

STUDY ON
THE ESMERALDAS EXPORT PROCESSING ZONE
DEVELOPMENT PROJECT
IN THE REPUBLIC OF ECUADOR

FINAL REPORT
ANNEX

December 1991

JAPAN INTERNATIONAL COOPERATION AGENCY

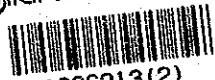
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**ESMERALDAS EXPORT PROCESSING ZONE
DEVELOPMENT PROJECT**

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Abbreviation

A.I.D.	U.S. Agency for International Development
BEDE	Development Bank of Ecuador
CAF	Andean Development Corporation
CENDES	Centro de Desarrollo del Ecuador (Ecuadorean Center for Development)
CFN	National Finance Corporation
CONADE	National Development Council
CONAZOFRA	National Free Zone Council
EIRR	Economic Internal Rate of Return
EMELESA	Esmeraldas Electric Enterprise
EPZ	Export Processing Zone
FIRR	Financial Internal Rate of Return
FTZ	Free Trade Zone
IDB	Inter-american Development Bank
IEOS	Ecuadorian Institute of Sanitary Works
IETEL	Ecuadorian Institute of Telecommunications
INECEL	Ecuadorian Institute of Electrification
ISIC	International Standard Industrial Classification
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
LAC	Latin American and the Caribbean
MICIP	Ministry of Industry, Trade, Integration and Fishery
SECAP	Ecuadorian Vocational Training Services
ZOFREE	Zona Franca de Esmeraldas (Esmeraldas Free Trade Zone)

(Abbreviation of Measures)

(1) Length	mm	=	millimeter
	cm	=	centimeter
	m	=	meter
	km	=	kilometer
(2) Area	m ²	=	square meter
	ha	=	hectare = 10 ⁴ m ²
(3) Volume	lit, l	=	liter = 1,000 cm ³ = 1,000 cc
	kl	=	kiloliter = 1 m ³
	m ³	=	cubic meters
(4) Weight	kg	=	kilogramme
	t	=	ton = 1,000 kg
(5) Time	s	=	second
	min	=	minute
	h	=	hour
(6) Money	S/.	=	Sucre (US\$1 = 1,150 Sucre as of June 1991)
	\$	=	US dollar
(7) Electric Measures	kV	=	kilovolt
	kW	=	kilowatt
	MW	=	megawatt = 1,000 kW
	kWh	=	kilowatt hour
	kVA	=	kilovolt ampere
(8) Other Measures	ppm	=	parts per million
	%	=	per cent
	‰	=	permillage
	pH	=	scale for acidity
	°C	=	degree centigrade
	10 ³	=	thousand
	10 ⁶	=	million
10 ⁹	=	billion (milliard)	

ANNEX A

SOCIO-ECONOMY AND MANUFACTURING SECTOR

ANNEX-A

SOCIO-ECONOMY AND MANUFACTURING SECTOR

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A.1 SOCIO-ECONOMIC BACKGROUND

A.1.1 National Socio-economy

1) General

Republic of Ecuador is geographically located on the west coast of South America, with its territory of 270,670 km², which comprises 262,660 km² on the mainland and 8,010 km² on the Galapagos Islands. It borders upon Columbia to the north, upon Peru to the east and south, and on the Pacific Ocean to the west. Administratively, it is divided into 21 provinces with Quito, capital of the Republic, in the Pichincha Province.

2) Population

During the inter-census period between 1982 and 1990, total population of the Republic of Ecuador grew at the annual average rate of 2.27% and reached 9.62 million in 1990. Out of the total population, younger generations at the ages of 20 and below accounted for about 51%. Economically active population was 3.66 million or about 34% of the total population in 1990. Unemployment rate was estimated to be 14.7%.

3) Gross Domestic Product

Gross Domestic Product (GDP) increased from S/. 153 billion in 1981 to S/. 177 billion in 1989, at 1975 prices. (Refer to Table A-1). GDP in 1990 is provisionally reported to be S/. 181 billion. The economic performance during the period was rather stagnant with an average annual growth rate of 1.8%. Ecuador experienced negative GDP growth both in 1983 and in 1987. The negative growth of GDP in 1983 was attributable to non-oil sectors such as agriculture, manufacturing and trade. On the other hand, only the negative growth of petroleum (and mining) got GDP negative in 1987 due to the destruction of oil pipeline by earthquakes.

In the longer term, the stagnant economic performance in 1980s was accompanied by increasing instability, attributable in part to the inability to restrain public deficits.

By broad categories of economic sectors, the tertiary sector had the largest share of GDP (44%), followed by the secondary sector. Shares of GDP were relatively dispersed among several major sectors: agriculture (18.9%), manufacturing (17.4%), trade and hotels (16.3%), and petroleum and mining (14.5%). Of these sectors, only agriculture sector showed a relatively good performance in recent years.

4) Balance of payments

Table A-2 presents changes in the balance of payments in Ecuador during the period from 1985 to 1990.

Current accounts were deficits for recent years except for 1985. With the exception of 1987, when earthquakes occurred, imports and net factor income were more or less kept constant. Only a significant change in the current account was the exports in 1985, amounting to S/. 29 billion as compared to S/. 20~23 billion for the rest of years. It was attributable to the export of petroleum and its derivatives increased in 1985.

As for the capital account, on the contrary, the net capital inflow was negative only in 1985, due to the bigger amount of amortization in the private sector and the other capital. Net capital inflow in public sector was decreased due mainly to the decline in the disbursements of investment and refinancing, as well as to the increase in amortization.

5) External trade

Table A-3 presents recent exports and imports by major goods during the period from 1985 to 1990. Total export declined in 1986-87 and it gradually recovered in recent years. Primary commodities had been a major component of export, accounting for more than 85% of total export. Of the primary commodities, crude petroleum accounted for 40~70% during the period. Export of bananas increased from US\$ 220 million in 1985 to US\$468 million in 1990, and export of shrimp increased from US\$156 million in 1985 to US\$340 million in 1990.

On the other hand, export of manufactured goods had been kept stagnant; US\$339 million in 1985 and US\$369 million in 1990. Petroleum derivatives were the largest export item, followed by manufactured primary commodities. It is notable that metal manufacture increased from US\$2 million in 1985 to US\$13 million in 1990.

As for import, it slightly increased from US\$1,767 million in 1985 to US\$1,862 million in 1990. In terms of value, import of industrial materials was the largest, followed by capital goods for industry.

A.1.2 Social Background of the Region

The project of the Esmeraldas EPZ is located in the Municipality of Esmeraldas which belongs administratively to Esmeraldas Canton of Esmeraldas Province. Social background of the Project area will be described below, by referring to the latest population census in 1990.

1) Population

Table A-4 compares the number of urban and rural population in 1990 with the population in 1982. In 1990, Esmeraldas Canton had total population of about 173,000, or 1.8% of total population of Ecuador. Urban population was 98,000 (57%) and rural population was 75,000 (43%). The population in the Canton accounted for 56% of total population of Esmeraldas Province. It is noted that the number of urban population in the Canton, principally in the Municipality of Esmeraldas, accounted for 73% of total urban population of the Province.

Urbanization in the Canton is slightly higher than the national average in terms of the ratio of urban population to total. This does not necessarily mean, however, that urbanization in the Canton would continue to be higher than the national average in future. It is because the ratio of urban population in the Canton decreased from 64% in 1982 to 57% in 1990. In the Canton, the average growth rate of urban population in the Municipality of Esmeraldas was only 1.03% per annum, while it was 3.79% on a national average. This will lead to imply that the Municipality of Esmeraldas has no longer enough capacity to absorb increasing population, and population of the Canton will be expanded more in the rural area.

In the period from 1974 to 1982, there were immigrants of some 32,600 and emigrants of 35,500 to and from Esmeraldas Province (Refer to Table A-5). Out of the total immigrants, 43% was from Manabi Province which adjoins Esmeraldas Province, followed by Guayas (16%) and Pichincha (13%). For emigrants, 50% left for Guayas Province where Guayaquil is located, followed by Pichincha (22%) where Quito is located.

Table A-6 shows the birth rate and mortality rate by zones in 1984. Crude birth rate in Esmeraldas Province was 26.0 per 1,000 population, higher than the national average of 22.6. On the other hand, crude infant mortality rate (53.5 per 1,000 live birth) in the province is lower than the national average. This indicates that natural increase in population in the province is higher than the national average.

2) Economically active population

Of the population over 12 year-old in Esmeraldas Canton in 1982, some 39% was economically active while the rest of population was engaged in schooling, household works, and others (Table A-7). Among the economically active population, 8.7 % was unemployed in 1982: 9.7% in urban area and 7.0% in rural area. These unemployment rates were much higher than the national averages. Although the unemployment rate of Esmeraldas Canton in 1990 is unavailable yet, it is presumed that the rate is much higher than the national average of 14.7% in 1990.

3) Education

Educational level of population (six-year-old and elder group) in the Municipality of Esmeraldas lagged slightly behind the average in urban area of the country in 1982, as shown in Table A-8 and as summarized hereunder.

Education Attainment by Levels in Esmeraldas Canton in 1982 (%)

	No education	Primary level	Secondary level	Higher level
Urban Area				
Esmeraldas	10.6	46.6	25.7	5.2
Ecuador	8.1	46.4	28.5	8.3
Rural Area				
Esmeraldas	27.5	55.4	8.0	1.3
Ecuador	26.6	58.2	7.7	0.9

Remark: The sum of the percentages does not total to 100% due to the existence of no reply.

In 1988/89, there were 850 primary schools, 128 secondary schools and one university in Esmeraldas Province (Refer to Table A-9). Average number of pupils per school was 115 and 207 for primary and secondary schools, respectively. On the other hand, average number of pupils per teacher in the Province was 32.7 and 10.7 for primary and secondary, respectively while it was 31.6 and 13.7 in Ecuador on an average. As far as the comparison of the number of pupils per teacher was concerned, there was no significant difference between the province and the country levels.

A.1.3 Economic Background of the Region

1) Employment structure

Table A-10 presents employment structures in 1982. In Esmeraldas Canton, the largest sector was services (31%), followed by agriculture, fishing and hunting (28%), commerce (12%) and manufacturing (9%). Employment structure in rural area in the canton was characterized by the primary sector which accounted for 64% of the economically active population in rural area.

2) Agriculture

Table A-11 shows agricultural production by major products in Esmeraldas Province during the period from 1983 to 1989. Banana, a major export commodity in Ecuador, was the largest agricultural product in terms of production volume, and it accounted for 8.5% of the total national production. The products which accounted for high rate of the national production were african palm (30% of national production), coconut (35%) and grapefruit (39%). Production of banana and african palm had been remarkably increased in six years: from 155,000 tons to 308,000 tons for bananas and from 62,000 tons to 272,000 tons for african palm. Cacao and coffee beans had also increased their production.

3) Wood production and the related industry

Esmeraldas Province is known as a center of wood production. In 1984, the production of log and sawn wood accounted for 24% and 29% of national production, respectively (Table A-12). Production of plywood accounted for 75% of the national production in 1984.

4) Fishery

Fishery is another important industry in Esmeraldas. According to the fishery survey in 1986, there were 765 fishermen in and around the Municipality of Esmeraldas (400 of artisan or small scale and 365 of industry or large scale). Through the interview with the inspector of fishery in Esmeraldas, it was noted that the number of small scale fishermen had been increased with the completion of the fishery port in Esmeraldas. There are 37 fishery ships in Esmeraldas at the moment.

Table A-13 presents the fish catch disembarked at the Esmeraldas port during the period from 1985 to 1989. Volume of fish catch in Esmeraldas increased from 3,880 tons (12% of total fish catch in Ecuador) in 1985 to 5,166 tons (24 % of the total) in 1989. By categories of fish, sea fish and crustacean have been remarkably increased since 1987 and river fish has been caught since 1988.

5) Manufacturing

The manufacturing sector in Esmeraldas Province is less developed as compared to the national average, although it contributed 5% of the national production in the sector in 1987 (Refer to Table A-14). It is noted, however, that the nominal growth rate of the industrial sector in Esmeraldas Province was 60% per annum in 1970-1987, and the growth rate was more than double the rate in Ecuador (28%).

The higher growth in the Province may be attributed to the establishment of an oil refinery plant in the suburbs of Esmeraldas Municipality. Indeed, the refinery had a share of 97% in total manufacturing production in the province in 1988 (Table A-15). The refinery employed 58% of total workforce in the provincial manufacturing sector. There were other seven industrial establishments: two belonged to food, beverages and tobacco sub-sector, and five to wood industry. In the Municipality of Esmeraldas, there are four establishments in manufacturing sector: three wood industries and one ice-making industry.

A.2 MANUFACTURING SECTOR

A.2.1 Recent Performance

1) Value-added

As mentioned in Section A.1.1, real GDP of the manufacturing sector had slightly declined from S/. 29.2 billion in 1981 to S/. 28.3 billion in 1989. GDP in the manufacturing sector accounted for 17.4% in 1989 (Refer to Table A-1).

Manufacturing sector in Ecuador principally comprises light-industry such as food products, textiles/garments and wood and furniture. Value-added of food products and textiles/garments accounted for 64% of total sector GDP in 1981 and 56% in 1989. The decline in the share of the two sub-sectors were largely attributable to the decrease in food products.

On the other hand, value-added had grown, more or less, in other sub-sectors such as wood & furniture, paper & printing, minerals, machinery/equipment and other manufacturing. Above all, value-added of machinery/equipment and other manufacturing had increased by 62% and 85%, respectively, during the period from 1981 to 1989. Basic minerals including metal and nonmetal contributed for 12~13% of the sectoral GDP.

The composition of the sector GDP by sub-sectors is summarized as follows:

Sub-sector	Year	1981	1985	1989
1. Food Products		41.8	37.8	35.0
2. Textiles/Garments		21.9	22.9	20.9
3. Wood & Furniture		5.1	5.5	5.9
4. Paper & Printing		6.1	6.6	7.8
5. Chemicals/Rubber		6.5	6.3	6.4
6. Basic Minerals		12.2	13.1	12.7
7. Machinery/Equipment		3.3	3.4	5.5
8. Other Manufacturing		3.1	4.4	5.8
Total		100.0	100.0	100.0

2) Export

Export of the manufacturing sector grew at a relatively low rate of 1.7% per annum on an average during the period from 1985 to 1990 (Refer to Table A-3). It contributed for 14% of total export or approximately \$370 million in 1990. As compared to the exports of primary

commodities, however, the export in the manufacturing sector was relatively significant, since the export of primary commodities decreased at 1.8% per annum during the same period.

Of the manufactured goods exported, petroleum derivatives had the largest share of 41% in 1990, followed by manufactured cacao and coffee (22%) and metal manufacture (4%). Petroleum derivatives decreased its value of export in 1986 and 1987, but the export recovered since 1988. On the other hand, metal manufacture showed a tendency of increase in export during the period from 1985 to 1990.

The table shown below indicates the ratio of export value to total production value by manufacturing industries located in Quito, Guayaquil and Cuenca.

Industrial Category	Ratio of export to total production
1. Canning, preserving and processing of fish, crustacea and similar foods	93.8%
2. Manufacture of containers and boxes of paper & paper board	59.8%
3. Manufacture of miscellaneous food	53.5%
4. Sugar and its refinery	53.3%
5. Manufacture of fabricated metal	20.0%
6. Manufacture of wearing apparel, except foot wear	12.5%
Average of all the industries	11.1%

A.2.2 Industrial Structure

1) Manufacturing enterprises and employees

As noted before, value-added in the manufacturing sector decreased in real terms during the period from 1981 to 1989. However, the number of enterprises and employees in the sector have slightly increased. The following table shows the annual average growth rates of the number of enterprises and employees in Ecuador during the period from 1982 to 1988.

Industrial Category	(% per annum)	
	No. of Enterprises	No. of Employees
Food and Beverages	1.4	1.6
Textile, Apparel & Leather	2.8	0.3
Wood and Furniture	0.9	0.6
Paper and Printing	0.8	2.4
Chemical, Rubber & Plastic	4.2	3.1
Non-metal and Basic metal	4.5	4.4
Machinery	-0.3	-0.1
Other Manufacturing	0	-2.7
Total	1.9	1.4

Source : INEC, "Encuesta Anual de Manufactura y Minería"

Table A-16 shows the number of manufacturing enterprises, employees and production by industries in 1988. As shown in the table, manufacturing enterprises in Ecuador are relatively small in scale in terms of the number of employees. Enterprises of food and beverages hired the largest number of employees per enterprise (91 employees), followed by textile and apparel (71), while enterprises of machinery hired the smallest number of employees (35).

Production per enterprise is the largest in chemical, rubber and plastic industry. The industry produced S/. 1,112 million of goods per enterprise, followed by food and beverages (S/. 1,057 million). Wood and furniture, as well as apparel industries, made relatively small amount of production on an average.

On the other hand, in terms of production per employee, heavy-industry such as chemicals, machinery and metal attained the largest value per employee (S/. 15 ~ 16 million). On the contrary, light-industry such as apparel and wood and furniture, except for food and beverage, gained small amount of production value per employee (S/. 4 ~ 5 million).

2) Geographical distribution of enterprises

Manufacturing enterprises in Ecuador are concentrated in the area where large cities are located. Table A-17 presents geographical distribution of the number of enterprises and employees, as well as the value of production, in Pichincha, Guayas and Azuay Provinces, where more than 80% of the industries in Ecuador are located (42% in Pichincha, 27% in Guayas and 12% in Azuay).

In Pichincha Province, textile/apparel, wood/furniture and machinery industries accounted for nearly 50% of total industries in each category in terms of the number of enterprises, employees and value of production. In Guayas Province, chemicals accounted for more than 50% of total industries in the category, in terms of the number of enterprises and employees. Paper and printing also accounted for more than 50%, in terms of number of employees and value of production. In addition, value of production in metal industry had a share of 50% of total production value in Ecuador. In Azuay Province, metal and other manufacturing were major industries, judging from their shares in Ecuador.

Table A - 1 GROSS DOMESTIC PRODUCT BY SECTORS

	(S/. mill., 1975 prices)									Sector ** Share (%)	Sub-sector Share (%)
	1981	1982	1983	1984	1985	1986	1987	1988*	1989*		
1. AGRICULTURE, HUNTING & FISHERY	22,647	23,101	19,891	22,007	24,178	26,656	27,323	29,678	30,581	18.9	100.0
Banana, Coffee, Cacao	4,023	4,208	2,718	3,071	3,955	4,000	3,183	3,592	3,916		12.8
Other Agricultural Products	7,680	7,112	5,457	6,734	7,011	8,595	8,880	9,902	10,336		33.8
Animal Production	7,578	8,043	8,043	8,326	8,737	8,990	8,967	9,606	10,127		33.1
Forestry, logging	1,593	1,739	1,724	1,662	1,712	1,879	1,935	1,827	1,813		5.9
Fishery & Hunting	1,773	1,999	1,949	2,214	2,763	3,192	4,358	4,751	4,389		14.4
GROWTH RATE (% per annum)	6.8	2.0	-13.9	10.6	9.9	10.2	2.5	8.6	3.0		
2. PETOROLEUM AND MINING	15,992	15,527	19,893	21,879	23,875	24,513	11,107	25,319	23,501	14.5	100.0
1) PETOROLEUM (Crude oil&Gas, Oil refinery)	15,493	15,019	19,105	20,864	22,861	23,348	9,925	23,811	21,987		93.6
2) OTHER MINING	499	508	788	1,015	1,014	1,165	1,182	1,508	1,514		6.4
GROWTH RATE (% per annum)	6.1	-2.9	28.1	10.0	9.1	2.7	-54.7	128.0	-7.2		
3. MANUFACTURING	29,159	29,584	29,183	28,643	28,710	28,241	28,729	29,381	28,272	17.4	100.0
1) FOOD PRODUCTS	12,177	12,315	11,518	11,335	10,848	10,770	11,075	11,025	9,900		35.0
Meat and Fish	2,539	2,661	2,571	2,434	2,156	2,663	2,878	3,072	2,798		
Grains and Baking	1,588	1,586	1,528	1,446	1,383	1,379	1,523	1,798	1,596		
Sugar	1,166	786	688	845	841	755	756	690	709		
Miscellaneous foods	3,572	3,772	3,485	3,328	3,179	2,779	2,553	2,364	1,723		
Beverages	2,795	2,891	2,796	2,793	2,775	2,698	2,879	2,658	2,632		
Manufactured Tobacco	517	619	450	489	514	496	486	443	442		
2) TEXTILES / GARMENTS	6,395	6,536	6,752	6,659	6,580	5,936	5,944	5,818	5,921		20.9
3) WOOD & FURNITURE	1,489	1,580	1,614	1,575	1,574	1,678	1,681	1,664	1,659		5.9
4) PAPER AND PRINTING	1,770	1,877	1,803	1,767	1,882	1,992	2,082	2,147	2,196		7.8
5) CHEMICALS - RUBBER	1,901	1,814	1,970	1,726	1,819	1,856	1,790	1,899	1,809		6.4
6) MINRERALS	3,557	3,671	3,563	3,473	3,773	3,615	3,334	3,740	3,584		12.7
7) MACHINERY/EQUIPMENT	968	926	932	886	971	1,102	1,251	1,383	1,568		5.5
8) OTHER MANUFACTURING	882	865	1,031	1,222	1,263	1,292	1,572	1,705	1,635		5.8
GROWTH RATE (% per annum)	8.8	1.5	-1.4	-1.9	0.2	-1.6	1.7	2.3	-3.8		
4. ELECTRICITY , GAS & WATER	1,117	1,241	1,426	1,836	1,833	2,232	2,616	2,789	2,871	1.8	
GROWTH RATE (% per annum)	0.2	11.1	14.9	28.8	-0.2	21.8	17.2	6.6	2.9		
5. CONSTRUCTION	7,239	7,285	6,728	6,583	6,742	6,841	7,011	6,359	6,282	3.9	
GROWTH RATE (% per annum)	4.8	0.6	-7.6	-2.2	2.4	1.5	2.5	-9.3	-1.2		
6. TRADE AND HOTELS	25,032	25,562	22,537	23,467	24,268	24,793	25,397	26,256	26,392	16.3	
GROWTH RATE (% per annum)	1.0	2.1	-11.8	4.1	3.4	2.2	2.4	3.4	0.5		
7. TRANSPORT/COMMUNICATION	10,517	10,687	10,511	10,914	11,506	12,571	12,829	13,486	14,175	8.7	
GROWTH RATE (% per annum)	4.8	1.6	-1.6	3.8	5.4	9.3	2.1	5.1	5.1		
8. FINANCIAL SERVICES/REAL ESTATE	18,274	18,590	18,972	17,679	18,162	18,579	21,095	22,978	19,629	12.1	
GROWTH RATE (% per annum)	3.3	1.7	2.1	-6.8	2.7	2.3	13.5	8.9	-14.6		
9. OTHER SERVICES	8,240	8,710	9,098	9,336	9,529	9,773	10,067	10,190	10,478	6.5	
GROWTH RATE (% per annum)	8.3	5.7	4.5	2.9	1.7	2.6	3.0	1.2	2.8		
10. Others	15,226	14,978	12,646	14,882	15,251	14,937	12,842	10,430	14,963		
TOTAL (GDP)	153,443	155,265	150,885	157,226	164,054	169,136	159,016	176,866	177,144		
GROWTH RATE (% per annum)	3.9	1.2	-2.8	4.2	4.3	3.1	-6.0	11.2	0.2		

Remarks : * Provisional

** The share represents the ratio of each categorie's value-added to total GDP excluding the item of 10. Others.

Source: Banco Central del Ecuador, "CUENTAS NACIONALES DEL ECUADOR: 1950 - 1989", 1990

Table A-2 BALANCE OF PAYMENT IN ECUADOR

	(US\$ mill.)					
	1985	1986	1987	1988	1989	1990
Balance on Current Account	114	-553	-1,131	-505	-472	-136
Trade Balance	1,294	543	-33	619	661	1,003
Exports	2,905	2,186	2,021	2,202	2,354	2,714
- Petroleum & Derivatives	1,927	983	817	976	1,147	1,409
- Others	978	1,203	1,204	1,226	1,207	1,305
Imports	-1,611	-1,643	-2,054	-1,583	-1,693	-1,711
Balance of Services & Rent	-1,260	-1,141	-1,230	-1,221	-1,230	-1,239
Transfers	80	45	132	97	97	100
Capital Account	-66	319	1,043	486	854	538
International Reserve	-48	234	88	19	-382	-402

Source: Banco Central del Ecuador

Table A - 3 EXPORTS AND IMPORTS BY MAJOR GOODS IN ECUADOR

	(US\$ mill., FOB for Export, CIF for Import)					
	1985	1986	1987	1988	1989	1990*
I. EXPORT						
1. Primary Commodities**	2,566	1,878	1,636	1,861	2,026	2,345
1) Crude Petroleum	1,825	912	646	875	1,033	1,258
2) Bananas	220	263	267	298	370	468
3) Shrimp	156	288	383	387	328	340
4) Coffee	191	299	192	152	142	104
2. Manufactured Goods**	339	308	291	332	328	369
1) Petroleum Derivatives	102	70	78	101	115	150
2) Manufactured Cacao	79	77	57	48	53	56
3) Manufactured Coffee	18	29	19	18	20	26
4) Metal Manufacture	2	5	7	11	18	13
5) Chemicals & Pharmacy	9	9	12	10	7	9
TOTAL EXPORT	2,905	2,185	1,928	2,193	2,354	2,714
II. IMPORT**						
1. Industrial Materials	769	726	792	708	839	811
2. Capital Goods for Industry	339	408	501	404	389	376
3. Transport Equipment	153	230	202	249	206	205
4. Consumer Goods	152	170	208	165	184	179
TOTAL IMPORT	1,767	1,810	2,158	1,714	1,855	1,862

Remarks: * Provisional

** Only major goods and commodities are shown. Thus, sum of the figures of goods and commodities in the table is not equal to total.

Source: Banco Central del Ecuador, "INFORMACION ESTADISTICA QUINCENAL",
May 31, 1991

Table A-4 POPULATION IN ESMERALDAS PROVINCE

	Esmeraldas Province				Ecuador	
	Esmeraldas Canton		Province as a whole		Nos.	%
	Nos.	%	Nos.	%		
Year 1990						
Urban	98,065	56.8	134,379	43.7	5,305,911	55.1
Rural	74,584	43.2	172,811	56.3	4,316,697	44.9
Total	172,649	100.0	307,190	100.0	9,622,608	100.0
Year 1982						
Urban	90,360	64.3	118,185	47.7	3,938,800	49.0
Rural	50,153	35.7	129,685	52.3	4,099,635	51.0
Total	140,513	100.0	247,870	100.0	8,038,435	100.0
Average Growth Rate (% per year)						
Urban	1.03		1.62		3.79	
Rural	5.09		3.65		0.65	
Total	2.61		2.72		2.27	

Sources: INEC, "RESULTADOS PROVISIONALES: V Censo de Poblacion y IV de Vivienda", 1991
INEC, "IV Censo de Poblacion"

TableA-5 IMIGRATION AND EMIGRATION OF ESMERALDAS PROVINCE
(1974 - 1982)

Provinces	Emigration		Imigration		Net Migration	Ratio of Net Migration to 1982 Population (%)
	Nos.	%	Nos.	%	Nos.	
Carchi	117	0.3	213	0.7	96	
Imbabura	574	1.6	454	1.4	-120	
Pichincha	7845	22.1	4449	13.6	-3396	
Cotopaxi	196	0.6	295	0.9	99	
Tungurahua	262	0.7	479	1.5	217	
Bolivar	73	0.2	783	2.4	710	
Chimborazo	141	0.4	225	0.7	84	
Canar	101	0.3	51	0.2	-50	
Azuay	198	0.6	222	0.7	24	
Loja	136	0.4	1066	3.3	930	
Esmeraldas	0	0.0	0	0.0	0	
Manabi	1995	5.6	14086	43.2	12091	
Los Rios	1416	4.0	3596	11.0	2180	
Guayas	17869	50.3	5317	16.3	-12552	
El Oro	968	2.7	679	2.1	-289	
Napo	1175	3.3	152	0.5	-1023	
Pastaza	61	0.2	70	0.2	9	
Morona Santiago	71	0.2	22	0.1	-49	
Zamora Chinchipe	8	0.0	56	0.2	48	
Galapagos	30	0.1	11	0.0	-19	
Unspecified	2289	6.4	387	1.2	-1902	
Total	35525	100.0	32613	100.0	-2912	-1.2

Source: CEDIG, "MIGRACIONES INTERNAS EN EL ECUADOR 1950-1982", 1987

Table A-6 BIRTH RATE AND MORTALITY RATE IN ECUADOR

(in 1984)

	Birth *		Infant Mortality **		Maternal Mortality **	
	Nos.	Crude Rate	Nos.	Crude Rate	Nos.	Crude Rate
COAST ZONE	90572	20.2	4417	48.8	183	2.0
Esmeraldas	7285	26.0	388	53.3	13	1.8
Manabi	26727	26.8	682	25.5	51	1.9
Los Rios	9796	19.3	688	70.2	27	2.8
Guayas	39215	16.9	2355	60.1	73	1.9
El Oro	7549	19.9	304	40.3	19	2.5
MOUNTAIN ZONE	107247	25.2	6345	59.2	182	1.7
AMAZONIAN ZONE	8267	27.2	393	47.5	18	2.2
ISLAND ZONE	157	21.8	6	38.2	1	6.4
ECUADOR	206243	22.6	11161	54.1	384	1.9

Remarks: * For 1000 population

** For 1000 live birth

Source: INSTITUTO DE INVESTIGACIONES ECONOMICAS, "INDICATORS Y ESTADISTICAS BASICAS DE LA ECONOMIA ECUATORIANA", 1987 Estimated by INEC

Table A-7 POPULATION STRUCTURE BY ECONOMIC ACTIVITIES IN ESMERALDAS PROVINCE (POPULATION OVER 12 YEAR-OLD)

	1982 Census					
	Canton of Esmeraldas		Province of Esmeraldas		Ecuador	
	Nos.	%	Nos.	%	Nos. (1000)	%
I. URBAN AREA						
1. Economically Active	22784	39.0	29894	39.6	1206.9	43.9
a. Employed	20582	35.2	27011	35.8	1146.6	41.8
b. Unemployed	2202	3.8	2883	3.8	60.2	2.2
- Always	377	9.7 *	444	9.6 *	15.7	5.0 *
- First Time	1825		2439		44.5	
2. Economically Inactive	32770	56.1	41816	55.4	1471.8	53.6
a. Students	16987	29.1	20893	27.7	676.8	24.6
b. Household Work	13737	23.5	18299	24.2	707.4	25.8
c. Retired & Pensioners	479	0.8	554	0.7	31.2	1.1
d. Others	1567	2.7	2070	2.7	56.5	2.1
3. Not Declared	2868	4.9	3836	5.1	67.6	2.5
4. Total	58422	100.0	75546	100.0	2746.2	100.0
II. RURAL AREA						
1. Economically Active	13173	44.5	35907	47.2	1139.2	44.6
a. Employed	12245	41.4	33873	44.5	1091.8	42.7
b. Unemployed	928	3.1	2034	2.7	47.4	1.9
- Always	96	7.0 *	261	5.7 *	8.8	4.2 *
- First Time	832		1773		38.6	
2. Economically Inactive	15319	51.8	37707	49.6	1355.7	53.1
a. Students	5079	17.2	11309	14.9	392.9	15.4
b. Household Work	9051	30.6	23890	31.4	901.7	35.3
c. Retired & Pensioners	50	0.2	110	0.1	7.6	0.3
d. Others	1139	3.9	2398	3.2	53.4	2.1
3. Not Declared	1082	3.7	2459	3.2	599.4	23.5
4. Total	29574	100.0	76073	100.0	2554.3	100.0
III. TOTAL						
1. Economically Active	35957	40.9	65801	43.4	2346.1	44.3
a. Employed	32827	37.3	60884	40.2	2238.4	42.2
b. Unemployed	3130	3.6	4917	3.2	107.7	2.0
- Always	473	8.7 *	705	7.5 *	24.6	4.6 *
- First Time	2657		4212		83.1	
2. Economically Inactive	48089	54.6	79523	52.4	2827.5	53.3
a. Students	22066	25.1	32202	21.2	1069.7	20.2
b. Household Work	22788	25.9	42189	27.8	1609.2	30.4
c. Retired & Pensioners	529	0.6	664	0.4	38.8	0.7
d. Others	2706	3.1	4468	2.9	109.9	2.1
3. Not Declared	3950	4.5	6295	4.2	126.9	2.4
4. Total	87996	100.0	151619	100.0	5300.5	100.0

Remark: * Unemployment Ratio = Nos. of Unemployed / Nos. of Economically Active Population x 100

Source: INEC, "IV Censo de Poblacion",

INSTITUTO DE INVESTIGACIONES ECONOMICAS, " INDICATORS Y ESTADISTICAS BASICAS DE LA ECONOMIA ECU

Table A-8 POPULATION BY EDUCATION LEVEL (6-YEAR OLD AND OLDER)

	(in 1982)					
	Canton of Esmeraldas		Province of Esmeraldas		Ecuador	
	Nos.	%	Nos.	%	Nos.(1000)	%
1. URBAN AREA						
No Education	7725	10.6	11517	12.1	268.3	8.1
Center of Literacy	375	0.5	614	0.6	14.8	0.4
Primary		46.6		48.5		46.4
1 - 3	14451	19.8	20196	21.2	540.4	16.3
4 - 6	19603	26.8	25970	27.3	998.6	30.1
Secondary		25.7		23.5		28.5
1 - 3	11495	15.7	13965	14.7	530.8	16.0
4 - 6	7253	9.9	8459	8.9	414.1	12.5
Higher Education		5.2		4.4		8.3
1 - 3	2031	2.8	2239	2.4	147.3	4.4
4 & over	1748	2.4	1916	2.0	127.7	3.8
No declaration	8406	11.5	10347	10.9	277.6	8.4
Total	73087	100.0	95223	100.0	3319.6	100.0
2. RURAL AREA						
No Education	10679	27.5	32230	32.1	870.7	26.6
Center of Literacy	620	1.6	1880	1.9	77.4	2.4
Primary		55.4		53.5		58.2
1 - 3	11572	29.8	29764	29.6	877.4	26.8
4 - 6	9921	25.6	23919	23.8	1029.2	31.4
Secondary		8.0		5.2		7.7
1 - 3	2066	5.3	3650	3.6	174.7	5.3
4 - 6	1048	2.7	1577	1.6	76.6	2.3
Higher Education		1.3		0.8		0.9
1 - 3	258	0.7	446	0.4	18.1	0.6
4 & over	246	0.6	337	0.3	11.7	0.4
No declaration	2400	6.2	6588	6.6	140.5	4.3
Total	38810	100.0	100391	100.0	3276.3	100.0
3. TOTAL						
No Education	18404	16.4	43747	22.4	1139	17.3
Center of Literacy	995	0.9	2494	1.3	92.2	1.4
Primary		49.6		51.0		52.2
1 - 3	26023	23.3	49960	25.5	1417.8	21.5
4 - 6	29524	26.4	49889	25.5	2027.8	30.7
Secondary		19.5		14.1		18.1
1 - 3	13561	12.1	17615	9.0	705.5	10.7
4 - 6	8301	7.4	10036	5.1	490.7	7.4
Higher Education		3.8		2.5		4.6
1 - 3	2289	2.0	2685	1.4	165.4	2.5
4 & over	1994	1.8	2253	1.2	139.4	2.1
No declaration	10806	9.7	16935	8.7	418.1	6.3
Total	111897	100.0	195614	100.0	6595.9	100.0

Source: INEC, "CENSOS NACIONALES DE POBLACION 1982"

Table A-9 SELECTED INDICES ON EDUCATION IN ESMERALDAS PROVINCE
(1988-1989)

Education Level	[1] No. of School	[2] No. of Pupils	[3] No. of Teachers	[4] [2]/[1]	[5] [2]/[3]	[5] Ecuador
Pre-primary	115	5104	207	44.4	24.7	21.9
Primary	850	97811	2995	115.1	32.7	31.6
Secondary	128	26552	2482	207.4	10.7	13.7
Higher (84-85)	1	8076	394	8076.0	20.5	-

Sources: Ministerio de Educacion Publica y Nacional de Universidades

Banco Central de Ecuador, "BOLETIN ANUARIO NO.12 1989 - 1990", 1990

Table A-10 ECONOMICALLY ACTIVE POPULATION BY SECTORS

	1982 Census					
	Canton of Esmeraldas		Province of Esmeraldas		Ecuador	
	Nos.	%	Nos.	%	Nos.(1000)	%
1. URBAN AREA						
Agriculture, fishing & hunting	1,642	7.2	3,384	11.3	62.5	5.2
Mining	92	0.4	97	0.3	2.9	0.2
Manufacturing	2,431	10.7	3,302	11.0	190.9	15.8
Electricity, gas & water	240	1.1	266	0.9	9.7	0.8
Construction	1,554	6.8	1,888	6.3	100.8	8.4
Commerce	3,495	15.3	4,544	15.2	222	18.4
Transportation	1,302	5.7	1,586	5.3	75	6.2
Finances	235	1.0	264	0.9	41.7	3.5
Services	9,297	40.8	11,311	37.8	427.1	35.4
Other activities	671	2.9	813	2.7	29.6	2.5
New labors	1,825	8.0	2,439	8.2	44.5	3.7
Total	22,784	100.0	29,894	100.0	1206.9	100.0
2. RURAL AREA						
Agriculture, fishing & hunting	8,369	63.5	26,371	73.4	724.5	63.6
Mining	22	0.2	122	0.3	4.5	0.4
Manufacturing	741	5.6	1,441	4.0	95.6	8.4
Electricity, gas & water	24	0.2	39	0.1	3.5	0.3
Construction	253	1.9	429	1.2	57.2	5.0
Commerce	746	5.7	1,687	4.7	49.9	4.4
Transportation	102	0.8	246	0.7	26.3	2.3
Finances	10	0.1	14	0.0	2.4	0.2
Services	1,964	14.9	3,574	10.0	127.8	11.2
Other activities	110	0.8	211	0.6	9	0.8
New labors	832	6.3	1,773	4.9	38.6	3.4
Total	13,173	100.0	35,907	100.0	1139.2	100.0
3. TOTAL						
Agriculture, fishing & hunting	10,011	27.8	29,755	45.2	787.0	33.5
Mining	114	0.3	219	0.3	7.4	0.3
Manufacturing	3,172	8.8	4,743	7.2	286.5	12.2
Electricity, gas & water	264	0.7	305	0.5	13.2	0.6
Construction	1,807	5.0	2,317	3.5	158.0	6.7
Commerce	4,241	11.8	6,231	9.5	271.9	11.6
Transportation	1,404	3.9	1,832	2.8	101.3	4.3
Finances	245	0.7	278	0.4	44.1	1.9
Services	11,261	31.3	14,885	22.6	554.9	23.7
Other activities	781	2.2	1,024	1.6	38.6	1.6
New labors	2,657	7.4	4,212	6.4	83.1	3.5
Total	35,957	100.0	65,801	100.0	2346.1	100.0

Source: INEC, "IV Censo de Poblacion"

INSTITUTO DE INVESTIGACIONES ECONOMICAS, "INDICATORS Y ESTADISTICAS BASICAS DE LA ECONOMIA ECUATORIANA", 1987

Table A-11 AGRICULTURAL PRODUCTION IN ESMERALDAS PROVINCE

Major Products	1983 (Tons)	1984 (Tons)	1985 (Tons)	Share to National Production (%)	1988 (Tons)	Share to National Production (%)	1989 (Tons)	Share to National Production (%)
Field Corn	2,449	9,205	7,033	2.1	2,334	0.8	3,202	0.8
Bell Pepper	288	294	320	5.1	527	5.9	19	0.2
Avocado	964	1,023	1,198	8.3	1	0.0	668	5.0
Lemon	546	472	646	2.9	108	1.0	129	0.8
Orange	20,412	13,226	5,938	2.6	5,223	6.0	2,444	3.4
Papaya	1,690	1,314	2,701	8.8	141	0.6	163	0.9
Banana	154,584	191,792	175,757	18.6	310,582	8.8	308,373	8.5
Grapefruit	13,427	10,750	2,250	7.6	595	21.6	2,959	39.4
Coconut	49,932	36,462	15,000	39.1	8,105	7.8	12,510	34.9
African Palm	61,625	61,787	68,779	15.0	192,275	28.5	272,000	30.1
Mnila Hemp	3,840	8,562	2,250	22.6	1,030	4.7	682	4.9
Cacao Beans	1,513	1,816	5,841	4.5	6,682	7.9	6,619	8.0
Coffee Beans	3,493	3,960	4,364	3.6	14,039	4.1	5,989	4.6
Rubber	159	269	270	15.0	110	10.4	84	6.6

Source: Estimation by Ministry of Agriculture

Table A-12 WOOD PRODUCTION IN ESMERALDAS PROVINCE

	1982	1983	1984	Share to National Production (%)
Exploited Area (ha)	3538	3022	2991	11.8
Mobilization (m3)				
- Log	26891	33248	39217	23.6
- Sawn Wood	104876	71600	75360	28.7
- Plywood	24052	7672	8116	75.4
- Parquet	0	229	257	43.3
- Firewood	0	0	0	0
- Charcoal	75	11	0	0
Total	155894	112760	122950	26.8

Source: Ministry of Agriculture, National Forest Program

Table A-13 TREND OF FISH CATCH (1985 - 1989)

SPECIES	(Tons)								
	1985			1986			1987		
	Esmeraldas Share (%)	Ecuador		Esmeraldas Share (%)	Ecuador		Esmeraldas Share (%)	Ecuador	
1. Sea Fish									
Tuna	0	0.0	53	0	0.0	550	0	0.0	856
Mackerel	0	0.0	18						
Pinchagua	0	0.0	46	0	0.0	39	0	0.0	157
Caballita				0	0.0	191	0	0.0	100
White fish	2,198	9.3	23,629	2,127	11.6	18,382	2,715	10.5	25,739
Sub-total	2,198	9.3	23,746	2,127	11.1	19,162	2,715	10.1	26,852
2. Crustacean									
Shrimp	15	2.2	680	0	0.0	1,995	110	9.6	1,151
Others	8	0.2	3,534	13	0.5	2,393	11	3.9	279
Sub-total	23	0.5	4,214	13	0.3	4,388	121	8.5	1,430
4. Mollusk									
Shell fish	1,532	35.6	4,300	1,592	55.4	2,873	964	68.0	1,418
Others	127	14.7	865	47	9.0	524	0	0.0	185
Sub-total	1,659	32.1	5,165	1,639	48.2	3,397	964	60.1	1,603
5. River fish									
Sub-total				0	0.0	143		0.0	295
Total	3,880	11.7	33,125	3,779	13.9	27,090	3,800	12.6	30,180

SPECIES	1988			1989		
	Esmeraldas Share (%)	Ecuador		Esmeraldas Share (%)	Esmeraldas	
1. Sea Fish						
Tuna	0	0.0	1,762	5	0.4	1,149
Mackerel				346	13.6	2,535
Pinchagua	0	0.0	198	0	0.0	166
Caballita	0	0.0	2,629			
White fish	3,537	24.2	14,613	3,726	27.3	13,659
Sub-total	3,537	18.4	19,202	4,077	23.3	17,509
2. Crustacean						
Shrimp	264	19.5	1,356	229	16.0	1,428
Others	19	27.5	69	274	31.9	859
Sub-total	283	19.9	1,425	503	22.0	2,287
4. Mollusk						
Shell fish	962	58.2	1,654	580	35.1	1,651
Others	0	0.0	139	6	2.3	265
Sub-total	962	53.7	1,793	586	30.6	1,916
5. River fish						
Sub-total	235		578	160		406
Total	4,782	21.3	22,420	5,166	23.8	21,712

Source: Inspectors of Fishery

Table A-14 INDUSTRIAL AND MINING PRODUCTION BY PROVINCE
(CURRENT PRICE)

Province	1970	%	1975	1981	1985	1986	1987	(Sucre million)	
								%	Average Growth Rate 1970-87 (%p.a.n.)
1. COAST ZONE	6175.7	64.9	16724.1	54745.6	169003.9	248407.8	348463.3	56.3	26.8
Esmeraldas	10.7	0.1	158.3	1921.3	11747	22341.2	30712.1	5.0	59.7
El Oro	92.6	1.0	483.6	718.6	1780.7	3688	12162.7	2.0	
Guayas	5178.5	54.5	14386.7	46013.7	136907.3	195908	273631	44.2	
Los Rios	27	0.3	161.7	774.7	1880.4	2169.1	3515.6	0.6	
Manabi	866.9	9.1	1533.9	5317.3	16688.5	24301.5	28441.9	4.6	
2. MOUNTAIN ZONE	3326.2	35.0	11057.8	41232.1	134599.6	196788.9	267717.3	43.3	29.4
3. ORIENTAL ZONE	7.4	0.1	26.1	31.8	818.2	1079.1	2416.9	0.4	40.6
4. TOTAL	9509.3	100.0	27808	96009.5	304421.7	446275.8	618597.5	100.0	27.8

Source: INEC "Encuestas de Manufactura y Minería", Elaborated by CENDES

Table A-15 MANUFACTURING INDUSTRIES IN ESMERALDAS PROVINCE IN 1988

Industries	No. of Establishments*	No. of Workers Employed	Value of Production (Sucre million)	Value-added (Sucre million)
Foodstuffs, Beverages & Tobacco	2	90	862	419
Wood Industry & Wood Products	5	623	1,346	385
Manufacture of Chemicals (oil & Coal Derivatives), Rubber & Plastics	1	979	79,645	6,216
Total	8	1,692	81,853	7,020

Remark: Establishments of which the number of employees is more than ten.

Source: INEC, "Annual Manufacturing & Mining Survey", 1988

Table A - 16 NUMBER OF ENTERPRISES, EMPLOYEES AND PRODUCTION BY INDUSTRIES IN ECUADOR (1988)

	[1] No. of Enterprises	[2] No. of Employees	[3] Value of Production (S./mill.)	[4] [2] / [1]	[5] [3] / [1] (S./mill./ enterprise)	[6] [3] / [2] (S./mill./ employee)
1. Food and Beverages	388	35,144	410,067	91	1,057	12
2. Textile, Apparel, & Leather	284	20,444	98,921	72	348	5
3. Wood & Furniture	113	6,713	24,181	59	214	4
4. Paper & Printing	113	7,433	78,653	66	696	11
5. Chemical, Rubber & Plastic	236	16,085	262,386	68	1,112	16
6. Non-metal & Basic Metal	120	9,034	107,881	75	899	12
7. Machinery	261	14,035	141,497	54	542	10
8. Other Manufacturing	22	689	3,547	31	161	5
Total	1,537	109,577	1,127,133	71	733	10

Remark: The enterprises which had more than 10 employees.

Source: INEC, "Encuesta Anual de Manufactura y Minería, Tomo 1", 1988

Table A - 17 GEOGRAPHICAL DISTRIBUTION OF MANUFACTURING ENTERPRISES (1988)
(RATIO TO TOTAL IN ECUADOR)

	PICHINCHA PROVINCE			GUAYAS PROVINCE			AZUAY PROVINCE		
	No. of Enter- prises	No. of Em- ployees	Value of Production (S./mill.)	No. of Enter- prises	No. of Em- ployees	Value of Production (S./mill.)	No. of Enter- prises	No. of Em- ployees	Value of Production (S./mill.)
1. Food and Beverages	28	24	28	29	38	46	8	4	2
2. Textile, Apparel, & Leather	60	72	77	11	10	11	14	8	6
3. Wood & Furniture	56	48	51	13	12	13	11	19	15
4. Paper & Printing	30	24	15	42	52	66	8	5	1
5. Chemical, Rubber & Plastic	39	30	21	57	50	37	12	8	6
6. Non-metal & Basic Metal	31	19	22	24	36	50	28	17	9
7. Machinery	48	53	58	26	31	34	12	9	5
8. Other Manufacturing	45	37	35	9	6	21	36	31	28
Total	42	39	34	27	32	40	12	8	5

Source: INEC, "Encuesta Anual de Manufactura y Minería, Tomo 1", 1988

ANNEX B

MARKET SURVEY ON POTENTIAL INVESTORS IN ECUADOR

ANNEX - B

**MARKET SURVEY ON POTENTIAL INVESTORS
IN ECUADOR**

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B.1 INTRODUCTION AND SUMMARY

B.1.1 Introduction

This Annex B presents the results of the Market Survey on Potential Investors in Ecuador. In view of the low response rate to the mail questionnaire survey of similar kinds in Ecuador, as well as to improve the expected rate of response of the Ecuadorian companies, the market survey was started with the short-interview survey with the primary objective of finding out whether Ecuadorian industries have any interest in locating factories in the Esmeraldas EPZ or not. The long-interview survey then followed, mainly to (1) measure the degree of their interest, (2) identify specific industries likely to be located in the Esmeraldas EPZ, and (3) confirm their requirements including factory lot, labor and utilities, as well as preferential measures/incentives.

B.1.2 Summary of Results of Survey

1) Short-interview survey

Inventory of manufacturing companies ("Registered companies") in operation in Ecuador was first prepared by referring mainly to the directories of the provincial chambers of commerce and industry, and the National Federation of Chambers of Production. Sample companies with which the short-interview should be conducted, were then selected by referring to the priority groups of industrial categories determined through the Study and by eliminating the companies of less than 10 employees.

Short-interview was carried out for these target companies, 813 in total. Out of the total companies, 543 effectively answered the interview by filling out the short-questionnaire, and 110 companies showed interest in locating in the Esmeraldas EPZ. Another 75 companies showed their interest in locating in the EPZ in other locations than Esmeraldas. These 185 companies are considered as "Possible" potential investors for the EPZ.

2) Long-interview survey

Long-interview was carried out by means of more detailed long questionnaire with the possible potential investors, 185 in total. Among these, the interests of 125 companies were rather vague without concrete idea for the investment. The other 60 companies were confirmed that they had clear program for investment in EPZs, of which 50 were interested in the Esmeraldas EPZ and the remaining 10 were interested in other EPZs possibly constructed in other areas of the country. These 60 companies are considered as "Likely" investors for

EPZs. Current locations of the likely investors for the Esmeraldas EPZ are Pichincha (22), Guayas (25) and Azuay (3).

Out of 50 likely investors for the Esmeraldas EPZ, 11 investors plan to produce apparel products, 11 to produce processed foods and the remaining investors to produce the products of plastics, perfumes, metal, wood furniture, printing, electrical and to repair used automobiles. Major target markets for their products are North America, Europe, and Latin American countries. Of 50 likely investors, 36 expressed their willingness to invest jointly with foreign partners.

Most of the investors require rather small factory lot; namely 45 investors (90%) require less than 1 ha and 5 (10%) between 1 ha and 3 ha. Majority of the investors (72%) would require between 5 and 99 employees.

B.2 PRELIMINARY SELECTION OF POTENTIAL INDUSTRIES

1) Selection method

Preliminary screening of possible categories of industries to be located in the Esmeraldas EPZ has been executed with a view to give directions in the selection of target enterprises through the questionnaire-interview survey in Ecuador, USA, Mexico and Japan. In the screening, industries by International Standard Industrial Classification have been evaluated from the view points that i) the labor intensive industries are desirable so as to create job opportunities in the Esmeraldas area where unemployment and sub-employment rates are substantially high, ii) the export oriented industries are expectable to promote foreign exchange earnings, and iii) the industries which utilize local resources are desirable to encourage domestic economy are expectable in view of the location of the Esmeraldas EPZ.

The labor intensive industries have been screened by means of the standard number of employees per unit of land (hectare) for industrial use, which has been researched and published by the Japan Industrial Location Center, as shown in Table B-1~3. The export oriented industries have been evaluated through the rates of export to total products of the existing Ecuadorian industries (about 200 industries), as shown in Table B-4. Availability of local resources for utilization by industries has also been evaluated through INEC's statistics in 1989.

Further, the industries located in the existing EPZs in the Hemisphere have been earmarked as they are also expectable to be located in the Esmeraldas EPZ. In view of the desirability of existence of the locally developed industries to support the new industrial investments, the scale of existing industries in Ecuador has been additionally evaluated by referring to the latest industrial survey by INEC.

2) Result of selection

Through the preliminary screening of industries to be located in the Esmeraldas EPZ, a total of 33 types of industries with a ranked priority have been selected, as shown in Table B-5~7 and B-8.

The industrial categories marked as (1) are highly desirable and highly expectable type of industries to be located in EPZ, and they include fish canning industries, spice grinding and coffee roasting industries, wearing apparel industries, and wood product processing industries. The industrial categories marked as (2) are desirable and highly expectable type of industries, and they include footwear industries, furniture industries, soap and perfume industries, electric housewares industries, batteries and toys, etc. The categories marked as (3) are highly desirable and expectable type of industries, and they include vegetable canning

industries, cocoa-chocolate manufacturing, leather products, cordage, rope and net manufacturing, and jewellery, etc. The categories marked as (4) are desirable type of industries, and they include animal feeds, made-up textile, office machinery, sporting goods, etc.

As noted above, the result of preliminary selection of potential industries (33 categories) will be referred to in the sample selection for short interview in Ecuador, as well as for mail questionnaire survey in USA, Mexico and Japan.

B.3 SHORT-INTERVIEW SURVEY

B.3.1 Sample Selection for Short-Interview

1) Inventory of registered companies

Inventory of manufacturing companies ("Registered companies") in operation in Ecuador was first prepared by referring to the directories of the provincial chambers of commerce and industry, and the National Federation of Chambers of Production, as shown below:

- Directorio de Afiliados a la Cámara de Industriales del Pichincha, 1990-1991.
- Directorio de Afiliados a la Cámara de Industriales del Guayas, 1988.
- Directorio de Afiliados a la Cámara de Industriales del Azuay, 1990.
- Directorio Industrial y Comercial 1990-1991.

Of 2,226 companies registered in the above directories, medium-to-large companies with more than 10 employees were selected and included in the inventory, in view of the capacity of the companies for investing and running export business in EPZ. Total number of companies included in the inventory was 1,733, and they were clarified by their current locations as follows:

Pichincha	Guayas	Azuay	Other Provinces	Total
677	749	122	185	1,733

2) Samples for short-interview

From 1,733 companies, sample companies for short-interview were selected by referring to the priority groups of industrial categories selected preliminarily on noted in B.2, which are shown in Table B-8.

Total number of short-interviews, thus, reached 789, excluding those which failed to respond to the survey teams contact and those who had stopped business operation. The number of these target companies by province is summarized as follows:

Pichincha	Guayas	Azuay	Other Provinces	Total
335	349	67	38	789

B.3.2 Questionnaire Design for Short-Interview

Instead of mail questionnaire survey, "short-interview" system was adopted to get higher response from the companies. The questionnaire design for short-interview is rather simple with the principle objective of identifying the industrial category of the companies and finding out if they have any interest in investing in the EPZ. The questionnaire for short-interview is reproduced in Attachment A.

B.3.3 Results of Short-Interview

Short-interview was made for 789 companies in total. Out of 789 interviewed companies, 185 companies (23.4%) showed their interest in investing in the EPZ in Ecuador, of which 110 companies (13.9%) showed interests in investing in the Esmeraldas EPZ and 75 companies (9.5%) in other areas of the country as summarized hereunder:

Current Location	Preferred Location of EPZs		Total
	Esmeraldas	Other Areas	
Pichincha	56	15	71
Guayas	37	41	78
Azuay	17	15	32
Other Provinces	-	4	4
Total	110	75	185

Companies in Guayas showed the strongest interest in investing in EPZ in Ecuador, while industries in Pichincha showed more interest in investing in the Esmeraldas EPZ.

The 75 companies not interested in investing in the Esmeraldas EPZ but interested in investing in the other areas in Ecuador mentioned the following preferential locations:

Current Location	Preferred Location of EPZs						Total
	Pichincha	Manabi	Guayas	Imbabura	El Oro	Azuay	
Pichincha	7	5	2	1	-	-	15
Guayas	-	7	33	-	1	-	41
Azuay	-	1	-	-	12	2	15
Other Areas	-	3	-	-	1	-	4
Total	7	16	35	1	14	2	75

Among the preferred locations, Province of Guayas where Guayaquil, the biggest commercial and trading city is located, comes first with 35 companies (46.7%) interested in

locating their factories in the EPZ.

B.4 LONG-INTERVIEW SURVEY

B.4.1 Sample Selection and Questionnaire Design for Long-Interview

1) Sample selection

Through the short-interview survey, 185 companies showed interest in investing in EPZ in Ecuador, and they were selected as samples for the long-interview survey.

2) Questionnaire design

The objectives of the long-interview survey are summarized as follows:

- a) To confirm and measure the degree of the companies interest in investing in EPZ.
- b) To obtain information on their investment plan.
- c) To confirm their requirement for the investment including labor, factory lot, utilities and incentives to be given to the investors.

The questionnaire was so designed that the above information and data should be provided through the long-interview. The questionnaire form for the long-interview is reproduced in Attachment B.

B.4.2 Results of Long-Interview

1) Magnitude of investment prospects

Out of 185 interviewees, some did not have sound ideas about the scope of their involvement in an EPZ and some failed to present their concrete ideas/plans for investment in an EPZ. Exclusive of these companies, 60 interviewees showed their keen interest in the investment with defined investment plans. The former, 125 companies in total, may be considered as "Possible" investors and the latter as "Likely" investors. Among 60 likely investors, 50 companies are interested in the Esmeraldas EPZ and the remaining 10 in other areas of the country. Number of likely investors are summarized below by preferred location and by current location of the company:

Current Location	Preferred Location of EPZ		Total
	Esmeraldas	Other Areas	
Pichincha	22	7	29
Guayas	25	-	25
Azuay	3	3	6
Other Provinces	-	-	-
Total	50	10	60

Number of both possible and likely investors by preferred location and by current location of the companies are given in Table B-9.

It should be noted that during the long-interview, a considerable number of interviewees were reluctant to release information about their investment plan for EPZ and dropped from the list of likely investors. However it may be reasonable to consider that some of them were interested in EPZ in Ecuador. With this in view, a total number of likely investors would be even bigger in reality.

2) Industrial categories of likely investors for Esmeraldas

Out of 50 likely investors in the Esmeraldas EPZ, 42 companies intend to manufacture the same kind of products as presently engaged and 3 companies intend to produce different types of products, while 3 did not mention the products. Category-wise, apparel and food processing come in the first place with 11 likely investors in each category, as summarized hereunder. Further details are shown in Table B-10.

ISIC	Category	Number of Likely Investors	(%)
311 - 312	Food manufacturing	11	(22.0)
321, 322, 324	Textile, apparel, footwear	11	(22.0)
331 - 332	Wood, furniture	3	(6.0)
342	Printing	2	(4.0)
352 - 356	Chemical and plastic	11	(22.0)
381 - 383	Metal, machinery	6	(12.0)
384	Transport equipment	1	(2.0)
	Not declared	5	(10.0)
Total		50	(100.0)

3) Target countries for export and competing countries

Main export markets expected by the likely investors are USA, Latin America and

Europe, while 9 companies did not give the names of the countries as target markets.

The expected competing countries noted by the interviewees were mostly Latin American countries including Columbia, Venezuela, Panama, Chile, Brasil and Peru. Taiwan was also mentioned by some investors.

4) Requirements of the likely investors for Esmeraldas

Requirements of the 50 likely investors for the Esmeraldas EPZ are summarized hereunder. Details are given in Table B-11~14.

(1) Foreign partner

Among 50 likely investors, 42 are of Ecuadorian capital, while 8 have foreign participation under current status. Out of the likely investors for Esmeraldas, more than half or 27 investors expressed their willingness to team up with foreign investors. Majority of them (18 companies) would like to go with US and European investors. Two companies would like to invest jointly with Japanese companies. Seven investors have no preference with regard to nationality of the partners.

(2) Employment requirement

Majority of the companies, or 36 out of 50 companies (72%), would employ between 5 to 99 workers each. Seven companies intends to employ more than 100 employees. Range of employment requirement is summarized hereunder:

Required Employment per Company	Number of Companies
100 ~ 499	7
30 ~ 99	13
5 ~ 29	23
Less than 4	3
No information	4
Total	50

(3) Factory lot requirement

Majority of companies or 45 companies (90%) would require the factory lot of less than 1 ha each as shown below:

Required Factory Lot per Company (m ²)	Number of Companies
20,000 ~ 30,000	3
10,000 ~ 20,000	2
2,000 ~ 10,000	13
Less than 2,000	18
Not yet decided	14
Total	50

(4) Requirement for water and electricity

According to the information provided through the interview survey, requirement for water by the 50 likely investors lies in the range of 2,000 m³ per day and requirement for electricity in the range of 2,500 kW.

(5) Type of factory

Out of 50 likely investors, 23 companies plan to rent pre-constructed factory (standard factory) and 20 are willing to build-their own factories. The remaining 7 companies have not yet decided.

(6) Mode and form of transport

Out of 50 likely investors, the largest number of companies (22) would require the access to the marine transport while 14 companies require combination of the various modes of transport as shown below:

Mode of Transport	Number of Companies
Airway	3
Marine	22
Land (Truck)	7
Combined	14
No information	4
Total	50

Majority or 32 companies require containers to deliver their products as shown below:

Form of Transport	Number of Companies
Container	32
Other than Container	10
Both	3
No information	5
Total	50

(7) Import requirement

About half of the responded companies intend to import more than 50% of their raw material from overseas. Six companies intend to depend fully on import for their raw materials, while 6 would require no imports. Dependability on imports is summarized hereunder:

Share of Imports (%)	Number of Companies
100	6
80 ~ 100	4
60 ~ 80	7
40 ~ 60	3
20 ~ 40	6
0 ~ 20	10
0	6
No information	8
Total	50

Table B-1 EVALUATION OF LABOR INTENSIVE INDUSTRY (1/3)

Classification		Plot (ha)	Employee (/ha)	Ranking
311-312	Food manufacturing			
3111	Slaughtering,preserving meat	1.9	54	B
3112	Daily products	2.0	45	C
3113	Canning of fruit,vegetable	0.9	83	B
3114	Canning of fish,crustacea	0.6	120	A
3115	Vegetable,animal oil	4.1	27	C
3116	Grain mill products	1.7	42	C
3117	Bakery products	0.8	147	A
3118	Sugar factories & refineries	10.6	10	C
3119	Cocoa,chocolate	1.0	77	B
3121	Not elsewhere classified	2.0	43	C
3122	Prepared animal feeds	2.1	6	C
313	Beverage industries			
3131	Distilling,blending spirits	4.2	25	C
3132	Wine industries	2.5	23	C
3133	Malt liquers and malt	6.2	15	C
3134	Soft drinks and water	3.2	34	C
314	Tabacco manufactures	7.9	42	C
321	Textile			
3211	Spinning,weaving of textiles	5.3	35	C
3212	Made-up textile goods	0.8	70	B
3213	Knitting mills	0.5	139	A
3214	Carpets & rugs	1.9	38	C
3215	Cordage,rope & twine	1.6	46	C
3219	Not elsewhere classified	1.8	49	C
322	Wearing apparel	0.3	213	A
323	Leather products			
3231	Tanneries & leather finishing	1.5	63	B
3232	Fur dressing & dyeing	1.6	58	B
3233	Products of leather	0.5	110	A
324	Footwear	0.5	187	A
331	Wood & cork products			
3311	Sawmills & wood product	2.0	27	C
3312	Wooden & cane containers	0.8	70	B
3319	Not elsewhere classified	1.1	49	C
332	Furniture & fixtures	1.2	63	B
341	Paper & paper products			
3411	Pulp,paper board	15.5	9	C
3412	Containers & boxes	1.2	54	B
3419	Not elsewhere classified	1.4	62	B
342	Printing,publishing	0.3	319	A
351	Chemicals			
3511	Basic industrial chemicals	7.1	16	C
3512	Fertilizers & pesticides	7.9	11	C
3513	Synthetic resins,plastic	23.2	18	C

Table B-2 EVALUATION OF LABOR INTENSIVE INDUSTRY (2/3)

	Classification	Plot (ha)	Employee (/ha)	Ranking
352	Other chemical products			
3521	Paints, varnishes & lacquers	2.3	48	C
3522	Drug & medicines	4.3	39	C
3523	Soap, perfumes, toilet goods	2.4	46	C
3529	Not elsewhere classified	4.3	30	C
353	Petroleum refineries	92.7	4	C
354	Miscellaneous products of petroleum & coal	3.4	24	C
355	Rubber products			
3551	Tyre & tube	13.3	45	C
3559	Not elsewhere classified	1.5	60	B
356	Plastic products not elsewhere classified	1.6	58	B
361	Pottery, china & earth ware	1.8	64	B
362	Glass & glass products	3.1	50	B
369	Other non-metal mineral			
3691	Structural clay products	6.4	22	C
3692	Cement, lime & plaster	3.9	16	C
3699	Not elsewhere classified	3.9	22	C
371	Iron & steel	13.0	16	C
372	Non-ferrous metal	5.7	27	C
381	Fabricated metal products			
3811	Cutlery, hand tools	1.0	77	B
3812	Furniture & fixtures	1.3	70	B
3813	Structural metal	2.4	39	C
3819	Not elsewhere classified	1.5	58	B
382	Machinery			
3821	Engines & turbines	13.1	40	C
3822	Agricultural machinery	2.1	57	B
3823	Metal & wood working	1.7	68	B
3824	Special industrial machinery	1.7	62	B
3825	Office machinery	1.5	103	A
3829	Not elsewhere classified	1.3	81	B
383	Electrical machinery, apparatus			
3831	Industrial machinery	1.3	106	A
3832	Radio, television, etc.	1.0	157	A
3833	Electrical husewares	1.1	120	A
3839	Not elsewhere classified	1.2	134	A
384	Transport equipment			
3841	Ship building & repairing	7.2	25	C
3842	Railroad equipment	2.2	70	B
3843	Motor vehicles & parts	3.9	67	B
3844	Motor cycles & bicycles	1.3	74	B
3845	Aircraft	6.0	76	B
3849	Not elsewhere classified	1.9	55	B

Table B-3 EVALUATION OF LABOR INTENSIVE INDUSTRY (3/3)

Classification		Plot (ha)	Employee (/ha)	Ranking
385	Professional equipment			
3851	Not elsewhere classified	1.0	136	A
3852	Photographic & optical goods	1.0	145	A
3853	Watches & clocks	1.0	147	A
390	Other manufacturing industries			
3901	Jewellery & related articles	0.3	219	A
3902	Musical instruments	1.6	111	A
3903	Sporting & athletic goods	0.9	89	B
3909	Not elsewhere classified	0.8	77	B
Total average		2.3	53	

Labor intensity: A: more than 100 employees/ha
 B: 50-99 employees/ha
 C: less than 49 employees/ha

Source: Plot size and number of employee per hectare are based on the data of Japanese Industrial Location Center.

Table B-4 EXPORT ORIENTED INDUSTRY IN ECUADOR

Classification	Total Production (million Sucres)	Total Export (million Sucres)	Rate of export (%)	Ranking
3111	4,642	193	4.2	B
3114	8,632	8,100	93.8	A
3118	84,677	45,110	53.3	A
3119	24,580	4,080	16.6	B
3121	28,514	15,249	53.5	A
3134	14,973	1,118	7.5	B
3140	43,856	186	0.4	-
3211	4,482	94	2.1	B
3215	419	42	10.0	B
3220	3,589	447	12.5	B
3311	93,068	3,600	3.9	B
3412	54,776	32,755	59.8	A
3419	4,427	10	0.2	-
3522	12,870	781	6.1	B
3529	11,786	238	2.0	B
3720	4,764	168	3.5	B
3819	38,710	7,725	20.0	B
3833	6,592	19	0.3	-
3843	18,600	1,020	5.5	-
Total	464,057	120,935	26.1	

Raning: A: more than 50%
B: less than 50%

Table B-5 PRELIMINARY SELECTION OF INDUSTRIAL CATEGORY FOR QUESTIONNAIRE SURVEY (1/3)

Classification	Desire			Expectation		Total evaluation
	Labor int.	Export indus.	Local resou.	Exis. EPZ	Exis. indus.	
311-312	Food manufacturing					
3111	B	B	X		A	3
3112			X		A	
3113	B		X		B	3
3114	A	A	X	X	A	1
3115			X		A	4
3116			X		A	
3117	A				A	
3118		A			A	
3119	B	B	X		A	3
3121		A	X	X	A	1
3122			X		A	4
313	Beverage industries					
3131					B	
3132					B	
3133					B	
3134	B	X			A	3
314	Tobacco manufactures					
321	Textile					
3211		B			A	
3212	B				B	4
3213	A				B	
3214					B	
3215		B	X	X		3
3219					B	
322	A	B		X	B	1
323	Leather products					
3231	B	B	X		B	-
3232	B					
3233	A		X	X		3
324	Footwear					
324	A		X	X	B	2
331	Wood & cork products					
3311		B	X	X	A	1
3312	B		X			
3319			X			
332	Furniture & fixtures					
341	B		X	X	B	2
341	Paper & paper products					
3411					A	
3412	B	A			A	3
3419	B				B	
342	Printing,publishing					
342	A				A	
351	Chemicals					
3511					A	
3512					B	
3513					A	
352	Other chemical products					
3521					A	
3522	B			X	A	2
3523			X	X	A	2
3529	B				A	2
353	Petroleum refineries					
354	Miscellaneous products of petroleum & coal					
354					B	

Table B-6 PRELIMINARY SELECTION OF INDUSTRIAL CATEGORY FOR QUESTIONNAIRE SURVEY (2/3)

	Classification	Desire			Expectation		Total evaluation
		Labor int.	Export indus.	Local resou.	Exis. EPZ	Exis. indus.	
355	Rubber products						
3551	Tyre & tube					A	
3559	Not elsewhere classified (gloves,mats,sponges,etc.)	B			X	B	2
356	Plastic products not elsewhere classified(plastic cup,mats,etc.)	B			X	A	2
361	Pottery,china & earth ware	B					
362	Glass & glass products	B					
369	Other non-metal mineral						
3691	Structural clay products					B	
3692	Cement,lime & plaster					A	
3699	Not elsewhere classified					A	
371	Iron & steel					A	
372	Non-ferrous metal		B			B	
381	Fabricated metal products						
3811	Cutlery,hand tools	B				B	
3812	Furniyure & fixtures	B				B	
3813	Structural metal					A	
3819	Not elsewhere classified (metal cans,steel springs,etc.)	B	B			A	3
382	Machinery						
3821	Engines & turbines	B				B	
3822	Agricultural machinery	B					
3823	Metal & wood working	B					
3824	Special machinery	A					4
3825	Office machinery	B				B	4
3829	Not elsewhere classified (pump,air conditioning machine,etc.)						
383	Electrical machinery						
3831	Industrial machinery	A			X	B	2
3832	Radio,television,etc	A			X	B	3
3833	Electrical housewares	A			X	B	2
3839	Not elsewhere classified (insulated wire,batteries,etc.)	A			X	A	2
384	Trasport equipment						
3841	Ship building & repairing	C					
3842	Railroad equipment	B					
3843	Motor vehicles & parts	B			X	A	3
3844	Motor cycles & bicycles	B					
3845	Aircraft	B					
3849	Not elsewhere classified	B					
385	Professional equipment						
3851	Not elsewhere classified	A				B	
3852	Photographic goods	A			X		4
3853	Watches & clocks	A			X		4

Table B-7 PRELIMINARY SELECTION OF INDUSTRIAL CATEGORY FOR QUESTIONNAIRE SURVEY (3/3)

Classification	Desire			Expectation		Total evaluation
	Labor int.	Export indus.	Local resou.	Exis. EPZ	Exis. indus.	
390 Other manufacturing industries						
3901 Jewellery & articles	A		X	X		3
3902 Musical instruments	A					
3903 Sporting & atheletic goods	B					4
3909 Not elsewhere classified (toys,pen,cosume jewellery,umbrellas,etc.)	B		X	X	B	2

Remarks:

- 1) Labor intensity: A: more than 100 employees/ha
B: 50-99 employees/ha
- 2) Export industry: A: more than 50 % of total product is for export
B: more than 10 % of total product is for export
- 3) Popular industry in existing EPZ of central/south america
- 4) Existing industry in Ecuador: A: industry produces more than 10 billion Sucres
B: industry produces more than 1 billion Sucres
- 5) Total evaluation 1: First priority
2: Second priority industry
3: Third priority
4: Fourth priority

Table B-8 PRIORITY GROUPS OF INDUSTRIES FOR SHORT-INTERVIEW

ISIC	Industries
311 - 312	Food manufacturing
3111	Slaughtering, preserving meat
3113	Canning of fruit, vegetable
3114	Canning of fish, crustacea
3115	Vegetable, animal oil
3119	Cocoa, chocolate
3121	Not classified (spice, coffee, etc.)
3122	Prepared animal feeds
313	Beverage industries
3134	Soft drinks and water
321	Textile
3212	Made-up textile goods
3215	Cordage, rope & twine
322	Wearing apparel
323	Leather products
3233	Products of leather (luggage, bags)
324	Footwear
331	Wood & cork products
3311	Sawmills & wood product
332	Furniture & fixtures
341	Paper & paper products
3412	Containers & boxes
352	Other chemical products
3522	Drug & medicines
3523	Soap, perfumes, toilet goods
355	Rubber products
3559	Not classified (gloves, mats, etc.)
356	Plastic products not classified (plastic cup, mats, etc.)
381	Fabricated metal products
3819	Not classified (metal cans, etc.)
382	Machinery
3825	Office machinery
3829	Not classified (pump, air con., etc.)
383	Electrical machinery, apparatus
3831	Industrial machinery
3832	Radio, television, etc.
3833	Electrical housewares
3839	Not classified (batteries, etc.)
384	Transport equipment
3843	Motor vehicles & parts
385	Professional equipment
3852	Photographic & optical goods
3853	Watches & clocks
390	Other manufacturing industries
3901	Jewellery & related articles
3903	Sporting & athletic goods
3909	Not classified (toys, pen, etc.)
Total	33 types

Table B-9 NUMBER OF POSSIBLE AND LIKELY INVESTORS BY PREFERRED LOCATION OF EPZs AND CURRENT LOCATION

Current Location	Possible			Likely			Grand Total		
	Esmeraldas	Other Areas	Total	Esmeraldas	Other Areas	Total	Esmeraldas	Other Areas	Total
Pichincha	34	8	42	22	7	29	56	15	71
Guayas	12	41	53	25	-	25	37	41	78
Azuay	14	12	26	3	3	6	17	15	32
Other Provinces	-	4	4	-	-	-	-	4	4
Grand Total	60	65	125	50	10	60	110	75	185

Table B-10 CATEGORIES OF INDUSTRIES FOR LIKELY INVESTORS
FOR ESMERALDAS EPZ

ISIC	Category	Number of Likely Investors
3113	Canning of fruits and vegetables	5
3114	Canning of fish and crustacea	3
3121	Food products not elsewhere classified	2
3122	Manufacture of prepared animal feeds	1
3211	Spinning, weaving and finishing textiles	1
3212	Manufacture of made-up textile goods	2
3220	Manufacture of wearing apparel	7
3240	Manufacture of footwear	1
3311	Sawmills, planing, and other wood mills	2
3320	Manufacture of furniture and fixtures	1
3420	Printing, publishing and allied industries	2
3523	Manufacture of soap, perfumes, cosmetics	5
3560	Manufacture of plastic products	6
3812	Manufacture of furniture of metal	1
3813	Manufacture of structural metal products	1
3819	Manufacture of fabricated metal products	2
3831	Manufacture of electrical machinery	1
3833	Manufacture of electrical appl. and housewares	1
3843	Manufacture of motor vehicles	1
----	Activity not declared	5
Total		50

Table B-11 REQUIREMENTS OF LIKELY INVESTORS FOR ESMERALDAS EPZ (1/4)

No.	Location	Current Product	No. of Employees	Ave. Salary (US\$)	Product in EPZ	Target Country for Export	Competing Countries	Mode of Transport	Form of Transport	Foreign Partner	Lot Required in the EZ (m ²)	Rental/ Own Factory	Employees in EPZ (No.)
Not Declared													
1	Quayaquil	Animal Feed	100	N.A.	N.A.	N.A.	N.A.	Ship	Container	N.A.	N.A.	N.A.	N.A.
2	Guayaquil	Banano Shrimp Fish	100	300	N.A.	N.A.	N.A.	Airplane-Ship	Container	N.A.	N.A.	Rental	100 - 499
3	Cuenca	Panama Hat's Preforms	60	50	N.A.	N.A.	N.A.	Airplane	N.A.	Japan	Not decided	Own	5 - 29
4	Guayaquil	Plastics	42	130	N.A.	Colombia, USA	Chile	Ship	Container	USA	Not decided	Own	30 - 99
5	Quito	Steel, Leather, Explos.	2357	N.A.	N.A.	N.A.	N.A.	-	-	Anyone	Not decided	-	-
Food													
6	Quito	Canned Shrimps	N.A.	N.A.	Canned Shrimps	French, Ger.	Chile	Ship	Container	French	20,000 - 30,000	Own	30 - 99
7	Quito	Real State	6	80	Gathering and Trade	N.A.	N.A.	Ship	No Container	N.A.	Less 2,000	Rental	Less 4
8	Quito	Canned Fruits and Veg.	40	60	Canned Fruits	Ger., French	Brasil	Ship	Container	-	Not decided	Rental	5 - 29
9	Guayaquil	Bananas and Livestock	60	50	Banana Flour	USA	Mexico, Singapore	Ship	Container	USA	Not decided	Own	100 - 499
10	Quito	Food Products	25	70	Canned Fruits	Europe	Chile	Ship	Container	N.A.	2,000 - 10,000	N.A.	5 - 29
11	Quito	Canned Palm. and Aspar.	35	75	Canned Food	Spa., Fra., Ger.	Chile, Colombia	Ship	Container	French	20,000 - 30,000	Own	30 - 99
12	Guayaquil	Dry Shark's Small Wing	12	44	Dry Small Wings	USA, Hong Kong	Mexico, Venez.	Airplane-Ship	Both Forms	Anyone	2,000 - 10,000	Rental	5 - 29
13	Guayaquil	Shrimp	255	100	Seafood	Europe	-	Ship	Container	-	Less 2,000	Rental	5 - 29
14	Guayaquil	Eiscream's Cream, Sirup	8	60	Creams, Sirups	Anywhere	N.A.	N.A.	Container	USA	Not decided	Own	-
15	Quito	Fried Potatos	80	70	Fried Potatos	Colombia	Venezuela	Ship-Truck	Container	No	Less 2,000	Rental	5 - 29

Table B-12 REQUIREMENTS OF LIKELY INVESTORS FOR ESMERALDAS EPZ (2/4)

No. Location	Current Product	No. of Employees	Ave. Salary (US\$)	Product in EPZ	Target Country for Export	Competing Countries	Mode of Transport	Form of Transport	Foreign Partner	Lot Required in the EZ (m ²)	Rental/ Own Factory	Employees in EPZ (No.)
16 Guayaquil	Animal Feed	150	55	Animal Feed	C. Amer.,	Andeanown Industries	Ship	Container	USA	10,000 - 20,000	Own	30 - 99
Textile/Apparel												
17 Quito	Textil Labels	60	65	Labels	USA, Andean	N.A.	Airplane	No container	-	Less 2,000	Rental	30 - 99
18 Quito	Blankets, Bedclothes	400	70	Blankets	N.A.	N.A	Airplane-Truck	No container	No	Less 2,000	Rental	5 - 29
19 Quito	Underclothes	190	100	Underclothes	USA, Europe	Taiwan	Airplane-Ship	Container	USA	2,000 - 10,000	Rental	30 - 99
20 Guayaquil	Cosmetics and Apparel	24	44	Apparel	USA	Panama, Colombia	Airplane-Ship	Container	USA, Japan	Less 2,000	Rental	30 - 99
21 Guayaquil	Sport Wear	50	50	Sport Wear	No export	-	Truck	No container	-	Not decided	N.A.	N.A.
22 Guayaquil	Textiles	180	60	Apparel	USA, Europe	Panama, Colombia	Airplane-Ship	Container	Anyone	Not decided	Rental	500 - 499
23 Quito	Cloth	120	60	Under-shirts	USA, Europe	C. America, Asia	Ship	Container	Europe	20,000 - 30,000	Own	30 - 99
24 Guayaquil	Jewelry and Watches	12	44	Textiles	Europe, USA	Colombia, Peru	N.A.	Container	Europe	Less 2,000	Rental	5 - 29
25 Guayaquil	Sport Wear	50	50	Sport Wear	No export	-	Truck	No container	-	Not decided	Rental	5 - 29
26 Quito	Cotton Textiles	2266	80	Apparel	USA, Europe	Colombia, Mexico, Japan	Ship	Container	N.A.	2,000 - 10,000	Rental	30 - 99
Leather Shoes												
27 Guayaquil	Microcell Plates	120	80	Shoes	USA	Panama, Chile	Ship	Container	USA	2,000 - 10,000	Rental	100 - 499
Wood/Furniture												
28 Guayaquil	Balsa Wood	44	44	Balsa Wood	USA, Europe	N.A.	Ship	Container	Anyone	10,000 - 20,000	Rental	5 - 29

Table B-13 REQUIREMENTS OF LIKELY INVESTORS FOR ESMERALDAS EPZ (3/4)

No.	Location	Current Product	No. of Employees	Ave. Salary (US\$)	Product in EPZ	Target Country for Export	Competing Countries	Mode of Transport	Form of Transport	Foreign Partner	Lot Required in the EZ (m ²)	Rental/ Own Factory	Employees in EPZ (No.)
29	Cuenca	Wood Preforms	12	60	Wood Preforms	USA, Japan, Europe	Chil., Bra., Col., Ven.	Ship-Truck	Container	-	2,000 - 10,000	Rental	5 - 29
30	Guayaquil	Furniture	10	100	Furniture	Andean Pact	Colombia, Peru	Ship	Container	Europe	Less 2,000	N.A.	100 - 499
Printing													
31	Guayaquil	Labels	63	95	Labels	Canada, USA	Taiwan	Ship-Truck	Container	-	Not decided	Own	5 - 29
32	Guayaquil	Labels	57	70	Labels	Anywhere	Colombia, Venezuela	Airplane-Ship	Container	USA, Europe	Less 2,000	Rental	30 - 99
Perfumes/Cosmetics													
33	Guayaquil	Soap	150	45	Soap, Cream	Europe	Panama, Colombia	Truck	Container	USA, Anyone	Less 2,000	Rental	5 - 29
34	Quito	Tooth Paste and Brushes	72	N.A.	Tooth Paste	South America	Chile	Airplane-Ship	Container	Anyone	Not decided	Rental	Less 4
35	Guayaquil	Cologne Water	42	200	Cologne Water	Colombia	Colombia	Truck	Container	Ger., USA	2,000 - 10,000	Own	5 - 29
36	Quito	Shampoos, Creams	14	80	Cosmetics	N.A.	N.A.	Airplane-Ship	No container	N.A.	Less 2,000	Own	5 - 29
37	Guayaquil	Trisodium Phosphat	15	44	Detergent	Andean, USA	Brasil	Ship	Container	Anyone	2,000 - 10,000	Own	5 - 29
Plastics													
38	Guayaquil	Plastics	15	70	Plastics	South America	Panama	Ship	Container	Panama, USA	Less 2,000	Own	5 - 29
39	Quito	Polipropilene Film	30	10	Poli-ethilene Firm	Colombia	Colombia	Truck	No container	-	Less 2,000	Rental	5 - 29
40	Quito	Poliethilene Film	27	130	Poli-ethilene Film	USA., C. America	Chile, Colombia	Ship	Container	No	2,000 - 10,000	Own	5 - 29
41	Guayaquil	Plastics	220	44	Plastics	Peru	N.A.	Truck	No container	USA	Less 2,000	Own	100 - 499

Table B-14 REQUIREMENTS OF LIKELY INVESTORS FOR ESMERALDAS EPZ (4/4)

No.	Location	Current Product	No. of Employees	Ave. Salary (US\$)	Product in EPZ	Target Country for Export	Competing Countries	Mode of Transport	Form of Transport	Foreign Partner	Lot Required in the EZ (m ²)	Rental/ Own Factory	Employees in EPZ (No.)
42	Guayaquil	Plastics and Shoes	110	55	Plastics and Shoes	USA	N.A.	Ship	Container	-	Less 2,000	Rental	100 - 499
43	Guayaquil	Plastic Bottles	150	100	Plastic Bottles	N.A.	Panama	Truck	Container	Anyone	Not decided	Rental	Less 4
Metal													
44	Quito	Furniture and Struct.	60	150	Water Taps, Kitchen	USA	USA	Ship	Both forms	Ger-Bel-Spa	2,000 - 10,000	Own	30 - 99
45	Cuenca	Aluminium Carpenter	80	100	Aluminium Windows	Andean C. America	Col., Ven., Mexico	Ship-Truck	No container	N.A.	2,000 - 10,000	Rental	30 - 99
46	Quito	Galvanic Products	24	100	Metal Coating and Galvanic	No	No	-	-	N.A.	Less 2,000	Own	5 - 29
47	Quito	Coating, Galvanic Prod.	13	70	Coating and Galvanic	N.A.	N.A.	Ship	N.A.	N.A.	Less 2,000	Own	5 - 29
Electrical													
48	Quito	Electrical Devices	120	170	Electrical Devices	Peru, Brasil	Col., Ven., Chil	Airplane	No container	No	2,000 - 10,000	Own	30 - 99
49	Quito	Neon's Identif. Labels	24	110	Lamps	Latin America	N.A.	Air-Ship-Truck	Both forms	N.A.	Less 2,000	Rental	5 - 29
Vehicles													
50	Quito	Spare Parts for Auto	70	100	Repair of used motors	USA	No	Ship	Container	USA	2,000 - 10,000	Own	5 - 29

Attachment A Questionnaire for Short-Interview Survey
on Export Processing Zone in Ecuador

Name of the interviewee : _____

Telephone of the interviewee: _____

I. IDENTIFICATION OF THE COMPANY: _____

1) Name of the company: _____

2) Address: _____

3) Product: _____

4) CIU: _____

II. INTEREST OF THE COMPANY FOR INVESTMENT IN FREE ZONES IN
ECUADOR

1) Is the company interested in investing in the future in the free zone of Esmeraldas?

YES

NO

2) Is the company interested in investing in a free zone locate din other place in Ecuador?

YES

NO

3) If the foregoing answer is positive, where would be located the free zone?:

Attachment B Questionnaire for Long-Interview Survey
on Export Processing Zone in Ecuador (1/2)

Name of the interviewee : _____

Telephone of the interviewee: _____

I. IDENTIFICATION OF THE COMPANY: _____

1) Name of the company: _____

2) Address: _____

3) Product: _____

4) Amount of capital (Suces): _____

5) Type of capital

Ecuadorian

With foreign partner

6) Gross value of output per annum (Suces): _____

II. CURRENT PRODUCTION

1) Kinds of products and their production volume (Ton/year): _____

2) Share of exports in total production by country (Ton/year): _____

3) Number of employees: _____

4) Average salary per month for workers (Suces): _____

III. FUTURE INVESTMENT IN THE FREE ZONE

1) What products will you produce in the free zone? _____

2) What are the target countries for exportation? _____

3) What is the reason to export to this countries? _____

4) Where are the competing countries or free zones? _____

5) Way of transport for the products?

Air

Ship

Truck

Questionnaire for Long-Interview Survey
on Export Processing Zone in Ecuador (2/2)

6) Mode of transport for the products?

Container No container

7) Percent of imported raw materials in total? _____

8) Value of imported raw materials (US\$)? _____

9) Amount of investment in the free zone (US\$) _____

10) Are you willing to invest with a foreign partner?

Yes No

11) Which nationality? _____

12) Physical space requirement in the free zone?

more than 50,000 m² 20,000~30,000 m² 10,000~20,000 m²
2,000~10,000m² less than 2,000 m² difficult to decide

13) Water requirement (m³/dia): _____

14) Electricity requirement (Kw y Kwh/dia): _____

15) The factory building, warehouse and offices in the free zone

will be rented will be owned by the user company

16) How many employees will you employ?:

more than 500 100~499 30~99
5~29 less than

17) What incentives would make attractive your investment in the free zone?: _____

ANNEX C

MARKET SURVEY ON POTENTIAL INVESTORS IN USA AND MEXICO

ANNEX-C

MARKET SURVEY ON POTENTIAL INVESTORS IN USA AND MEXICO

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C.1 INTRODUCTION AND SUMMARY

C.1.1 Introduction

This Annex-C presents the results of the investment demand survey on potential investors in USA and Mexico, which was carried out through mail questionnaires and interviews.

The main objective of this survey is to measure the degree of the investor interest in the Esmeraldas EPZ as well as to identify the specific type of industries to be located in the EPZ. Another objective is to identify the requirements of the potential investors including requirement of the inputs and utilities, and reliability of the services to be provided in the Esmeraldas EPZ.

C.1.2 Summary of Survey Results

The survey identified specific industry groups, subsectors, and individual firms with high or intermediate interest in this investment prospect and has tabulated their stated requirements for eventual location in Esmeraldas, which constitute an initial set of recommendations for the developers of the EPZ. The survey results are briefly summarized hereunder.

1) Questionnaire survey

A three-step process has been followed when designing the sample of investors to receive the survey questionnaire:

- a) A set of target industries have been selected first, including groups deemed most likely to locate in Esmeraldas and those that would be of most support to the local economy.
- b) Published sources of information and addresses of specific companies in the target industries have been selected by means of using 12 separate published lists of appropriate investors.

The questionnaire was sent to 1,246 companies with 1,014 net mailing. Out of 1,014, 80% are located in the United States, 16% in Mexico, and 4% are Asian and European companies that locate factories in free zones and maquiladora in USA and Mexico. The response rate was 2.8%, i.e., 28 out of 1,014 net mailing, which may have partly been an indication of a low level of interest in an EPZ still under development. Detailed analysis of the

completed questionnaires, however, yielded conclusions likely to be useful to the promoters of the Esmeraldas EPZ. They are:

- a) The most responsive and positive industry surveyed was the apparel industry. The electronics and food industries - expected to respond positively - were less enthusiastic about locating in Esmeraldas. Out of 28 responses, 10 expressed their positive interest in the following manner:

"Are you interested in locating your new facility in Esmeraldas EPZ?"

Positive Interest through Mail Questionnaire

	Yes	Most Likely	Possibly
Construction	1		
Wood Furniture			1
Apparel		1	3
Electronics			2
Food			1
Unknown			1
Total	1	1	8

- b) Most firms responding were from the United States. Only one Mexican firm seemed interested in investing, and no Asian or European investors responded positively.
- c) Most of the good investment prospects were large companies (those with annual sales of more than US\$50 million).
- d) Companies with significant overseas experience (usually prior FTZ investment or "drawback" production) responded more positively.

The conditions required by investors from the above groups before locating in Esmeraldas are of paramount importance to ZOFREE. These conditions are as follows.

- a) Most investors expect a preconstructed, standard factory, designed and built by ZOFREE.
- b) Most investors would prefer lower costs in specific areas, namely taxes (referring to the 2 percent foreign exchange fee) and labor (referring to the 10 percent premium of the legal minimum and the profit-sharing requirement).
- c) Most of the investors require skilled labor, although the definition of that term

and the type of skill involved appeared to vary greatly among respondents.

- d) Many prospective investors cite the need for a "track record" for the EPZ and for assured institutional support, indicating a need for specific organizational elements on the part of ZOFREE or some broader promotion agency.

2) Direct interview survey

Candidates for direct interviews have been selected from four sources: (1) investors responding positively to the mail questionnaire; (2) investors responding positively to telephone follow up; (3) investors recommended by other positive respondents or industry analysts; and (4) investors from the target industries allowing a drop-in interview during field visits. On the basis of initial questionnaire returns and telephone follow up, investor concentrations in New York City, Miami, and Southern California for on-site interviews have been selected. Eventually, approximately 400 telephone calls have been made, 73 firms have been visited, and 41 interviews have been conducted yielding sufficient data to be useful to the survey.

Most of the individuals interviewed were the presidents or chief executive officers of their firms. Those from larger corporations tended to be regional specialists, usually vice presidents or directors of marketing for Latin America. Those interested in new investment abroad were more willing to provide complete information. The interviewers encouraged even those not responding positively, however, to indicate why they were not interested and under what conditions they might become interested. The results supported the initial conclusions reached during the mail survey stage, as follows:

- a) Out of 10 positive responses of mail questionnaire survey, 5 were dropped from the list of high probable companies for investing in the Esmeraldas EPZ after confirmation of their interest through interview. One company of rattan furniture, which was not included among 28 positive responses, was added in the list through interview survey.

High probable companies have been thus identified as follows:

Apparel	3
Automobile parts	1
Rattan furniture	1
Developer of industrial construction	1

- b) Most of the firms responding positively (83%) were located in the United States, and most (also 83 %) had previously invested abroad.

- c) Two-thirds of the firms responding positively were large corporations, with more than US\$50 million in sales per year.

These interviewees provided detailed information about their requirements before actually locating in a site such as Esmeraldas. A summary of their comments, concentrating on the requirements of the most probable group of investors - apparel manufacturers - follows:

- a) Prebuilt factory buildings. Most interviewees would require a standard, prebuilt factory. Certain investors cited examples of existing EPZs without buildings next to fully occupied zones with prebuilt factories. Esmeraldas EPZ would obviously be at a disadvantage without competitive construction.
- b) Labor availability. The availability of reliable and at least minimally trained labor at competitive rates is unquestionably the major reason for investing in a foreign EPZ. If such labor were not available, no company would consider investing there without guarantee of an adequate labor force, and companies cite scarce trained labor as a primary reason not to invest in particular areas. In many cases, the interviewees also mentioned the difficulty of finding talented supervisory workers.
- c) Labor relations. Several prospective apparel investors stated that if there were a hint of unionization in Esmeraldas, they would not invest there. This attitude underscores the basic rationale for investing in these areas to begin with low-cost labor and on-time delivery. In this respect, most interviewees mentioned that labor codes should be conducive to friction-free production schedules, rather than exacerbating labor problems or facilitating labor militancy.
- d) Government regulations. Burdensome government requirements and instability of those requirements are endemic to Latin America. Ecuador would have to provide assurance that relevant regulations will not change drastically and that taxes would not be imposed after these companies invest. In addition, investors require that paperwork be kept to a minimum.
- e) Transportation. Reliable cargo lines and frequent shipments are crucial to meeting deadlines. Many interviewees seemed to suspect that Ecuador may have problems in this area.
- f) Reliable electricity. Both apparel manufacture and electronics component manufacture require consistent electrical power, not only because the primary machinery involved requires electricity, but also because timely delivery of the finished product is essential. Certain other free zones have been characterized by

erratic electricity supplies and unreliability. In many instances, individual manufacturers have had to purchase their own generators to ensure production, an additional cost detracting from the advantages of a free zone.

The low-probability investors in the interview sample gave the following reasons for their lack of interest in locating in Ecuador:

- a) 18% of the low-probability investors wanted access to new markets either within Ecuador or in neighboring countries.
- b) Input costs were not as much as issue for these investors as were reliable transportation, electricity, communications systems and banking systems.
- c) Several companies cited that they had negative experiences with bureaucratic regulations and labor policies, which resulted in lower profitability.
- d) Several companies stated that they already had manufacturing facilities in the Caribbean and Central America, and the added costs of doing business in Ecuador, particularly the added shipping costs, made an investment unattractive.
- e) Many investors stated that they would not be willing to risk investment in a new free zone with no proven track record. This issue was particularly important for apparel manufacturers, who require semiskilled, trained laborers.

C.2 QUESTIONNAIRE SURVEY

This chapter presents the results of the mail questionnaire survey of potential investors in the Esmeraldas EPZ. The first two sections of the chapter describe the methods of sample selection and design of the questionnaire. The final section presents the results of the survey in statistical terms and in terms of the actual prospects for investment in Esmeraldas. Because this chapter of the report depends entirely on brief questionnaire responses, with no direct interviewing of respondents, the analysis and conclusions are largely statistical. The tables presented in the last section of the chapter lead to three basic conclusions: (1) a reasonable level of interest in the Esmeraldas EPZ exists among U.S. and Mexican investors; (2) interest is represented more heavily in specific industries and among specific types of firms; and (3) investors require assurance of certain conditions in the EPZ before investment.

C.2.1 Method of Sample Selection

The selection of potential investors to be surveyed was a three-step process. First, a preliminary selection of target industry categories has been conducted in view of the general issues on the location of EPZ in Esmeraldas. On the basis of the preliminary selection of industry categories, U.S. and Mexican databases have been searched for names and addresses of potential investors in these industrial categories, concentrating on investors with prior experience in Latin America and the Caribbean. Finally, target investors have been selected, factoring in several selection criteria in addition to the target industrial categories.

1) Industry group selection

Three major factors have been considered in the preliminary selection of industrial categories. These factors are listed hereunder in order of importance.

- (a) Labor-intensiveness is the most important factor because one of the major goals of the Esmeraldas EPZ is to create new job opportunities and decrease the high rate of unemployment in the region.
- (b) Focus on export is also important because exports would increase Ecuadorean foreign currency reserves and because their promotion need not damage established Ecuadorean firms.
- (c) Use of local resources is also important, both because firms that use them are more likely to invest in Ecuador and because their production would help to develop the Ecuadorean domestic economy.

On the basis of these factors, 33 industrial categories have been selected to be surveyed. The industries in these categories fell into four groups, defining general areas of priority.

- (a) **First priority group:** fish canning and processing; spice grinding and coffee roasting; apparel; and wood product manufacturing.
- (b) **Second priority group:** footwear; furniture; soap and perfume; electric housewares; and toys.
- (c) **Third priority group:** vegetable canning; cocoa and chocolate manufacturing; rope and cordage; leather products; paper containers and boxes; palm products; and jewelry.
- (d) **Fourth priority group:** animal feeds; prepared textiles; office machinery; watches; and sporting goods.

2) Sources of sample data

The guiding principle behind the selection of sample sources (in contrast to the selection of target industry groups) was that firms already operating in Latin American countries would be more likely to invest in new EPZs than might others. Accepting this principle narrowed the number of potential interviewees considerably; rather than addressing a database of all North American investors, more specific and manageable groups of firms could be selected. The full set of sample sources used for this survey is presented in Table C-1, which indicates the name of the data source and the location of potential interviewees from that source, and describes the content and origin of the files.

Sample sources have been developed by compiling information from two relevant files readily accessible. The first was the Haiti/PROMINEX list, a file of past and potential investors in the Haiti FTZ. The second sample source consisted of two files of investors developed by the U.S. Department of Commerce (DOC) — one from the recent Caribbean Basin Initiatives Survey (CBIS) conducted by DOC and another from an earlier DOC investment survey [called the Center for Development Information and Evaluation (CDIE)¹ list in this report.]

An additional source of information consistent with the basic selection principle was the files of currently operating FTZs. Assuming that firms already investing in FTZs are more likely to invest in a new FTZ than firms never having invested abroad, 10 different

¹ CDIE is the office of A.I.D. that originally supplied this list of investors.

government promotion agencies and FTZs in the Latin American region have been contacted. Several contacts provided partial information and two provided complete U.S. parent company names and addresses — the Asociación Dominicana de Zonas Francas (ADOZONA), the Free Trade Zone Association of the Dominican Republic, and the Embassy of the Republic of Panama in Washington, D.C.

Another major source of information on potential investors was the Secretaria de Comercio y Fomento Industrial (the Ministry of Trade and Industrial Promotion of Mexico), which supplied the Directory of Mexican Maquiladoras. This directory listed not only the Mexican maquiladoras, but also the U.S. firms associated with them, enabling the team to use this list for both the U.S. and the Mexican surveys.

To supplement the U.S. list of target investors, contacts were made with the Overseas Private Investment Corporation (OPIC), a semipublic U.S. agency that aids U.S. exporters and that has collected data on firms interested in investing abroad. From OPIC, a list of 300 potential overseas investors was obtained and 54 were selected on the basis of the industry selection criteria.

For the Mexican survey, three additional sample sources were used in addition to the Maquiladora list. Mexican trade associations were contacted, which supplied lists of Mexican firms producing items most often exported from Ecuador, usually items produced from Ecuadorean natural resources. The third additional source was the Mexican Exporters Directory, from which 40 additional enterprises producing and exporting products of the same categories from Ecuador to Mexico were selected.

Several of these files included firms from Asian and Europe. To supplement this selection and to enrich the survey sample, contacts were made with the Korea Trade Center and the Taiwan Investment and Trade Office. These two institutions — mixed private sector/public sector trade and investment promotion agencies — provided lists of investors from their respective countries who were interested in equity investment in the Latin America and Caribbean region. A total of 26 of these investors were selected.

3) Individual firm selection

An initial review of the databases described earlier revealed that most of the companies listed were within the target industrial categories already selected. In addition, the distribution of firms among industries appeared to be in accord with the priority weighting derived earlier. It was suggested that the sampling of individual firms should not be formally stratified by industry, because a random selection would be equally likely to yield a good representation of target industries in order of priority. A random selection would also provide the enriching

addition of potential investors from other industries. This suggestion was followed in the subsequent sampling. Table C-2, which presents the distribution of questionnaires mailed by industrial category, indicates that this suggested sampling approach was appropriate: the priority industry groups were those weighted more heavily in the final mailing.

Most of these databases are small in comparison with the Maquiladora and Haiti/PROMINEX lists, which consist of more than 2,000 names, and data on the smaller lists were often incomplete. For example, the list provided by the ADOZONA contained more than 300 names of firms in various industries, but only 39 had complete information on the U.S. parent firms. Given this imbalance, all names from the smaller U.S. lists have been selected — the CBIS, OPIC, CDIE, Panamanian Embassy, and ADOZONA lists — yielding 148 U.S. firms for the initial sample.

Of the approximately 500 company names in the Haiti/PROMINEX file, 231 were chosen because either they were already operating in Haiti's FTZ or they had expressed an interest in investing there. To complete the final U.S. sample, the survey team randomly selected 614 firms from the Maquiladora list, which, combined with the selections from the earlier lists, yielded a total of 994 U.S. firms to receive questionnaires. Table C-3 provides a breakdown of the questionnaires mailed by sample source.

In the same manner, all of the firms from the shorter Mexican lists have been selected — the Chambers of Commerce and the Public Sector lists — for a total of 64 firms. A random selection of 136 Mexican firms from the Maquiladora list resulted in a total of 200 Mexican firms to receive questionnaires.

Using additional sample sources, data on potential Asian, European, and Canadian investors have been completed. From the Maquiladora and CDIE lists, 25 names and addresses were obtained. These were supplemented by the Taiwan and Korean lists, producing a total of 52 questionnaires to be sent to this group of firms.

A total of 1,246 questionnaires were mailed initially. Of these a certain number was returned as undeliverable. Most of these were inaccurately addressed. They were corrected and remailed. Table C-3 provides a complete breakdown of questionnaires mailed by region, sample source, and success of mailing.

C.2.2 Questionnaire Design

The design of the survey questionnaire was based on fundamental project objectives that determined items to be included, as demonstrated in the next two sections.

1) Objectives and information requirements

The three primary objectives to the questionnaire survey were to (1) gauge current investor interest in the Esmeraldas EPZ; (2) gather information on the requirements of potential investors; and (3) compile additional industry specific information of use to future promoters of the EPZ. The content and structure of the questionnaire were designed to reflect these objectives. Objective 2, for example, implies that the following items of information, among others, should be supplied:

- (a) Type and size of factory required
- (b) Prospective number of workers to be employed
- (c) Incentives required to attract the investor, such as lower wages, lower utility prices, and marketing assistance
- (d) Infrastructure required, including public transportation, cargo shipping lines, reliable water and electricity, and financing
- (e) Current operational characteristics at other facilities, including products, input sources, output values, product destinations, water consumption, electricity consumption, transport costs, and types of transportation used

2) Structure of the questionnaire

The questionnaire was divided into six sections. A description of each section is briefly summarized as follows:

- (a) Introduction: This section provides a statement of the purpose of the survey and brief instructions.
- (b) I. Firm Profile: Questions in this section request basic company background information, including product description, year operations began, annual sales, annual volume of reimports, name of respondent, position with company, and company name and address. Section I also requests information concerning past investment abroad, including whether the firm had operated in EPZs elsewhere or took part in duty-free "drawback" operations.
- (c) II. Foreign Investment Plans: This section elicits a brief outline of prospective investment abroad. The questions also address the issue of interest in Esmeraldas.

- (d) III. Requirements for Esmeraldas EPZ: This section includes questions regarding the type of operation the respondent would need if investing in Esmeraldas. Questions address the type and size of the facility needed, the number of employees expected to be employed, the amount invested, and the measures ZOFREE might take to make Esmeraldas more attractive to the respondent.
- (e) IV. Current Operations Abroad: This section requests more specific information concerning the firm's current operations abroad, including products, input sources, market destinations, water and utility consumption, and transportation.
- (f) V. Follow-up: Section V allows the respondent to indicate whether further information about the Esmeraldas EPZ is required and whether a representative of ZOFREE should contact the firm.

The survey package mailed to potential investors contained five items: (1) a cover letter explaining the purpose of the questionnaire, (2) the statistical data sheet, (3) the questionnaire itself, (4) a printed color brochure of the Esmeraldas EPZ, and (5) a postage-paid envelope. (Refer to Attachment A)

C.2.3 Questionnaire Results

The information compiled during the mail questionnaire stage of this survey will be of considerable value for the design and promotion of the Esmeraldas EPZ. Although the response rate for the questionnaire might be considered low by certain standards, the results allow concrete conclusions about the types of industry that should be promoted for the EPZ, the requirements of investors in those industries, and the types of development ZOFREE should undertake to attract additional industry.

Of the 1,014 surveys in net sent to and received by potential investors, 28 (or 2.8%) were answered. In part, this response rate could be considered indicative of a low initial level of interest in the Esmeraldas EPZ, but there are additional reasons for such a low response rate. The following is a summary of the explanations given by telephone interviewees for not initially responding to the written questionnaire (see Chapter C.3 for more detail about the telephone interviews), and the survey team's conclusions based on prior experience.

- (a) The individuals within the targeted firms most able to respond to the questionnaire are senior-level employees who were often too busy to fill out the

survey. Secretaries often opened the questionnaire package and forwarded it to employees who were less able to respond and who often discarded the package.

- (b) In Mexico, and to a lesser extent in the United States, investors are accustomed to receiving mail surveys, but rarely answer them unless they see some immediate benefit.
- (c) Finally, for investors not interested in the Esmeraldas EPZ there is no incentive to complete the questionnaire. Unfortunately, a significant proportion of the investors surveyed may not be interested in Esmeraldas, for reasons discussed later in this chapter and in Chapter C.3.

Follow-up telephone calls to recipients of the questionnaires provided additional information concerning investor attitudes and requirements, which will be of use to ZOFREE for future promotion.

1) Analytical approach

Statistical tables and analyses have been developed, correlating the information collected from the answered questionnaires in such a manner as to draw conclusions that would be of specific use to the designers and future managers of the Esmeraldas EPZ. The tables emphasize the following three types of information:

- (a) The likelihood of specific firms and industry groups actually investing in the Esmeraldas EPZ
- (b) Statistical data on prospective investors' characteristics
- (c) Requirements for attracting specific groups of prospective investors

The analysis based on these tables consists of comparisons of the investors' probability of investment and requirements to the firm's characteristics, leading to direct recommendations for ZOFREE developmental and promotional activities.

2) Prospects for investment

Of the 28 questionnaire responses received, 10 firms (36%) answered positively and can be classified as reasonable prospects for future promotion². Among those reasonable prospects, 7% (one "Yes" and one "Most likely") of all respondents can be classified as high-

² Here and in the remainder of this report, a "reasonable" investment prospect and a "positive" response are those for which the respondent answered "Yes," "Most Likely," or "Possibly" to question I1-B4; "Are you interested in locating your new facility in Esmeraldas EPZ?"

probability investors and 20% (8 "Possible") as intermediate-probability investors³. The remainder must be viewed as low-probability prospects.

Their responses may be further characterized as follows:

- (1) The apparel industry was on the whole more responsive and more positive than other industries. The electronics and food industries responded more negatively.
- (2) Most of the firms responding and most responding positively were from the United States rather than from Mexico or from the other countries addressed.
- (3) Large firms were more likely to respond positively.
- (4) Companies with prior overseas experience are higher probability investors for the Esmeraldas EPZ.

These tendencies are described in greater detail in the statistical tables and the remainder of this section.

One of the central issues of interest to the promoters of the Esmeraldas EPZ is the type of industry that might be attracted to invest there. Table C-4 lists respondents by industry group (ISIC) and probability of investment. The industry with the highest probability of investment is apparel. Four out of six responses from apparel companies (66%) were positive. Several other industrial groups also responded positively, though sparsely: construction, wood furniture, electronics, and food. The firms that responded most negatively were the electronics and food processing firms.

Promoters will also be interested in the geographical location of prospective investors. Table C-5 shows the probability of investment in Esmeraldas by location of the parent firm. Overwhelmingly the majority of the responses came from the United States (86% from the U.S versus 14% from other countries). Within the United States, East Coast firms responded more often (32% of the total) but firms in the Southwest-California and Texas-responded most positively. Of the four firms from the Southwest that responded, three (75%) were positive. The number of responses is due in part to the initial distribution of the sample and in part to differing attitudes toward mail surveys in the countries addressed.

³ These categories also derive from question II-B4, with "high-probability" indicating either a "Yes" or a "Most Likely" response and "intermediate-probability" indicating a "Possibly." Other respondents are classified as "low-probability."

Apart from nationality, the scale of a firm's operations seems to correlate with its level of interest in the prospective Esmeraldas EPZ. Table C-6 indicates the probability of investment by size of the parent firm. Of the 10 firms responding positively, 70% had annual sales of more than \$50 million. Of those responding negatively, 39% had annual sales of less than \$50 million, 39% had annual sales of more than \$50 million, and 22% did not reply.

A final characteristic of interest to prospective EPZ promoters is the prior overseas experience of potential investors. Table C-7 shows the probability of investment by the firms' propensity to invest in production abroad. Not surprisingly, most firms responding had invested overseas previously-73%, or 16 out of 22 responses excluding no answers. Of the 10 positive respondents, 80% had produced abroad previously; of those, 60% had invested in joint ventures or partnerships with foreign investors. Generally, the initial assumption at the survey sampling stage was correct; prior overseas and FTZ investors are better prospects for Esmeraldas, and ZOFREE promoters are advised to seek out companies with extensive prior overseas experience.

3) Investor requirements

Questionnaire items relating to the requirements of potential investors covered the types and sizes of required facilities, the number of laborers potentially to be employed, the dollar amount of potential investment, and measures that would make Esmeraldas more attractive to investors. Tables C-8 and C-9 relate the reported requirements of respondents to their probability of investment. A summary of the results is presented hereunder.

- a) Most investors prefer a standard preconstructed factory of moderate size.
- b) Lower costs, especially labor and taxation costs, were the most often cited additional investment stimuli.
- c) Respondents expressing no interest in investing in Esmeraldas objected to the EPZ location, rather than specific costs or characteristics.

Overall, respondents would prefer to locate in a standard factory to be built by ZOFREE, with factory sizes specified ranging between 6,250 m² to 2 ha, and would employ 5 to more than 500 workers each. Prospective investment per company would be less than \$5 million, with 44% of the investments at less than \$1 million and 56% between \$1 and \$5 million. As indicated in Table C-9, apparel and electronics investors are more willing to express an opinion and are more willing to accept a standard factory than are other investors.

As expected, lower costs were the most often cited measures required for attracting more investment. Of the 43 items cited by respondents, 28 (65%) were related to lowering

wage rates, utilities, rents, or taxes. Many firms cited lower taxes as a major requirement for locating in Esmeraldas. Because EPZ firms would be exempt from most taxes, this respondent requirement must relate to the 2% foreign exchange transaction fee proposed by the Government of Ecuador. On the subject of EPZ costs, Table C-9 indicates that the apparel firms, which would employ the most workers, were the most emphatic proponents of lower costs.

Those firms responding negatively to the prospect of investing in the Esmeraldas EPZ gave little indication of the reasons for low interest, and their investment requirements do not appear markedly different from those firms responding negatively (lower wages and taxes). Question II-C of the survey specifically asks why an investor would not be interested in Esmeraldas. Of the 18 responding negatively, 8 simply replied that they have no interest, 3 stated that they had already decided to invest elsewhere, another 3 stated that Esmeraldas was not attractive to their company, and 3 gave no opinion.

4) Comparison of investment prospects and investor requirements

The requirements of investors most likely to locate in Esmeraldas are of most interest. The promoters of the Esmeraldas EPZ might then consider that meeting the requirements of somewhat less probable investors could be a means of further developing the EPZ. In this manner, comparison of the results presented in this chapter-profiles of investment probabilities and investor requirements-serves as a summary of development recommendations for ZOFREE.

It has been concluded, during the analysis of investment probability, that the groups of firms most likely to invest in Esmeraldas (1) were from the apparel industry, (2) had parent firms located in the United States, (3) had a medium-to-large category of total sales (in excess of \$50 million), and (4) had significant overseas experience. The investment requirements of these categories, as concluded in the prior section are as follows:

- a) A standard factory built by ZOFREE.
- b) A labor force of between 10 and 500 workers.
- c) Lower building rentals, wage rates, and utilities costs.
- d) Greater tax incentives, indicating objection to the proposed 2% foreign exchange fee.

These respondent requirements may be considered initial recommendations for the effective promotion of the Esmeraldas EPZ.

C.3 INTERVIEW SURVEY

This chapter presents the results of the telephone and in-person interviews of potential investors in the Esmeraldas EPZ. First demonstrated are the methods by which the study arrived at this basic conclusion: that a reasonable level of interest in an Ecuadorean FTZ exists among certain types of investors and can be generated among others, but that ZOFREE and the Government of Ecuador must provide definite assurances concerning input costs and input availability. The first two sections of the chapter describe the interviewee selection process and the method for carrying out the interviews. The final section presents the results of the interview process, both in statistical terms and in terms of the actual prospects for investment in Esmeraldas

C.3.1 Questionnaire Design and Sample Selection

The direct interview component of the EPZ survey was intended to elicit the same information as the questionnaire component, with two exceptions: (1) the interviews were to be directed at investors deemed most likely to invest in the Esmeraldas EPZ; and (2) these higher-probability investors were expected to provide greater detail concerning their requirements for investing in locations such as Esmeraldas. The design of the questionnaire and sample for the interviews, then, was similar to that of the mail questionnaire survey, as described earlier in Chapter C.2.

The interviewers used the same survey for the direct interviews as for the mail survey, along with a list of additional questions (Refer to Attachment B). The additional questions were directed at the infrastructural, environmental and economic conditions that could affect the probability of an investor locating in the Esmeraldas EPZ and included queries about the precise levels of wage rates, utility rates, taxes, rental rates, other costs that would be required to encourage the interviewee to invest in Esmeraldas. For interviewees not interested in investing in Esmeraldas, attempt has been made to determine precisely which factors motivated that decision and which factors had led the firms to invest in other locations. To simplify the interview process, the new detailed questions were enumerated according to the same system used on the basic questionnaire and were asked at the same time as the basic questions.

The initial questionnaire response rate was fairly low, and efforts have been made to (1) telephone certain prospective investors who had not answered the questionnaire but were considered promising on other grounds; and (2) locate additional published sources of prospective investors on the basis of early questionnaire results. The final sample of

interviewees consisted of those who had responded positively⁴ to the mail questionnaire, those who responded positively to a telephone follow-up, and those who fit the profile of the positive respondents and permitted an unscheduled "drop-in" interview. Relevant details of this sample selection process are as follows:

- a) The prospective investors included in the original questionnaire sample were concentrated in four regions of the United States - southern California, New York City, southern Florida, and southern Texas - even though geographical location was not an element of the sample stratification. This concentration was especially evident in the list provided by the Overseas Private Investment Corporation (OPIC), which was initially deemed to include the highest probability investors. Consequently, the first three of these regions were selected for in-person interviews, omitting Texas because it has a thin distribution of known potential interviewees over the extensive border area.
- b) In-person interview was not conducted in Mexico for three reasons: (1) there was no significant geographical concentration of prospective Mexican investors, although there were minor concentrations of investment in single industries; (2) the questionnaire response rate was extremely low for Mexican investors resident in Mexico; and (3) the level of interest expressed by telephone was low among Mexican investors. Instead, several Mexican firms were selected for telephone interviews, using the initial questionnaire address list as well as new leads uncovered during the course of the survey.
- c) Most of the initial positive questionnaire responses were from the apparel industry. Most of the apparel manufacturers in the original questionnaire sample were located in the New York City area. Therefore, the interview team not only telephoned and visited these positive respondents, but also visited additional prospective investors in the New York area with the same profile, using the database of the American Apparel Manufacturers Association of Washington, D.C.
- d) One of the initial positive questionnaire respondents was a southern California construction firm specializing in FTZ development, which had received a copy of the questionnaire from the original recipient. This volunteer respondent introduced to several additional prospective investors who were willing to be interviewed in the San Diego/Tijuana area. In addition, several investors were

⁴ A positive response is defined as one in which the respondent is at least "possibly" interested in investing in Esmeraldas (Question II-B) and indicates "yes" to the follow-up query (Question V-A). This category is equivalent to a combination of the high-probability and intermediate-probability categories described earlier.

interviewed in this area included in the original questionnaire sample.

- c) Although none of the initial positive questionnaire responses was from the Southeast, many of the OPIC prospects were from that area, concentrated in Miami and southern Florida. Initial telephone calls to these prospects indicated that many new investors, some from other Latin American EPZs, had located in the Miami Free Zone. This FTZ was consequently selected for in-person interviews.

In summary, the sample of interviewees resulting from the preceding selection process was shaped by three sets of influences: (1) the initial industry selection criteria designed prior to the questionnaire and interview survey, which helped develop the initial questionnaire sample; (2) the geographical and industrial distribution of U.S. manufacturers investing in EPZs, the population from which most of the original sample was drawn; and (3) the degree to which any of the investors contacted was interested in the Esmeraldas EPZ.

C.3.2 Interview Results

As expected, the interviews produced a higher proportion of positive responses and usable information than the questionnaires. Of 41 complete interviews, six firms appear to be reasonable prospects for future promotion⁵, out of which five are those positively responded to the questionnaire survey. These six firms provided complete information concerning their requirements before committing to investment, as did other firms with lower probabilities of locating in Esmeraldas.

1) Analytical approach

In order to draw conclusions that will be useful to the future managers of the Esmeraldas EPZ, statistical tables and analyses have been developed, relating the three types of information collected during interviews: (1) statistical data on investors' current and expected operations, (2) prospective requirements for those firms likely to locate in Esmeraldas, and (3) the likelihood of actually investing in the EPZ. The analysis consists of comparisons of the profiles and requirements of the three basic categories of respondents: reasonable prospects, low-probability investors, and both types of investors combined. The basic background and characteristics of reasonable investors are compared with that of low-probability investors, and the investment requirements of both of these groups are compared.

⁵ Reasonable prospects are defined as those firms with either a high probability of investment or an intermediate probability of investment.

Further, the investment requirements and characteristics of specific reasonable and low-probability investors are described in detail. The objective of this approach is to demonstrate not only investors who would be good prospects for promotion, but developments that must be accomplished in order to promote their final investment.

2) Prospects for investment

On the basis of survey results, general conclusion is drawn that there are reasonable prospects for promoting investment in the Esmeraldas EPZ, and that the prospective investors fall into fairly distinct categories in terms of industry and firm profile and in terms of future requirements that must be met before locating in Ecuador. These tendencies are demonstrated in Table C-10 through C-13.

Table C-10 compares the characteristics of respondent firms most likely to invest in Esmeraldas with those of firms least likely to do so, using data drawn largely from Items I and II of the interview questionnaires. The reasonable prospects are characterized as follows:

- a) The most prominent industry in this group is apparel (ISIC 3220), accounting for 50% of the reasonable respondents. Furniture (332), electrical auto parts (3843), and industrial construction(500) each account for 16.7%.
- b) Most of these firms (83%) are from the United States.
- c) Most (83%) have invested overseas previously.
- d) Of the firms that have invested abroad previously, 80% have participated in duty-free and drawback operations.
- e) Two-thirds of them have annual sales of more than \$50 million.

Table C-10 also profiles the investors that are least likely to invest in Esmeraldas, who can be characterized as follows:

- a) Six of seven firms (86%) from the electronics industry responded negatively to investing in Esmeraldas.
- b) Ninety percent of the Mexican firms interviewed are low-probability investors.
- c) Thirty-nine percent had not invested abroad previously, and consequently had not taken part in drawback operations. Two firms interviewed, however, remarked that they could be interested in establishing joint ventures with Ecuadorean entrepreneurs rather than establishing a manufacturing plant in

Ecuador.

- d) Most were not willing to answer the questions concerned with sales and firm size.

Apparently, two types of firms originally believed to be of interest to ZOFREE - electronics firms and Mexican maquiladoras - may not be prospective investors.

3) Investor requirements

None of these potential investors are likely to unreservedly commit to locating in Esmeraldas or any other site: any statement of interest is conditioned by specific requirements. The stated requirements for location in Esmeraldas were fairly consistent among the interviewees, although there are some interesting differences among industries. Table C-12 presents the investment requirements cited by reasonable prospects from all industries in general, including the following items:

- a) Two-thirds of the reasonable investment prospects require a standard factory to be built by ZOFREE.
- b) Among the high-probability group, 50% requested lot size for the factory between 2,000 m² and 1 ha.
- c) Guaranteed reliability of electricity, followed by cheaper labor, lower foreign exchange fees, and upgraded social facilities were cited most frequently by the reasonable prospects as measures to make Esmeraldas a more attractive investment site.
- d) These investors also demand the largest labor force, with two-thirds of them projecting 100 to 500 employees.

Prospective investors from the apparel industry were quite well informed and communicative about their investment requirements, in large part because apparel manufacturers have had negative experiences in many countries in the Caribbean and Latin America. Moreover, the answers to the investment requirements questions were consistent among apparel manufacturers.

- a) **Labor availability:** The availability of reliable and at least minimally trained labor at competitive rates is unquestionably the major reason for investing in a foreign EPZ. Because such labor is not commonly available in the Latin America/Caribbean region, no company would consider investing in Esmeraldas without a guarantee of an adequate labor force. Companies cite scarce trained

labor as a primary reason not to invest in particular areas. In many cases, the interviewees also mentioned the difficulty of finding talented supervisory workers.

- b) **Labor relations:** Several prospective apparel investors stated that if there were a hint of unionization in Esmeraldas, they would not invest there. This attitude underscores the basic rationale for investing in these areas - low-cost labor - and the major exigency of the apparel industry - on-time delivery. In this respect, most of the interviewees mentioned that labor codes should encourage friction-free production schedules, rather than exacerbating labor problems or facilitating labor militancy.
- c) **Government regulations:** Burdensome government requirements and instability of those requirements are endemic to Latin America. Investors would require Ecuador to guarantee that relevant regulations will not change drastically, that taxes will not be imposed after companies invest, and that paperwork be kept to a minimum.
- d) **Transportation:** Reliable cargo lines and frequent shipments are crucial to meeting deadlines. Many interviewees appeared to suspect that Ecuador may have problems in this area.
- e) **Guaranteed reliable electricity:** Apparel manufacture requires consistent electrical power, not only because the primary machinery involved requires electricity, but also because timely delivery of the finished product is critical. Certain other free zones have been characterized by erratic electricity supplies and unreliability.

The remaining reasonable prospects interviewed cited similarly specific but less detailed requirements. The rattan manufacturer emphasized the necessity for skilled labor, reliable transportation, and accessibility of the plant facility to the source of raw materials that grow in Ecuador. The single electronics firm interviewed in depth cited a requirement for lower land rentals and foreign exchange transfer fees as well as introductions to local partners. Skilled labor was also a requirement for the electronics investor.

The requirements cited by low-probability investors are also instructive, serving as a guide to the perceived shortcomings of Esmeraldas as an offshore production location. Table C-12 outlines investment requirements cited by low-probability investors. Although most of these interviewees were unwilling to discuss intimate details of their operations, some were willing to discuss the measures ZOFREE could take to make Esmeraldas more attractive to them. Selected responses are:

- a) Eighteen percent of the low-probability investors wanted access to new markets either within Ecuador or in neighboring countries.
- b) Input costs were not as much as issue for these investors as were reliable transportation, electricity, communications systems, and banking systems.

The interview summaries of these low-probability investors contain substantial information about why these companies are not willing to invest in Ecuador. Some of the more important points are enumerated hereunder.

- a) **Perceived instability:** One company in particular stated that it would not invest in a country unless the country's political climate had been stable and pro-business for at least 5 to 10 years, apparently unaware that Ecuador is in its twelfth year of elected government and peaceful transition. This statement is consistent with many firms' reservations about South American governments. Several of these companies have had negative experiences with bureaucratic regulations and labor policies, which had resulted in lower profitability.
- b) **Current investments in the Caribbean or Central America:** Several companies stated that they already had manufacturing facilities in the Caribbean and Central America, and the added costs of doing business in Ecuador, particularly the added shipping costs, made investment unattractive.
- c) **Distance to the U.S.:** In general, and particularly for those companies taking advantage of drawback operations, Ecuador's geographical location is a disadvantage. Many interviewees asked why they should assemble products in Ecuador when they can do so in the Caribbean or Mexico just as cheaply and with a reduced risk of the product failing to arrive on time. On-time delivery was particularly important to electronics manufacturers, who have extremely tight turnaround periods and often lose business if shipments are as little as one day late.
- d) **Current U.S. recession:** Several companies stated that they were actually cutting back on production capacity because of recent sales losses.
- e) **Reduced margins:** Particularly for the apparel industry, competition has increased and margins have decreased. This condition has forced many manufacturers to subcontract for work they once performed themselves, enabling them to shift the burden of risk onto foreign subcontractors while increasing their own flexibility to change their products quickly to meet changes in consumer taste.

- f) **No track record:** Many investors stated that they would not be willing to risk investment in a new free zone with no proven track record. This issue was particularly important for apparel manufacturers, who require semiskilled, trained laborers.

C.3.3 Total Investment Demand

Out of 5 likely investors, 4 have been selected from 3 sample sources chosen for this survey while 1 has been selected from telephone networking. Considering the total population size of 3,807 for these sources and sample size of 813, expected number of likely investors would be about 19 even without the benefit of telephone networking and assuming no positive responses from additional sources. The overall investment demand for the Esmeraldas EPZ among US and Mexican firms would, therefore, reach 20 to 25.

Table C-1 SAMPLE SOURCES OF QUESTIONNAIRE SURVEY

United States	
HATI	Haiti/Prominex: A list of current and prospective investors of Haiti. This list was used during a previous Nathan Associates project. Most of the 194 U.S. firms are based in New York City. Of the 194 questionnaires sent, 5 recipients responded to the survey, a response rate of 2.6 percent.
MQ	Maquiladora: The directory of Mexican Maquiladoras. It is published by the Secretaria de Comercio y Fomento Industrial (SECOFI) of Mexico. Of the roughly 1,500 establishments listed in the directory, 475 of the U.S. firms received our survey. Of these, 7 responded to the survey, a response rate of 1.5 percent.
CBIS	Caribbean Basin Initiative: This list of U.S. firms operating in the Caribbean is published by the U.S. Department of Commerce (DOC) and is utilized for a DOC survey of U.S. investments in the Caribbean. Though the list is extensive, we included only 17 in our sample because most of the list did not have data on the U.S. parent firm but only on the Caribbean subsidiary. Of the 17, one responded to the survey, a response rate of 5.9 percent.
CDIE	Center for Development Information and Evaluation of A.I.D.: This list is also published by the U.S. DOC, but having been used for an earlier survey, its data are not as current. Seven firms received questionnaires and none responded.
OPIC	Overseas Private Investment Corporation: OPIC collects data on U.S. firms interested in investing overseas and markets the resulting data bank. We selected 54 companies that met the survey's industry criteria. Of the 54, 8 responded, a response rate of 14.8 percent.
PN	Panama: This is a list of 18 U.S. firms operating in Panama and was obtained from the Panamanian Embassy in Washington D.C. Of the 18 surveyed, none responded.
DR	Dominican Republic: This is a list of investors in the DR's Free Trade Zones, obtained from ADOZONA, the Asociacion Dominicana de Zonas Francas. Thirty-five companies were surveyed and one responded, a response rate of 2.9 percent.
Mexico	
MQ	Maquiladora: The same directory of Mexican Maquiladoras was used for U.S. firms. Of the roughly 1,500 establishments listed in the directory, 109 of the Mexican firms received our survey. Of these 1 responded to the survey, a response rate of 0.9 percent.
CAIN & CINT	Mexican Chambers of Commerce: Camara Nacional de la Industria de Transformacion (CANACINTRA) and Camara de la Industria de Transformacion de Nuevo Leon (CAINTRA NL), provided us with addresses of member enterprises including importers, producers, or consumers of cocoa, tuna, fish flour, palm hats and wood products. Twenty-two firms received questionnaires and none responded.
MED	Mexican Exporters Directory 1990. We selected 40 enterprises that import products from Ecuador. These industries included cocoa products, hats, canned tuna, sardines, shrimp and wood products. Thirty-seven firms were surveyed and two responded, a response rate of 5.4 percent.
Asia	
CCNA	Taiwan Investment and Trade Office: A mixed public sector/private sector agency with the purpose of promoting Taiwanese investment and trade abroad. We selected 18 firms known to invest in Latin American Countries (LAC) and sent questionnaires to the home offices. Only one has responded.
KTC	Korea Trade Center: A mixed public sector/private agency with the purpose of promoting Korean investment and trade abroad. We selected 8 firms known to invest in LAC and sent questionnaires to the home offices. None has responded yet.
MQ	Maquiladora: The same directory of Mexican Maquiladoras was used for Asian and European firms. Of the 24 establishments listed in the directory, 18 of the firms received our survey. Of these 1 responded to the survey, a response rate of 5.5 percent.

Table C-2 FIRMS SURVEYED BY ISIC INDUSTRY CATEGORIES

	U.S. Firms Surveyed		Asian and European Firms Surveyed		Mexican Firms Surveyed		Total	
Total firms surveyed	801		45		168		1,014	
Firms with Industry Data not Tabulated (a)	157		33		4		194	
Basis (b)	644		12		164		820	
Agriculture, Forestry and Fishing (11,12,13)	30	4.7%	0	0.0%	0	0.0%	30	3.7%
Mining and Energy (21 and 22)	9	1.4%	1	8.3%	0	0.0%	10	1.2%
Food Products (31)								
Various Food Products (31)	24	3.7%	0	0.0%	12	7.3%	36	4.4%
Processing Fish and Seafood (3114)	4	0.6%	0	0.0%	9	5.5%	13	1.6%
Chocolate (3119)	2	0.3%	0	0.0%	6	3.7%	8	1.0%
Total Food Products	30	4.7%	0	0.0%	27	16.5%	57	7.0%
Textiles (32)								
Other Industrial Textiles (321)	17	2.6%	1	8.3%	10	6.1%	28	3.4%
Apparel (322)	109	16.9%	5	41.7%	42	25.6%	156	19.0%
Leather products except footwear (323)	4	0.6%	0	0.0%	0	0.0%	4	0.5%
Leather Footwear (324)	6	0.9%	0	0.0%	2	1.2%	8	1.0%
Total Textiles	136	21.1%	6	50.0%	54	32.9%	196	23.9%
Wood Products (33)								
Wood products except furniture (331)	32		0		20	12.2%	52	6.3%
Wooden furniture (332)	0		0		11	6.7%	11	1.3%
Total Wood Products	0	0.0%	0	0.0%	31	18.9%	31	3.8%
Paper and Paper Products (34)	5	0.8%	0	0.0%	4	2.4%	9	1.1%
Chemical Products (35)								
Various Chemical Products (35)	8	1.2%	0	0.0%	2	1.2%	10	1.2%
Pharmaceutical Products (3522)	9	1.4%	0	0.0%	2	1.2%	11	1.3%
Tires and rubber products (355)	4	0.6%	0	0.0%	0	0.0%	4	0.5%
Plastics (356)	23	3.6%	0	0.0%	5	3.0%	28	3.4%
Total Chemical Products	44	6.8%	0	0.0%	9	5.5%	53	6.5%
Glass and Glass Products (362)	4	0.6%	0	0.0%	0	0.0%	4	0.5%
Basic Metal Industry (37)	2	0.3%	1	8.3%	0	0.0%	3	0.4%
Other Metal Products except Machinery (3819)	34	5.3%	0	0.0%	7	4.3%	41	5.0%
Machinery except Electrical (382)	10	1.6%	0	0.0%	0	0.0%	10	1.2%
Electrical Equipment and Machinery (383)								
Electronic Equipment (383)	174	27.0%	2	16.7%	6	3.7%	182	22.2%
Electric Machinery and Apparatus (3831)	18	2.8%	0	0.0%	0	0.0%	18	2.2%
Telecommunications (3832)	14	2.2%	0	0.0%	1	0.6%	15	1.8%
Household Electrical Products (3833)	5	0.8%	0	0.0%	2	1.2%	7	0.9%
Electrical Other (3839)	6	0.9%	0	0.0%	0	0.0%	6	0.7%
Total Electrical Equipment and Machinery	217	33.7%	2	16.7%	9	5.5%	228	27.8%
Transportation Equipment (384)	43	6.7%	1	8.3%	6	3.7%	50	6.1%
Professional and Scientific Equipment (385)	5	0.8%	0	0.0%	0	0.0%	5	0.6%
Other Manufacturing (39)								
Other Industrial manufacturing (39)	42	6.5%	0	0.0%	14	8.5%	56	6.8%
Jewelry (3901)	4	0.6%	0	0.0%	0	0.0%	4	0.5%
Toys and games (3909)	13	2.0%	0	0.0%	1	0.6%	14	1.7%
Total other manufacturing	59	9.2%	0	0.0%	15	9.1%	74	9.0%
Services (9) and (832)	15	2.3%	1	8.3%	2	1.2%	18	2.2%
Construction (500)	1	0.2%	0	0.0%	0	0.0%	1	0.1%

- a. In certain cases the industry in which the firm operated was not specified. ISIC codes are highlighted in brackets.
b. This "Basis" is the number of firms with identifiable industrial categories. Subsequent percentages are based on this figure.

Table C-3 SAMPLE SOURCES AND RESPONSES

	Sample source	Questionnaires sent	Questionnaires returned for insufficient address	Questionnaires resent	Questionnaires Returned Twice	Not mailing	Questionnaires answered
U.S.	Haiti/Prominex (HATI)	231	63	29	3	194	5
	Maquiladora (MQ)	614	179	49	9	475	7
	Department of Commerce (CBIS)	29	13	1	0	17	1
	Overseas Private Inv. Corp. (OPI)	55	5	4	0	54	8
	Caribbean (CDIE)	7	1	1	0	7	0
	Panama (PN)	18	6	6	0	18	0
	Dominican Republic (DR)	39	7	3	0	35	1
	Calls to Nathan requesting survey	1	0	0	0	1	1
	One Anonymous Survey (a)	0	0	0	0	0	1
	Total U.S.	994	274	93	12	801	24
Mexican	Maquiladora (MQ)	136	27	0	0	109	1
	Mexican Chambers (CAIN & CH)	23	1	0	0	22	0
	Mexican Public Sector (MED)	41	4	0	0	37	2
	Total Mexican	200	32	0	0	168	3
Other	Maquiladora (MQ)	24	6	0	0	17	0
	Caribbean (CDIE)	1	0	0	0	1	0
	Taiwan Inv. & Trade Office (CCI)	18	1	0	0	18	1
	Korea Trade Center (KTC)	8	0	0	0	8	0
	Calls to Nathan requesting survey	1	0	0	0	1	0
	Total Asia & Other	52	7	0	0	45	1
Grand Total		1,246	313	93	12	1,014	28

Remarks: One survey was returned but the respondent did not identify himself and we were unable to determine his sample source.

Table C-4 PROBABILITY OF INVESTMENT BY INDUSTRY

Are you interested in locating your new facility in Esmeraldas EPZ?

Industry (SIC)	Frequencies				Total
	Yes	Most Likely	Possibly	No (a)	
Basis (b)	1	1	8	18	28
Percent of total respondents	3.6%	3.6%	28.6%	64.3%	100.0%
Construction (500)	1	100.0%			1 3.6%
Wood Furniture (3320)			1	12.5%	1 3.6%
Apparel (3220)		1	3	37.5%	2 11.1%
Electronics (383)			2	25.0%	5 27.8%
Food (31)			1	12.5%	4 22.2%
Unknown (c)			1	12.5%	1 3.6%
Autos and Parts (3843)				3	16.7%
Men's Toupees (2329)				1	5.6%
Pens (3909)				1	5.6%
Thermal Plastics (356)				1	5.6%
Venture Capital (832)				1	5.6%

Remarks:

- a. "No's" include all respondents who answered "No" plus those who indicated "No Interest" elsewhere on the survey form.
- b. The "Basis" is the total number of firms in the respondent categories. Percentage figures following the subsequent answers are the answers given as a percentage of the "Basis," unless otherwise noted.
- c. One respondent completed the survey, but did not identify himself or the firm. We were, therefore, unable to determine the respondent's industry.

Table C-5 PROBABILITY OF INVESTMENT BY LOCATION OF PARENT FIRM

Are you interested in locating your new facility in Esmeraldas EPZ?									
	Frequencies								
	Yes	Most Likely	Possibly	No (a)		Total			
Basis (b)	1	1	8	18		28			
Percent of total respondents	3.6%	3.6%	28.6%	64.3%		100.0%			
Mexico			1	12.5%	2	11.1%	3	10.7%	
Asia					1	5.6%	1	3.6%	
United States (c)									
East Coast		1	100.0%	1	12.5%	7	38.9%	9	32.1%
Mid-West				1	12.5%	4	22.2%	5	17.9%
Southwest	1	100.0%		2	25.0%	1	5.6%	4	14.3%
South				3	37.5%	3	16.7%	6	21.4%
Total United States	1	100.0%	1	100.0%	7	87.5%	15	85.7%	24

Remarks:

- a. "No's" include all respondents who answered "No" plus those who indicated "No Interest" elsewhere on the survey form.
- b. The "Basis" is the total number of firms in the respondent categories. Percentage figures following the subsequent answers are the answers given as a percentage of the "Basis," unless otherwise noted.
- c. The "East Coast" includes New York, Pennsylvania, Maryland and Connecticut; "Mid-West" includes Ohio, Indiana, Illinois and Michigan; "Southwest" includes California and Texas; and "South" includes Tennessee, Alabama, Louisiana, Florida, and North Carolina. Those states listed are the only states represented by the respondents.

Table C-6 PROBABILITY OF INVESTMENT BY SIZE OF PARENT FIRM

		Frequencies				Total	
		Yes	Most Likely	Possibly	No (a)		
Are you interested in locating your new facility in Esmeraldas EPZ?							
Basis (b)		1	1	8	18	28	
Percent of total respondents		3.6%	3.6%	28.6%	64.3%	100.0%	
Annual Sales							
\$1 Million or less						0	0.0%
\$1 to \$10 million				3	37.5%	3	16.7%
\$10 to \$50 million						4	22.2%
\$50 million or more		1	100.0%	1	100.0%	5	62.5%
No Answer						4	22.2%

Remarks:

- a. "No's" include all respondents who answered "No" plus those who indicated "No Interest" elsewhere on the survey form.
- b. The "Basis" is the total number of firms in the respondent categories. Percentage figures following the subsequent answers are the answers given as a percentage of the "Basis," unless otherwise noted.

Table C-7 PROBABILITY OF INVESTMENT BY PROPENSITY TO INVEST IN PRODUCTION ABROAD

	Frequencies				Total
	Yes	Most Likely	Possibly	No (a)	
Are you interested in locating your new facility in Esmeraldas EPZ?					
Basis (b)	1	1	8	18	28
Percent of total respondents	3.6%	3.6%	28.6%	64.3%	100.0%
Has your firm invested in production abroad?					
Yes	1 100.0%	1 100.0%	6 75.0%	8 44.4%	16 57.1%
No			2 25.0%	4 22.2%	6 21.4%
No Answer				6 33.3%	6 21.4%
Does your firm take part in duty-free "drawback" operations?					
Yes		1 100.0%	4 50.0%	6 33.3%	11 39.3%
No	1 100.0%		4 50.0%	5 27.8%	10 35.7%
No Answer				7 38.9%	7 25.0%
Has your firm invested abroad in joint-ventures or partnerships with foreign investors?					
Yes	1 100.0%		5 62.5%	6 33.3%	12 42.9%
No Answer or No		1 100.0%	3 37.5%	12 66.7%	15 53.6%

Remarks:

- a. "No's" include all respondents who answered "No" plus those who indicated "No Interest" elsewhere on the survey form.
- b. The "Basis" is the total number of firms in the respondent categories. Percentage figures following the subsequent answers are the answers given as a percentage of the "Basis," unless otherwise noted.

Table C-8 REQUIREMENTS OF INVESTORS BY PROBABILITY OF INVESTMENT

Requirements	Yes	Most Likely	Possibly	No (a)	Total
Basis (b)	1	1	8	18	28
Percent of total respondents	3.6%	3.6%	28.6%	64.3%	100.0%
What kind of operations would your firm carry out in the Esmeraldas EPZ?					
Manufacturing of product in custom built factory			2 25.0%		2 7.1%
Manufacturing of product in a standard factory built by EPZ		1 100.0%	4 50.0%	1 5.6%	6 21.4%
The Building of Custom Factories	1 100.0%				1 3.6%
Both a custom and standard factory			1 12.5%		1 3.6%
Unknown			1 12.5%	17 94.4%	18 64.3%
How many acres of factory lot would you require?					
Less than 2,000 square meters				1 5.6%	1 3.6%
2,000 square meters to 1 hectare			3 37.5%		3 10.7%
1 to 2 hectares		1 100.0%	3 37.5%		4 14.3%
2 to 3 hectares			1 12.5%		1 3.6%
More than 3 hectares					0 0.0%
Unknown	1 100.0%		1 12.5%	17 94.4%	19 67.9%
How many employees would you expect to employ?					
Less than 4					0 0.0%
5 to 29	1 100.0%				1 3.6%
30 to 99			2 25.0%		2 7.1%
100 to 499			6 75.0%	1 5.6%	7 25.0%
More than 500		1 100.0%			1 3.6%
Unknown				17 94.4%	17 60.7%
How much would you expect to invest in a project?					
\$300,000 or less			2 25.0%	1 5.6%	3 10.7%
\$300,000 to \$1 million		1 100.0%	1 12.5%		2 7.1%
\$1 to \$5 million			5 62.5%		5 17.9%
\$5 million or more					0 0.0%
Unknown	1 100.0%			17 94.4%	18 64.3%
What measures could make the Esmeraldas EPZ more attractive for your company?					
Total number of responses (c)	4	4	29	6	43
Lower wage rates			4 13.8%	2 33.3%	6 14.0%
Lower price of utilities		1 25.0%	4 13.8%		5 11.6%
Lower building rental			4 13.8%	1 16.7%	5 11.6%
Lower land rental			4 13.8%		4 9.3%
Upgraded social facilities		1 25.0%			1 2.3%
Greater tax incentives	1 25.0%	1 25.0%	4 13.8%	2 33.3%	8 18.6%
Greater employment incentives			2 6.9%	1 16.7%	3 7.0%
Marketing assistance			1 3.4%		1 2.3%
Guaranteed availability of utilities	1 25.0%	1 25.0%	1 3.4%		3 7.0%
Introduction to local partners			4 13.8%		4 9.3%
Financing	1 25.0%				1 2.3%
Reliable transportation	1 25.0%				1 2.3%
Lessening of government restrictions			1 3.4%		1 2.3%

Remarks:

- "No's" include all respondents who answered "No" plus those who indicated "No Interest" elsewhere on the survey form.
- The "Basis" is the total number of firms in the respondent categories. Percentage figures following the subsequent answers are the answers given as a percentage of the "Basis," unless otherwise noted.
- A company could respond more than once to this question, so percentages are based on the total number of responses.

Table C-9 REQUIREMENTS OF INVESTORS BY INDUSTRY

Requirements	Electronics	Apparel	Food	Autos and Parts	Other (a)	Total
Basis (b)	7	6	5	3	7	28
Percent of total respondents	25.0%	21.4%	17.9%	10.7%	25.0%	100.0%
What kind of operations would your firm carry out in the Esmeraldas EPZ?						
A custom built factory		1 16.7%				1 3.6%
A standard factory built by EPZ	2 28.6%	3 50.0%			2 28.6%	7 25.0%
The Building of Custom Factories					1 14.3%	1 3.6%
Both a custom and standard factory			1 20.0%			1 3.6%
Unknown	5 71.4%	2 33.3%	4 80.0%	3 100.0%	4 57.1%	18 64.3%
How many acres of factory lot would you require?						
Less than 2,000 square meters					1 14.3%	1 3.6%
2,000 square meters to 1 hectare	1 14.3%	2 33.3%				3 10.7%
1 to 2 hectares		2 33.3%			2 28.6%	4 14.3%
2 to 3 hectares			1 20.0%			1 3.6%
More than 3 hectares						0 0.0%
Unknown	6 85.7%	2 33.3%	4 80.0%	3 100.0%	4 57.1%	19 67.9%
How many employees would you expect to employ?						
Less than 4						0 0.0%
5 to 29					1 14.3%	1 3.6%
30 to 99	1 14.3%		1 20.0%			2 7.1%
100 to 499	1 14.3%	3 50.0%			3 42.9%	7 25.0%
More than 500		1 16.7%				1 3.6%
Unknown	5 71.4%	2 33.3%	4 80.0%	3 100.0%	3 42.9%	17 60.7%
How much would you expect to invest in a project?						
\$300,000 or less	1 14.3%	1 16.7%			1 14.3%	3 10.7%
\$300,000 to \$1 million		2 33.3%				2 7.1%
\$1 to \$5 million	1 14.3%	1 16.7%	1 20.0%		2 28.6%	5 17.9%
\$5 million or more						0 0.0%
Unknown	5 71.4%	2 33.3%	4 80.0%	3 100.0%	4 57.1%	18 64.3%
What measures could make the Esmeraldas EPZ more attractive for your company?						
Total number of responses (c)	7	15	3	2	16	43
Lower wage rates	2 28.6%	2 13.3%		1 50.0%	1 6.3%	6 14.0%
Lower price of utilities	1 14.3%	2 13.3%	1 33.3%		1 6.3%	5 11.6%
Lower building rental		3 20.0%			2 12.5%	5 11.6%
Lower land rental	1 14.3%	2 13.3%			1 6.3%	4 9.3%
Upgraded social facilities		1 6.7%				1 2.3%
Greater tax incentives	1 14.3%	2 13.3%	1 33.3%	1 50.0%	3 18.8%	8 18.6%
Greater employment incentives		1 6.7%			2 12.5%	3 7.0%
Marketing assistance			1 33.3%			1 2.3%
Guaranteed availability of utilities		1 6.7%			2 12.5%	3 7.0%
Introduction to local partners	2 28.6%	1 6.7%			1 6.3%	4 9.3%
Financing					1 6.3%	1 2.3%
Reliable transportation					1 6.3%	1 2.3%
Lessening of government restrictions					1 6.3%	1 2.3%

Remarks:

a. "Other" combines those respondents who fell into the following categories: Construction, Wood Furniture, Unknown, Men's Toupees, Pens, Venture Capital and Thermal Plastics.

b. The "Basis" is the total number of firms in the respondent categories. Percentage figures following the subsequent answers are the answers given as a percentage of the "Basis," unless otherwise noted.

c. A company could respond more than once to this question, so percentages are based on the total number of responses.

Table C-10 CHARACTERISTICS OF HIGH AND LOW-PROBABILITY INVESTORS

Characteristics	Reasonable Prospects (a)		Low-Probability Investors (a)		All Investors	
Basis (b)	6		35		41	
Percent of total interviews	14.6%		85.4%		100.0%	
Industry: (ISIC)						
Apparel (3220)	3	50.0%	8	22.9%	11	26.8%
Furniture (332)	1	16.7%	0	0.0%	1	2.4%
Electrical Auto Parts (3843)	1	16.7%	0	0.0%	1	2.4%
Industrial Construction (500)	1	16.7%	0	0.0%	1	2.4%
Wholesale/Retail (610)			10	28.6%	10	24.4%
Electronics (383)			6	17.1%	6	14.6%
Seafood Processing (3114)			3	8.6%	3	7.3%
Chocolates (3119)			2	5.7%	2	4.9%
Chemicals (35)			2	5.7%	2	4.9%
Paper Products (34)			1	2.9%	1	2.4%
Metal Nut Manufacturing (3819)			1	2.9%	1	2.4%
Electrical/Cable Wires (3889)			1	2.9%	1	2.4%
Brooms (331)			1	2.9%	1	2.4%
Country of Origin						
United States	5	83.3%	26	74.3%	31	75.6%
Mexico	1	16.7%	9	25.7%	10	24.4%
Has the firm invested overseas before?						
Yes	5	83.3%	13	37.1%	18	43.9%
No	1	16.7%	22	62.9%	23	56.1%
Has the firm taken part in duty-free and drawback (806/807) operations? (c)						
Yes	4	80.0%	6	46.2%	10	55.6%
No	1	20.0%	7	53.8%	8	44.4%
Unknown			3	23.1%	3	16.7%
Annual Sales						
\$1 million or less	0	0.0%	2	5.7%	2	4.9%
\$1 to \$10 million	1	16.7%	3	8.6%	4	9.8%
\$10 to \$50 million	0	0.0%	3	8.6%	3	7.3%
\$50 million or more	4	66.7%	2	5.7%	6	14.6%
No answer	1	16.7%	25	71.4%	26	63.4%
Volume of annual imports/reimports from overseas.						
Only two companies responded to this question.	\$40,000,000 and \$5,000,000					
Amount contemplated for an investment project.						
\$300,000 or less	1	16.7%	1	2.9%	2	4.9%
\$300,000 to \$1 million	2	33.3%	0	0.0%	2	4.9%
\$1 to \$5 million	1	16.7%	0	0.0%	1	2.4%
\$5 million or more	0	0.0%	0	0.0%	0	0.0%
No answer	2	33.3%	34	97.1%	35	87.8%

Remarks:

a. All telephone and in-person interviews were ranked on a percentile scale of 1 to 10 according to the firm's likelihood of investment. A ranking of 10 is a high-probability investor and 9 is an intermediate-probability investor. Reasonable prospects (likely investors) are those with a 9 or a 10 ranking. Rankings 8 through one are low-probability investors.

b. The "Basis" is the total number of firms in the high or low categories. The percentage figures following most of the subsequent answers are the answers given as a percentage of the "Basis," unless otherwise noted.

c. This question only applies to those firms which have invested abroad before.

Table C-11 PROSPECTIVE EMPLOYMENT BY INDUSTRY AND INVESTMENT PROBABILITY

How many employees would you expect to employ? (a)

Industry (ISIC)	Number of Employees			
	5 to 29	30 to 99	100 to 499	More than 500
Reasonable Prospects				
Apparel (3220)			2	1
Furniture (332)			1	
Wiring for Automobiles (3843)			1	
Industrial Construction (500)	1			
Low Investment Probability				
Apparel (3220)			1	
Reseller of Home Appliances/Electronics (610)	1		1	
Reseller of Watches (610)	1			
Electrical and Cable Wiring (3889)			1	

Remarks: a. Of the 41 companies interviewed, only 11 gave data on the number of employees they were likely to employ.

Table C-12 REQUIREMENTS OF HIGH AND LOW PROBABILITY INVESTORS

Characteristics	Reasonable Prospects (a)		Low-Probability Investors (a)		All Investors	
Basis (b)	6		35		41	
Percent of total Interviews	14.6%		85.4%		100.0%	
What kind of operations would your firm carry out in the Esmeraldas EPZ?						
Manufacturing of product in custom built factory	1	16.7%	0	0.0%	1	2.4%
Manufacturing of product in a standard factory built by EPZ	4	66.7%	1	2.9%	5	12.2%
The Building of Custom Factories	1	16.7%	0	0.0%	1	2.4%
Retail Showroom and Distributorship			11	31.4%	11	26.8%
Unknown			23	65.7%	23	56.1%
How many acres of factory lot would you require?						
Less than 2,000 square meters		0.0%	2	5.7%	2	4.9%
2,000 square meters to 1 hectare	3	50.0%	0	0.0%	3	7.3%
1 to 2 hectares	2	33.3%	1	2.9%	3	7.3%
2 to 3 hectares		0.0%		0.0%	0	0.0%
More than 3 hectares		0.0%		0.0%	0	0.0%
Unknown	1	16.7%	32	91.4%	33	80.5%
How many employees would you expect to employ?						
Less than 4		0.0%		0.0%	0	0.0%
5 to 29	1	16.7%	2	5.7%	3	7.3%
30 to 99		0.0%	3	8.6%	3	7.3%
100 to 499	4	66.7%		0.0%	4	9.8%
More than 500	1	16.7%		0.0%	1	2.4%
Unknown		0.0%	30	85.7%	30	73.2%
What measures could make the Esmeraldas EPZ more attractive for your company?						
Total number of responses (c)	25		34		59	
Labor:						
Skilled labor	1	4.0%	3	8.8%	4	6.8%
Cheaper labor	3	12.0%	2	5.9%	5	8.5%
Administrative labor	1	4.0%		0.0%	1	1.7%
Transportation:						
Good and reliable shipping	2	8.0%	3	8.8%	5	8.5%
Good air transportation	1	4.0%	1	2.9%	2	3.4%
Government Regulations:						
Lower foreign exchange fees	3	12.0%		0.0%	3	5.1%
Less bureaucratic red tape		0.0%	2	5.9%	2	3.4%
Regulations allowing for retail trade		0.0%	3	8.8%	3	5.1%
Electricity:						
Cheaper rates	2	8.0%		0.0%	2	3.4%
Guaranteed reliability	4	16.0%	3	8.8%	7	11.9%
Good drinking water	1	4.0%		0.0%	1	1.7%
Upgraded social facilities	1	4.0%		0.0%	1	1.7%
Lower building rental	3	12.0%		0.0%	3	5.1%
Introduction to local partners	2	8.0%		0.0%	2	3.4%
Access to new markets		0.0%	6	17.6%	6	10.2%
Good communications (Tel./FAX)		0.0%	3	8.8%	3	5.1%
Inexpensive warehousing		0.0%	4	11.8%	4	6.8%
An established track record as a FZ		0.0%	1	2.9%	1	1.7%
Efficient and stable banking system/Financing	1	4.0%	3	8.8%	4	6.8%

Remarks:

a. All telephone and in-person interviews were ranked on a percentile scale of 1 to 10 according to the firm's likelihood of investment. A ranking of 10 is a high-probability investor and 9 is an intermediate-probability investor. Reasonable prospects (likely investors) are those with a 9 or a 10 ranking. Rankings 8 through one are low-probability investors.

b. The "Basis" is the total number of firms in the high or low categories. The percentage figures following most of the subsequent answers are the answers given as a percentage of the "Basis," unless otherwise noted.

c. A company could respond more than once to this question, so percentages are based on the total number of responses.

Table C-13 INVESTMENT REQUIREMENTS FOR MAXIMIZING EMPLOYMENT
WITHIN INDUSTRY GROUPS WITH THE HIGHEST PROBABILITY
OF PROMOTION

REQUIREMENTS OF APPAREL INDUSTRY:

- * Guaranteed availability of electricity: Other free zones have been erratic in the past with their electricity supplies. This has forced manufacturers of apparel to purchase generators which they would like to avoid doing.
- * Labor: Reliable and trained labor at cheap rates.
- * Transportation: In particular, access to ports and reliable cargo companies who pass frequently.
- * Government Regulations: The apparel manufacturers are wary of investing in Latin America because of past bad experiences with government regulations, red tape, and strict labor policies. Ecuador would have to somehow guarantee that taxes will not increase and the rules will not change after these companies invest.

REQUIREMENTS OF FURNITURE INDUSTRY:

- * Access to skilled laborers.
- * Transportation: In particular, access to ports and reliable cargo companies who pass frequently.
- * Location: The plant must be relatively close to the source of the raw materials.

REQUIREMENTS OF ELECTRONICS INDUSTRY (Electrical/Auto Parts):

- * Labor: Reliable and trained labor at cheap rates.
 - * Transportation: In particular, access to ports and reliable cargo companies who pass frequently. This also includes air transportation.
 - * Lower fees for land rentals and foreign exchange transfers.
 - * Introduction to local partners.
-

II. Foreign Investment Plans

A. Does your firm plan to invest abroad in productive facilities during the 1990s? Yes No

B. If the answer to question A is "yes", please answer the following questions:

(1) Are you interested in locating a facility in Latin America?

Yes Most likely Possibly No

(2) Are you interested in locating your new facility in ECUADOR (refer to enclosed data sheet)?

Yes Most likely Possibly No

(3) Are you interested in locating your new facility in an Export Processing Zone?

Yes Most likely Possibly No

(4) Are you interested in locating your new facility in ESMERALDAS EPZ (refer to enclosed data sheet)?

Yes Most likely Possibly No

(5) Are you interested in locating your new facility in any other city in ECUADOR?

Yes Most likely Possibly No

C. If you are not interested in locating your new facility in the Esmeraldas EPZ, please complete the following:

(1) Already decided to invest in another location. Yes No

(2) Esmeraldas EPZ is not attractive for my company. Yes No

(3) Other (specify) _____

III. Requirements for Esmeraldas EPZ

A. What kind of operations would your firm carry out in the Esmeraldas EPZ?

Manufacturing of product in custom built factory

Manufacturing of product in standard factory built by EPZ

Forwarding business Other (specify) _____

IV. Current Operations Abroad

A. Products Produced Abroad

ISIC Category or Product Description	Input Sources:			Output Value (US\$/yr)	Destination Market (%)		
	Totally Imported -1	Partially Imported -2	Totally Local -3 (Circle one selection)		Local	U.S.	Other
Plant #1	1	2	3				
Plant #2	1	2	3				
Plant #3	1	2	3				
Plant #4	1	2	3				

B. Input Requirements Abroad

Water Consumption (m3/day)	Electricity Consumption (kwh/day)	Product Transport Costs (%)			Container Transport		
		Land	Air	Sea	All Output -1	Partial Output -2	None -3 (Circle one selection)
Plant #1					1	2	3
Plant #2					1	2	3
Plant #3					1	2	3
Plant #4					1	2	3

V. Followup

A. Would you like a representative of ZOFREE to contact your firm with further information concerning the Esmeraldas EPZ? Yes No

B. If yes, please indicate the following information:

Name of Followup Contact: _____

Position With Company: _____

Telephone: _____

Telefax: _____

Most convenient time for telephone call: _____

Thank you for your kind cooperation. Please return questionnaire in the enclosed postage-paid envelope to the following address:

**Attachment B Additional Questions for In-Person and
Telephone Interviews**

I. Firm Profile

- (1) Are you part of a larger corporation? Are you a division or subcontractor for another company?
- (2) Under what circumstances have you done business with the Caribbean, Central America, Mexico or Latin America before?
- (3) What about the importation of raw materials? What types of inputs would you need and where do you usually get them?

II. Foreign Investment Plans

- (1) Do you have any plans to expand your facilities in the near future? If so, where were you considering establishing the plant? What countries? What free trade zones?
- (2) What type of facility were you considering building? How much money would you expect to invest?

III. Current Operations Abroad and Requirements for Esmeraldas EPZ

- (1) What are the current parameters of your current overseas operations? What about wage rates, utility rates, taxes etc.? How much of a differential would be required to encourage investment in another free trade zone?
- (2) What factors caused you to decide on the locations you are currently using? What are those current locations? How could Esmeraldas be better designed to offer the same or better incentives?
- (3) Do you have any other site requirements in addition to absolute size? For example, do you require immediate access to separate warehousing, separate production facilities, portage, or airports?
- (4) What specific types of labor do you need and what kind of skill levels do the laborers need to possess?

- (5) To what extent is highly reliable electric power necessary to your operations? What measure has your firm taken to counteract the effects of power outages and voltage fluctuations in other overseas plants?
- (6) What type of water treatment (filtering, purifying, etc.) would be necessary for your production process? What measures do you take abroad to receive such treatment?
- (7) What type of cargo/transportation does your product require (containerized, gantry lifting, etc.) and would your firm be able to supply any additional facilities on its own?
- (8) In addition, which necessary and additional elements of infrastructure would your firm not be able to supply and what would you want Ecuador to supply?

IV. Likelihood of Investment

- (1) Do you know anyone else who might be interested in investing in Esmeraldas?
- (2) If you are not interested in investing in Ecuador, what are the major reasons why?

ANNEX D

**MARKET SURVEY ON POTENTIAL
INVESTORS IN JAPAN**

ANNEX - D

MARKET SURVEY ON POTENTIAL INVESTORS IN JAPAN

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D.1. INTRODUCTION AND SUMMARY

D.1.1 Introduction

This ANNEX-D presents the results of survey on the investment demand for the Esmeraldas EPZ by Japanese companies and associations, which has been executed through mail questionnaire and interviews.

One of the objectives of this survey was to identify specific industries and their categories, and specific investors if possible, which are interested in locating factories in the Esmeraldas EPZ, together with identification of demand for land lot and utilities.

The other objective was to clarify the conditions and requirements of Japanese companies for investment in Esmeraldas, and to indicate the issues, which may be improved or modified, in order to facilitate the investment from Japan.

D.1.2 Summary of Survey

According to the results of mail questionnaire and interview survey, the demand from Japanese companies for investment in Esmeraldas is not significantly strong nor concrete. In the short term, therefore, possibility of investment by Japanese firms seems to be low. However, in the medium and long run, as some of interviewees indicated that it was an appropriate site for industries to utilize raw materials there and to manufacture products for export to the United States or Latin American countries, likelihood of investment will not be low.

1) Questionnaire Survey

In conjunction with analysis on the targeted industrial sectors, the targeted companies were selected from the JETRO based directory and TOYOKEIZAI DATA BANK. The questionnaire was sent to 576 companies. The response rate was 20.3%. (117 companies)

It should be noted that the selected companies for mail questionnaire are not representatives of broad Japanese manufacturers statistically, but intentional samples based on special directories and screened by specific industrial sectors.

In short, as for the interest in investment in the Esmeraldas EPZ, 11 companies regarded the EPZ as worth studying. As to the requirements for investment abroad in general, "quality of labor force", "availability of infrastructure", and "exemption or reduction of taxes (tax incentive)" hold the large shares in plural answers.

2) Interview Survey

Interview survey was conducted to positively responded 11 companies (Group A). They comprised 4 machinery manufactures, 2 chemical products manufactures, 3 other products manufactures (food, drugs & medicine, and sporting goods), and 2 non-manufacturers (engineering and trading). They did not show specific features in terms of industrial sector. Moreover, 9 organizations (Group B), which included industrial associations and companies, were added for interview.

Out of 11 companies of Group A, 6 companies have already factories abroad. Among them, two companies have factories in South America (Colombia and Brazil). At present most of "Group A" companies have not acute interest in investment in Esmeraldas although in the long term it may be possible to locate there. They answer that investment depends on strategy of companies on market, input (raw materials and labor), and economic situations in South America. Concrete demand of land or workers for the Esmeraldas EPZ were not shown by "Group A" companies.

The principle items put on a list of requirements for infrastructure by "Group A" companies include the following:

- (a) Basic infrastructure and utilities -- especially, reliable supply of electricity
- (b) Port facilities and transportation net work
- (c) Water in good quality (especially for medicine)

Other requirements designated by interviewees through the survey were (a) local partner, (b) standard factory, (c) stable economic condition, (d) tax incentives, (e) vocational training, etc.

It may be difficult to conclude the targeted Japanese industries directly from the interview survey results, but food processing or frozen industries, textile and leather products, chemical products, drug and medicine, machinery, plastic and other manufacturing industries seem to be prospective. It is because they are designated by interviewees and are accorded to the criteria for screening targeted industrial sectors, such as (1) labor intensity, (2) export industry; or (3) local resources or its combinations.

As for merits of the Esmeraldas EPZ, an interviewee indicated its location because it is suitable to target and develop the market in the United States and South American countries, particularly, Andean countries. Concerning demerits, interviewees stated (a) small domestic market, (b) image of unstable economy, (c) lack of information in general, and so on.

D.2 QUESTIONNAIRE SURVEY

D.2.1 Selection of Respondents

A list of targeted companies for the questionnaire survey has been mainly prepared from the directory, "Potential Investors from Japan, 1990", which was compiled by Japan External Trade Organization (JETRO). The JETRO's directory was prepared on the basis of special survey conducted in 1990 and included 794 companies interested in investing abroad.

The JETRO's directory is divided into three indexes. The first index provides listings of companies by country of interest, the second index provides companies by industrial category of planned projects and the third provides basic information on those potential Japanese investors.

The criteria for selecting the target companies from JETRO's directory for the survey was set up as follows:

- (1) Companies which have a plan to invest in Latin America and Southeast Asia. In addition, companies which have a plan to invest abroad, but undesignated by regions, have also been selected.
- (2) Companies which belong to the major industrial group including targeted industrial category (small group) in terms of group of planned project.

Screened through above two criteria, 517 companies (with 856 planned projects) which consist of 409 manufacturers and 108 non-manufacturers, have been selected, as shown in Table D-1.

The directory from JETRO does not fully cover the targeted industrial category such as "Slaughtering, preparing and preserving meat (ISIC 3111)", "Sawmills, planing and other wood mills (ISIC 3311)", "Manufacturing of furniture and fixtures (ISIC 332)" and so forth.

In order to complement the list of targeted companies for the survey, therefore, the other directory was prepared. The directory came from "List of Japanese Companies abroad by Industrial Category, 1990", published by TOYOKEIZAI DATA BANK. Total number of companies selected from this directory amounted to 59, as shown in Table D-2. They were all manufacturers.

In conclusion, the questionnaire was mailed to 576 companies. (517 from JETRO directory and 59 TOYOKEIZAI directory; 468 manufacturers and 108 non-manufacturers)

D.2.2 Questionnaire Design

Major objectives of the questionnaire survey (mail survey) are to recognize potential candidates for investment in the Esmeraldas EPZ and to understand requirements for investment, in order to facilitate development of the EPZ.

Flow chart of questionnaire and interview surveys is shown in Figure D-1. Mail questionnaire form consists of 9 major questions. (See Attachment; Mail Questionnaire Form)

At first the profile of each surveyed company is asked. Second, the investment plan is asked as a key question. Then, if answer is yes or positive, answerers are led to other questions such as schedule, region, operation and major reasons for investment. After these questions, possibility of investment in the Esmeraldas EPZ is asked. Moreover, as for location in the EPZ, operations and requirements for investment are asked.

D.2.3 Results of Questionnaire Survey

Out of 576 companies, effective questionnaires were collected from 117 companies. The response ratio was 20.3%.

In short, 34 companies out of 117 (or 29%) have concrete plans for overseas investment. For 47 companies, overseas investment is an issue under discussion without concrete plan. As for schedule of investment abroad, 39 companies plan to invest abroad within 2 year. Concerning the region of investment, 57 companies answered NIES and Southeast Asia. Central and South America was the fourth region in terms of the number of answers(8 companies). As for major reasons for investment, "Opening of the new market in the region" came first, being pointed out by 50 companies.

As for the interest in investment in the Esmeraldas EPZ, 11 companies regarded the EPZ as worth studying. With regard to the type of factory/operation, "manufacturing in custom-built factory" hold the first place, followed by "manufacturing in standard factory". As to the requirements for investment, "quality of labor force", "availability of infrastructure", and "exemption or reduction of taxes (tax incentive)" hold the large shares in plural answers.

1) Profile of Surveyed Companies

(1) Size of Surveyed Companies

51 companies (43% of the total answered 116 companies) have the paid-up

capital over ¥500 million. 24 companies (21%) with the capital between ¥100 million and ¥500 million (21%). 23 companies (20%) with the capital between ¥30 million and ¥100 million. The capital of 18 companies (16%) is less than ¥30 million.

More than 500 million yen	51	(43%)
100-500 million yen	24	(21%)
30-100 million yen	23	(20%)
Less than 30 million yen	18	(16%)
Total	116	(100%)

(2) Number of Employees

31 companies (27% of the total answered 116 companies) have more than 1000 employees, of which 14 companies hold the paid-up capital of ¥500 million or over. 21 companies (18%) employ from 500 to 1000 workers. The number of employees of 42 companies (36%) is from 100 to 499. The remaining 22 companies (19%) have less than 100 employees.

More than 1000 employees	31	(27%)
500 - 1000 employees	21	(18%)
100 - 499 employees	42	(36%)
Less than 100 employees	22	(19%)
Total	116	(100%)

(3) Industrial Categories

According to the International Standard Industrial Classification (ISIC), 22 companies (19% of the total answered 117 companies) are classified into "manufacture of machinery except electrical". 17 companies (15%) are in "manufacture of electrical machinery, apparatus, appliances and supplies. 15 companies (13%) are in "manufacture of industrial chemicals" or "other chemical products". These 3 categories account for 46%. If 7 companies in "manufacture of fabricated metal products except machinery and equipment" and 7 companies of "manufacture of transport equipment" are added to the above 3 categories, the total accounts for 58% and the majority of them are large scale companies with the paid-up capital of ¥100 million or over. Any of the other categories accounts

less than 4% except that 18 companies (15%) are in the tertiary industry such as large scale wholesalers and traders.

Machinery (except electrical)	22	(19%)
Electrical machinery	17	(15%)
Chemical products	15	(13%)
Fabricated metal products	7	(6%)
Transport equipment	7	(6%)
Food	5	(4%)
Other manufacturing	26	(22%)
Tertiary industry	18	(15%)
Total	117	(100%)

2) Overseas Investment Plans

34 companies (29% of the total answered 117 companies) have concrete plans for overseas investment. For 22 companies (19%), overseas investment is an issue under discussion without concrete plans. 25 companies (21%) answered that they need to study overseas investment.

The above 81 positive responses account for 69% of total answered companies. Of the 81 responses, 57 or 70% companies have the paid-up capital of ¥100 million or over.

17 companies (or 15%) answered that they would not plan to invest abroad and 19 companies (or 16%) answered that they had already finished their investment abroad.

The large companies' share in the positive responses is slightly higher than in the negative ones.

Have concrete plans	34	(29%)
Issue under discussion	22	(19%)
Need to study	25	(21%)
No plan	17	(15%)
Already finished/completed	19	(16%)
Total	117	(100%)

3) Schedule of Investment Abroad

Out of the above 81 answerers with positive responses, 18 companies or 22% plan to invest abroad within 1 year. 21 companies or 26% between 1 and 2 years. Thus the combined number of companies with plans to invest abroad within 2 years is 39 or nearly half the positive answerers. 6 companies or 7% are planning to invest abroad not earlier than the third year. 32 companies or 40% have no definite schedule and 4 companies or 5% are currently investing or have recently invested abroad.

Within one year	18	(22%)
Between one-two years	21	(26%)
Not earlier than the third year	6	(7%)
No definite schedule	32	(40%)
Currently investing	4	(5%)
Total	81	(100%)

4) Region of Investment

Out of 78 companies answered, 57 companies (73%) answered NIES (South Korea, Taiwan, Hong Kong, Singapore) and Southeast Asia. 31 companies (40%) answered Europe and Soviet Union. 26 companies (33%) answered North America (U.S.A. and Canada). Central and South America was the fourth region in terms of the number of answers. This region was answered by 8 companies (10%). Among the 8 companies, 4 are with the capital of ¥500 million or over, 3 between ¥100 million and ¥500 million and 1 between ¥30 million and ¥ 100 million. The 8 companies consist of 3 in "manufacture of industrial chemicals" and "other chemical products", 3 in "Non-ferrous metal basic industries", 1 in "manufacture of machinery except electrical" and 1 in the tertiary industry.

NIES and Southeast Asia	57	(73%)
Europe including USSR	31	(40%)
North America (USA & Canada)	26	(33%)
Central & South America	8	(10%)
Pacific	7	(9%)
Other regions or not decided	9	(11%)
Total	138	(---)

* Total answerers are 78. (Plural answers)

5) Planned Operations Abroad

Out of the 81 answerers, 44 companies (54%) plan to start manufacturing in custom-built factories. 14 companies (17%) plan to establish technical partnership with foreign manufacturers. 13 companies (16%) plan to let foreign (non-Japanese) manufacturers process materials and parts on commission bases. 5 companies (6%) plan service activities and the remaining 5 companies plan other activities.

Manufacturing	44	(55%)
Technical cooperation	14	(17%)
Contract production	13	(16%)
Services	5	(6%)
Others	5	(6%)
Total	83	(100%)

6) Major Reasons for Overseas Investment

Out of the 81 companies answered, "opening of the new market in the region" came first by 50 companies (62%). "Low labor cost" was pointed out by 35 companies (43%). "Advantages for export to other countries" was answered by 25 companies (31%). "Availability of low cost materials and parts" accounted for 23% with 19 companies. 12 companies answered "delivery of products or service to the parent companies" and 11 companies answered "export to Japan to increase the domestic market share". Any of the other answers was pointed out by not more than 10 companies.

Opening the new market in the region	50	(62%)
Low labor cost	35	(43%)
Advantages for export to other countries	25	(31%)
Availability of low cost materials and parts	19	(23%)
Delivery of products to the parents company	12	(15%)
Export to Japan	11	(14%)
Others	42	(52%)
Total	194	(----)

* Total answerers are 81. (Plural answers)

7) Likelihood of Investment in Esmeraldas EPZ

No company showed a concrete intention to proceed to invest in the Esmeraldas EPZ. 11 companies, or 14% of the 76 answers, regarded the EPZ as worth studying. In the 11

companies, 4 companies have the capital of ¥500 million or over, 3 between ¥100 million and ¥500 million, 3 between ¥30 million and ¥100 million and 1 between ¥3 million and ¥10 million. They include 3 chemical related manufacturers. On the other hand, 65 companies or 86% disregarded Esmeraldas as the area for investment. As for the reasons for regardlessness, 24 companies or 37% answered that they already decided to establish in other regions. 22 companies or 34% regarded the zone as disagreeable to their strategy of marketing, etc. and 19 companies answered other reasons.

Concrete intention to invest	0	(0%)
Worth studying	11	(14%)
No possibilities	65	(86%)
Total	76	(100%)

8) Types of Operations

If companies start operation in a free zone, 29 companies (or 50% of the 58 answers) would operate manufacturing in custom-built factories, 17 companies (29%) would locate in standard factories for manufacturing, 3 companies (5%) would be engaged in service and 9 companies for others.

Manufacturing in custom-built factory	29	(50%)
Manufacturing in ready made standard factory	17	(29%)
Service activities	3	(5%)
Others	9	(16%)
Total	58	(100%)

9) Requirements for Investment in Free Zones

All of 61 companies answered more than one important conditions for entering into a free zone. "Quality of labor/employment incentive" was answered by 43 companies (70% of 61 answerers); "Availability of infrastructure" by 31 companies (51%); and "Exemption or reduction of taxes" by 22 companies (36%). Then comes "wage level" (18 companies or 30%) and "existence of a local investment partner" (17 companies or 28%). Further, "land price" and "export marketing assistance" are followed by 8 companies (13%).

Quality of labor	43	(70%)
Availability of infrastructure	31	(51%)
Exemption/reduction of taxes	22	(36%)
Wage level	18	(30%)
Existence of a local partner	17	(28%)
Land price	8	(13%)
Export marketing assistance	8	(13%)
Others	22	(36%)
Total	169	(---)

* Total answerers are 61. (Plural answers)