

INTRODUCTION

[INTRODUCTION]

1. The Background of the Study

The area of the Republic of Costa Rica is about 50,000 km², and the population is about 2.46 million as of 1984. The country's economy is centered on such agricultural products as coffee, bananas, sugar and beef, and the economy is quite active. The GDP per capita is higher in Costa Rica than in the other countries of Central America.

As for the foreign trade of Costa Rica, the main commodities are agricultural products such as coffee and bananas for export, and industrial products for import. Trade is conducted not only with Central American countries but also with Japan, Europe, Asia, and North and South America. For some years, marine trade in Costa Rica had been conducted mainly through the Port of Puntarenas on the Pacific coast and the Ports of Limón and Moín on the Atlantic coast.

However a few years ago, as the facilities at the Port of Puntarenas were becoming superannuated, it became necessary to develop new port for the Pacific coast trade. Rather than invest a large amount of capital to restore existing facilities and provide new facilities at Puntarenas, the Government of Costa Rica decided to construct the Port of Caldera, about 15 km from the old port at that time. The Port of Caldera was opened when the first stage construction work, including three quaywall, was completed in December 1981. Over time, the new Port of Caldera will take over all the port functions of the Port of Puntarenas.

However, it has become necessary to take appropriate measures against sand sedimentation at the present port. It has also become necessary to respond to such problems as a shortage of cargo handling equipment caused by the diversification of commodity items, and insufficient berth length because of increased ship size.

Moreover, the National Development Plan, 1982-1986 (1983, MIDEPLAN) is centered on the promotion of agriculture and industry and the development of such infrastructures as ports and roads. This plan shows the direction of the future socioeconomic development in Costa Rica. Therefore, the Port of Caldera will play an important role in the development of the national economy.

Along with this, it has become necessary to conduct a maintenance project for the existing first stage facilities at the Port of Caldera as stated in the National Transport Plan (November 1981, MOPT). This project will help to alleviate the urgent problems at the port through restoration and maintenance works on the existing structures. Thus, the Port of Caldera will continue to fulfill its vital role as a transportation center for the Pacific coast by utilizing the existing facilities to the utmost extent.

2. The Study Objectives

The objectives of this study are to establish measures to respond to such technical problems as sand sedimentation in the harbour, insufficient berth size, and a shortage of port cargo handling equipment, and to plan a maintenance project including a feasibility study based on the proposed measures so that the port can function as the main gateway on the

Pacific coast for the Republic of Costa Rica.

3. Circumstances

In response to a request from the Government of the Republic of Costa Rica to carry out a feasibility study on the Maintenance Project of the Port of Caldera, the Government of Japan dispatched a Contact Mission headed by Mr. Takashi Hashikawa, JICA to clarify the contents of the request in February 1985.

The Government of Japan thereafter decided to conduct the study, and dispatched the Preliminary Study Team headed by Dr. Isao Irie, JICA to form the Scope of Work for the study in May 1985. The team had a series of discussions about the study with Costa Rican government officials. The Scope of Work was agreed upon on May 27, 1985 by Ing. José G. Chacón L., Director General of DGOPF/MOPT and Dr. Isao Irie, Leader of the JICA Preliminary Study Team.

Based on the Scope of Work, JICA organized and dispatched a full-scale study team headed by Mr. Takashi Hazama, Senior Executive Director of OCDI. The study team then collected data and performed field surveys in Costa Rica. The study team prepared the Progress Report at the end of the field surveys.

The study team then analysed the data collected in Costa Rica and prepared the Draft Final Report. The study team submitted the Draft Final Report to MOPT and had a series of discussions on the report with MOPT as well as conducting seminars as a form of technology transfer in June 1986. MOPT, which is the counterpart agency of the Costa Rican Government, generally agreed upon the content of the Draft Final Report.

4. The Study Items

The study items are as follows :

- Demand Forecast
- Port and Harbour Planning
- Port Operation Planning
- Natural Conditions
- Countermeasures against Sand Sedimentation
- Dredging
- Design, Construction and Cost Estimate
- Economic Analysis
- Financial Analysis

5. Participants in the Study

5.1 The JICA Study Team

<u>DUTY</u>	<u>NAME</u>	<u>ORGANIZATION</u>
Team Leader Overall Management	Takashi Hazama	OCDI (Senior Executive Director)
Sub-leader Demand Forecast and Port and Harbour Planning	Shigeru Murata	OCDI
Port Operation Planning	Satoshi Tanami	OCDI
Countermeasures against Sand Sedimentation	Hiroshi Okamoto	OCDI
Economic Analysis and Financial Analysis	Taketo Fujii	OCDI
Design, Construction and Cost Estimate	Takeo Katayama	CCI
Dredging	Jun Hamano	CCI
Natural Conditions	Yoshio Yano	CCI
Co-ordination	Atsushi Kawai	JICA
Co-ordination	Kohichi Aita	JICA
Co-ordination	Aiichiroh Yamamoto	JICA

5. 2 The Costa Rican Counterparts

(1) MOPT

<u>NAME</u>	<u>POSITION</u>
Ing. José G. Chacón Laurito	Director, Subdivision of Development,
Ing. Alfredo Wesson Acuña	Director General, DGOPF
Ing. Ronald Mesén Vega	Design Section, Chief, DGOPF
Ing. Edwin Rodríguez Aguilera	Maintenance and Conservation Section, Chief, DGOPF
Ing. José Fabio Gutiérrez Jiménez	Engineering Survey Section, Chief, DGOPF
Ing. Aristides Romero Vargas	Engineering Survey Section, Assistant, DGOPF
Ing. Gilberto Rodríguez Pacheco	MOPT Caldera Office, Head
Ing. Jeannette Muñoz Vivas	Planning and Design Section, Assistant, DGOPF
Ing. Greevey Picado Soto	Design Section, DGOPF

(2) INCOP

<u>NAME</u>	<u>POSITION</u>
Sr. José Aponte Quirós	Planning and Development Direction, Chief
Sr. Tom Ingram Winfield L.	Port Operation Direction, Chief
Sr. Franklin Cerdas Delgado	Accounting, Administration and Financial Department
Ing. Hugo Chavarría B.	Storage and Port Operation Department.

6. The Field Surveys

6.1 The Field Survey Periods

The field surveys in Costa Rica were conducted in the fall of 1985 and the early summer of 1986 as follows :

First Survey : September 24, 1985 ~ November 22, 1985
Second Survey : May 26, 1986 ~ June 14, 1986

6.2 The First Field Survey Activities

During the first field survey, the study team held a series of discussion with representatives of the Costa Rican government and visited related government and other public offices and private companies in Costa Rica in order to collect data and information necessary for the execution of the study. The study team made several on-site inspections at the Port of Caldera to understand the present situation in detail, and visited related ports in Costa Rica to determine the relationship among these ports. Some study team members executed the natural conditions survey at the Port of Caldera with the full assistance of MOPT and INCOP during the period from Oct. 7 through Nov. 7. Two study team members visited a ship repair facility located in Panamá.

The rough itinerary during the first field survey of the study team is presented below.

<u>Date</u>	<u>Activities</u>
24 th Sep.~25 th Sep.	Departure from Japan
26 th Sep.~28 th Sep.	Meeting with MOPT
	Data collection in San José
29 th Sep.~2 nd Oct.	Field Survey at the Port of Caldera
	Data collection at Caldera and Puntarenas
	Interview survey.
3 rd Oct.~6 th Oct.	Data collection and interview survey in San José
7 th Oct.~9 th Oct.	Field survey in the hinterlands of the ports on the Pacific coast
10 th Oct.~16 th Oct.	Data collection and interview survey in San José
17 th Oct.	Flight tour around the Port of Caldera
18 th Oct.~20 th Oct.	Data collection and interview survey in Caldera and Puntarenas
21 st Oct.~27 th Oct.	Data collection and interview survey in San José
28 th Oct.~29 th Oct.	Field survey in the hinterland of the ports on

30 th Oct.~ 5 th Nov.	the Atlantic coast
6 th Sep.~13 th Nov.	Data collection and interview survey in San José
14 th Nov.	Preparation of the Progress Report
15 th Nov.~17 th Nov.	Discussion on the Progress Report with MOPT
18 th Nov.	Data collection and field survey in San José
19 th Nov.	Discussion on the Minutes of Meeting with MOPT
20 th Nov.~21 th Nov.	Courtesy call to the agencies concerned
	Leave for Japan

6.3 The Second Field Survey Activities

During the second field survey, the study team presented the Draft Final Report to the Costa Rican Government and had a series of discussions with MOPT, the counterpart agency of the Costa Rican Government, as well as holding seminars for technology transfer in San José and Puntarenas.

Based on the report and the discussions, the study team and MOPT exchanged the Minutes of Meeting, which note that MOPT generally agreed upon the contents of the Draft Final Report.

The rough itinerary during the second field survey of the study team is presented below.

<u>Date</u>	<u>Activities</u>
26 th May ~ 27 th May	Departure from Japan
28 th May ~ 1 st June	Meeting with MOPT Field Survey at the Port of Caldera Preparation for the seminar
2 nd June ~ 4 th June	Interview Survey at IDB in Washington D.C. Presentation of the Draft Final Report
5 th June ~	Seminar at INCOP
6 th June ~ 9 th June	Discussion on the Draft Final Report
10 th June	Presentation to the Minister and the Vice Minister of MOPT
11 th June	Agreement on the Minutes of Meeting Seminar in San José
12 th June ~ 14 th June	Leave for Japan

6. 4 Organizations Visited by the Study Team

Organizations visited by the study team are listed below :

[SPANISH]	[ENGLISH]
Astilleros Balboa, S. A.	Balboa Shipyard Co., Ltd.
Banco Central de Costa Rica	Central Bank of Costa Rica
Constructora Costarricense S. A.	Costa Rican Construction Co., Ltd.
Consejo Nacional de Producción	National Production Council
Corporación Zona Franca de Exportaciones y Parques Industriales	Export Free Zones and Industrial Parks Corporation
Fertilizantes de Centroamérica (Costa Rica) S. A.	Fertilizer Co. of Central America (Costa Rica), Ltd.
Flota Mercante Gran Colombia S. A.	Grand Colombia Merchant Marine Fleet Co., Ltd.
Galvatica S. A.	Galvatica Co., Ltd.
Tranp. Internacional GASH	Tranp. International GASH
Instituto Costarricense de Ferrocarriles	Costa Rican Railway Agency
Instituto Costarricense de Puertos del Pacífico	Costa Rican Pacific Ports Authority
Junta de Administración Portuaria y de Desarrollo Económico de Vertiente Atlántica.	Authority for the Port Administration and Economic Development of the Atlantic Coast
Laminadora Costarricense S. A.	Costa Rican Rolling Machine Co., Ltd.
Liga Agrícola Industrial de la Caña de Azúcar	Sugar-manufacturing Industry Corporation

METALCO S. A.

Ministerio de Planeación y Política
Económica

Ministerio de Obras Públicas y
Transportes

Náutica Centroamericana

Servicio Nacional de Aguas
Subterráneas, Riego y
Avenamiento

Secretaría Ejecutiva de
Planificación Sectorial,
Agropecuaria y de Recursos
Naturales Renovables

SERVICA S. A.

Talleres Manley S. A.

Técnico en Planificación

Tempisque Ferry Boat S. A.

Textiles Industriales de
Centroamérica S. A.

METALCO Co., Ltd.

Ministry of Economic Planning

Ministry of Public Works and Transport

Central American Navigation Co., Ltd.

National Agency for Underground Water
Irrigation and Drainage.

Executive Secretary's Office for
Sectoral Planning, Agriculture and
Renewable Natural Resources.

SERVICA Co., Ltd.

Talleres Manley Co., Ltd.

Technical Planning Co., Ltd.

Tempisque Ferry Boat Co., Ltd.

Central American Textiles Industry
Co., Ltd.

STUDY RESULTS

CHAPTER I.—XII.

CHAPTER I. OUTLINE OF COSTA RICA

1. Geography

Costa Rica extends from latitude N 11°13' to N 8°02'. It is a narrow country, located roughly between longitude W 83° and W 86°, comprising part of the Central American isthmus. Costa Rica is bordered on the north by Nicaragua, on the south by Panamá, on the west by the Pacific Ocean and on the east by the Atlantic Ocean.

The area of Costa Rica is about 51,000 km². The maximum length of the country from the Nicaraguan border to the Panamanian border is 484 km; its minimum width from the Pacific Ocean to the Atlantic Ocean is 119 km.

Mountain ranges run the length of Costa Rica from the northwest to the southeast, separating the Pacific and the Atlantic coastal areas. A volcanic range, the Guanacaste Mountains, begins near Nicaragua and meets the volcanic Central Mountains, which end in the center of the country. A higher non-volcanic range, the Talamanca Mountains, runs from the center to the southeastern border. There are more than ten peaks over 3,000 m in the Central Mountains and the Talamanca Mountains.

The Atlantic slope is mostly broad, gradual, and gentle; the Pacific slope is narrow, steep and hilly. There are rain forests in the northeast near the Atlantic Ocean and in the southwest lowlands on the Pacific side which still cover about a quarter of the country's area. By contrast, the tropical dry forest of the northwest has a long and severe dry season.

2. Demographic Profile

2.1 Transition of Population

According to the Census of June 1984 executed by DGEC/MEIC, the population of Costa Rica in 1984 is 2,416,809.

Not until 1976 did the population pass the two million mark. The increase rate of the population has been gradually slowing down as shown in Table I-1. The growth rate in the 1960's was 3.25% per year, and the rate decreased to 2.66% per year in the 1970's. The decline of the population increase rate is mainly due to a decrease in the birth rate.

2.2 Distribution of the Population

Costa Rica is composed of seven provinces divided into cantons which have many districts. There are a total of 81 cantons and 415 districts in the country. The area and the population of the provinces in June 1984 are shown in Table I-2. The transition of the population by province from 1973 to 1984 is shown in Table I-3.

According to the Census of June 1984, 63% of the Costa Rican people live in the Central Valley. The Central Valley is the area where the Central Mountains and the Talamanca Mountains nearly meet, and the valley runs from San Ramón in the west to Turrialba in the east. Altitudes on the valley floor range from about 800 m to 1,500 m averaging about 1,000 m.

Table I-1 Population in Costa Rica

Year	Population on July 1st	Annual Increase Rate (%)
1960	1,254,055	4.53
1965	1,489,825	3.53
1970	1,727,367	2.50
1975	1,968,438	2.44
1976	2,017,986	2.52
1977	2,070,560	2.61
1978	2,125,620	2.66
1979	2,183,625	2.73
1980	2,245,437	2.83
1981	2,307,290	2.75
1982	2,371,519	2.78

Source: Anuario Estadístico de Costa Rica, 1982 DGEC/MEIC

Table I-2 Area and Population of Each Province in June 1984

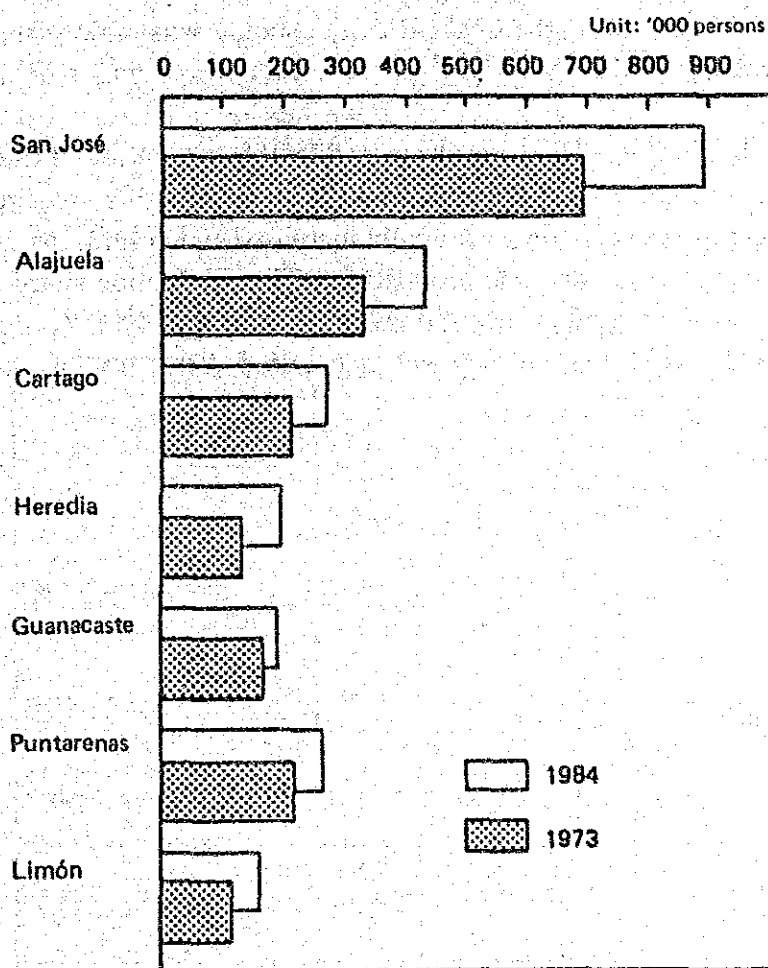
Province	Population		Area (km ²)	
	Population	%	Area	%
San José	890,434	36.8%	4,960	9.7%
Alejuela	427,962	17.7	9,753	19.1
Cartago	271,671	11.2	3,125	6.1
Heredia	197,575	8.2	2,657	5.2
Guanacaste	195,208	8.1	10,140	19.9
Puntarenas	265,883	11.0	11,276	22.1
Limón	168,076	7.0	9,189	18.0
TOTAL	2,416,809	100.0	51,100	100.0

Source: Octavo Censo Nacional de Población, Junio 1984 DGEC/MEIC

Table I-3 Population Census by Province on July 10, 1984 and on May 14, 1973

Unit : persons

Province	1984		1973		Difference
	Population	%	Population	%	
San José	890,434	36.8%	695,163	37.1%	195,271
Alajuela	427,962	17.7	326,032	17.4	101,930
Cartago	271,671	11.2	204,699	10.9	66,972
Heredia	197,575	8.2	133,844	7.2	63,731
Guanacaste	195,208	8.1	178,691	9.5	16,517
Puntarenas	265,883	11.0	218,208	11.7	47,675
Limón	168,076	7.0	115,143	6.5	52,933
Total	2,416,809	100.0	1,871,780	100.0	545,029



Source: Octavo Censo Nacional de Población, Junio 1984 DGEC of MEIC

Fig. I-1 Population by Province

3. Economic Profile

3.1 Economic Activities

Costa Rica maintained high economic growth throughout the 1960's and most of the 1970's. The average annual growth rate of 5.1% in the early 1960's went up to 7.0% in the latter 1960's. The growth rate in the early 1970's was about 6.0%.

However, as shown in Table I -4, the economic growth rate rapidly declined from 1978. This decrease was mainly due to the fall in coffee prices and the second oil shock.

In 1984, the country's economic growth rate reached 6.3%, but due to the negative growth in the intervening years, the Costa Rican economy has only recently recovered the level of economic activity achieved in 1980.

3.2 Industrial Structure

Until the end of the 1950's, the Costa Rican economy was mainly supported by agriculture and stock raising. More than 50% of the labour force was working in the primary sector.

Industrialization in Costa Rica was promoted by the foundation of the Central American Market which was formally established in 1963. Protected by this arrangement, the share of industry in the Costa Rican economy gradually increased and in 1975, as shown in Table I -5, accounted for 21% of gross domestic production. The production share of industry in 1984 was 21.9%, the share of agriculture and stock raising was 20.3%, commercial services accounted for 16.2% and the government accounted for 9.9% of the Gross Domestic Product.

Table I-4 Economic Growth in Costa Rica

Unit: million colones

Year	Current Price	Constant Price (1966 basis)		
		Deflator	Constant Price	Annual Growth Rate
1960	2,860.6	0.9238	3,096.5	6.1%
1965	3,928.5	0.9882	3,975.5	9.8
1966	4,288.4	1.0000	4,288.4	7.9
1967	4,633.9	1.0228	4,530.7	5.7
1968	5,126.7	1.0432	4,914.6	8.5
1969	5,555.3	1.0908	5,184.5	5.5
1970	6,524.5	1.1706	5,573.5	7.5
1971	7,137.0	1.1992	5,951.3	6.8
1972	8,215.8	1.2761	6,438.0	8.2
1973	10,162.4	1.4655	6,934.3	7.7
1974	13,215.7	1.8057	7,318.8	5.5
1975	16,804.6	2.2489	7,472.5	2.1
1976	20,675.6	2.6222	7,884.8	5.5
1977	26,330.7	3.0664	8,586.9	8.9
1978	30,193.9	3.3089	9,125.1	6.3
1979	34,584.4	3.6332	9,575.8	4.9
1980	41,405.5	4.2917	9,647.8	0.8
1981	57,102.7	6.0557	9,429.6	-2.3
1982	97,505.1	11.1529	8,742.6	-7.3
1983	126,337.1	14.1195	8,947.7	2.3
1984	151,303.8	15.9050	9,513.0	6.3

Source: Cifras de Cuentas Nacionales de Costa Rica, BCCR

Table I-5 Gross Domestic Product by Sector

Unit: million colones

	1970	1975	1980	1984
Agriculture and Stock Raising	(24.1%) 1,343.6	(21.2%) 1,585.7	(18.0%) 1,736.1	(20.3%) 1,929.4
Industry	(18.6) 1,036.3	(21.2) 1,585.1	(22.0) 2,119.6	(21.9) 2,080.1
Electric Power and Water Services	(1.9) 106.4	(2.1) 156.1	(2.3) 224.9	(3.3) 315.4
Construction	(4.1) 229.1	(5.1) 384.7	(6.2) 602.7	(4.1) 390.5
Commercial Services	(19.9) 1,109.5	(17.2) 1,288.0	(18.0) 1,740.8	(16.2) 1,544.7
Transportation and Communication	(4.4) 247.7	(5.8) 432.2	(7.0) 676.4	(7.0) 668.1
Financial Services	(3.9) 216.1	(4.8) 359.5	(5.2) 500.4	(5.5) 521.3
Real Estate	(8.0) 447.7	(7.6) 564.8	(6.9) 664.7	(7.4) 699.3
Government	(9.9) 549.2	(10.3) 769.8	(10.0) 966.7	(9.9) 945.2
Others	(5.2) 287.9	(4.6) 344.6	(4.3) 415.5	(4.4) 419.0
Total	(100.0) 5,573.5	(100.0) 7,472.5	(100.0) 9,647.8	(100.0) 9,513.0

Note: (1) GDP at 1966 Constant Prices
(2) Source: BCCR

4. Foreign Trade

4.1 Exports

As shown in Table I-6, exports increased at an average annual rate of about 5% in the latter 1960's, and by more than 15% per year in the early to middle 1970's. Attaining the highest rate in 1977, the annual growth rate of exports declined rapidly thereafter, and in 1982 exports decreased at a rate of 13.7% per year. The decreased growth rate of the value

Table I-6 Foreign Trade in Costa Rica

Unit: million US\$

	Export (F.O.B.)		Import (C.I.F.)		Difference
	Amount	Increase Rate	Amount	Increase Rate	
1960	85.8		110.4		-24.6
1965	111.8	-1.8%	178.2	28.6%	-66.4
1966	135.5	21.2	178.5	0.2	-43.0
1967	143.8	6.1	190.7	6.8	-46.9
1968	170.8	18.8	213.9	12.2	-43.1
1969	189.7	11.1	245.1	14.6	-55.4
1970	231.2	21.9	329.1	34.3	-97.9
1971	225.4	-2.5	349.7	6.3	-124.3
1972	280.9	24.6	372.8	6.6	91.9
1973	344.5	22.6	455.3	22.1	-110.8
1974	440.3	27.8	719.7	58.1	-279.4
1975	493.3	12.0	693.9	-3.6	-200.6
1976	592.9	20.2	770.4	11.0	-177.5
1977	828.2	39.7	1,021.4	32.6	-193.2
1978	861.9	4.4	1,165.7	14.1	-300.8
1979	934.4	8.0	1,396.8	19.8	-462.4
1980	1,001.7	7.2	1,523.8	9.1	-522.1
1981	1,008.1	0.6	1,208.5	-20.7	-200.4
1982	870.4	-13.7	893.2	-26.1	-22.8
1983	882.4	1.4	988.5	10.7	-106.1
1984	952.6	8.0	1,091.8	10.5	-139.2

Source: BCCR

of exports after 1977 is mainly due to the fall in the price of coffee as shown in Table I-7.

Most Costa Rican exports are traditional agricultural products, such as coffee and bananas. As shown in Table I-8, the share of traditional export products in 1965 was 81% of the total exports. However, with the progress of industry, the share of traditional products in total exports was reduced to 60.3% in 1983.

As shown in Table I-9, over half of the Costa Rican exports are shipped to the United States and to Central American Common Market (CACM) countries. However, the 52% share of the United States in 1960 has declined to about 30% of total exports in the 1980's.

4.2 Imports

As shown in Table I-6, imports increased at an annual rate of about 10% in the early 1960's, and the rate of increase grew to about 17% per year in the latter 1970's.

However, as Costa Rica suffered a trade deficit of over \$500 million in 1980, the national government introduced a policy to restrict imports, and imports were successfully reduced in 1981 by 20.1% and in 1982 by 26.1% over the respective previous years.

The shares of major commodity groups in total imports in 1983 are 24.5% for chemical products, 23.4% for semimanufactured goods, 18.6% for fuel and lubricants, 14.7% for transport machinery and materials and 9.6% for foods as shown in Table I-10. The share of fuel and lubricants increased from 10.6% in 1975 to 18.6% in 1983, and the share of chemical products increased from 19.2% in 1975 to 24.5% in 1983 due to the rise in oil price. The share of transport machinery and materials decreased from 31.5% in 1979 to 14.7% due to the import restriction policy.

In 1983, 38.4% of the total imports were from the United States. Imports from Japan accounted for 13.4% of the total in 1977. However, because of the reduction of vehicle and steel imports, the Japanese share was reduced to 4.2% of the total imports in 1982 as shown in Table I-11.

Table I-7 Exports of Coffee and Bananas (FOB)

	Coffee			Bananas		
	46kgf Sacks ('000)	Total Exports (Million \$U.S.)	Price Per Sack (\$U.S.)	Volume ('000 MT)	Total Exports (Million \$U.S.)	Price Per kgf (\$U.S.)
1965	1,050	46.6	44.43	316	28.3	0.09
1970	1,502	73.1	48.66	856	66.8	0.08
1971	1,390	59.3	42.67	922	64.0	0.07
1972	1,871	77.9	41.61	1,078	82.8	0.08
1973	1,585	94.0	59.31	1,179	90.7	0.08
1974	1,959	124.8	63.67	1,038	98.3	0.09
1975	1,673	96.9	57.93	1,105	144.1	0.13
1976	1,397	153.9	110.18	1,069	148.7	0.14
1977	1,470	319.2	217.17	1,003	150.3	0.15
1978	1,877	313.7	167.10	1,058	169.9	0.16
1979	2,117	315.4	148.95	1,025	190.5	0.19
1980	1,559	247.9	158.94	973	207.5	0.21
1981	2,093	240.0	114.68	1,002	224.8	0.22
1982	2,040	236.9	116.14	1,013	228.1	0.23
1983	2,352	230.0	97.74	1,007	233.1	0.23

Note: (1) Source: PRINCIPALES ESTADISTICAS SOBRE LAS TRANSACCIONES DE COSTA RICA CON EL EXTRANJERO, BCCR
 (2) Figures for 1983 are preliminary.

Table I-8 Composition of Exports (FOB)

Unit: Million US\$

	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983
Coffee	(41.7%) 46.6	(31.7%) 73.1	(19.7%) 97.0	(25.9%) 153.9	(38.5%) 319.2	(36.2%) 313.6	(33.8%) 315.5	(24.7%) 247.9	(23.8%) 240.1	(27.2%) 236.9	(26.5%) 229.4
Bananas	(25.2) 28.2	(28.9) 66.8	(29.2) 144.2	(25.1) 148.6	(18.1) 150.3	(19.6) 169.9	(20.4) 190.5	(20.7) 207.5	(22.3) 224.8	(26.2) 228.1	(26.8) 233.1
Cacao	(2.0) 2.2	(0.8) 1.9	(1.0) 5.3	(1.2) 6.9	(2.1) 17.1	(1.7) 15.1	(1.0) 9.7	(0.4) 4.2	(0.3) 2.7	(0.3) 2.4	(0.1) 1.0
Meat	(4.7) 5.2	(7.8) 18.1	(7.7) 38.0	(7.7) 45.5	(6.2) 51.3	(7.1) 61.5	(8.8) 82.5	(7.2) 71.8	(7.6) 76.5	(6.3) 54.7	(3.5) 30.7
Sugar	(4.2) 4.7	(4.4) 10.1	(9.8) 48.2	(4.2) 24.7	(1.9) 15.6	(1.8) 15.9	(1.9) 17.5	(4.1) 40.7	(4.2) 42.0	(1.9) 16.6	(2.7) 23.9
Fertilizer	(3.2) 3.6	(1.0) 2.4	(3.7) 18.3	(2.8) 16.7	(1.7) 13.7	(1.3) 11.0	(1.0) 9.3	(1.0) 10.0	(1.5) 15.6	(0.9) 7.9	(0.7) 5.7
Total of Traditional Exports	(81.0) 90.5	(74.6) 172.4	(71.1) 351.0	(66.9) 396.3	(68.5) 567.2	(67.9) 587.0	(66.9) 624.9	(58.1) 582.1	(59.7) 601.7	(62.8) 546.6	(60.3) 523.8
Manufactured Goods	(14.2) 15.9	(22.1) 51.1	(24.0) 118.3	(28.2) 167.6	(26.1) 216.0	(24.6) 213.1	(27.0) 252.5	(33.4) 334.0	(34.2) 345.2	(30.7) 267.1	(39.7) 344.5
Other Agricultural and Marine Products	(4.8) 5.4	(3.3) 7.7	(4.9) 24.0	(4.9) 29.0	(5.4) 45.0	(7.5) 64.8	(6.1) 56.9	(8.5) 85.6	(6.1) 61.2	(6.5) 56.7	(6.5) 56.7
Grand Total	(100.0) 111.8	(100.0) 231.2	(100.0) 493.3	(100.0) 592.9	(100.0) 828.2	(100.0) 864.9	(100.0) 934.4	(100.0) 1,001.7	(100.0) 1,008.1	(100.0) 870.4	(100.0) 869.3

Note: (1) Source: PRINCIPALES ESTADÍSTICAS SOBRE LAS TRANSACCIONES DE COSTA RICA CON EL EXTRANJERO, BCCR.

(2) Figures for 1983 are preliminary

Table I-9 Main Destinations for Exports (FOB)

Unit: Million US\$

	1977	1980	1981	1982	1983
CACM	(21.0%) 173.8	(27.0%) 270.3	(23.6%) 238.0	(19.2%) 167.2	(22.0%) 191.0
United States	(29.9) 247.7	(32.7) 327.5	(30.1) 303.5	(30.0) 261.2	(30.9) 268.4
Panamá	(2.7) 22.5	(4.1) 41.4	(4.6) 46.2	(4.7) 40.7	(4.0) 34.6
West Germany	(12.9) 106.8	(11.6) 116.3	(12.2) 123.3	(14.0) 122.2	(13.6) 117.9
Finland	(4.4) 36.1	(2.6) 25.6	(1.7) 17.5	(2.2) 19.3	(3.8) 33.1
England	(0.2) 2.0	(0.3) 2.7	(1.0) 10.5	(3.0) 26.1	(2.5) 22.1
Italy	(2.1) 17.6	(4.2) 42.2	(2.9) 29.1	(3.6) 31.6	(2.9) 25.2
Others	(26.8) 221.7	(17.5) 175.5	(23.9) 240.0	(23.3) 202.1	(20.3) 177.0
Total	(100.0) 828.2	(100.0) 1,001.7	(100.0) 1,008.1	(100.0) 870.0	(100.0) 869.3

Note: (1) Source: PRINCIPALES ESTADISTICAS SOBRE LAS TRANSACCIONES DE COSTA RICA CON EL EXTRANJERO, BCCR
 (2) Figures for 1983 are preliminary.

Table I-10 Composition of Imports (CIF)

Unit: Million US\$

	1975	1976	1977	1978	1979	1980	1981	1982	1983
Foods	(8.5%) 59.2	(7.2%) 55.6	(6.5%) 66.7	(6.2%) 72.5	(6.4%) 90.0	(7.6%) 115.6	(7.6%) 92.3	(8.1%) 72.5	(9.6%) 95.1
Tobacco and Beverages	(0.4) 2.5	(0.4) 3.0	(0.5) 5.6	(0.6) 7.0	(0.6) 8.4	(0.7) 10.2	(0.6) 7.6	(0.5) 4.8	(0.5) 5.1
Raw Materials except Fuel	(1.9) 13.5	(2.1) 16.0	(1.9) 19.6	(1.6) 18.3	(1.9) 26.5	(2.3) 35.7	(2.2) 26.4	(2.5) 22.6	(2.5) 24.4
Fuel and Lubricants	(10.6) 73.8	(9.6) 73.9	(10.0) 102.2	(10.1) 117.7	(13.6) 189.5	(15.0) 229.1	(17.0) 205.3	(21.2) 188.9	(18.6) 183.6
Animal and Vegetable Oil and Fat	(0.9) 6.0	(0.9) 7.2	(0.7) 7.3	(0.8) 8.9	(0.6) 8.4	(0.8) 11.5	(0.6) 7.3	(0.5) 4.5	(0.2) 1.9
Chemical Products	(19.2) 133.1	(16.8) 129.5	(17.2) 175.2	(16.3) 189.6	(16.4) 229.2	(18.0) 273.7	(19.6) 237.4	(22.5) 200.6	(24.5) 242.8
Semimanufactured Goods	(25.2) 175.1	(25.6) 197.1	(24.1) 245.7	(24.9) 290.0	(22.1) 309.1	(22.9) 348.9	(22.4) 271.0	(21.1) 188.2	(23.4) 231.2
Transport Machinery and Materials	(26.8) 186.1	(30.4) 234.4	(31.3) 318.8	(30.7) 359.2	(31.5) 439.4	(25.0) 380.9	(23.5) 283.2	(18.3) 163.5	(14.7) 145.0
Other Manufactured Goods	(5.9) 40.7	(6.3) 48.6	(6.7) 68.6	(7.9) 91.8	(6.8) 95.6	(7.2) 110.0	(5.7) 68.4	(4.4) 39.7	(5.5) 54.0
Others	(0.6) 4.0	(0.7) 5.1	(1.1) 11.7	(0.9) 10.7	(0.1) 0.7	(0.5) 8.2	(0.8) 9.6	(0.9) 7.9	(0.5) 5.4
Total	(100.0) 694.0	(100.0) 770.4	(100.0) 1,021.4	(100.0) 1,165.7	(100.0) 1,396.8	(100.0) 1,523.8	(100.0) 1,208.5	(100.0) 893.2	(100.0) 988.5

Note: (1) Source: PRINCIPALES ESTADÍSTICAS SOBRE LAS TRANSACCIONES DE COSTA RICA CON EL EXTRANJERO, BCCR

(2) Figures for 1983 are preliminary.

Table I-11 Main Origins of Imports (CIF)

Unit: Million US\$

	1977	1980	1981	1982	1983
CACM	(16.4%) 167.9	(14.4%) 219.8	(12.6%) 152.3	(12.6%) 112.4	(12.1%) 120.1
United States	(33.5) 342.6	(33.0) 502.1	(33.2) 401.1	(35.5) 316.8	(38.4) 379.2
Panamá	(1.2) 12.1	(2.0) 30.2	(1.7) 20.3	(1.3) 11.8	(1.8) 17.4
Mexico	(2.3) 23.4	(6.4) 96.9	(9.2) 110.7	(9.0) 80.3	(8.1) 79.9
Venezuela	(3.5) 35.6	(6.9) 105.2	(7.6) 92.0	(12.0) 107.3	(7.4) 73.4
West Germany	(5.4) 55.6	(4.7) 70.9	(4.6) 55.4	(3.9) 35.1	(4.9) 48.1
Japan	(13.4) 136.4	(11.2) 171.3	(9.8) 118.3	(4.2) 37.2	(5.4) 53.0
Others	(24.3) 247.8	(21.4) 327.4	(21.3) 258.4	(21.5) 192.3	(21.9) 217.4
Total	(100.0) 1,021.4	(100.0) 1,523.8	(100.0) 1,208.5	(100.0) 893.2	(100.0) 988.5

Note: (1) Source: PRINCIPALES ESTADÍSTICAS SOBRE LAS TRANSACCIONES DE COSTA RICA CON EL EXTRANJERO, BCCR

(2) Figures for 1983 are preliminary.

5. Transportation

5.1 General Outlook

The total Costa Rican international trade cargo volume is about 1.72 million tons for imports and 1.76 million tons for exports in 1984. The import cargo volume is almost the same as the export cargo volume. The import cargo volume decreased in 1981 and 1982. However, it turned to an increase in 1983 and 1984. The export cargo volume increased in every recent year except for 1981. Especially, it drastically increased in 1984.

Maritime transportation took a share of 91.4% for imports and 92.6% for exports in the international trade cargo volume in 1984. Thus, maritime transportation is the major transportation mode for Costa Rican international trade as shown in Table I-12 and Fig. I-2.

5.2 Maritime Transportation

There are several major shipping routes around Costa Rica. Major ports of call for the major shipping lines are the Ports of Caldera and Puntarenas on the Pacific coast, and the Ports of Limón and Moín on the Atlantic coast. The major shipping routes are shown in Table I-13 and Fig. I-3. However, according to INCOP, the full-container service between the Port of Caldera and Europe stopped from the end of 1984. Table I-14 shows the international cargo throughput at the Ports of Caldera and Puntarenas by trade counterpart region. The shares of the USA and Japan are 54.8% and 11.8% in 1984, respectively.

5.3 Land Transportation

5.3.1 Railway Transportation

There are three railway networks in Costa Rica (refer to Fig. I-4). The Pacific railway which runs between the Ports of Caldera and Puntarenas and San José, and the Atlantic railway which runs between the Ports of Limón and Moín and San José are owned and operated by the national company, INCOFE. Although both of these lines terminate at San José, they are not interconnected. The routes are steep and winding in the mountainous areas. INCOFE has been under a sort of organizational reform due to its financial problems. Along with this reform, its name was changed from the former name, FECOSA, to the present name, INCOFE, in October 1985.

The third railway line is located on the Pacific side in the southern part of the nation and leads to an adjacent country, Panamá. This line has been developed and operated by a private fruit company. The number of passengers and cargo volume transported by each of the three railways in 1984 are shown in Table I-15. The distances by railway between major cities are shown in Table I-16.

Table I-12 International Trade Cargo Volume by Transportation Mode

Unit: '000 tons

	Year																	
	1976	%	1977	%	1978	%	1979	%	1980	%	1981	%	1982	%	1983	%	1984	%
[IMPORT]																		
Total	1546.9	100.0	1883.5	100.0	2034.4	100.0	2021.3	100.0	2056.4	100.0	1685.8	100.0	1598.7	100.0	1678.9	100.0	1723.7	100.0
Maritime Transportation	1278.0	82.6	1601.0	85.9	1784.2	85.6	1771.6	87.6	1772.2	86.2	1460.6	86.6	1435.8	89.8	1547.7	92.2	1575.7	91.4
Land Transportation	257.9	16.7	248.0	13.3	284.3	13.6	232.1	11.5	272.2	13.2	213.8	12.7	136.4	8.5	123.2	7.3	121.8	7.1
Through the north border	222.0		194.7		236.7		213.0		228.1		197.8		125.9		99.6		97.5	
Through the south border	35.9		53.3		47.6		19.1		44.1		16.0		10.5		23.6		24.2	
Air Transportation	10.9	0.7	14.4	0.8	15.7	0.8	17.5	0.9	11.7	0.6	11.2	0.7	26.4	1.7	8.2	0.5	12.3	0.7
Mail	0.1		0.1		0.2		0.1		0.3		0.2		0.1		0.1			
Others																	13.9	0.8
[EXPORT]																		
Total	1539.0	100.0	1544.2	100.0	1592.5	100.0	1565.3	100.0	1545.1	100.0	1870.9	100.0	1574.3	100.0	1548.3	100.0	1762.1	100.0
Maritime Transportation	1370.2	89.0	1313.3	85.0	1383.1	86.8	1380.9	88.2	1292.9	83.7	1626.0	86.9	1397.1	88.8	1410.7		1631.5	92.6
Land Transportation	157.1	10.2	210.8	13.7	201.9	12.7	167.2	10.7	242.2	15.7	204.7	10.9	135.7	8.6	121.4	7.8	115.4	6.5
Through the north border	116.9		174.3		165.7		127.6		206.9		171.2		103.3		92.5		91.1	
Through the south border	40.2		36.5		36.2		39.6		35.3		33.5		32.4		28.9		24.3	
Air Transportation	11.7	0.8	20.1	1.3	7.5	0.5	10.1	0.6	10.0	0.6	11.2	0.6	12.5	0.8	14.2	0.9	15.1	0.9
Others							7.1	0.5			29.0	1.6	29.0	1.8	2.2	0.2		

Source: CUADROS ESTADISTICOS SOBRE SECTOR TRANSPORTES 1984, DGP/MOPT

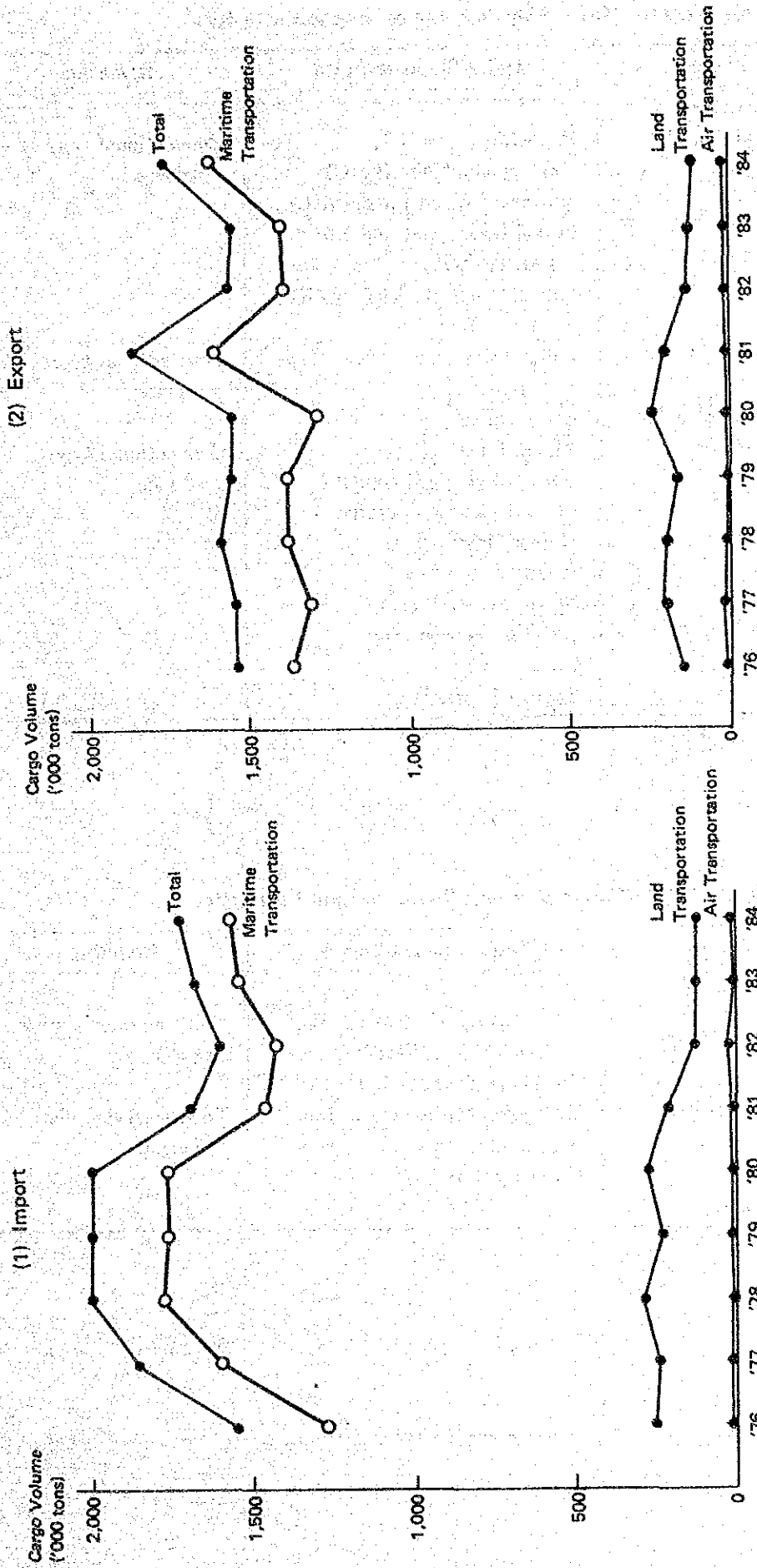


Fig. 1-2 International Trade Cargo Volume by Transportation Mode

Table I-13 (1) Major Shipping Routes around Costa Rica

Major Shipping Routes	Major Shipping Lines	Remarks
(Through the Port of Caldera) P-1. Far East~Central America	Flota Mercante Grancolombiana (FMG) Kawasaki Kisen Kaisha (KL) Mitsui OSK Lines and Japan Line (MO/JL) Nippon Yusen Kaisha (NYK) Nedlloyd (NL)	Conventional type service
P-2. North American Gulf Coast ~Central America	Lykes Lies	Conventional type service
P-3. Argentine~Central America P-4. Europe~Central America	Elma Lines Alpina Line Baltic Shipping Company Central America Service Hapag-Lloyd Ag Independence Line Polish Ocean Line P.V. Christensen Line Sirius S.A. Transp. Española	Conventional type service

Table I-13 (2) Major Shipping Routes around Costa Rica

Major Shipping Routes	Major Shipping Lines	Remarks
(Through the Port of Limón) A-1. Europe~Caribbean Sea	Carol Group (HAPAG, NED, HARRISON, CGM) Caribbean Overseas Line	Full-container service RO/RO
A-2. Round the World Service (Eastbound)	Evergreen Marine Corp. Ltd. Sea-Land Service Inc.	Feeder service via Kingston
A-3. East Coast of USA ~Caribbean Sea~Europe	Contship S.A.	

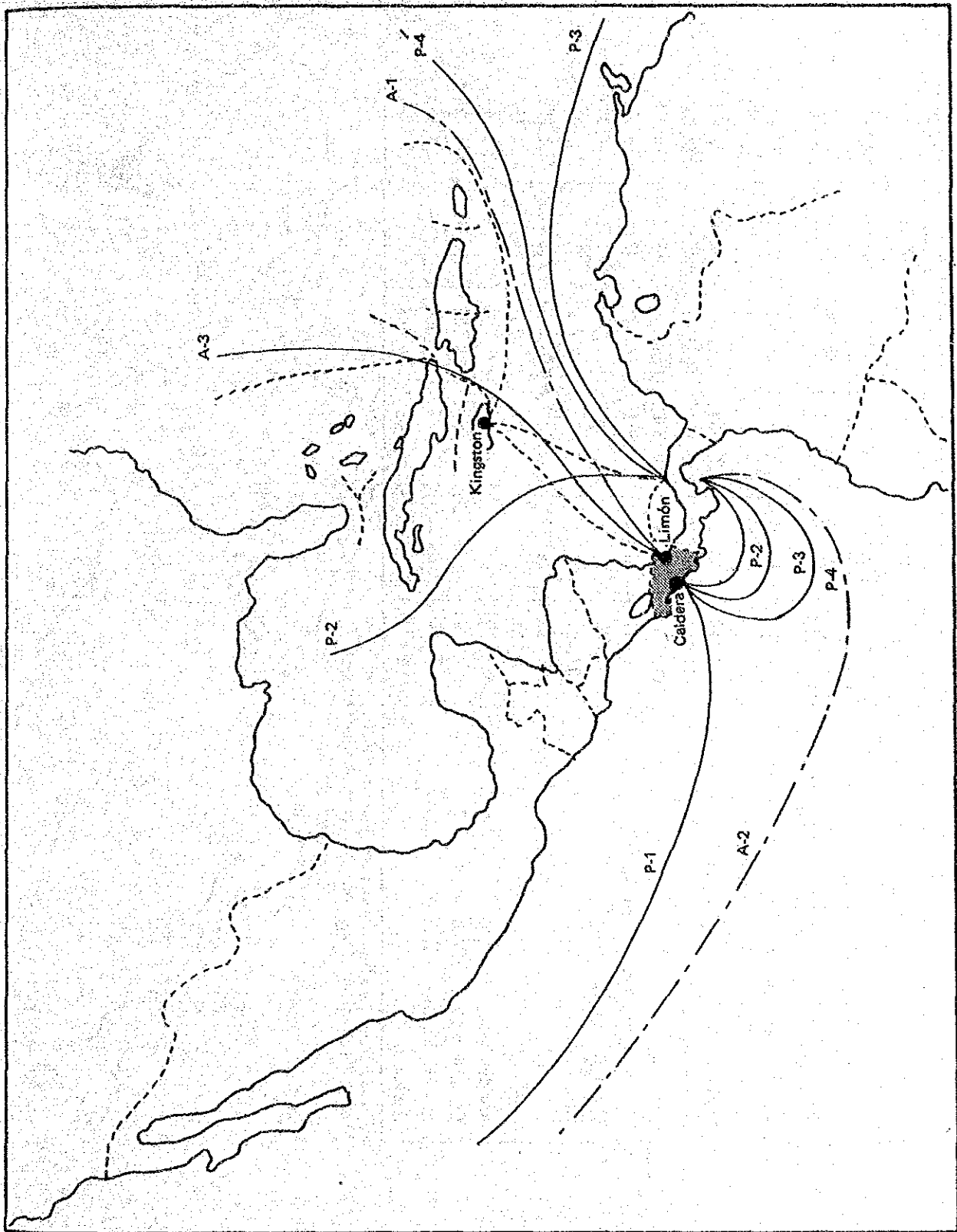


Fig. I-3 Conceptual Diagram of Major Shipping Routes around Costa Rica

Table I-14 Counterpart Regions of the Ports on the Pacific Coast

(Unit: tons)

REGION	1982			1984		
	Total	Imports	Exports	Total	Imports	Exports
TOTAL	277,557	200,986	76,571	585,505	356,560	228,945
Central American Common Market	84	38	48	10,169	3,640	6,529
Latin American Free Trade Association	34,263	25,232	9,031	85,240	27,303	57,932
European Free Trade Association	19	19	—	110	90	20
Other Latin American Countries	23,112	29	23,083	5,594	3,115	2,479
North America	163,665	128,220	35,445	325,618	202,357	123,261
(USA)	(159,889)	(124,730)	(35,159)	(310,146)	(188,128)	(122,018)
European Economic Community	6,117	3,606	2,511	50,368	23,416	26,952
Other European Countries	512	52	460	1,362	276	1,086
Asia	33,797	28,704	5,093	88,682	85,694	2,988
(Japan)	(22,111)	(18,157)	(3,954)	(69,429)	(66,820)	(2,609)
Oceania	81	—	81	161	4	157
Middle East	9	—	9	—	—	—
Caribbean Free Market	—	—	—	10,735	10,660	75
Eastern Europe	—	—	—	7,260	—	7,260
Africa	15,898	15,086	812	206	—	206

Source: Informe Estadístico Año 1983, 1984, INCOP

Note: Cargo volume at the Ports of Caldera and Puntarenas

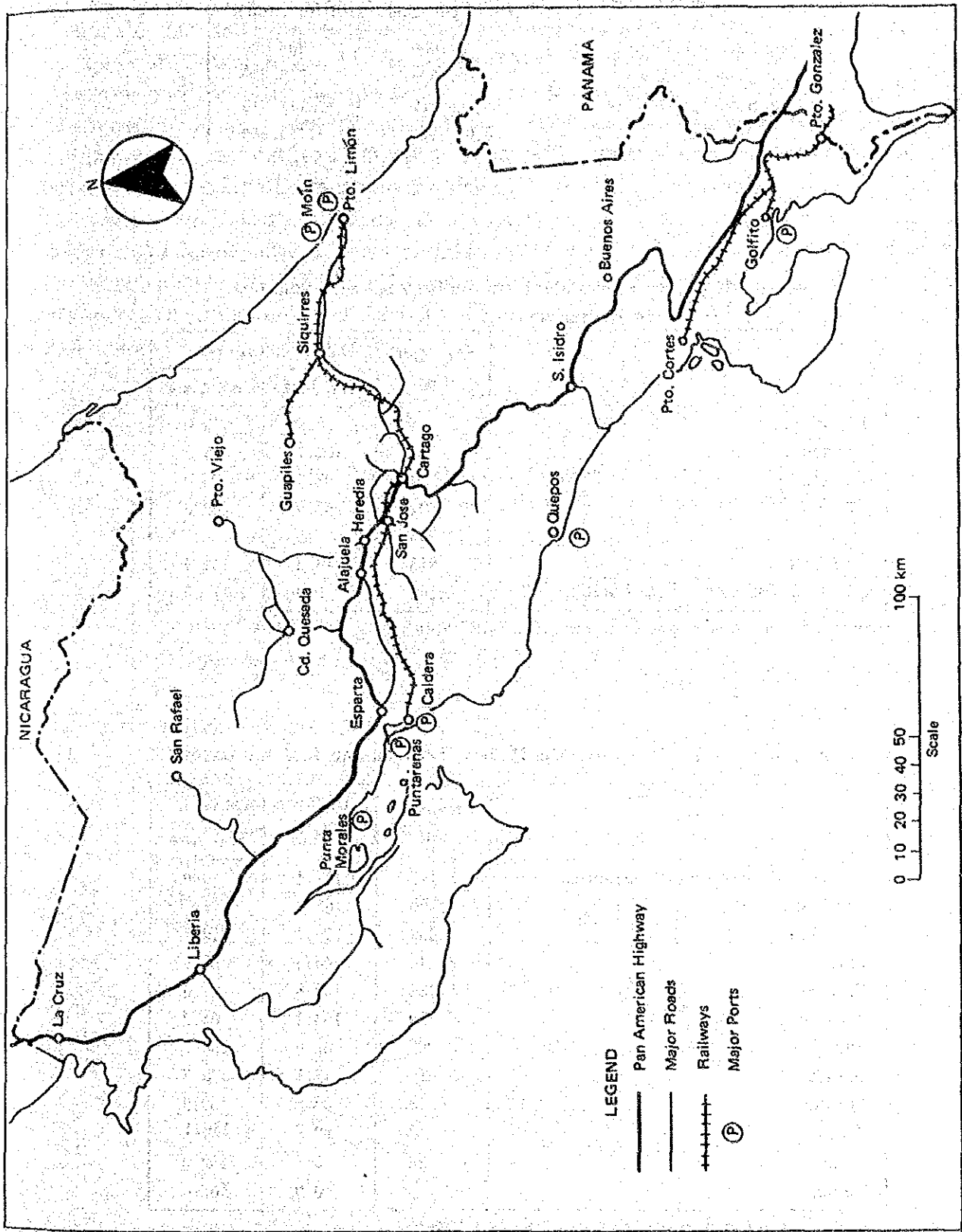


Fig. 1-4 Land Transportation Networks in Costa Rica

Table I-15 Actual Records of Railway Transportation in 1984

Railway	Passengers (Unit : persons)	Cargoes (Unit : tons)
the Pacific railway	727,659	306,930
the Atlantic railway	1,254,698	778,039
the Southern railway	18,576	111,015
Total	2,000,933	1,195,984

Table I-16 (1) Distances along the Railway between San José and Puntarenas

City	Elevation (m)	Distance form (km)	
		San José	Puntarenas
Puntarenas	4	115.9	0.0
Barranca	28	102.4	13.5
Caldera	4	92.9	23.0
Orotina	224	66.6	49.3
Dantas	265	59.2	56.7
San Antonio	913	14.5	101.4
San José, Estación F.E. al Pacífico	1,142	0.0	115.9

Source : Anuario Estadístico de Costa Rica, 1984, DGEC/MEIC

Table I-16 (2) Distances along the Railway between San José and Limón

City	Elevation (m)	Distance form (km)	
		Limón	San José
San José Estación del F. Atlántico	1,179	167.4	0.0
San Pedro	1,200	165.7	1.7
Tres Ríos	1,351	157.7	10.1
Cartago	1,444	146.5	20.8
Paraíso	1,334	139.8	27.6
Turrialba	639	103.1	64.2
Siquirres	62	61.6	105.7
Bataán	15	42.1	125.3
Matina	11	36.8	130.5
Zent	18	30.9	136.4
Moín	22	5.4	162.0
Limón	4	0.0	167.4

Source : Anuario Estadístico de Costa Rica, 1982, DGEC/MEIC

5. 3. 2 Road Transportation

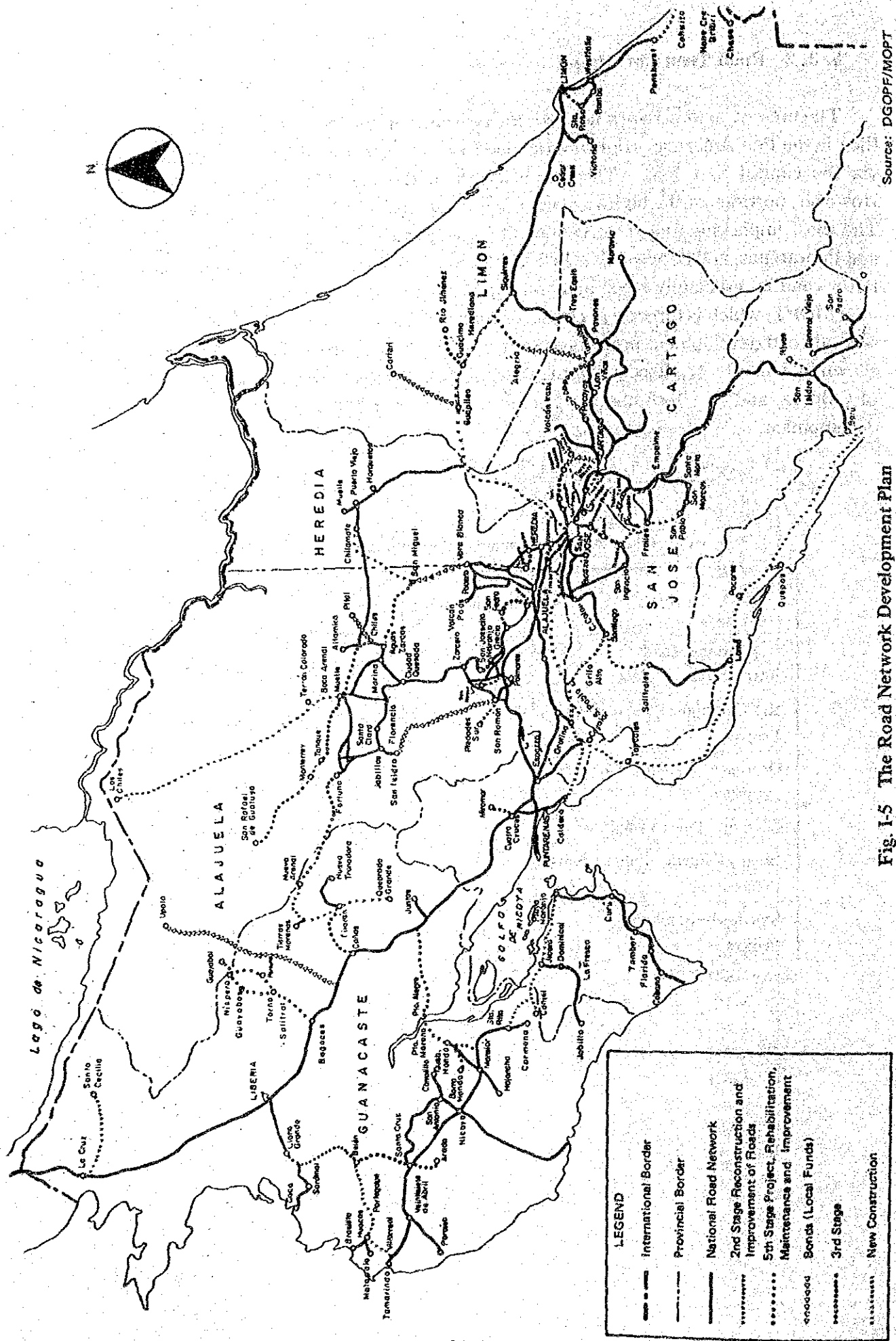
The present road network in Costa Rica is shown in Fig. I-4. The central road in Costa Rica is the Pan American Highway running through the nation from the north to the south via the capital San José. The entire length of the Pan American Highway is paved. However, portions of the highway between Cartago and Empalme sometimes become foggy. The most important routes for commodity transportation are the roads between San José and Puntarenas, and between San José and Limón. The former is shorter than the latter. The latter road is especially steep and winding in the mountainous areas.

MOPT, which is directly in charge of road development and management, is conducting several road development projects as shown in Fig. I-5. Details of some of the projects are shown in Table I-17. Especially, the two projects which will connect San José and the Port of Caldera, and San José and the Port of Limón in the future will greatly affect the port development.

Table I-17 Road Development Projects in the Near Future

Project	Distance (km)	Planned Construction Period	
		Beginning	End
North Zone Road Infrastructure Project	9.1	Jan. 1986	June 1987
Rio Chirripo—Puerto Viejo Project	30.1	Mar. 1986	Fed. 1988
Orotina—Coyolar—Tárcoles Project	20.0	Apr. 1983	Mar. 1986
Coyolar—Puerto Caldera	20.1	June 1983	Apr. 1986
Baru—Piñuela—Palmar Norte Project	60.3	Feb. 1983	Aug. 1987
San José—Siquirres Project	94.4	Feb. 1983	Mar. 1986

Source : DGOPF/MOPT



Source: DGOFP/MOPT

Fig. I-5 The Road Network Development Plan

6. Development Plans

6.1 The National Development Plan

The National Development Plan (PLAN NACIONAL DE DESARROLLO, 1982-1986) was authorized by MIDEPLAN in December 1982. The project period is from 1982 through 1986. The socioeconomic indicators are shown in Table I-18. The plan aims at economic development by increasing the productivity of the primary sector. It states that to secure this objective, it is indispensable to further develop the transportation system, especially those transportation facilities to increase foreign trade such as port facilities.

Concerning port development, it specifically aims at the development of port facilities to increase foreign trade exports, the completion of the facilities and equipment for grain import and improvement of the management and operations at the Port of Caldera.

Table I-18 Socioeconomic Indicators of the National Development Plan

	1982	1986	Annual Growth Rate (%)
Population (Unit: '000 persons)	2,404.3	2,666.2	2.6
GDP at 1980 constant prices (Unit: million colones)	37,281.2	41,939.0	3.0

6.2 The National Transportation Plan

The National Transportation Plan (PLAN NACIONAL DE TRANSPORTE) was formulated by DGP/MOPT in November, 1981. The target year of the plan is 2000. The plan projects the foreign trade cargo volume in the target year as 4,888 thousand tons for imports and 2,834 thousand tons for exports.

This plan highlights the improvement of the facilities to handle break bulk cargoes including grain and containerized cargoes at the Port of Caldera by 1991. This plan states that if these improvements are completed, the Port of Caldera will be able to accommodate all of the projected cargoes through 1995 without the construction of specialized terminals which would handle only grain or containers on an exclusive basis.

CHAPTER II PORT ACTIVITIES IN COSTA RICA

1. Historical Outline of Port Development

It is reported that the Port of Caldera and the Port of Matina were established in 1840 as official ports on the Pacific coast and the Atlantic coast, respectively, to develop foreign trade in Costa Rica. However, there were actually no port facilities at that time.

The port function on the Atlantic coast was transferred from Matina to Limón in 1867, and the first pier was constructed at the Port of Limón for banana exportation. Meanwhile, a pier for coffee exportation was constructed at Puntarenas around 1910, and the railways from the Central Valley to Puntarenas and Limón were constructed. Customs offices were also established at both ports.

At first, there was only one small pier at each of the ports for large and small vessels. Two piers, Muelle Metalico and Muelle Nacional, were then constructed at the Port of Limón, the first in 1901 and the other a few years later. Foreign trade with other Central American nations through Puntarenas subsequently increased greatly. The Government constructed Muelle de Puntarenas at the Port of Puntarenas in 1929.

Thereafter, banana plantations developed rapidly in the southern region. The piers of Golfito and Quepos were constructed by private banana companies in 1940. RECOPE constructed a mooring buoy and oil pipeline at Moín in 1960. Its function was later moved to a newly constructed marginal wharf at the same port. Two other marginal wharfs were also constructed there for banana exportation.

On the Atlantic coast, the Costa Rican Government improved the port of Limón with the construction of a concrete pier, Muelle 70. On the Pacific coast the Port of Punta Morales was constructed for sugar exportation in 1973.

Containerized sea transportation appeared in Costa Rica in the 1970's. New container terminals at the Ports of Caldera and Limón (on the Pacific coast and the Atlantic coast) were constructed in 1981 along with the development of containerization on Pacific and Atlantic shipping routes.

2. Administration and Organization

2.1 Development and Management of the Ports

The development of Costa Rican ports is implemented by MOPT as shown in Fig. II-1 using funds appropriated in the national budget. Especially, DGOPF under the Public Works Division of MOPT as shown in Fig. II-2 is responsible for the planning and construction of port facilities, while such port management bodies as INCOP on the Pacific coast and JAPDEVA on the Atlantic coast are responsible for the management of the port facilities.

Requests for port development are proposed by INCOP, JAPDEVA, MOPT or other related governmental authorities. The requests are submitted to MIDEPLAN and through the deliberations of the Secretaria Sectorial del Sector Transporte the policy is decided. In the process of this debate, feasibility studies and financial analyses are implemented by

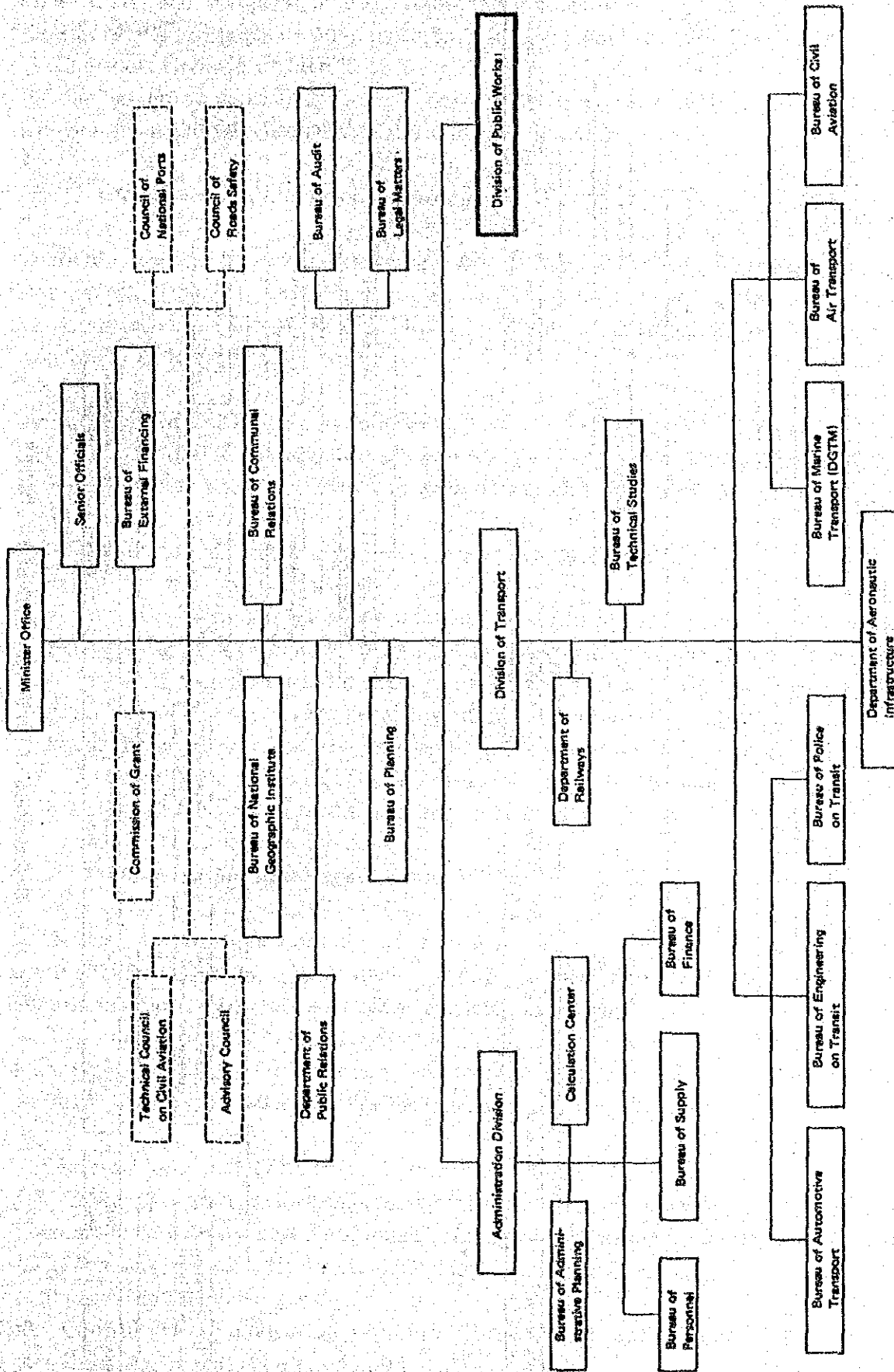


Fig. II-1 Organization of MOPT

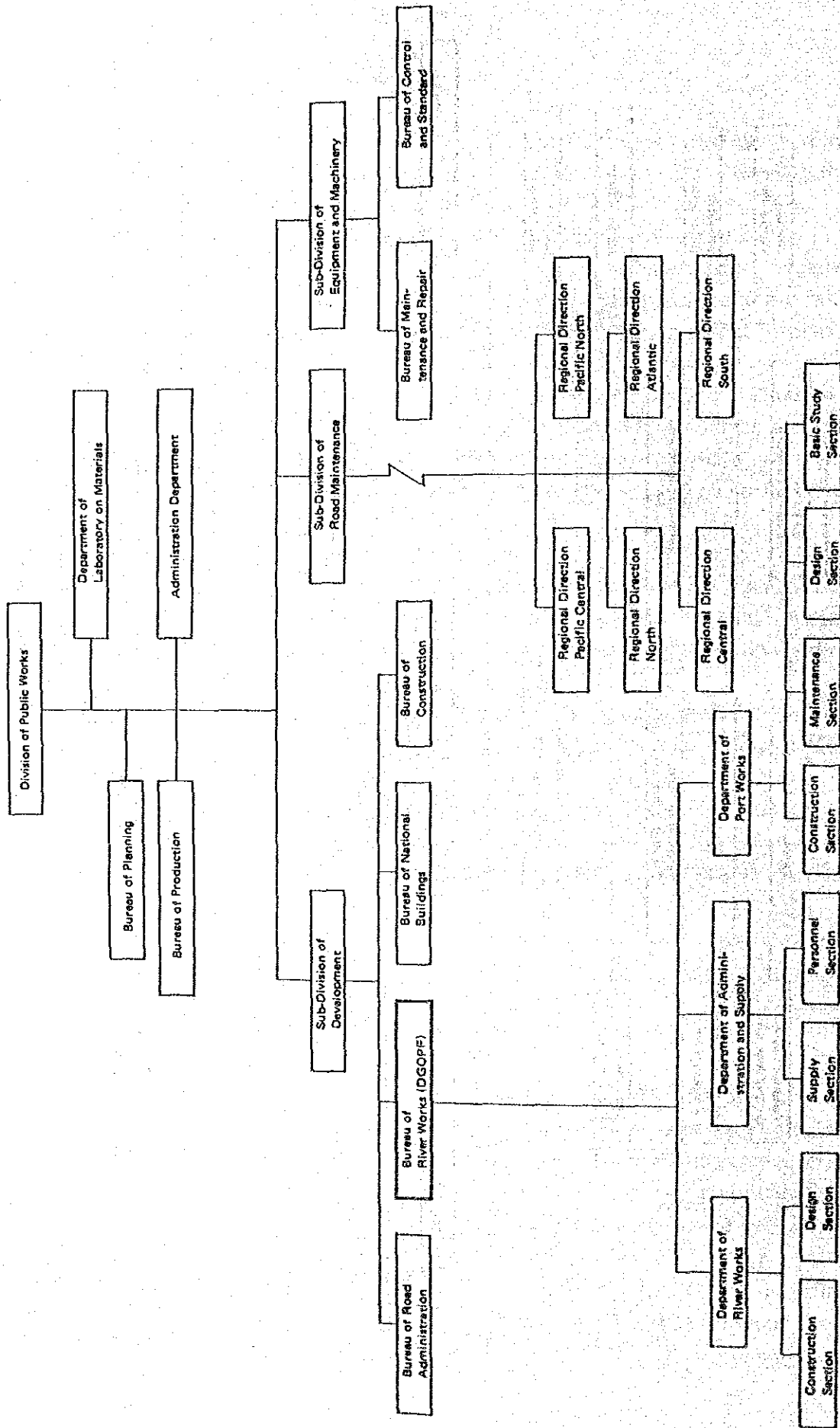


Fig. II-2 Organization of Public Works Division of MOPT

MIDEPLAN, and technical investigations and studies on port scale are carried out by DGOPF, MOPT. Studies on administration and operation are carried out by DGTM under the Transport Division of MOPT.

The Secretaria consists of five members : The Minister of MOPT, and one representative each from INCOP, JAPDEVA, RECOPE and INCOFE.

2.2 Administration and Organization of DGOPF

MOPT is comprised of three divisions: Administration Division, Transport Division and Public Works Division. DGOPF, under the Public works division, has three departments : the Department of Port Works, the Department of Administration and Supply, and the Department of River Works.

The functions of DGOPF are as follows :

- (1) To plan, design, coordinate and supervise the construction, improvement and maintenance of port and river works in accordance with the policy of the Sub-Division of Planning
- (2) To decide the policies, standards and processes for the design, construction and maintenance of the port and river works.
- (3) To supervise construction and maintenance works to ensure that the works which are executed by contractors are carried out in accordance with the terms of the contracts.
- (4) To render technical assistance to the regional offices under the Sub-Division of Works and to supervise special technical operations and inform the Sub-Division of Planning about the progress of programmes and the type of technical procedures used.
- (5) To prepare an annual budget and also to prepare the sections of the budgets of the regional offices related to the port and river works.

2.3 Administration and Organization of INCOP

INCOP, the port management body for the ports on the Pacific side, was established by Law No. 1721 of Dec. 28, 1953, which was later amended by Law No.4964 of March, 1972. The organizational structure of INCOP is shown in Fig. II-3.

The Executive Board consisting of the Executive President and six directors appointed by the council of the Government and the Executive Secretary are in charge of INCOP. The Executive President is appointed by the President of Costa Rica.

The functions of INCOP are as follows :

- (1) Planning of port facilities necessary for economic development on the Pacific side in compliance with the port development plans and policies determined by the government.
- (2) Necessary construction works for supplying services at the ports, getting MOPT's approval in advance.
- (3) Control of ship navigation within the ports located on the Pacific side.
- (4) Purchase of real estate and buildings necessary for development of actual services in

compliance with the laws and rules concerned.

- (5) Coordination between port services and related transportation development.
- (6) Determination of port charges, getting approval from the government in advance.

2.4 Administration and Organization of JAPDEVA

JAPDEVA, the port management body for the ports on the Atlantic side, was established by Law No. 3091 of Feb. 18, 1963. The organizational structure of JAPDEVA is shown in Fig. II-4. The Council of Administration consists of the Executive President, the Vice President and five directors appointed by a Government council.

As a port management body, JAPDEVA has the same functions as INCOP. However, JAPDEVA is also responsible for development projects in the fields of agriculture, stock farming and forestry. The Forestry Section is under the Department of Natural Resources, and the Department of Agriculture and Stock Farming is in charge of the management of agriculture and stock farming projects.

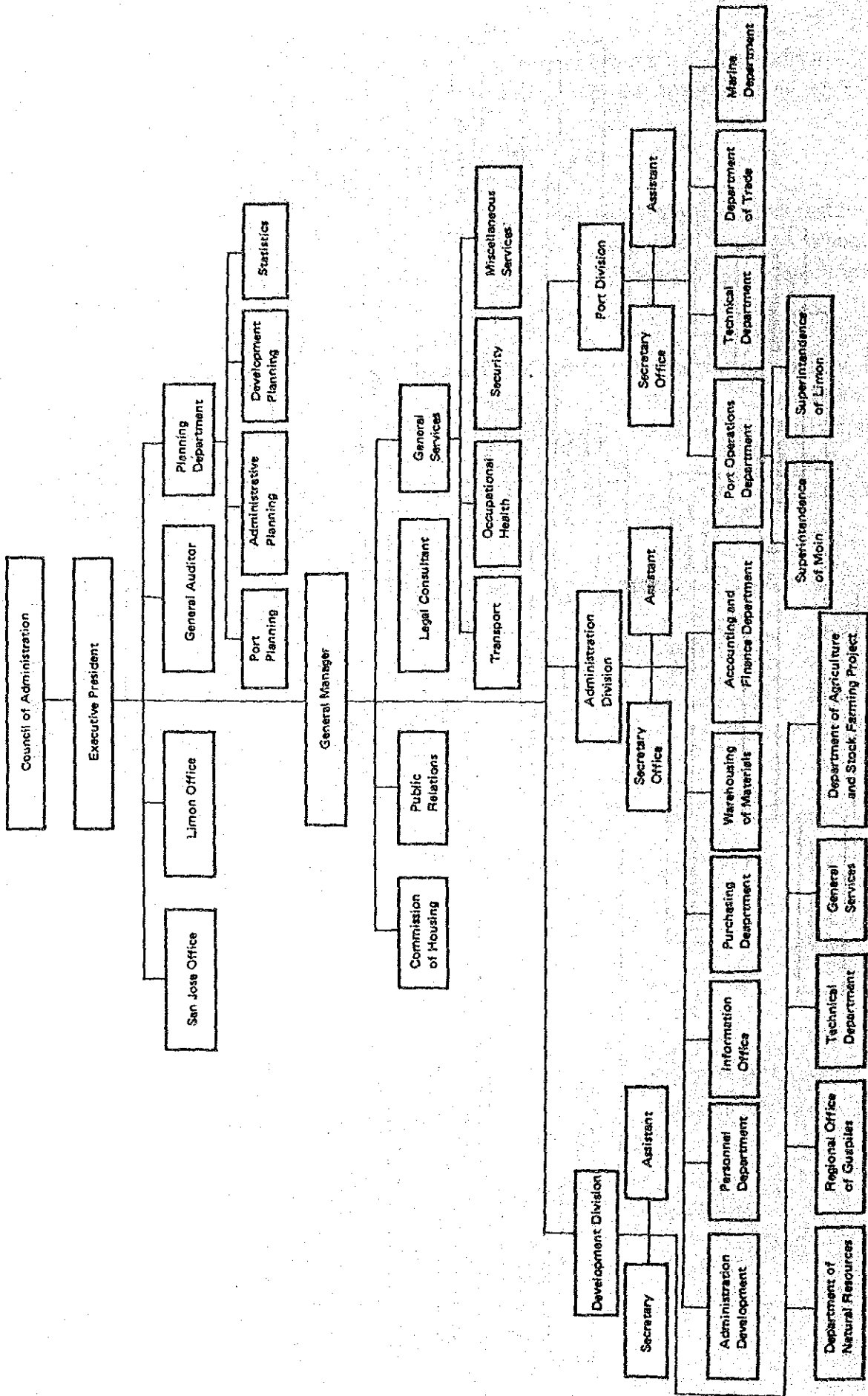


Fig. II-4 Organization of JAPDEVA