted that the average number of persons engaged per unit in the smallest group - 499,999 sucres ($ 19,230) output per annum - is almost eight. The output per person engaged in this group is only 38,207 sucres ($ 1,470) per annum.

1 CBI op. cit. p.6

2 CBI op. cit. Appendix 4, p.25.

TABLE 2

Manufacturing Industry - Establishments grouped by Output.[1] 1970

(Ministry of Industry, Commerce & Integration)

Value of Output	No. of Firms	Persons Engaged	Wages & Salaries	Social Contributions	Raw Materials	Total Value of Output	Total Value added	New Investment	Output per Employee	Value added per Employee	New Investment per Employee
Sucres			Sucres	Sucres	Sucres	Sucres	Sucres	Sucres	Sucres	Sucres	Sucres
Less than 499,999	244	1,931	17,592,636	2,689,057	32,346,461	78,778,893	36,873,905	8,681,366	38,207	19,035	4,330
500,000 - 999,999	168	2,664	28,818,314	4,858,559	52,130,450	124,700,449	65,183,357	16,349,154	57,625	30,122	7,552
1,000,000 - 4,999,999	341	8,799	148,613,520	31,609,961	379,841,397	821,402,935	368,866,832	71,450,704	93,351	41,921	8,120
5,000,000 - 9,999,999	109	5,474	157,316,185	28,083,863	418,742,050	774,307,991	319,668,846	121,546,113	141,561	58,398	22,204
10,000,000 - 19,999,999	76	6,349	159,416,847	47,127,741	528,038,157	1,096,506,071	513,823,673	114,580,736	172,713	80,930	18,047
20,000,000 - 29,999,999	46	5,120	132,632,617	45,293,284	662,343,148	1,150,427,123	434,457,845	103,824,040	224,692	84,855	20,287
30,000,000 - 39,999,999	23	4,289	110,538,484	32,430,092	428,624,794	802,719,137	326,288,831	58,972,297	187,158	76,076	13,740
40,000,000 - 49,999,999	12	1,347	38,694,665	16,372,076	286,359,816	513,726,952	181,885,302	44,812,768	381,386	134,512	33,268
50,000,000 & above	61	18,193	642,765,382	301,090,257	4,176,878,953	7,474,125,462	2,692,707,369	421,213,018	410,824	148,007	23,152
TOTALS	1,080	53,666	1,386,387,900	507,572,440	6,951,389,229	12,832,346,003	4,939,756,653	961,424,096	Av. 239,114	Av. 92,046	Av. 17,915
By Industries											
31 Food, drink & tobacco	387	17,499									
32 Textiles & clothing	207	18,379									
33 Timber products incl furniture	77	3,560									
34 Paper, printing & publishing	115	4,288									
35 Chemical Products	153	6,483									
36 Mineral Products excl Coal & oil products	45	2,384									
37 Basic Metal Industries	5	302									
38 Metal products incl machines	111	4,453									
39 Other mfd products	30	718									

1 NOTE: Due to the poor quality of photocopies, some figures may be doubtful but they do not seriously affect gross totals.

TABLE 3

General Summary of new & existing firms classified for Rights under the Law for the Development of Small Industry & Handicrafts - by Industrial Sectors - 1965-1974

Industrial Sectors	No. of Firms	%	No. of Persons Engaged: No.	%	Remuneration	%	Total Investment	%	Raw Materials	%	Gross Value of Output	%
Food	166	11.3	1,582	13.0	31,850,717	13.6	84,995,195	16.2	279,385,063	28.8	482,109,245	25.5
Drinks	14	1.0	122	1.0	2,113,121	0.9	7,040,522	1.3	12,563,571	1.3	23,134,781	1.2
Textiles	139	9.4	1,296	10.6	18,852,646	8.0	49,724,764	5.5	94,224,165	9.4	156,754,818	8.3
Clothing & Footwear	294	20.0	2,134	17.4	35,471,292	15.1	53,757,101	10.2	125,976,722	12.8	220,512,317	11.7
Timber & Furniture	222	15.0	1,638	13.4	28,569,404	12.2	54,204,589	10.3	62,775,918	6.5	156,033,249	8.3
Paper & Paper Products	9	0.6	146	1.2	4,810,884	2.0	8,826,103	1.7	11,839,893	1.2	26,258,435	1.4
Printing & Publishing	109	7.4	611	5.0	10,970,963	4.7	33,290,029	6.3	28,741,122	3.0	73,675,480	3.9
Chemicals	75	5.1	394	3.2	25,035,183	10.7	66,310,119	12.6	111,106,468	11.5	233,580,942	12.4
Plastics	21	1.4	197	1.6	6,230,698	2.4	17,777,652	3.4	19,984,631	2.1	40,222,512	2.1
Rubber	10	0.6	82	0.6	1,317,686	0.6	4,139,771	0.8	6,461,676	0.6	12,800,268	0.7
Non-metallic Minerals	83	5.6	800	6.5	16,249,266	7.0	41,037,848	7.8	40,432,096	4.2	95,676,298	5.1
Electrical Machinery	18	1.2	174	1.4	5,586,381	2.4	9,305,602	1.8	20,419,735	2.1	60,205,816	3.2
Transport Equipment	27	1.8	226	1.8	5,607,154	2.4	14,946,886	2.8	15,018,397	1.5	31,583,470	1.7
Other manufacturing Industries	83	5.6	725	6.0	8,385,124	3.6	13,070,445	2.5	24,082,028	2.4	50,662,557	2.7
Leather & Hides	35	2.4	168	1.4	1,857,497	0.8	4,471,698	0.9	11,588,430	1.2	15,306,348	0.8
Professional & Scientific Equip^t	4	0.4	35	0.3	1,203,996	0.5	1,651,161	0.3	3,811,448	0.4	9,768,000	0.5
Metals	154	10.5	1,732	14.2	27,670,590	11.8	55,690,593	10.6	98,269,699	10.1	178,912,265	9.5
Non-Electrical Machinery	10	0.7	169	1.4	2,955,680	1.3	5,369,543	1.0	9,012,254	0.9	19,503,600	1.0
TOTALS	1,473	100	12,231	100	234,768,224	100	525,715,625	100	973,723,321	100	1,886,900,395	100

Source: Direción de Fomento de la Pequeña Industria y Artesanía

Table 3 lists small industries classified by the Directorate of Development of Small Industry and Handicrafts. These are the firms which have registered with the Ministry of Industry, Commerce and Integration (MICEI) so as to benefit from fiscal and other forms of aid under the Small Industry Development Law.[1] It was not possible to reconcile the figures with those given in Table 2. The data are produced by different departments. However, it may be seen that the average numbers employed per firm by the 1,473 firms listed in Table 3 average 8.3. The only firms with more than 10 persons engaged per firm are in paper and products, metal industries and non-electrical machinery, 16, 11.2 and 16.9 respectively. Thus the firms listed in Table 3 seem to overlap with the two smallest size groups in Table 2.

There is a problem to know precisely which years are represented in Table 3 since Table 3 states that it is "in the years 1965 - 1974". From the figures, it is assumed that they refer to the latest year, 1974, and not for the whole 10 year period. If this is the case, the comparison with the figures in Table 2, for 1970, is not really valid, but it is at least indicative.

Based on these tables, small industry contributed only 1,886,900,395 sucres out of a total manufacturing production of 12,832,545,003 sucres, about 18.9 per cent and 22 per cent of employment. However, output per worker in the small industry group of the textile industry, for example, is 109,990 sucres, while for the industry as a whole it is 126,000 sucres. The difference is usually greater.

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1 Ley de Fomento de la Pequeña Industria e Artesanía. See below for discussion.

4. The Ecuadorian Small Industrialist

In the course of the study, discussions were held with officials of the MICEI, presidents of small industry associations, directors of industrial estates and individual industrialists. Plants were visited in Quito, Guayaquil, Cuenca, Tulcan, Ibarra and Otovallo. (See reports in Appendix III).

It has proved very difficult to obtain any picture of a "typical" small industrialist. Evidence is often contradictory, but certain characteristics seem common.

The average small industrialist appears to be an individualist, not very good at cooperating in joint operations with his fellows. The only cooperatives which were heard of and which showed signs of being successful were of artisans at a pre-industrial stage. Industrialists also seem everywhere to be unwilling to risk their own funds in promoting industrial estates, even where, as in Guayaquil, many of them feel a strong need because of the cramped accommodation and poor working conditions which they have in the city. In Guayaquil they will not even participate financially in the preliminary studies.[1]

Although the typical small industrialist may not be an educated man, at a fairly small size he seems to like to have someone with university qualifications to back him up. In Cuenca, one of the firms visited, although now beyond the small industry category, had a graduate engineer as the number two to the owner, while another firm, which had also grown rapidly, had a lawyer as administrative director and a chemist on development work. A very small chemical firm in Quito was started by a doctor of philosophy. It was said that, since the oil boom, which has led to increased possibilities of industrialisation, landed families are eager to invest in industry where previously they invested in property.

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1 The possible reasons for this are discussed in Section III.

There is a good deal of foreign participation in industry and the recent Andean Common Market agreements will certainly offer further possibilities for joint-ventures. Handicrafts appear to be in the hands of the Indians, of whom the outstanding craftsmen and entrepreneurs are the Peguiche. Their country is around Otovalo, about 100 kilometres north of Quito. They have a highly developed commercial sense and have set up their own sales offices for their handicrafts products in North America, Spain and the Canaries. They cooperate closely together and, although their production is still artisanal, they are setting up what may be the first viable industrial estate in Ecuador. (See below).

Two cases were seen of technical initiative and inventiveness at a high level, both in Cuenca. In both cases the firms had established themselves on their own land outside the town and could not be bothered to wait around for the industrial estate, on which they claimed the land was too expensive. In general, however, there seems to be a tendency to wait for the Government to improve conditions. Unfortunately, time did not allow visits to artisan industries.

5. The Small Industry Associations

The definition of small industry in the Small Industry Development Law reads as follows:[1]

> "A small industry is deemed to be one which, using machinery to a major extent, is engaged in the transformation, including forming of raw materials or semi-finished products into finished or intermediate

[1] Details of the Small Industry Development Law and certain other relevant Decrees are contained in a booklet issued by the Ministry. MICEI: Codificacion de la Ley de Fomento de la Pequena Industria e Artesania, Quito, Oficina de Informacion, Prensa y Relaciones Publicas, Nov. 1974.

products. Its capital assets, excluding land and buildings, should not exceed in value that fixed annually by the Inter-Ministerial Commission for the Development of Small Industry and Handicrafts, which in no case should be greater than 1.5 million sucres". (Translation). The limit of capital assets as defined above has recently been raised to 5 million.

In Chapter II, Part 2, (Articles 13-16), the small industry associations and unions are defined.[1] There appears to be no legal compulsion to join an association, but membership is obligatory for registration with the MICEI, which is necessary to obtain the substantial benefits and incentives offered under the Law. (See below, Section 6).

In spite of their formal status, it appears as if the small industry associations are still rather loosely knit bodies. No full time director of an association was met with; presidents are industrialists with their own businesses.

Table 4 shows the distribution of registered small firms in the provinces, from which it can be seen that only in Guayas and Pinchimcha (Quito) are there any substantial numbers, with Asuay (Cuenca) the next in size.

The largest association visited was that for the Province of Guayas, with its headquarters at Guayaquil. A long discussion was held with the President, who has his own firm employing about 60 people in another of the towns in the Province. The Association has grown from 60 firms in 1971, a level maintained for several years previously, to 100 firms in 1972 and 650 in 1975. About 70 per cent of the small firms in the Guayas Province are

1 MICEI op. cit. pp. 9 and 10.

TABLE 4

Distribution of new & existing registered Small Firms by Provinces 1965-1974

SECTOR OF INDUSTRY	AZUAY	BOLIVAR	CAÑAR	CARCHI	COTOPAXI	CHIMBORAZO	EL ORO	ESMERALDAS	GUAYAS	IMBABURA	LOJA	MANABI	PASTAZA	PINCHINCHA	TUNGURAHUA	LOS RIOS	GALAPAGOS	TOTAL
Food	12	2	9	4	5	4	6	13	28	9	2	5	-	57	14	1	-	172
Drinks	-	-	-	-	-	3	2	1	1	-	-	-	1	4	2	-	-	14
Textiles	10	2	1	1	-	6	-	-	4	24	1	-	1	92	[illegible]	-	-	151
Clothing & Footwear	31	16	14	2	6	29	9	21	55	5	7	1	-	59	26	3	-	204
Timber & Furniture	23	18	10	1	-	17	4	25	30	1	3	4	-	81	3	4	-	224
Paper & Paper Products	1	-	-	-	-	-	-	-	4	-	-	-	-	4	-	-	-	9
Printing & Publishing	6	1	1	-	2	6	4	-	20	4	2	2	1	55	8	-	-	112
Chemicals	1	1	-	-	-	-	1	-	21	2	1	2	-	44	2	-	-	75
Plastics	1	-	-	-	-	-	-	-	7	-	-	-	-	11	2	-	-	21
Rubber	1	-	-	1	-	-	-	1	2	-	-	-	-	5	-	-	-	10
Non-Metallic Minerals	17	3	3	-	3	3	2	3	10	-	2	1	-	2[illegible]	6	-	-	82
Electrical Machinery	-	-	-	-	2	-	-	-	6	-	1	-	-	14	-	-	-	23
Transport Equipment	2	-	1	-	1	-	2	-	12	-	-	-	-	7	2	-	-	27
Other Manufacturing Industries	23	1	1	-	-	-	-	2	13	1	1	-	-	37	3	-	1	83
Leather & Hides (exc. footwear)	3	-	-	1	-	5	1	-	6	1	-	-	-	8	9	1	-	35
Professional & Scientific Equipment	-	-	-	-	-	-	-	-	1	-	-	-	-	3	-	-	-	4
Metals	20	3	2	2	3	7	3	4	32	1	1	3	-	63	7	3	4	154
Non-electrical Machinery	2	-	-	-	-	-	-	1	3	-	-	-	-	4	1		-	11
TOTALS	153	47	42	12	22	80	34	72	255	48	21	19	3	578	94	12	1	1,493

Source: Dirección de Fomento de la Pequeña Industria y Artesanía now members. However, of the present membership, possibly as much as 30 per cent exist only on paper, having no premises or productive facilities. The great majority of the firms actually operating are registered with the MICEI and appear in the classified lists.

There are, perhaps, 1,000 small firms in Guayaquil, together with about 200 large and medium sized ones, and 10,000 artisan workshops.[1] many of them are repair establishments, excluding garages, which do not therefore appear in MICEI lists, which probably accounts for the discrepandy between the figures given above and those listed as being in the Guayas Province in Table 4 below. They do not, of course, qualify for benefits since these are donfined to manufacturing industry.

This association appears to be very active on behalf of its members and provides technical counselling. In 1976 it will have its own rooms for conferences and courses in a new building in the city. A study has recently been carried out in 100 companies, (97 actually participated), to find out:

- the needs of the small firms;
- what occupations there are among them;
- what capital they have.

A very detailed questionnaire was coupled with personal interviews with owners.

The Small Industry Association of Cuenca has 243 members out of a total of 422 small firms in the city. The impression was gained from the discussion with the President that the association was not very active in promoting activities of use to its members. The only managerial training pro-

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1 Table 4 giving the distribution of industry, gives only 255 registered small industries in Guayas in 1974.

gramme was one run by the MICEI with participation of faculty from the University of Cuenca.

In Tulcan there are very few small firms within the meaning of the Law. The local representatives of MICEI said that there were seven firms plus eight very small or artisan industries employing five or six workers each. The local association seems inactive. The Small Industries Association in Quito was not visited. In general, small industry in Ecuador does not seem very well organised and initiatives to promote it seem to come from the Government rather than from the industry itself. This is probably an important factor in the failure of the industrial estates programme to get off the ground which is discussed later in this Report. Apart from Quito, Guayaquil and Cuenca, the numbers of small firms in most towns is too small to enable associations to be effective. (See Table 4).

The National Federation of Small Industries coordinates the policies and demands of the associations and represents them on the Inter-Ministerial Commission for the Development of Small Industry and Handicrafts.

6. Government Policy on Small Industry and Handicrafts.

For some years the Government has tried to encourage small industry and handicrafts. Laws relating to small industry and providing for incentives for its development have been in existence since 1965. The latest Decree, No. 921, codifying the various amendments, has been published by the MICEI in the booklet mentioned in the previous Section, from which the definition of small industry was quoted.

Policy and action relating to small industry and handicrafts are determined by the Inter-Ministerial Commission for the Development of Small Industry and Handicrafts. The Commission meets weekly and is composed as follows:

- the Minister of Industry, Commerce and Integration;
- the Minister of Finance;
- the Technical Director of the National Planning Board;
- a representative of the Banco Nacional de Fomento (National Development Bank)[1]

Acting as advisers without voting powers are:

- the Executive Director of CENDES[2]
- a representative of the National Small Industries Federation;
- a representative of the Federation of Chambers of Artisans of Ecuador.

The Director of Development of Small Industries and Handicrafts at the MICEI normally acts as Secretary to the Commission.

The role of the Commission, set out in Article 12 of the Law, is to:

- review qualifications of artisans, unions of artisans and small firms seeking registration in order to benefit under the laws;
- determine what benefits shall be conceded to firms or individuals qualified to receive them;
- determine what other attributions may be given under the various laws and regulations.

It will have been noted that the definition of small industry within the Law is a rather restrictive one and excludes artisans and small firms engaged solely on repair work. The names of all firms qualified to receive benefits are listed in an annual publication.[3]

(a) <u>Benefits and Incentives</u>

Under the Law, small industries registered with the MICEI have the right to substantial benefits which include:[4]

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1 Or persons nominated by the principal members.

2 Centro de Desrrallo Industrial del Ecuador (See below)

3 Benefits are listed in a publication issued annually by the MICEI

4 MICEI, op. cit. Chapter III.

- exemption from duties connected with the formation of companies and unions of artisans and the revision of their statutes, including those on the issue of shares and titles;
- exemption from taxes on working capital;
- exemption from duties and other taxes on imports of machinery; tools and equipment, including auxiliary equipment, the latter subject to the approval of the Commission;
- exemption from import duties on raw materials to be incorporated in products for export;
- exemption from export duties.
- reduction by 60 per cent of taxes on revenue which is reinvested, used to pay off loans or purchase capital equipment over the first ten years of the company's life;
- accelerated depreciation on capital equipment;
- exemption of 60 per cent and 50 per cent respectively on imports of all raw materials, including packaging materials, not produced in the country for firms in "first" and "second" categories.[1]
- exemption from certain municipal and provincial taxes.

These exemptions were granted over a period of five years, but the Commission studies applications of new firms to ensure that they do not endanger the interests of existing firms or branches of industry. All requests for registration must be accompanied by the membership book of a provincial small industries association or artisan chamber.

(b) Controls and Sanctions[2]

Control over compliance with the Law by small firms is in the hands of the Commission. These controls include rights of inspection of financial records and other forms of inspection.

Failure to comply with the Law may lead to the suspension or annulment of benefits. Articles 43 and 44 list the various offences for which sanctions may be imposed. They include corrupting or attempting to corrupt officials.

1 First and second category firms are so listed in the MICEI annual lists of registered firms. Third category firms receive lesser benefits.

2 MICEI, op. cit. Chapter IV.

(c) Finance and Credits

The main sources of finance for small industries, apart from the commercial banks, are:

- Comision de Valores - Corporacion Financiera Nacional (CV-CFN)
- Banco Nacional de Fomento (BFN)
- Fondo Financiera Industrial of the MICEI

The fundamental objective of the CV-CFN is to promote the economic development of Ecuador by providing assistance to private sector enterprises and public sector projects designed to improve the infrastructure.[1] Enterprises which it supports must be well managed, technically viable and of clear benefit to the national economy. Purely trading ventures or property investment are excluded. Criteria determining its priorities include:

- use of raw materials of national origin;
- saving of foreign exchange through import substitution;
- production to meet unsatisfied national demand or export possibilities;
- employment possibilities;
- capacity to generate other industries.

The CV-CFN normally finances the acquisition of fixed assets but may finance technical assistance or provide working capital. Minimum loan is 200,000 sucres. A fund is maintained to assist small industries.

The Banco Nacional de Fomento provides credits for small industries and artisans.[2] Until recently it was required to reserve 20 per cent of its credit for small industries, but this has been terminated. Its main orientation is to agriculture, but it has a staff to assist and counsel industrialists and provide training programmes. The BNF is currently receiving technical aid from a team of experts of the Banco Inter-Americano de Desarrollo (BID).

1 British Embassy Reference Service Bulletin

2 Interview with Econ. Gonzalo Guzman.

In conjunction with the BID it is promoting four artisan cooperatives, two of which are developing industrial estates. These are:[1]

- a union of 8 cooperatives in Cuenca;
- a cooperative of woodworkers in Quito;
- the Peguiche Indian Cooperative, Otovallo;
- Tulcan clothing and linen cooperative.

The demands for credit from small industrialists and artisans are very heavy and the Bank is short of resources to meet them. So far in 1975, 16,000 loans totalling 30 million sucres have been granted, mainly for working capital, to small industrialists and artisans. The average loan is about 30,000 sucres, (rather less than $ 1,200). The volume of credit available has been seriously affected by inflation.

Some credit for small industries is now available from the MICEI through the Fondo Financiera Industrial, set up by Decree in April 1973.[2] U.S.-AID is providing U.S. $ 5.1 million and the Central Bank of Ecuador is providing 200 million sucres for rediscounting loans to small firms. Private banks are also providing long and short term funds. Credits to a maximum of 2,000,000 sucres may be used for working capital, but loans must be repaid in two years. Equipment loans are up to six years, and building loans to seven years. Interest is at nine per cent.

The realities from the point of view of the small entrepreneur in need of funds do not seem to correspond to the official information. The President of the Guayas Small Industries Association said that raising working capital was the greatest single problem mentioned by respondents to the questionnaire circulated among his members. (See above). The CV-CFN does not normally work with small industry. The BNF provides working capital for two years only and the loans must be repaid in that period. Commercial bank rates are very high. Most of the BNF loans are to artisans.

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1 See reports in Appendix III

2 MICEI: <u>Fondo Financiera Industrial</u>, Quito, January 1975. (Booklet)
AID - 518-L-034

The Director of the Industrial Estate at Cuenca confirmed that small entrepreneurs do not like working with the BNF, which has first mortgage rights. A borrower with a loan from the BNF cannot get anything from a commercial bank. The CV-CFN can offer more intensive and longer term support, but loans are very difficult to get. In general, it would seem as if the small industrialist falls between two stools. He is not big enough to interest the CV-CFN and the BNF is mostly concerned with promoting artisans.

(d) Other Services

The focal point for all activities connected with all industrial development is CENDES. CENDES maintains a Technical Assistance Department which operated extension services to industry and to which international and bilateral aid experts are attached. There is at present a UNIDO mission in post with experts in the fields of textile technology, food technology, production engineering and marketing.

There is also a Division of Industrial Estates manned by a small group of young economists and engineers. At the moment its work seems to be entirely theoretical and it is developing new plans for an industrial estates programme based on much more realistic premises than in the past. It does feasibility studies and design studies. CENDES, as the main shareholder in the industrial estate corporations, manages the industrial estates such as Cuenca, where the Director is an official of the Centre. Regional offices are maintained in some provincial towns, the most important being at Guayaquil, from which extension services are operated.

CENDES' role in providing technical assistance to small industries could be of critical importance and would have been much facilitated had the industrial estates come into effective operation. The small industrialists need a great deal of aid both in technology and in elementary management techniques, especially in basic costing and finance, but tailored specifically to their level and requirements.

The Executive Director of CENDES or his representative sit on all committees connected with industrial development, including the Inter-Ministerial Commission for the Develo.ment of Small Industry and Handicrafts, and the newly constituted body on industrial estates.

Unfortunately, the very short stay of the research worker in Ecuador, much of which was spent in the provinces, did not allow him to study the technical aid operations at first hand.

II. INDUSTRIAL ESTATES

1. A Brief History of Industrial Estates in Ecuador.[1]

The first concept of an industrial estate programme in Ecuador was embodied in the National Plan for Social and Economic Development, 1963. In pursuance of the policy laid down there, the Government asked for assistance from the United Nations and in May 1964 a mission consisting of Messrs. Krestovsky and Alexander came from the U.N. Centre for Industrial Development. They supplied advice on a development programme for small industry and the establishment of industrial estates. Possible locations proposed were Quito, Guayaquil, Cuenca, Tulcan, Ambato, Ibarra, Loja and Riobamba.

Development corporations were established in some of these cities with the participation of CENDES as the Government Executing Agency, together with regional development organisations, municipal and provincial councils and other interested institutions. Projects were generally prepared by CENDES and enthusiastically adopted by local authorities. Industrial estates were integrated into the new institutional framework for small industry development. This included incentive legislation such as the new development laws.[2]

CENDES was required to provide technical and managerial assistance for the establishment and technological improvement of small industry and was thus the natural agent for the establishment of the industrial estates. It became, on behalf of the Government, the principal financing member and shareholder in the ad hoc corporations constituted in the various cities.

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1 The source of most of the information in this sub-section comes from Part One of the Report prepared for CENDES by Mr. Gian Carlo Guarda, U.N. expert in Industrial Estates, 1968, already cited.

2 Ley de Fomento Industrial, December 1964 and Ley de Fomento de la Pequeña Industria s Artesania, January 1965.

The first project was started in Cuenca in 1964 but others quickly followed in Ibarra (April 1965), Tulcan (November 1966) and Ambato (Dec. 1966). In addition to Planning Board and CENDES staff the programme received technical and financial aid from, inter alia, four U.N. missions, a UN-ECLA Seminar on Small Industry Development in Quito, 1966, the U.S.A.-AID Mission in Ecuador and Peace Corps volunteers.

Over the years the policy on industrial estates changed. Initially the industrial estates with organised provision of standard factory space were seen mainly as a means to upgrade existing artisan activities and transform them into small industrial concerns by means of cooperative associations of artisans. This was particularly aimed at in less developed regions such as Tulcan, Ibarra and Ambato.

The original objectives were de-emphasised as a result of difficulties in establishing effective cooperatives in small rural towns, the repeated advice of foreign experts and the growing realisation of the capital requirements of industrial estates. A new approach was developed, limiting factory space in advance of demand, throwing estates open to industrial establishments of all sizes and offering private sites, as at Cuenca, where entrepreneurs could make their own investment. This did not preclude the provision of turn-key factories. However, once it was decided to attract private capital, it implied a more selective policy of location, in areas where market prospects, local entrepreneurship and industrial development possibilities offered more certain promise.

Around 1968 further reorientation took place away from the less developed areas and focussing on the potential role of organised industrial areas in large urban agglomerations such as Guayaquil and Quito. Apart from consideration of urban planning in face of growing congestion and uncontrolled spread of these cities, an awareness of the critical problem of urban unemployment and challenge to improve living conditions in large metropolitcan areas probably played an important part. Planned locations could offer reduced expenditure in infrastructures and allow for the expansion and modernisation of cramped industrial establishments at reduced costs.

Present policy, as explained to the research worker, still seems to hover round the decentralisation of industry away from the great cities as the justification for the efforts in Cuenca, at least. But on the whole it is difficult to discern any coherent policy at all. Certainly there is little evidence of sustained effort to introduce Government sponsored estates into Quito and Guayaquil, although in the latter city there is a committee which has been looking into the matter for the last five years.

Mr. Guarda carried out a very intensive three months mission in 1968 and produced an excellent and most perceptive report, most of which remains valid seven years later. He made detailed studies and recommendations relating to the proposed estates at Ambato, Cuenca, Guayaquil, Ibarra and Tulcan. In August 1972, a UNIDO expert, Mr. Wolfgang Englander, was attached to CENDES for one year. His report on his year's work indicates that the situation on the individual estates was at that time much as it is today.[1]

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1 Wolfgang Englander: An Industrial Estates Programme for Ecuador, Quito, UNIDO. July 1973.

2. The Present Situation

The status of the various estates and situations in the cities visited is described in greater detail in the Reports in Appendix III. Briefly the present situation is as follows:

Cuenca - Out of the total area of land owned by the Industrial estate company, 67 hectares, 17 hectares have been provided with the necessary infrastructure - electric power, drinking water, drainage for rain and sewage. There are five factories on the land owned by the company, but they do not form part of the estate and are outside the improved area.

They are

- municipal slaughterhouse;
- cement blocks and pipes;
- rubber products;
- General Tire Company;
- Vanderbilt Spring Company.

The prepared site is vacant except for one sample building. The estate was formally opened in November by the President of the Republic and it is hoped that the resulting publicity will attract outside, particularly foreign, firms. So far three firms are negotiating, one of which is already in Cuenca. In addition, three small firms have been trying to get places but have been more or less brushed off. (See Report, Appendix III). Local opinion is sceptical.

Guayaquil - There is to be an estate promoted by CENDES with a mixed company. Participants include:

- CENDES
- Municipal Council
- Provincial Government
- Small Industries Association of Guayas
- Cuenca y Rio Guaya S.A.
- Empresa de Electricidad de Ecuador
- Banco Nacional de Fomento
- Comision de Valores

The investment is said to be very high and, although the small industrialists have asked for an estate, they are not prepared to contribute to the studies necessary to develop it, for which consultants have been engaged. In the meantime, there are three private estates for large and medium industry, including warehousing for incoming and outgoing shipments of goods, the first two of which are complete and beginning to sell plots. (See Report, Appendix III). The city council has passed a law forbidding the erection of any factory or warehouse within five kilometres of the town, which may be expected to aid the estates.

<u>Ibarra</u> - The three buildings seen by Mr. Guarda in 1968 are now surrounded by the spread of the town without further room for expansion. They are occupied by a timber drying plant, a furniture factory and an animal feedstuffs factory. A total of about 60 persons are employed. The owner of the timber drying firm acts as estate director. CENDES is negotiating to sell the estate, but there are differences over the price. Effectively it has been written off as an estate.

<u>Tulcan</u> - The three buildings on the estate are occupied by two firms owned by the same man. One makes animal feedstuffs and the other processes chocolate into cubes for export to makers of confectionery. The third building is used as a storehouse pending the arrival of machinery which will triple the output of the chocolate plant. The plants were installed in 1968 and unquestionably have done very well, but it is really a case of the Government subsidising a single company which would probably have established itself in Tulcan anyhow for geographical reasons. (See Report in Appendix III). The roads of the estate are not

made up and become a quagmire after rain. Although heavy trucks get bogged down, the firm has done nothing. CENDES is interested in selling out.

The investment in the estates so far is as follows:[1]

Ibarra	814,000	sucres of which	CENDES 500,000 sucres
Tulcan	943,000	" " "	CENDES 500,000 "
Ambato	1,230,000	" " "	CENDES 600,000 "
Cuenca	5,000,000	" (Information not confirmed)[2]	

In the case of Ambato, the whole capital was used up in an ill-advised purchase of two plots, one of which, at least, was rather unsuitable. It was not possible to obtain confirmed data on the expenditure on Cuenca, but it must be considerably heavier than on all the other estates combined. Nothing has yet been spent on Guayaquil on the acquisition of land. Ibarra and Tulcan seem to have justified the expenditure in terms of employment created - about 60 posts at Ibarra and about 140 at Tulcan. But neither of these sites could properly be called industrial estates - rather they represent Government or municipal subsidisation of some individual companies and the Tulcan concern would probably have been established in any case.

3. Current Government Policy on Industrial Estates

The almost total failure to produce a viable industrial estate has naturally caused a great deal of heartburning and self-questioning. None the less, there seems to have been recently a sharp recrudescence of interest, manifested by the President's opening of the site at Cuenca, the setting up of a National Council for Industrial Estates and the promulgation of a new law on industrial estate development on November 6. 1975.[3]

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1 From a paper supplied by CENDES

2 The figure given at Cuenca was 38 million sucres. It is not know how much of this is provided by CENDES

3 ey de Fomento de Parques Industriales, Decreto No. 924-1.

4 Or their nominees.

The definition of an industrial estate in Article 2 (b) of the Law is very comprehensive and specifies buildings, infrastructure and common services, including facilities for training. Article 3 establishes the National Council composed of:

- Under-Secretary for Industry
- Under-Secretary for Finance
- Executive Director of CENDES (or nominees)

As advisers without voting powers:

- Director General of the CV-CNF
- Technical Director of the National Planning Board
- Representatives of the Chamber of Industry
- Representatives of the Chamber of Building.

The benefits and incentives to be enjoyed by firms entering industrial estates seem broadly to be the same as those enjoyed by small industry. Presumably they now apply to firms of all sizes and not only to registered small firms, and thus may represent a real incentive for larger firms but little or none for the registered small ones. This, in fact, was the view of the President of the Guayas Small Industries Association who seemed to feel that small industries were now explicitly excluded from estates, but there seems to be no evidence of this from the text. Indeed, small industries are not mentioned.

The promulgation of this law does not seem to alter anything at this stage. Guayaquil CENDES-sponsored estate is more or less bogged down; the Tulcan and Ibarra estates are up for sale and the Cuenca estate, so far, is empty. There is no official initiative at Quito and at Ambato there is the embarrassment of two sites which have absorbed all the available funds. There does seem to be a real interest in industrial estates on the part of a growing number of industrialists, possibly because of the steep rise in land values, but more especially on the part of groups of artisans. However, if an effective programme is to be launched, it will have to start again virtually from scratch and will involve a much more coordinated, sustained and clear-headed approach than has been used in the past. The Industrial Estates Division at CENDES is composed of able young men, but they lack practical experience and would welcome effective aid and counselling from any source. They would, however, like to be sure of the quality of any further UN experts, since some past experience has been rather unhappy.

III. SOME GENERAL COMMENTS ON THE INDUSTRIAL ESTATES PROGRAMME IN ECUADOR

Ten years effort, admittedly rather spasmodic, has failed to establish one industrial estate in Ecuador which would be acceptable under any usual definition of the term. The situation in the towns visited has been described summarily in the preceding Section. More detailed reports are to be found in Appendix III.

The question which this study was originally intended to try to answer was: Is the industrial estate an effective and economical device for promoting industrialisation in developing countries or could better results be obtained for the same expenditure of money in other ways ?

A complete answer to the question is very difficult to obtain anywhere because of the problem of getting comparative data for industries set up privately. It is, however, generally possible to make some reasonably valid estimates of the return on investment in estates and the cost in infrastructure and buildings per post of employment created which are measures of effectiveness.

In the case of Ecuador this is impossible because there are no estates operational, only a small handful of factories subsidised by public funds. The question to be asked seems therefore to be: In spite of a great deal of effort and some expenditure of money on the part of the Government and contributions by the U.N. and U.S.-AID in both technical cooperation and funds, the industrial estate programme in Ecuador has failed to get off the ground. Why ?

In order to answer that question, it may be pertinent to determine first what factors influence the success or failure of an industrial estates programme and then, taking each factor in turn, examine how far conditions in Ecuador seem to have favoured or run counter to that factor.

It is suggested that among the key factors are the following:

(1) the objectives underlying the programme. What are the reasons for trying to set up estates ?

(2) the level and nature of general and local economic activity;

(3) national characteristics and socio-cultural patterns;

(4) perception on the part of potential members of estates of their value to themselves;

(5) proper selection of the location and site, taking into consideration the factors above;

(6) nature of the support by the Government, local authorities, financial institutions and industrial associations.

Before embarking on this analysis, it must be stressed that any conclusions drawn regarding the conditions in Ecuador vis à vis the various factors must be considered as tentative. In two weeks it is virtually impossible to gain more than some impressions, most particularly in the socio-cultural field.

1. The Objectives of the Programme

The reasons for wishing to set up an industrial estate may include any or all of the following:

(a) to attract new industry, national or foreign, to a specific town, usually in a less developed region, with the object of providing job opportunities and/or preventing its establishment in already overcrowded metropolitan areas;

(b) to remove industries, especially small industries and artisan workshops, out of congested urban areas so as to provide better working conditions and opportunities for expansion at reasonable cost;

(c) to group existing or new industries or artisan workshops in proximity to one another with the object of encouraging cooperation, for example, in intra-estate sub-contracting and better use of capacity and to provide common facilities, including training and advisory services, with the object of upgrading their performance;

(d) to create duty free zones near ports or airports where products can be processed, often with imported materials, for export or re-export without having to pass through customs.

As noted in the last Section, policy in Ecuador seems to have oscillated between (a) and (b). (c) has been a stated objective, but so far no such facilities have been established. The objectives of the programme do not seem to have been thoroughly thought out and change with the passage of time, but not really as a result of any serious reassessment.

2. Level and Nature of General and especially Local Economic Activities

Elements under this head include:

(a) the nature of local economic activity - industrial, commercial, service, including repair, tourism. What are the present trades in the locality ?

(b) The markets which the city or town serves and how well it is situated to serve them, e.g. near a port or frontier for exporting, near a road or rail centre, central to an important agricultural area, near large industries able to offer substantial sub-contracts, near to an important tourist centre where handicraft products can be sold;

(c) numbers and average size of local industrial units;

(d) level of development of local entrepreneurs and managers;

(e) sources of raw material available locally which could be exploited by firms on the estate, e.g. wool, timber, kaolin, hides, agricultural products;

(f) availability of skilled labour, traditions of skill and training facilities.

Studies were made by CENDES, U.N. and U.S.-AID of the towns in which estates were to be created, but it must be questioned whether the studies were done in sufficient depth. At Tulcan it was proposed to set up an estate with only six units on it, yet quite elaborate central facilities were envisaged. A good deal of expense was thus suggested in a town where even today there appear to be only ten or a dozen units likely to be interested in moving to an estate. Nor is Tulcan well placed from the point of view of markets, unless a firm has something especially acceptable to the Colombian market, the border being only two or three kilometres from the town. In fact, most traffic flows the other way, since almost all Colombian products are cheaper than their Ecuadorian equivalents.[1] The two major activities in

[1] Large numbers of Ecuadorians went to Colombia to do their Xmas shopping. Almost everything is much cheaper there.

Tulcan seem to be money changing and smuggling, both of which are artisan industries and probably more profitable than manufacturing. The surrounding country is agricultural, mainly on a small scale and not highly mechanised or providing a market for much other than essentials.

Cuenca on the face of it was a far more logical choice. It is a much larger town than Tulcan with a high reputation for craftsmanship, a school for engineers and good trade training schools. There was already a lot of small industry there which, on the face of it, might have been attracted to the estate. On the other hand, communications until recently when the Pan American Highway was brought through to Cuenca, were very poor and Cuenca was isolated.

Ibarra is a market town with very little industry. It is at the centre of an agricultural area, but it does not seem to be rich, and tractor and agricultural equipment repair is not a very major industry. In any case, repairers are excluded from Government-sponsored estates. Guayaquil is an entirely logical choice, because there are a lot of industries there eager to leave the town, which is very congested. Sites of industrial estates have to be more than five kilometres outside the town, which may inhibit some small entrepreneurs who are afraid of losing contact with customers.

3. National Characteristics and socio-cultural Patterns

This may well be the most important factor; indeed this seems to be well demonstrated in Ecuador. Elements would include:

(1) homogeneity or heterogeneity of race and/or religion. Is the nation made up of a single race or two or more, at different levels of culture ?

(2) traditions of honesty and trust. Do people trust one another generally or only within their own families or tribes ? Or not at all ?

(3) traditions of working together;

(4) habits of saving for long term goals or of social or conspicuous expenditure;

(5) traditions of craftsmanship, industry or commerce;

(6) respect for education and training or indifference;

(7) independence or tendency to rely on action by Government or other authority to supply needs.

Needless to say, the elements in this most complex factor given above are n ot exhaustive.

Ecuador is a country where several races have come together. The Indians of the eastern province are still largely outside the money economy. Those in the cordillera are mainly agriculturalists and handicraft workers. In the past the old Spanish stock has tended to be landowners, but many are now showing interest in industry. On the coastal plain, conditions in towns such as Guayaquil show much contrast and poverty and there is said to be a good deal of crime. The great estates lie in this region; they are increasingly under pressure for land reform.

Ecuador is still an immigrant country. In immigrant countries, by their very nature, it tends to be every m an for himself and cooperation does not at first come naturally. Probably the Latin temperament tends in itself to be individualistio.

Certain of the Indians have a long tradition of handicrafts, but there is as yet no tradition of industry and the tradition of oommerce is only now beginning to develop. Until the construction of the Pan-American Highway, whioh is still not complete, Eouador was quite isolated. It is now easily accessible to tourism from Colombia and by air from elsewhere and the increased oil wealth is opening up the country. Traditionally, university and higher education was in the law or the liberal arts, more recently in economics. There are few engineers, fewer still with sound practical experience.

The lack of tradition of cooperation shows in the relative failure to establish cooperatives, in spite of support from the Government. U.S.-AID which was eager to promote cooperation, failed to do so effectively in the handicrafts field. The small industry associations appear to be very loose, dependent on the initiative of a handful of members. A lot of new cooperatives have been formed recently among artisans, some of which are showing signs of success, but it is too early to determine whether they will continue to be successful as cooperatives, especially if they have to face setbacks in business.

Although the Ecuadorian entrepreneur seems to be independent and does not cooperate easily with his fellows on joint ventures, he also seems cautious in risking his own money and expects Government to set things up for him. This is probably because he does not see the value of industrial estates to him. (See below).

The one coherent group encountered in Ecuador were the Peguiche Indians of Otovallo. They are highly skilled craftsmen in wool - their ponchos are beautiful - and wood and ceramics. They have been receiving aid in reviving traditional designs from a BID expert. More important, they are enterprising businessmen who have set up their own sales offices in New York, Los Angeles, Spain and the Canaries. They can sell all they make and have craftsmen producing for them. They have recently taken initiatives to set up central facilities and form a cooperative with a view to founding an artisan estate. (See Report, Appendix III). They are still comparatively uneducated but clearly value education and the younger generation is getting it. Evidently the fact of being a highly localised minority grouped in a small area and maintaining tribal discipline and mutual trust within their own circles is enabling them to progress and, in time, they may overcome caste prejudice and become an important factor in the Ecuadorian economy, moving gradually as they develop their education and higher commercial and technical skills into industry and large scale commerce. The Peguiches seem to bear out the thesis that even in a heterogeneous population as in Ecuador with divisions both horizontally and vertically, a homogeneous people, hard-working and preserving tribal discipline and ethics, can be successful, even when other Indian tribes are degenerating and probably doomed to disappear.

4. <u>Perception on the part of potential Members of Industrial Estates of their Value to Themselves</u>.

In order to persuade firms or individuals to move on to industrial estates (or take any other form of action), they must be convinced that doing so is going to be of direct benefit to them and that they will be better off than they were before. Among the elements that would naturally enter into their thinking would be:

(a) that present premises have become too small for the volume of business and are restricting business operations;

(b) that the possibilities of acquiring land or premises at reasonable prices on their own are limited or non-existent;

(c) that by going on an estate with firms from the same or related trades, e.g. a sawmill near furniture makers. business contacts will be easier and business will grow faster;

(d) to be able to profit from common facilities not generally available on private sites or in their present location;

(e) to be able to obtain special benefits and concessions only available on industrial estates.

These conditions do not seem to obtain in most places in Ecuador. As regards (a), Ecuador is a small country with only about 4 million people in the money economy. The per capita income figures are misleading, because 73 per cent of the income is concentrated in the hands of two per cent of the population. Thus there is not really a mass market and it would seem as if most small industrialists, even in cities like Guayaquil, have difficulty in believing that by moving to an industrial estate with possibilities of expansion of productive facilities they will automotically achieve an equivalent expansion in their markets. If they were convinced they would certainly be prepared to invest more of their own money. Most of the industrialists with whom the question was discussed liked the idea of larger premises and common services, but none felt that lack of them was really hampering their production or sales. One man was vehemently opposed, since he claimed that the coming together of so many workers promoted communism.

The special benefits and incentives in the new Industrial Estates Law seem to be intended to place larger firms moving on to industrial estates on the same basis as registered small industries. The small industrialist moving on to an estate really gains no new concessions.

There are at present no industrial estates with standard buildings ready for occupation (except those already occupied at Tulcan and Ibarra), and anyone moving out would have to buy his plot and erect his buildings. The recent rise in land values makes the land on - say - the Cuenca estate look comparatively cheap, where a few years ago it looked expensive, (see Report, Appendix III). The use of opensided, lightweight buildings which the climate permits can certainly bring down the building costs, but loans for land and buildings can only be extended over seven years under the best conditions, those offered by the Fondo Financiero Industrial. The best rate of interest is nine per cent, commercial bank rates being eighteen per cent.

Under the circumstances the small industrialists can be forgiven for being sceptical about the benefits of moving on to industrial estates. A great deal more work will have to be done to find out what real benefits they may expect, especially in terms of expansion of market opportunities. So far the feasibility studies do not seem to have been very effective.

What is said above does not seem to apply to large and medium industries in general or to new small industries. They would seem to receive easily demonstrable advantages in moving to or setting up on industrial estates, if they were available. Nor does it apply to artisan cooperatives who can certainly benefit from getting out of private dwelling houses, where much of their production is carried on, and being in proximity to one another so that they can share facilities, including cooperative purchasing, central processing of raw materials and, in some cases, cooperative selling. In the matter of benefitting from industrial estates, the small industrialist already established seems to fall between two stools, just as he does in the matter of financing.

5. Proper Selection of the Location and Site of the Estate

In the beginning of the Ecuadorian industrial estates programme, sites were selected on the basis of a policy of stimulating small industries and handicrafts in less developed areas, with the result that estates were set up in such places as Ibarra and Tulcan, where they were not really justified. Thereafter policy changed and became rather more realistic in terms of economic realities. The elements in this factor must include:

(a) cities and towns where there is a real interest on the part of local industrialists in moving to an industrial estate because, for one reason or another, their present premises inhibit their developing the potential of their businesses: e.g. firms in a city where further expansion is impossible and new premises exorbitantly expensive;

(b) cities and towns where access to national or international markets and skilled labour make them natural choices for new industries; (port, main highway, good rail connections)

(c) cities where there are sufficient industries to warrant the construction of a sizeable industrial estate able to support central services and common facilities;

Conversely, cities and towns where these elements are not positive should be avoided unless the Government is prepared to invest very large sums for overriding social or political reasons.

Elements in the choice of the site would include:

(a) physical characteristics, which should be such that the cost of the land and the setting up of the infrastructure, connecting fresh water and power lines, making drains and sewers, would not be excessively high and that the terrain is in all ways suitable for construction without a lot of earthmoving; e.g. levelling and filling, and able to support industrial buildings without special piling, etc;

(b) accessibility to the city so that labour can travel easily and delivery of raw materials or despatch of finished goods to local markets is cheap and easy, and customers can reach the estate easily;

(c) location sufficiently far from the city and on the right side of it so that there will be no pollution from fumes or noise and it will not be engulfed in a few years by urban expansion.

How do the sites in Ecuador selected for industrial estates stand up to these criteria ? As a location, Guayaquil certainly meets criteria (a) (b) and (c) positively, particularly since the municipal authorities have banned further industries from the town. At least two of the sites selected by the private promoters seem to meet the site criteria.

Cuenca does not seem to meet either of the first two criteria as regards location; apart from having a good supply of skilled labour, the other elements are not very positive. Conditions of the small industrialists do not seem to be so bad that they feel the need to move out of their present premises. In any case, present policy of trying to attract firms from outside seems rather to exclude local firms. There are some differences among Cuencans on element (b). The Director of the Estate, who was obviously interested in selling it, felt that with the Pan American Highway now coming to Cuenca, and a good road to Guayaquil, Cuenca had the necessary accessibility which, coupled with other factors, would make it attractive. The President of the Small Industries Association considered the town to be still rather "isolated" and could not see why any firm should come there. As far as the site is concerned, it appears to meet the criteria.

Neither Tulcan nor Ibarra meets the location criteria. As far as the sites are concerned, Ibarra has no room for expansion beyond the three buildings already there and is now inside the built-up area of the town, which could have been foreseen. In Tulcan the site seems suitable, but has not yet been properly made up and developed. It is understood that both the choice of location and the choice of site at Ambato were doubtful: in any case, for some obscure reason, two sites were purchased there, using up all the available capital.

6. Appropriate Support by the Government and other Authorities

This seems to be the weakest link in the whole programme. Having decided on the setting up of industrial estates, without actually determining objectives of doing so, the Government never really provided the plan with the financial and technical support needed to see it through. The emphasis is on the world appropriate above. Elements likely to influence success or failure include:

(a) specification of the objectives of the programme, which may differ from estate to estate; e.g. in one city to attract new industries, in another to get industries out of the city centre. The objectives in each case have to be thought through and specified clearly in the light of a thorough understanding of the conditions in the locality and needs of local industrialists, (or those to be attracted).

(b) the quality of the feasibility studies which should take account of social and cultural factors as well as of purely economic and technical ones;

(c) the choice of industries permitted to take space on estates;

(d) a system of financial aid to firms wishing to move on to the estates which will ensure adequate support without imposing undue burdens on reasonably well managed firms, but at the same time will insist on initial contributions by the firms themselves, so that only those really interested and able to d do so will move on to the estates. (Estates are not interested in having firms which may go bankrupt after two or three years).

(e) programmes of technical assistance, including training programmes for management, technicians and workers. The establishment of central facilities, such as common workshops or plants for processing raw materials, should be established only in the light of clear demands and with participation by the industrialists.

(f) the proper selection of extension service staff.

(g) how the programme is sold to industry.

It does not seem that any of these elements has been positively fulfilled either by the Government or CINDES. The objectives changed in the course of the programme in quite an unstructured way. Initially they were distinctly paternalistic and aimed at rather featherbedding action for artisans. When this failed, they turned to attracting new industries and then doing something about improving the lot of urban small industries. None of these objectives or changes of objective seems to have been based on sound feasibility studies - or even on commonsense !

The policy on what types of firm should be allowed to enter industrial estates has been restricted exclusively to manufacturing industry. Warehouses and repair workshops are excluded. If the objective is to increase employment opportunities, such a narrowly restrictive policy seems to be a mistake. In many cases, firms which start by doing repair work, as in the case of the Mejia Company at Cuenca, develop their own product lines and turn into fully-fledged manufacturing companies when they have space to expand. Service industries such as warehousing are often labour-intensive and may attract manufacturing firms.

The financial aid has been rather half-hearted. Even so, much of the money put into the estates so far seems to have been wasted or at best to have benefitted industrialists who had the funds to set themselves up without Government aid, as at Tulcan. In spite of incentives such as the remission of various duties and taxes, which are enjoyed by registered small firms in any case, moving on to an industrial estate may be quite a costly business for a small industrialist. He has to find the money for the land, (Cuenca land is 140 sucres per square metre. 500 m^2 would thus cost 70,000 sucres, about $ 2,700). There is the cost of the building, connection of services and installing the production equipment. If the object of moving is to expand production, additional machinery and equipment may have to be purchased, more labour taken on and increased supplies of raw materials financed. The cost of all these will only be repaid when the increased production has been sold.

Financing by the new Fondo Financiero Industrial, which seems to be the most favourable, offers

- credits for buildings, (land is not mentioned)	Max.	7 years
- " " machinery and equipment	"	6 "
- " " working capital	"	2 "

An additional period of grace of two years may be allowed, depending on the size of the credit and the importance of the project. As there do not seem to be any plans to set up estates with premises to rent, purchase has to be assumed. Interest is at 9 per cent. The maximum loan for fixed assets, based on national funds, is 1,500,000 sucres (rather less than $ 58,000). Working capital up to two years may be obtained to a value of 2,000,000 sucres. ($ 77,000). The interest rate makes borrowing a burden on the firm's finances and must certainly make any small industrialist feel that perhaps he should stay in his present premises, which are either owned or rented at low rentals, as long as he can so that, if and when the time comes to take advantage of an industrial estate, he will be able to do so with his own funds as much as possible. Otherwise the firm would expect a Government gift.

One element struck the research worker very forcibly. This was the <u>size</u> of the buildings proposed for the small industrialists. At Tulcan each building was 450 square metres (15m x 30m). At Ibarra the buildings are about 520 square metres. These buildings are probably too large for most small industrialists, many of whom may be employing say, 10 workers in less than 100 square metres, possibly only 50 sq. metres. The jump in size may be much more than the average small man can envisage needing within any fore-seeable time.[1]

No serious attempt seems to have been made to take any one group of industries, explore their needs in depth and direct action towards them. Nor does any action seem to have been taken to try and sustain interest in a proposed industrial estate once enthusiasm had been raised.

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1 Comparisons with other countries have so far been studiously avoided in this report, but it may be noted that in the highly successful Turkish industrial estates programme, areas of buildings range from about 15 sq.m to a very few at 500-600 sq. m. the majority being around 100 sq. m. It is true that these buildings are of a very much more solid construction than those which can be permitted in Ecuador, but it does seem necessary, if it is wished to attract small industrialists, to offer them a wider range of choice and sizes nearer what they are accustomed to.

A major problem faced by all countries which are newly industrialising and where there is no industrial tradition is the gulf between the Government's prfessional and technical staffs and the industrialists they aim to help. A university degree in engineering or economics is a sine qua non for acceptance in the Government service. Very often such staff, able and keen though they may be individually, have had little opportunity for obtaining practical experience in industry, certainly not at shop floor level, since they often move straight from the university to a government job. Small industrialists, on the other hand, not to mention artisans, for the most part come from among the manual workers and often continue to work alongside their employees. They have little education but great manual skills and inventiveness. It is difficult to establish real rapport between them and the government officials, who they may respect for their academic knowledge but somewhat look down aupon as "theoretical". The people who go out to help the industrialists - the front line troops - must be practical men, able and willing, where necessary, to take their coats off and demonstrate a process or a better way. This means shop trained technicians, unfortunately rather rare in developing countries, with the university graduates behind them for the more complex problems.

It must be said in defence of the Government of Ecuador that the UN aid and advice on industrial estates offered to CENDES and on which they relied, seems not to have always been of the best. Apart from Mr. Guarda, who was only there three months but whose report shows a very sound grasp of problems and offers much good advice, the industrial estate experts seem to have been weak, particularly in that they seem to have made little effort to look at the conditions in Ecuador, economic and social, and fit their recommendations to the real needs of the country. The last expert was heavily criticised by several people. Equally unfortunately, some of the extension experts giving technical assistance in the current UNIDO project do not seem to have been very effective, although the present team is highly thought of. The project is, however, drawing to a close. CENDES, at least, still wants help on industrial estates.

Summing up, Government policies on industrial estates have so far been vacillating in almost every respect, with insufficient study in depth of requirements and insufficient commitments in terms of either money or technical assistance. Above all, there has been insufficient objective analysis of all the factors involved. Perhaps the major mistake has been that of setting up the estates and then inviting industrialists to take space on them. This may be all right when trying to attract new firms and firms from outside the region. With existing firms, it may be better to let them take the initiative in forming cooperatives or companies and acquire land etc. and then, when the demand and intention are shown, coming in with the necessary aid. This is what has happened in the case of the Quito woodworkers and at Otovallo, and looks like working.

7. Conclusion

The analysis above suggests that in regard to almost every factor, action in Ecuador has been inadequate and often wrongly directed and that the failure to establish a viable industrial estates programme capable of contributing substantially to the industrial development of the country is due to a combination of poor diagnosis and ineffective action.

CONCLUSIONS

General

1. The officially sponsored industrial estate programme in Ecuador has not so far got off the ground, in spite of some expenditure and a good deal of international and bilateral technical cooperation.

2. The reasons for this seem to be several. In the first place, markets are very restricted by the small population and low per capita income of the masses, more than a third of whom are outside the money economy. Even in the modern sector of the economy, a high percentage of the GDP is concentrated in the hands of a very small percentage of the population.

3. The oil exports of the last few years have permitted a larger scale of investment and industrialisation has begun to accelerate. Hitherto the limited possibilities for expansion and the comparatively low land values outside the centres of the cities have made industrial estates less attractive to the small industrialist, since, among other things, most could see no probability of increasing their business as a result of moving to an estate.

4. The allocations under the Andean Group Agreements should provide the markets which have been lacking, at least in certain sectors. However, the Government has to ensure that a fair share of the opportunities resulting from these markets come to indigenous industry, whether directly or in the form of sub-contracts. In this connection, industrial estates have a role to play, both as a means for providing opportunities for expansion under specially favourable conditions and as a means of grouping plants working in related fields.

5. The major risk is that this industrial expansion may be hampered by lack of qualified and experienced personnel at all levels and result in most of the increased business being placed in the hands of foreign firms.

The Industrial Estates

6. The second reason for the failure of the programme seems to be a lack of clear objectives and thus of policy on the part of the Government. Policies have varied across the last ten years in an effort to find success for a programme which dragged from the start rather than as a result of any real understanding of the factors involved.

7. It is not possible to pronounce on the quality of the feasibility studies, since these have not been seen, but it would appear that they have taken too little account of non-economic factors, especially the attitudes of the small entrepreneurs for whom the estates were initially supposed to cater. The initial enthusiasm may well have been the result of these industrialists failing to understand what participation in the programme involved and believing it to be some free hand-out by the Government. Thus the programme was launched before there was any proof of real demand in the form of initiatives on the part of the industrialists themselves or willingness to risk any of their own money. Thus the estates have been imposed rather than sought.

8. Some of the problems seem to have arisen because of the inability of the industrialists concerned to create durable cooperatives. In general, producer cooperatives in Ecuador do not have a history of success. There are signs that some recently formed artisan cooperatives may be starting to work, but it is rather early to be sure.

The Selection of Industries

9. The Government's policy of restricting entry into sponsored industrial estates to manufacturing firms only and excluding all those engaged in service industries such as repair and warehousing may be unduly narrow. In a developing industrial economy, firms engaged in repair and servicing are naturals to move into manufacturing, initially, perhaps, making spare parts which are imported, since they have the machines and the skilled workers. If a major objective in setting up an industrial estate is to increase employment opportunities in a locality, then service industries, including warehousing, are often labour intensive. They also perform an important service to local manufacturing industry by acting as factors and distributors and may be useful in encouraging manufacturing firms to join estates. There seems to be a quite general belief at present on the part of the small industries associations that the Government-sponsored estates do not want either existing firms or small firms and are interested only in attracting firms from outside the region, especially foreign firms. This has to be clarified.

Physical Aspects and Amenities

10. The original programme seems to have been rather ambitious in terms of the facilities and amenities to be provided, even on the very small estates. In fact, no facilties have been established beyond the physical infrastructures and even these are incomplete. Apart from Cuenca, the estates seen were very small and even had they been finished would have amounted to only half a dozen or so factory buildings. It has to be asked whether they were worth the effort and cost and whether it would not have been cheaper simply to have subsidised individual firms, which is what has happened in effect on the "estates" at Ibarra and Tulcan.

11. Policies regarding location changed from emphasis on backward areas such as Cuenca and Ibarra to cities such as Guayaquil where existing industries need to be cleared from congested areas and there are grave problems of urban unemployment. In spite of this, there has been no success in developing an estate in Guayaquil in the ten years since the programme was launched, while the other estates were maintained, although not further developed, except in the case of Cuenca.

12. There seems also to have been some rigidity in selecting the size of buildings, the smallest of which may be too large for most small industrialists. A more careful examination of the real needs of industrialists considering entering estates should be made before deciding on the size of plots and buildings and a greater choice offered.

<u>Incentives</u>

13. The present system of incentives seems to reflect the rather confused thinking of the Government. The benefits offered to firms joining the estates under the recent Law do not seem to go further than those already available to small firms under the previous Law for the Development of Small Industry and Handicrafts. The attraction of the estates is thus primarily for large and medium firms which have not hitherto received similar benefits under any law.

14. This raises the fundamental question of whether the Government should set up industrial estates or industrial areas and then use incentives as "bait" to induce firms to come on to them. This approach is valid when trying to attract new or foreign firms, but for local firms already in existence, the demand for an estate should, perhaps, be allowed to arise spontaneously

from a group of industrialists so convinced of the need for one that they are prepared to risk their own capital to purchase the land and develop the infrastructure. The Government may then provide whatever aid is necessary to ensure success, whether in the form of financial support, fiscal benefits or technical assistance or some combination of the three. If, when they understand thoroughly the nature, purpose and possible benefits of industrial estates, industrialists are not convinced of their value to them in their particular circumstances, then the programme is probably not worth pursuing.

Technical Assistance

15. Priority for technical assistance should be given to firms moving on to estates. Attention should be given to them when they are planning their production facilities in such matters as plant layout and work methods so that they can start right and do not have to make major changes to improve productivity in the future.

16. The provision of special facilities for training workers, technicians and managerial staffs of firms on industrial estates should be studied. If facilities cannot be established on the estates themselves, special arrangements should be made with local technical schools or universities to supply the necessary programmes at low cost.

17. The staff of the Industrial Estates Division of the CENDES should receive further training and should spend some time studying industrial estate programmes in suitable countries abroad.

A new Programme

18. The revival of interest in industrial estates with Preidential encouragement and the recently promulgated Law may be well-timed. There now seems to be a genuine and growing interest among industrialists in some parts of the country. However, before further Government initiatives, a great deal more spadework will have to be done in all related areas and more clear-cut and soundly based policies will have to be developed if the programme is not to go the same way as the first. It will only work if industrialists are convinced that it can offer them advantages which they cannot get on their own, not only in terms of fiscal benefits, but, more important, in business expansion and more favourable operating conditions.

19. The programme will need expert advice and assistance, which at present does not appear to be available in the country. It is important that any international or bilateral experts assigned should be able to look beyond the bricks and mortar of setting up estates and understand fully the economic, social and cultural factors which will influence the success or failure of the programme.

APPENDIX I

PRINCIPAL ORGANISATIONS VISITED AND PERSONS CONTACTED

Quito

Ministry of Industry, Commerce and Integration, (MICEI)

Centro de Desarrollo Industrial del Ecuador, (CENDES)

Executive Director	Econ. Marcelo Avila Orejuela
Director - Technical Assistance	Dr. Julio Arauz L.
Chief - CENDES-UNIDO Division	Ing. Vincente Cabezas C.
Technical Officer - Industrial Estates Division	Econ. Franklin Lopez F.
" " " "	Econ. Luis Armijos G.
Control and Fiscal Section - Chief	Econ. Alicia Hernandez Martinez

Banco Nacional de Fomento (BNF)

Technical Assistance Dept. Asst. Manager	Econ. Gonzalo Guzman Ortega
OCEPA, (Handicrafts Cooperative Organisation) - Asst. Manager	Señor Miguel Jervis
Semacar Ltda. Owner	Señor Armando Freire
Royal Swedish Embassy - Chargé d'Affaires	Mr. Ragnar Petri
British Embassy - Commercial Counsellor	Mr. David Walters

United Nations

UNDP	Resident Representative	Mr. Juan Pascoe
	Programme Officer	Mr. Jan Heiran
UNIDO	Project Manager	Mr. John W. Mocoçain Clark

Cuenca

CENDES Director - Industrial Estate Co.	Señor Romulo G. Neira Carrion
Association of Small Industries - Director	Señor Hugo Cobo Castro
Talleres Mejia Owner	Señor Mejia
Multindustries SA President	Señor Pablo Jaramillo
Administrator	Dr. Tito R. Dominguez I
Compania Relojeria Andino-Suiza SA President	Econ. Gonzales Bauluz C.

Guayaquil

CENDES		Abogado	Mata
Small Industries Association	President	Señor	Miguel Villacres Medina
EMECO SA	General Manager	Ing.	Carlos Baquerizo Astudillo

Ibarra

Industrial Estate Company	Manager	Señor	Pedro Herrera Nieto

Tulcan

Alimentos Balanceados SA Cholados Colombo-Ecuadorianos SA	Owner	Señor	Suarez
MICEI	Credit Promotion Officer	Dr.	Isaac Parra
BNF	BID Officer	Econ.	Walter Gaibor

Otovallo

Peguiche Otovallo Ltda	Manager	Señor	Carlos Rosero

APPENDIX II

NOTES ON THE METHODOLOGY OF THE STUDY AND THE PROBLEMS ENCOUNTERED

Methodology

The first four working days were spent in Quito in the Industrial Estates Division of CENDES and visiting organisations in the city. During this period the following activities were undertaken:

(1) Collection of national statistics relevant to the study.

(2) Obtaining background information on conditions in the country and the industrial estates programme.

(3) Visiting some small industries in Quito.

(4) Drawing up a programme for the remainder of the mission with the officials concerned and making the necessary travel and administrative arrangements.

The first provincial visit was to Cuenca. The research worker was accompanied throughout the provincial tour by Econ. Franklin Lopez. From Cuenca they flew to Guayaquil, returned for one night to Quito and left immediately for Tulcan, returning via Ibarra and Otovallo.

In view of the absence of any standard set of conditions and the absence of industrial estates in operation, there could be no standard approach. The main concern of the research worker was to find out as much as possible about the local industry and the views of those concerned about industrial estates, particularly, why the programme was not working. Before going on to discuss one or two of the problems encountered, it must be said that the Executive Director and staff of CENDES did everything they could to make the mission a success, once they understood what was wanted. However, the short notice and shortness of time may have limited the industrial visits and certainly made any in-depth study of conditions in small firms and motivation as regards cooperation and industrial estates impossible.

Problems

The main problem, of course, was that there are no industrial estates operating in Ecuador. Two so-called industrial estates at Ibarra and Tulcan really only consist in some factory buildings constructed with public funds which have been rented out to some private companies. This meant that the study of the contribution of industrial estates to industrialisation had to be modified to an examination of the conditions in which industrial estates are viable and how far these conditions exist in Ecuador. Whatever conclusions may have been reached on this point must be regarded as intuitive and tentative. The socio-cultural aspects need much deeper study, because the research worker is convinced that the key to the question lies there. However, the economic aspects are also important and it would be interesting to study a cross-section of small industry in Ecuador, find out what their turnovers are and what possibilities there are for increased sales, within and outside their immediate localities and, equally important, what are their own perceptions of such possibilities. Only then could it be seen whether or not moving them to industrial estates would really offer increased opportunities for growth.

(1) General Statistics

Up to date and relaible statistics are lacking and even what there is has to be sought out. Tables 2, 3 and 4 offer some data for the industrial field but their value is lessened by the fact that they do not come from the same year and that the statistics for small industry are only for those firms which are registered with the MICEI. It is not known how many are excluded. The recent raising of the level of investment for classified firms to 5 million sucres must mean the inclusion of most of Ecuadorian industry. No statistics for employment were available.

(2) Information regarding individual Firms

A total of 12 small firms were visited, but all these visits were rather ad hoc, indeed, in most cases, "descents" with little if any notice. The goodwill of the owners and managers encountered was manifest, but it was obviously difficult to get much in the way of financial information or find out how they saw their prospects of expansion and whether they felt that these would be enhanced by relocating on to an industrial estate. As ever, the tendency was to be shown the more successful but less representative firms. Nor did the discussions with the Presidents of the small industries associations give any clear impressions of coherent thinking among their members. There seems to be less homogeneity among small industrielists in Ecuador than in some other countries, probably because of their diverse origins. Thus the only way of really getting an accurate picture of their situations and perceived needs would be an in-depth study.

There were no problems of transportation or accommodation. Language no problem after the first day or two, when the research worker had got accustomed to the local accents.

APPENDIX III

NOTES ON TOWNS AND ESTATES VISITED

The notes in the Reports which make up Appendix III are designed, in the absence of anything to report on viable industrial estates, to provide background information on the conditions in Ecuador. An understanding of these conditions may help to answer the question: Under what conditions do industrial estates succeed or fail? They are a rappertage of opinions, sometimes contradictory, and observations on physical conditions and performance of firms visited.

1. Quito

Quito is the capital of Ecuador, situated in the cordillera of the Andes at 2,800 metres altitude. At the 1970 census its population was 528,000 but five years later it is estimated at around 700,000. It is a long and rather narrow city stretching along the Pan-American Highway for about 15 kilometres. So far there does not appear to be much zoning of industry, which is mainly in the suburbs along the Highway, where, it appears, prices 10 to 15 kilometres out are still reasonable. There is also some small industry located near the centre of the city on the mountainside to the west. The Highway offers a good road north and south, although there are still a few gaps and some bridges to be constructed and there is a good road to Guayaquil. There is also a narrow gauge railway but this is in very poor condition and its future is currently under study.

Apart from discussions at CENDES, the following visits were carried out in Quito.

<u>MICEI</u> <u>Control and Fiscal Section.</u> <u>Chief - Econ. Alicia Hernandez Martinez</u>

This visit was useful in that it resulted in the tables on industry. The discussion was not very useful, but it elicited that most large firms have mixed capital, 52 per cent Ecuadorian and 48 per cent foreign, but that the small firms are 100 per cent Ecuadorian. The demands for guarantees from the commercial banks are so stringent that few small industrialists want to use them. Interest on private bank loans is 18 per cent; on Government loans it is 9 per cent.

<u>Banco Nacional de Fomento (BNF) Dept. of Technical Assistance</u>
<u>Assistant Manager - Econ. Gonzalo Guzman Ortega</u>

This was the most useful visit in Quito. The essentials of the general discussion are in the main text. Senor Guzman provided information on four cooperatives which are being financed by the Bank, details of which are included under the respective city reports in this Appendix.

<u>Quito</u> - A cooperative of woodworkers is trying to create an industrial complex complete with workshops, dwelling houses, an exhibition hall, recreational facilities, etc. Financing will be partly private and partly by the BNF. At present they are seeking a suitable site and think they have found one for 200,000 sucres on the main highway a few kilometres outside Quito. (Since it is difficult to imagine that they would want less than about 5,000 m^2, the land must be fairly cheap). Once the land has been acquired the Bank will make a loan for buildings and machinery. Facilities are expected to be ready about two years after the site and financing have been obtained.

The comment must be made that it seems unnecessarily ambitious to include housing and recreational facilities in the estate from the first stage. It would surely be better to allow some time for the workshops to operate and help finance the second stage from the increased production and profits. Over-ambitious plans which then prove unrealisable are a feature of both the official and private approaches to industrial estates in Ecuador.

<u>OCEPA</u> <u>Assistant Manager - Senor Miguel Jervis</u>

The OCEPA is an organisation originally created by the Alliance for Progress, to aid the development of handicrafts. It has a large shop in Quito where it sells the products to tourists. It deals with both internal and expert markets. OCEPA is a semi-State organisation with 49 per cent private capital from various sources. It deals directly with between 400 and 500 artisan families, providing them with raw materials and buying their finished products. For five years it had US advisers. The research worker heard elsewhere that they had introduced artificial fibres and dyes in place of the home produced ones, thus reducing effectively the value of the indigenous products in the tourist market. It is also understood that the Director of OCEPA introduced designs from Mexico. Senor Jervis denied this hotly and assured that both designs and materials are 100 per cent genuine Ecuadorian. Nevertheless some of the ponchos were in synthetic fibre.

The principal markets are USA, Europe, Japan, Australia and Curacao, the last-named because of its huge tourist trade. The internal market is growing but, until recently, the wealthier classes tended to despise national artisan products.

OCEPA is not a cooperative. The US Government was very keen on cooperatives, but attempts to set them up among artisans was largely a failure. The people are not sufficiently educated. There is one cooperative only; this makes straw hats.

Other visits

Courtesy visits were paid to the Royal Swedish Embassy and the British Embassy. Both provided useful information and leads.

Firms visited

(1) Semacar - Construction and reconstruction of bus, truck and light van bodies - The firm is housed in a light, metal, opensided building of the type frequently seen in Ecuador where the even temperatures through out the year make this construction perfectly viable. It is on the main highway about 7 kilometres out of Quito. The firm has about 12 employees. The owner was for some years a metal furniture designer and later worked for a long time for the Thomas Car Works, the largest body builders in Ecuador. He started his own business four years ago. He has attended various management programmes of US-AID. His office and the works were tidy and appeared well organised.

The owner, Senor Freire's main concern was that there were too many firms building bodies in Ecuador, (13 as compared with three in Colombia and six in Peru). He felt that the Government should do something about it, since, in spite of heavy demand, cut-threat competition was provided by "artisan" body builders, whose standards were low. The Government was offering little support to the industry and had recently bought 200 completed buses from the USA instead of buying the chassis and having the bodies made in Ecuador.

Discussing industrial estates, Senor Freire said that, had an industrial estate with suitable facilities been available when he set up his plant he would probably have sought a place. He felt that the problem of getting industrialists together into cooperatives to create industrial estates was that Ecuadorian small industrialists were not sufficiently developed to achieve satisfactory cooperation. He had been trying to romote one for steel purchasing without success.

His workers were non-unionised and, he said, did not wish to join a union. They have good working conditions, protective clothing, etc. His own principal problem is a shortage of working capital. He obtains loans from commercial banks and some from Government sources.

The bread and butter line is small delivery van bodies of which he produces 10-15 per month at about 30,000 sucres each. (At 10 per month this gives him an annual gross turnover on this line alone of 3,600,000 sucres.) In addition, one bus body under reconstruction was in the shop and a very large multi-purpose trailer which he was selling for 500,000 sucres. Altogether quite a successful business which had ample room for expansion on its present site.

(2) Bottling and packaging insecticides

This plant is located on the mountainside about 300 metres above the city, not far from the centre. There is room to expand. It produces eight lines of insecticides in aerosol sprays and bottles. Chemicals are purchased from Germany and Italy in bulk and involve very heavy stockholding because of the long periods to be allowed for shipment. The products are sold by the firm's own salesmen to pharmacists and druggists on the coastal plain, where the insects are. The plant employs seven workers; working conditions were rather primitive. The owner, who has a doctorate, was away.

(3) Chemicals for leather treatment

This plant is adjacent to the insecticide plant. It also has room for expansion. The plant, manufactured in Ecuador, involves quite heavy investment. There is a quality control laboratory. The product is sold in 60 kg. plastic bottles to the leather industry at Ambato. Working conditions were messy. Five workers plus office staff are employed. This owner was also absent.

2. Cuenca

Cuenca is a city of over 130,000 inhabitants in the cordillera in the south of the country. It is joined to Quito by a branch of the Quito-Guayaquil railway and the Pan-American Highway, due to pass through it, is on its way to completion in this section. It has a high reputation for its technical training facilities and the skill of its workers.

Parque Industrial Cuenca - Cia. de Economia Mixta. Director - Senor Romulo G. Neira Carrion

The unhappy history of the Cuenca Industrial Estate is extensively discussed by Mr. Guarda in his Report[1] and added to by Mr. Englander.[2] There is no merit in repeating what they say. 17 hectares of the 67 hectares owned by the Company have now been supplied with adequate roads, water, electricity and drainage. This section was officially opened by the President of the Republic early in November.

There have for some years been five factories on the laned owned by the company, but not on the part recently provided with an infra-structure and they do not form part of the Estate. The presence of a municipal slaughterhouse poses problems, since in-coming industries giving off smoke or fumes might pollute the meat.

The Industrial Estate Company has among its shareholders

CENDES, (responsible for the management),
Comision de Valores, (CV/CFN),
CREA, (Centro de Reconversion Economica de Azuay, Canas y Morona Santiago), the regional development agency.

The Director said that because of long delays in emplementing the project, local industrialists had lost faith. Conditions for small industrialists in the town are not, for the most part, so constricted that they urgently need to move to new premises. Equally, the rather large plots into which the estate is divided would be likely to be too big for most small firms, even if they wanted to move.

Firms wishing to move on to the prepared portion of the Estate may rent, rent and buy at the end of three years or buy at once. Only manufacturing industries are allowed by law - repairers are thus automatically ex-

[1] Op. cit. p.22

[2] Op. cit. p.9

cluded. The estate is officially available to

- manufacturing industries from outside the city and new firms;
- " " from within the city whose premises will not permit expansion;
- " " from within the city with plans for expansion.

It is hoped that the publicity resulting from the opening by the President will encourage firms to seek places on it. So far only three firms are negotiating, two watchmaking firms[1] and a firm making electrical measuring instruments. Several foreign delegations have recently visited Cuenca including ones from Britain, West Germany and Japan. An advertisement appeared in a recent issue of <u>Business Week</u> with a supplement on Ecuador.

Asked why he felt that outside firms might be attracted to Cuenca, the Director gave the following reasons:

- the land on the Industrial Estate is cheap at 140 sucres/m^2. Land outside Quito is 250 sucres/m^2. (This does not seem to be borne out by information from Quito - cf. the woodworkers' cooperative mentioned above).
- local labour is highly skilled and there are very good technical schools, well equipped. Cuenca is particularly strong in high precision engineering, general engineering and the manufacture of automobile parts. A Swiss watch company which allowed one year for the workers to attain proficiency found them wholly proficient after three months.[1] The US General Tire Company, which has a plant at Cuenca, was able to send its trainers back to the United States in six months instead of having them for the two years foreseen.
- firms enjoy various benefits under the Small Industries and Industrial Estates Development Acts. This is designated as a "special region" and benefits are greater than they are in Quito.
- there are groups of young men with entrepreneurial qualities;
- the inter-institutional coordinating groups such as CENDES give access to facilities all over the country;
- there are plentiful local materials, especially for the ceramic industry, (kaolin, felspar). There is already a ceramic tradition among artisans. Cuenca would be specially suitable for electrical porcelain and sanitary ware, which are now imported.

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[1] See Cuenca Visit Report No. 3.

The reason why no ceramic industry has hitherto been set up in Cuenca is that until recently the city has been isolated, the sole means of communication with other parts of the country being the very inefficient railway. The roads were very bad. Now the stretch of the Pan-American Highway from Quito to Cuenca is almost completed. It is possible to drive to Quito in six hours and to Guayaquil in three.

The impression gained of the present situation of the estate, which was visited, is that the Director, apparently quite a dynamic man, is primarily a promotor and knows little or nothing of industrial estate design or management. He asked for help in drawing up regulations for the typess and specifications of buildings, construction materials, facilities, etc. and complained that this work should have been done by the last UNIDO expert but was not. Unfortunately, the present staff of the Industrial Estates Division at CENDES do not impress as being in a position to give the aid he requires.

Productos Andinos

Senor Neira, the Director of the Industrial Estate, is the President of this organisation, which is receiving help from the BNF. It consists of eight cooperatives of artisans. Founded in 1968 with a capital input of 1,300 sucres from each member cooperative, it now has paid up capital of 1,460,000 sucres. Current sales are running at 8 million sucres annually. The eight cooperatives have a total of 300 members working in their homes, but the total number working, including family members, is probably around 800. The products of these cooperatives are:

- pullovers in pure wool, (the first cooperative and nucleus for the rest);
- furniture;
- jewellery;
- straw hats and other straw articles;
- carpets;
- embroidery.

There are central services such as savings and credit, production, marketing and housing. Senor Neira is personally fed up with being President and wants to resign. He claims that the members have no understanding of business. In 1974 they declared themselves a dividend of one million sucres, a sum almost equal to their total capital.

The Cooperative pays market prices to its members and normally adds about 35 per cent to make the selling price. This 35 per cent is placed in the reserves and after paying the expenses is used to distribute dividends at the end of the year. Productos Andinos has its own warehouses and channels of distribution and also provides credits for raw materials. It has an accounting service. Most of the members are also small-holders.

They are trying to create central facilities for dyeing. The dyes, imported from Europe, are very costly, around 32 sucres/oz. By buying in bulk and dyeing in bulk they can save very large sums. There are quality control facilities at both cooperative and union level; work is returned to members if it does not conform. A lot of training both technical and in cooperation is needed.

<u>Asociacion de Pequeñas Industrias de Cuenca.</u> <u>President - Senor Hugo Cobo Castro</u>

The Association has 243 members out of a total of 422 small industrialists in Cuenca. There is a lot of interest among small firms now that the estate is ready but, although it was originally destined for small industry, the policy has changed and it is virtually impossible for a small firm to obtain a place. For three years one of the small firms has been trying, but so far has always been refused. Furthermore, any firm applying is expected to provide a feasibility study for its products, financial analysis, sales analysis and so on. This is just too much for most small firms.

The estate has been too slow getting under way. In 1974 they were promised buildings in January 1975, but all there is at present is one sample structure. In fact there are now 18 requests to go on the estate. 38 millions of sucres are being or have been expended, but there is still the basic problem that existing industries are not wanted.

On the question of Cuenca's potential attractiveness to industry outside the region, Senor Cobo's views differed markedly from those of the Estate Director. Although Ecuador has been allocated 14 industrial products or sectors under the Cartagena Agreements and firms setting out to manufacture will need premises, he can see no reason why they should want to come to Cuenca, in spite of the quality and availability of the labour.

- Cuenca is out on a limb. Communications are still bad as the road network is incomplete.
- The technical education and training is too theoretical. There is a severe shortage of teachers; some of them have to teach two or three more or less unrelated subjects. SECAP, the Ecuadorian equivalent of the Colombian SENA, one of the best vocational training organisations in the world, only benefits from a levy of 0.5 per cent of wages, while SENA receives 2.0 per cent. SENA's training is much more practical. SECAP has a regional office in Cuenca but none of its own facilities.
- The estate lacks adequate national promotion and has nothing to show potential members. New industries are unlikely to be attracted under these conditions and small local firms are being kept out.

One thing that could be said for Cuenca was that it has an excellent trade fair.

Firms visited

(1) Mejia Engineering Works — Owner - Mr. Mejia

The firm employs 80 workers and has grown in a very few years from an artisan operation in the repair field. It has at present six sections including a very untidy foundry producing very large castings. The firm manufactures

- distillation plants and sterilisers,
- stone crushers and rotating sieves,
- fumigation pumps for agriculture and horticulture,
- mixers for animal foods,
- power circular sawbenches,
- concrete mixers,
- cement block-making machines,
- grain mills.

It also undertakes repair of machinery and autos from all over the country. None of its products is yet exported.

The shops are large and opensided; the building is the same light metal structure used at Semacar, (q.v.) and as a sample on the Cuenca Estate. The shops cover 3,000 m^2 and are very untidy and dirty. There is a mixture of old and new machines, including some built by the company. Total investment is given as 50 million. The only qualified engineer is the technical director. There is a two man drawing office, but it is hard to believe that the voluminous drawings were done by only two draftsmen. They have their own pattern shop and built their own electric arc furnace for melting scrap. Unfortunately, although they have direct high tension lines, there is not usually enough power to meet their demands, (1,000 KW).

The firm trains its own workers because the owner says that the training at the technical schools is too theoretical. Certainly the quality of the work seems to justify the policy.

At 140 sucres/m^2 the land on the industrial estate is too expensive. Mejia paid 25 sucres/m^2 on a site much nearer the town and even with the installation of services the total cost was much cheaper. Had the estate been available when he moved out of the city, it is possible that he might have moved on to it.

This firm was the first seen in Ecuador where a high level of entrepreneurship was combined with great technical initiative. They are willing to tackle any job put up to them and the principals have great confidence in their own abilities. The rapid development would probably have been no more rapid on an industrial estate.

(2) Multindustries SA — President - Senor Pablo Jaramillo; Administrator - Dr. Tito Dominguez I.

This company is a member of the Association of Small Industries of Cuenca. It was founded three years ago and now employs over 100 staff and workers. It manufactures a range of cycles, including minicycles, of which it sells 35,000 per year. It also manufactures gas stoves for the Andean common market and stove enamelled saucepans, deep drawn from heavy gauge material. The last are sold on the home market for 2,500 sucres a set, (just under $ 100, which is hardly cheap in a country as poor as Ecuador), against 4,000 sucres a set for Peruvian saucepans and 5,000 sucres for Colombian saucepans.

In some ways the firm is an even more striking example of technical initiative and entrepreneurship than Mejia's. The President himself seems to come from an important family of local landowners and has no special qualifications for business. His family is presumably the largest shareholder. However, two of the shareholders, father and son, appear to be technically brilliant, the father as a chemist and the son, without formal qualifications, as an engineer. Not only have they built up the manufacturing side in a very short time, but have designed and built much of the specialised machinery, including heavy presses and the stove enamelling ovens. There is now a separate associated company making heavy presses and other machines of this type.

The shops were badly organised and dirty but there were some interesting and no doubt quite unstructured examples of group working.

Industrial estates were discussed with Senor Jaramillo. His views were

<u>Pro</u> - possibility of obtaining loans over 8-10 years for buildings and land;

- land ready for service.

<u>Con</u> - 140 sucres/m^2 too expensive. Cost to the firm of land plus infrastructure about 60 sucres/m^2, nearer the town. (Waste appears to be emptied into the nearest stream; the firm does nickel and chrome plating. Not know what happens to the contents of the baths.)

- risk of "pollution" of the workers in plants on an estate by Communists.

This is the first time that this attitude has been encountered by the research worker, although said to exist in Pakistan. Jaramillo said that his workers were drawn from the countryside, "gente sana" and not unionised. Pay is 1,500-2,000 sucres per month, which is said to be quite good and compares favourably with the revenues of the artisans in the Productos Andinos cooperatives. Most of the Multindustrias workers are only semi-skilled; they do take students from the technical schools nd seem satisfied with them.

The firm has its own marketing department and sells through its own agents throughout the country. It represents another example of the entrepreneurial and technical abilities which exist in the country and which can contribute so much if they are properly exploited.

(3) Compañia Relojeria Andino-Suiza SA. President - Econ. Gonzales Bauluz C.

This company is largely financed by a group of Swiss watch firms including Tissot and Omega. Over the next 20 years it is expected that the Swiss capital will be reduced at four year intervals until the company becaomes entirely national. Production started in August 1975 and has now reached 350 watches per day.

The intention is that it should supply the whole needs for watches of the Andean Common Market, since Ecuador has been allocated watches as one of its special industrial fields. Estimated consumption is five million watches per year, but this is not considered economic. At the moment all the parts, including cases and metal bracelets, are imported from Switzerland, but it is intended gradually to manufacture components, starting with the cases and bracelets. Protection on the import of watches to the area is an 80 per cent duty, which will keep out Japanese watches.

At first the Swiss engineers and watchmakers were very sceptical about the Ecuadorian labour, considering them as "not as serious" as the Swiss and conveniently forgetting that Swiss labour today is heavily diluted with labour from Southern Europe and the Near East. The labour in this factory is all female, apart from a very few technicians maintaining the machines and all have their "bachiller" diplomas. They learned in three months what the Swiss expected them to take a year to master. Output is already at 90 per cent of the Swiss standard and Bauluz claimed that the quality was higher; the tests carried out before approving each watch are much longer and more thorough.

The plant is in what appears to have been a modern private house, spotlessly clean; the working conditions are almost perfect. Equipment is worth 5 million sucres, although this seems a very low valuation. The labour force is around 25 but the works needs to expand and the company is seeking to enter the industrial estate. There seem to be problems.

The Cuenca Industrial Estate - Some Comments

Why has the Cuenca Industrial Estate taken more than 10 years even to reach a state where it is ready to receive some factories on one quarter of the total territory? To date something over 30 million sucres has been spent and a great deal of technical assistance, international, bilateral and national, has been provided. Some of the answers are provided in the Guarda Report[1] but perhaps the situation may be summarised in the following terms.

(1) The idea of an industrial estate at Cuenca was premature when it was first mooted in 1964. Local small industrialists saw few possibilities of expansion which would have justified them in the expense of moving from their existing premises. Cuenca was very isolated and is only now acquiring satisfactory communications. The national market was very small; the industrial upsurge has come with the export of oil and the possibilities opened by access to the Andean Common Market, which at that time was only coming into existence.

(2) There were insufficient in-depth studies of all the factors which would come into play in the setting up of an estate, including the socio-cultural and a realistic assessment of the market possibilities.

(3) The objectives changed, apparently rather as a result of panic measures than of any studied policy.

(4) The present base of selection of firms "permitted" to enter the estate seems both arbitrary and doctrinaire. Local small industrialists seem to feel, rightly or wrongly, that they are being deliberately excluded while the Director gazes longingly over the horizon to attract foreign firms. Even the Swiss watch company visited seems to be having trouble in getting a place. The continued exclusion of repair establishments may be excluding firms with the potential of Mejia who are now major manufacturers. The whole policy seems to need some solid re-thinking and study.

(5) Apart from the selection criteria, the need for feasibility studies, financial studies, etc. is off-putting to the small firm, although some kind of check is certainly necessary. The Technical Assistance

[1] Op. cit. p.22

Department of CENDES should be able to help. inter alia, by devising simplified forms which would permit the viability of a firm to be adequately assessed without a complicated and expensive procedure.

(6) Further study needs to be made on the parcels offered on the estate and on the possibility of offering some standard buildings. The impression is that the Company is not interested in selling or renting any area less than 2,000 m^2, which is too large for most small firms. The idea of setting aside part of the estate for standard buildings and small parcels, say, of 200 m^2 seems to have been discarded.[1]

(7) In spite of the original grandiose plans for centralised workshops, technical counselling and other facilities, nothing whatever has been done so far. It might attract firms,both local and foreign, if some centralised facilities were set up and seen to be working. The extension services could profitably be used by the industries in the city pending the occupation of the estate.

(8) Finally, it may well be that the whole idea of the Government setting up the estate and inviting industry to come to it is the wrong one. The two estates in Ecuador which seem likely to be the first viable ones in the country, the woodworkers' estate in Quito and the Peguiche centre in Otovallo, are both the result of spontaneous demand on the part of groups of interested producers. The publicly sponsored estate in Guayaquil seems to be bogged down, while the private estates may work because of conditions in Guayquil city, the municipal laws and Guayaquil is the main point of entry and exit of goods in the country. It thus has a considerable entrepot business as well as being an obvious place to locate manufacturing industry aiming at exports or which is forced to import heavy raw materials. (Guayaquil may have other disadvantages which are not relevant to this discussion).

(9) It would appear as if the technical assistance and advice given to the Government across the years on the Cuenca Estate has not been very helpful.

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1 Guarda, op. cit. p.22

3. Guayaquil

Guayaquil, the capital of the Province of Guayas, is the largest city, (794,300 inhabitants in 1970), and principal port of Ecuador. It is also a major industrial centre, growing in importance with the increase in the country's industrial trade. It has spread very rapidly in recent years and its population is approaching one million. This expansion has been in an unplanned way. In theory the industrial sector was near the seaport, but across the years it has never been possible to develop an industrial zone because the law on zoning has never been applied. The owners of property in the city sell to anyone who will buy. However, both the Government and the Municipal Council want to get industry out of the city and a law has been passed forbidding the erection of factories or warehouses within five kilometres of the city boundary. This has stimulated private action. (See below).

<u>CENDES Regional Office</u> — <u>Abogado Mata</u>

There are currently four industrial estate projects in Guayaquil, one public estate promoted by CENDES and three promoted by private initiatives. The CENDES sponsored estate is being handled by a mixed public-private company whose shareholders include:

- Guayaquil City Council,
- Proviancial Government of Guayas,
- CENDES,
- Asociacion de Pequenas Industrias de Guayas,
- Cuenca y Rio Guaya SA.
- Empresa de Electricidad del Ecuador,
- Banco Nacional de Fomento,
- Comision de Valores.

The investment is very high and although the small industrialists have asked for an estate, they claim they do not have the economic strength to partcipate in the studies. Consultants have been engaged to carry them out

The private estates are:

<u>Huancavilea</u>	Jose Peraud	Km 8½ Via de la Costa
<u>Los Sauces</u>	Ing. Baquerizo	Km 11 Via Allaule
<u>Tierra y Techo</u>	Ing. Vinuesa	Km 15½

The report on a brief discussion with Ing. Baquerizo of Los Sauces is given below. An indication of the size and cost of parcels in the Tierra y Pecho is

90 or 75 sucres/m^2	1,800 m^2 minimum
	2,500
	4,000
	9,000

The Huancavilea and Los Sauces estates are said to have sold as many as 100 parcels, but Ing. Baquaerizo said that there was as yet only one definite buyer on Los Sauces. Many of the sales might be speculators.

Industrial Estate "Los Sauces" General Manager, Ing. Carlos Baquerizo

Ing. Baquerizo is the General Manager of AMECO SA, the largest construction firm in Ecuador, which is setting up the estate. It covers 82 hectares and all services come from the main road. The land was bought at 25 sucres/m^2. It is believed that the estate will be financially successful because of the municipal law excluding industry from the city. There is great interest from warehouse owners for both imports and exports. One company whose warehouse is currently located within the forbidden distance outside the city boundary has bought 140,000 m^2. There are further enquiries, including one from the USA. the minimum lot size is 10,000 m^2; there are 40-45 parcels.

The estate has 1.6 km. of roads and the wazer supply is so arranged that it will not be necessary to take up the road to make connections. There will be a filling station and a supermarket. (Ecuadorian law states that all firms employing more than 20 must have commissariats). The estate has cost 25 million sucres to prepare. The money has been borrowed in dollars from Panama.

Negotiations with the Municipality took 14 months and the company had to submit three sets of plans because noone on the Council had any experience of industrial estates and thus they were not able to make judgements.

The other two private estates are for smaller industries with lot sizes around 2,500 m^2. (see above). They are badly located to the south of the town where the daytime water pressure is very low.

Asociacion de Pequenas Industrias de Guayas President - Senor Miguel Villacres Medina

The main points in this interview have been given in Section I of the main text in the discussion on the role of small industry associations. As regards industrial estates, the President was definite that because of the expansion of the city and the increasing congestion, most of his members would welcome the opportunity to join an industrial estate, provided that places could be obtained at reasonable rates and credit were available at low rates of interest. One of the major problems faced by small firms in the city trying to move out on their own is that land which a few years ago cost 50 sucres/m^2 now costs 200 sucres/m^2.

The small firms established themselves where they did in the city because they lacked advice on where to locate and because of a lack of infrastructure facilities, which are very localised. There were virtually none outside until the building of the new private estates. Small entrepreneurs in Ecuador are not good at cooperating. One of the objectives in inducing them to come on to industrial estates would be to get them to work together. The new Law on Industrial Estate Development specifically excludes small firms, so they will have to create their own estates. The situation is a vicious circle. The average small industrialist needs more general economic and social education and specific technical assistance.

Firms visited

(1) Paper bag making and printing

This firm employs 25 people in two workshops. They are located in the suburbs in very constricted conditions. There is an automatic bag printing, folding and gluing machine with three small printing presses. Storage of raw materials and finished products takes up a lot of room. The owner would like 400 m^2 to consolidate his operations and is interested in going on to an estate.

(2) Rotary pumps for irrigation

The firm makes a range of pumps, the largest being very large. The premises, also in the suburbs, are rather ramshackle but could produce more if better laid out and with better housekeeping. 14 skilled men are employed and there is a big investment in machine tools, probably as much as one million sucres. The Swedish miller alone cost $ 28,000, (728,000 sucres). The owner, who was working in the shop, was short of working capital. He would like larger premises but cannot afford them without aid.

This firm seems to have plenty of work and to be producing reasonably efficiently. It should be making a good margin of profit. Overheads, apart from depreciation, must be small. Given that the owner is primarily a technical man, the cause of his troubles is probably the weakness in financial management common to such people.

4. Ibarra

Ibarra is a town of about 30,000 inhabitants some 120 kilometres north of Quito on the Pan-American Highway. It is also the headquarters of the Quito-San Lorenzo Railway. It is the centre of an agricultural area in the cordillera composed of medium and small holdings. It is not a particularly wealthy area, nor has it any special tourist attractions.

Industrial Estate — Manager - Senor Pedro Herrera Nieto

The history of the Ibarra Industrial Estate has been written up by Guarda[1] and Englander[2]. The three buildings forming the "estate" are now hemmed in by the expansion of the town and there is no room for further development. The industries are

- timber drying,	41 employees	
- animal feedstuffs	10 "	est.
- furniture	12 "	

The manager of the timber drying plant, the first to be installed, acts as manager of the estate. He has very little to do. The three firms rent the premises but CENDES, senior and managing shareholder, would like to sell out. There is still a large gap between the CENDES asking price, 3,000-4,000 sucres/m^2 and the price which the industrialists want to pay, which is 1,500 sucres/m^2.

There are 30-40 small firms in Ibarra and they are now becoming interested in the possibility of an industrial estate. The municipality has acquired 15 hectares but CENDES does not yet appear to have become involved.

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[1] Op. cit. p. 14 & seq.

[2] Op. cit. p.9.

5. Tulcan

Tulcan is a town of about 25,000 inhabitants in the extreme north of the country on the Colombian frontier. This frontier is normally open to passenger cars without either passport or customs inspection; goods vehicles are checked. A large number of people come to Tulcan in order to cross the border, since the exchange rate with Colombia is at present favourable and many goods are much cheaper.

Tulcan Industrial Estate

As Guarda says in his report[1], the decision to locate an industrial estate in Tulcan was taken in 1965 during the first flush of enthusiasm. It was against the advice of a UN expert. An elaborate estate was designed for seven factories averaging about 800 m^2 per factory with an administration building, cafeteria, nursery and sports grounds, which would have occupied as much of the estate as the factory buildings. Guarda proposed a new layout which would have provided nine buildings, roughly all the small firms there were in Tulcan. In the event, three buildings were built and the rest of the site is empty. The roads have not been surfaced and a little rain makes them unusable.

The buildings are now occupied by two plants under the same ownership, which were set up in 1968.

- an animal feedstuffs plant employing 107, including sales staff;
- a chocolate processing plant.

The chocolate plant is very interesting. It was set up with mixed Ecuadorian-Colombian capital. It takes the raw chocolate powder from the first stage of processing of the cocoa beans and converts it into solid, compressed blocks, in which form they are shipped, mainly to the United States to the chocolate manufacturers. Machinery is worth 9 million sucres and production is 120 tons per month.

1 Op cit. p. 10.

machinery is on order to the value of 100 million sucres which will increase production to 500 tons per month. The third factory building, currently used as a store, will house the new plant.

When asked why the plant was established at Tulcan when the obvious place for it was either near the cocoa plantations or near the port from which the finished product would be dispatched to the USA, the owner, a Colombian, replied that there were no flies in the cordillera. Apparently chocolate prepared on the coastal plain usually contains quite a few flies per block which get into it in spite of all precautions. Their chocolate has a steady market in the USA; prices are governed by world cocoa prices. However, from other sources it was indicated that one reason for setting up in Tulcan was to be able to smuggle large quantities of chocolate into Colombia, where, apparently, it fetches a good price.

The animal feedstuffs factory started with only 10 workers and now has risen in seven years to over 100 employees.

The success of these plants can hardly be called a success story for the industrial estate. The owners were lucky to want to establish plants at a moment when the Estate Company had erected three buildings which suited them. Without this they might or might not have established themselves in Tulcan but the owners seem to have started with substantial capital and would have been capable of buying their own land. CENDES is now interested in selling the buildings and lands.

<u>MICEI</u> Credit Promotion Officer - Dr. Isaac Parra
<u>BNF</u> BID Officer - Econ. Walter Gaibor

Dr. Parra operates the MICEI credit scheme, (Fondo Financiero Industrial - see Section II, Sub-section 6), for small industry and artisans. He said there were only seven small firms in Tulcan with some 10 semi-artisan establishments. These firms are very unambitious. They see no great possibilities for expansion and do not want credits for new buildings, even though the buildings might be available. In Tulcan people with money do not invest in industry but in transportation.

Garment Makers Cooperative (Information by Guzman, BNF)

This cooperative consists of 70 members making men's, women's and children's clothing, as well as sheets and table linen. They have a loan of 10,000,000 sucres from the BNF. Raw materials are obtained from Colombia, but there seems to be some difficulty in selling their products there due to what is described as "corruption of the customs officials on both sides of the frontier".

All production is in individual family units. The cooperative has production and quality standards and a revolving fund. They are not grouped together and do not appear to want to group their productive equipment. The cooperative is said not to be well structured (Econ. Gaibor), and the members need education in cooperation. They have a central warehouse for raw materials and the reception of finished products, classification, pricing, etc.

There is a big demand for their products. Recent successes include:

- Ibarra Trade Fair - Three contracts for children's clothing totalling 200,000 sucres per month.
- Guayaquil Trade Fair - Everything sold and contracts for sheets worth 500,000 sucres.
- Cuenca Trade Fair - Two contracts for towels, bed and table linen for two hotels.
- Lima (Peru) Trade Fair - Export contracts worth US $ 300,000.

One cannot see much greater advantage accruing at this stage from an industrial estate.

6. Otovallo

Otovallo is a small town on the Pan-American Highway to the south of Ibarra. It is the centre of the Peguiche Indians, the enrgetic and enterprising tribe which has been frequently mentioned in the main text. Otovallo is a major tourist centre for the sale of the Peguiche products, notably ponchos of fine workmanship and design.

Peguiche Otovallo Ltda. — Manager - Carlo Rosero

This is a cooperative in which the prime mover was Dr. Antonio Lema, a Peguiche who took a doctorate at Quito University and became a leader in developing the commercial life of his people. Unfortunately he seems to have been a rather dominating and difficult man to deal with and made some serious errors of judgement. This resulted in his being forced to resign from the cooperative.

The present manager is not a Peguiche but is married to one. He is a young man, also of Indian blood, and appears to be very dynamic. He has taken many courses in management and cooperation.

The cooperative consists of 80 members, all Peguiches, currently working in their own homes, mainly on weaving. They have recently bought an old textile factory on the outskirts of the town and have refurbished some ancient spinning frames, (1915) and looms to provide yarn and grey cloth. Eventually the building will contain hot water and steam, a wool washing plant and a dyeing plant. In addition it is intended that there should be an exhibition hall and a hall for social gatherings and folklore manifestations as a tourist attraction.

The cooperative has also acquired seven hectares and intends to construct small workshops for the members near the central building. These will have the necessary infrastructural facilities. According to Guzman of the BNF, the Bank is making a loan for this, but Senor Rosero said that it was being financed entirely from the company's own resources. However, the Bank is helping to the extent of providing a designer from the BID who is providing traditional designs taken from the Museum of the Central Bank.

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