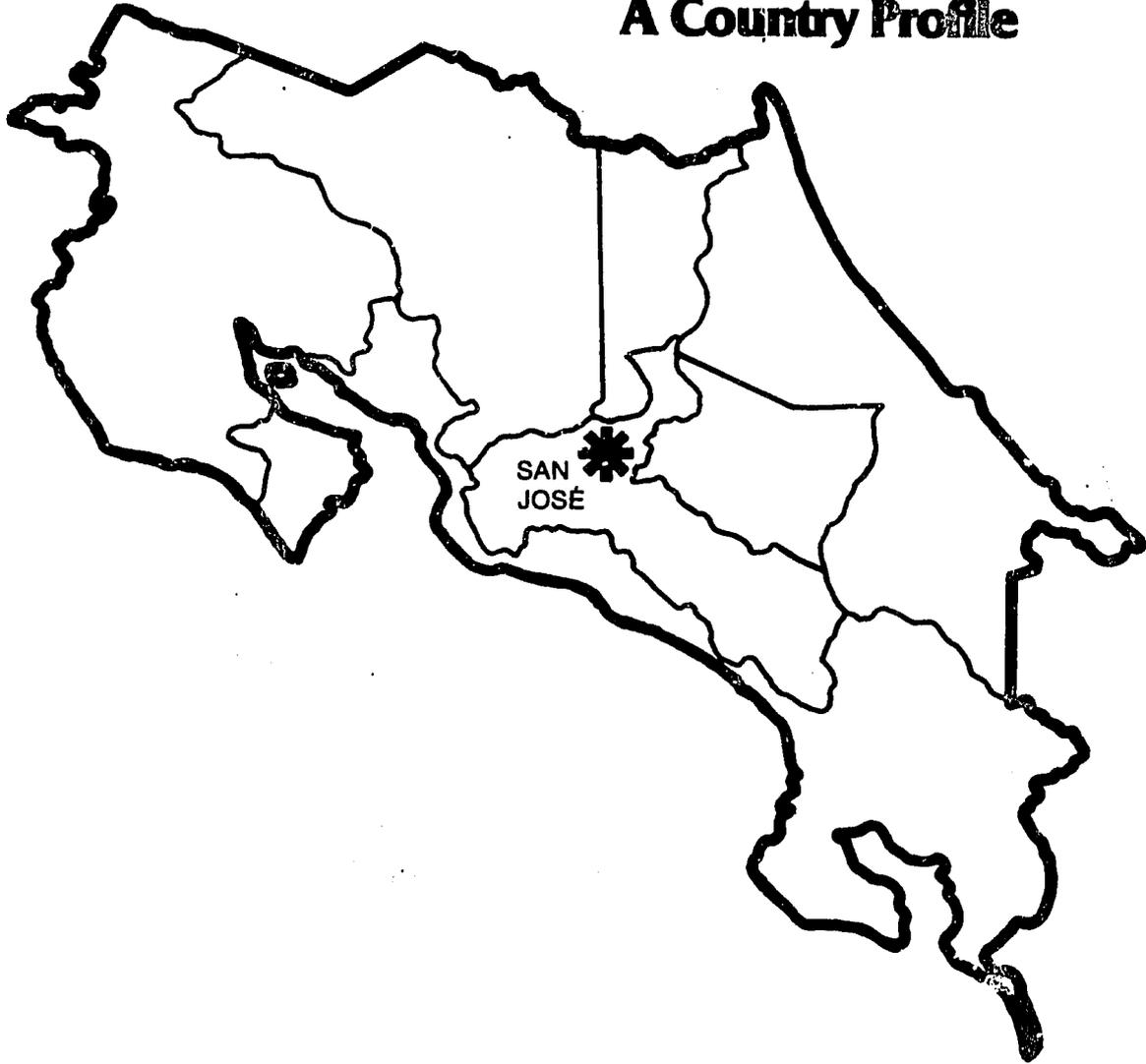


PN-AAP-689

can: 344140

Costa Rica

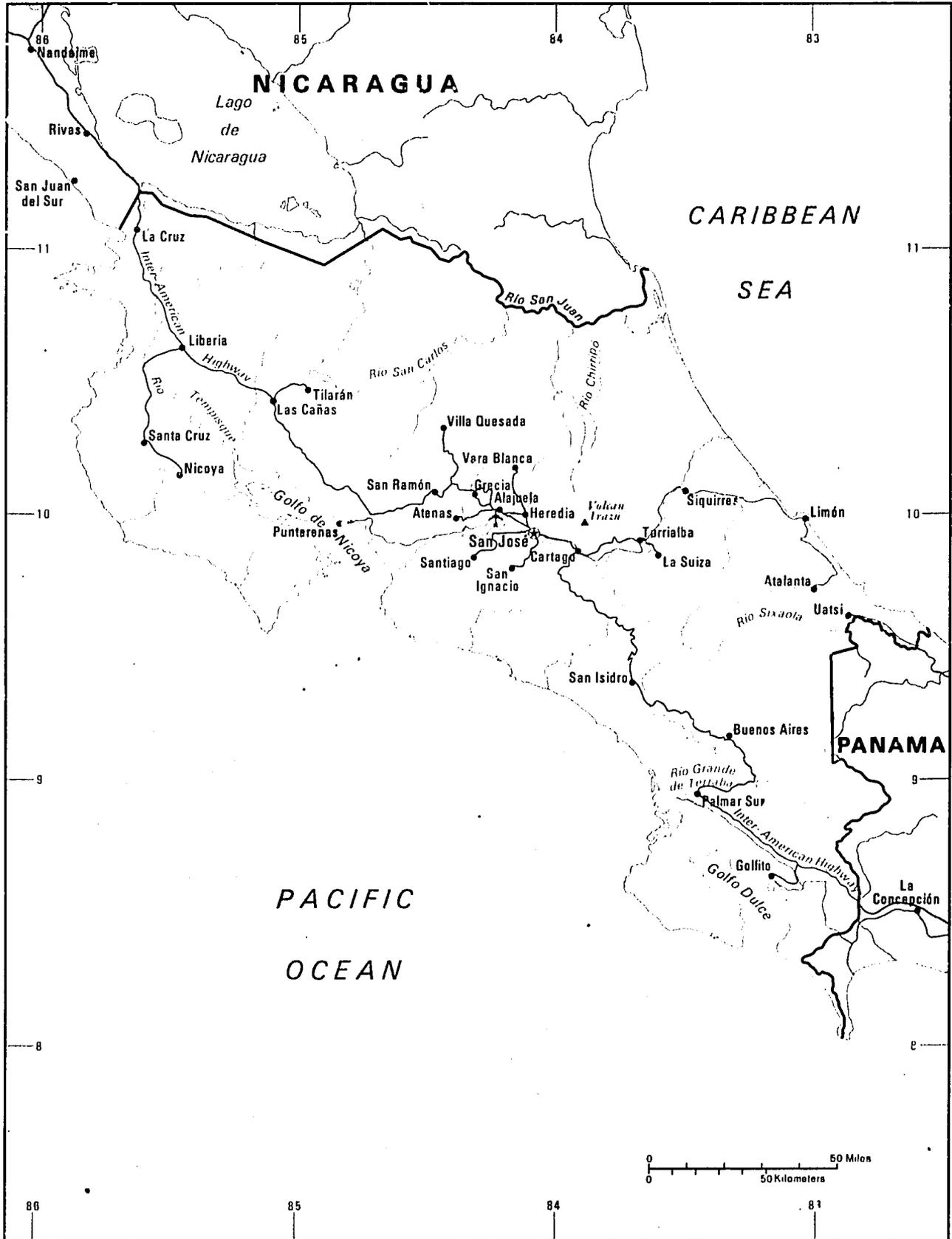
A Country Profile



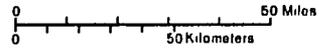
624

Office of U.S. Foreign Disaster Assistance
Agency for International Development
Washington, D.C. 20523

Costa Rica



502465 1-76 (541391)
Lambert Conformal Projection
Standard parallel, 9°20' or 11°40'
Scale 1:2,400,000
Boundary representation is
not necessarily authoritative



- Railroad
- Road
- ✈ Airport

COSTA RICA: A COUNTRY PROFILE

prepared for

The Office of U.S. Foreign Disaster Assistance
Agency for International Development
Department of State
Washington, D. C. 20523

by

Evaluation Technologies, Inc. 479
Arlington, Virginia
under contract AID/SOD/PDC-C-0283 ✓

The profile on Costa Rica is one in a series designed to provide baseline country data in support of the planning and relief operations of the Office of U.S. Foreign Disaster Assistance (OFDA). The content, scope, and sources have evolved over the course of the last three years, and no doubt will continue to do so. The relatively narrow focus is intentional. To avoid redundancy, some topics one might expect to find in a "country profile" are not covered here.

If the information provided can also be useful to others in the disaster assistance and development communities, so much the better. Every effort is made to obtain current, reliable data; unfortunately it is not possible to issue updates as fast as changes would warrant. A cautionary note, therefore, to the reader: statistics are indicators at best, and if names and numbers matter, the bibliography will point to a current source.

We invite your comments and corrections. Address these and other queries to OFDA, A.I.D., as given above.

April 1982

OFDA COUNTRY PROFILES: SEPTEMBER 1983

AFRICA

Cape Verde
Chad
East Africa Regional Profile
Djibouti
Ethiopia
Kenya
Somalia
Sudan
Tanzania
Uganda
Gambia-Senegal
Mali
Mauritania
Niger
Sahel Transportation Survey
Upper Volta
Zaire
Zambia

ASIA

Bangladesh
Burma
India
Indonesia
Malaysia
Nepal
Pakistan
Philippines
Sri Lanka

NEAR EAST

Turkey

SOUTH PACIFIC

Fiji
Tonga
Western Samoa

CARIBBEAN

CARICOM Regional Profile
Antigua
Barbados
Belize
Dominica
Grenada
Guyana
Montserrat
St. Kitts-Nevis-Anguilla
St. Lucia
St. Vincent
Trinidad and Tobago
Dominican Republic
Haiti
Jamaica

CENTRAL/SOUTH AMERICA

Bolivia
Chile
Costa Rica
Ecuador
El Salvador
Guatemala
Honduras
Nicaragua
Peru

INDIAN OCEAN

Island Countries of the
Indian Ocean
The Comoros
Madagascar
Maldives
Mauritius
Reunion
Seychelles

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1. General Information1.1 Geographic Codes

AID	515
State region	ARA

1.2 Country Names

Official	Republic of Costa Rica
Local	Costa Rica
Short	Costa Rica

1.3 Holidays

New Year's Day	January	1
Feast of St. Joseph	March	19
Holy Thursday	* April	9
Good Friday	* April	10
Battle of Rivas	April	11
Labor Day	May	1
Corpus Christi	* June	18
Sts. Peter & Paul	June	29
Annexation of Guanacaste Province	July	25
Our Lady of the Angels	August	2
Feast of the Assumption	August	15
Independence Day	September	15
Columbus Day	October	12
All Souls Day	November	1
Immaculate Conception	December	8
Christmas	December	25

* Varies from year to year; contact Embassy for exact date.

1.4 Currency

100 centavos = 1 colon

In December 1981, the Legislative Assembly devalued the colon to an official rate of 20 colons to the US dollar. However, as of mid-February, exchange houses in Costa Rica were legally trading at just over 40 colons to the US dollar.

1.5 Time Zones

GMT - 6, EST - 1

1.6 US Mission and Staff

Embassy of the United States
Avenida 3 and Calle 1
APO Miami, Florida 34020
Tel: 22-55-66

Ambassador
Deputy Chief of Mission
Economic/Commercial Section
Commercial Section
Political Section
Labor Officer
Consul, Consular Section
Administrative Section
Agricultural Section
Agency for International Development
Public Affairs Officer

Francis J. McNeil
Madison M. Adams
John H. Curry
Bruce F. Porter
Michael M. Skol
Thomas M. Okada
Lynn Curtain
Ernest Ruehle
Frank D. Lee
Dan Chaij
Marilyn McAfee

1.7 Sister Cities

Cartago - Opa Locka, FL
Heredia - Daytona Beach, FL
 - Marietta, GA
Liberia - Homestead, FL
San Jose - San Jose, CA
San Ramon - Miami Springs, FL

1.8 Host Mission and Staff in US

Embassy of the Republic of Costa Rica
2112 S Street, N.W.
Washington, D.C. 20008
Tel: 202/234-2945, 2946, and 2947

Ambassador	Jose Rafael Echeverria
Minister-Counselor	Luis E. Guardia
Minister-Counselor (Economic Affairs)	Rodrigo Sotela
First Secretary	Cristina G. Montes

1.9 Treaties and Agreements

Agriculture	Peace Corps
Aviation	Publications
Consuls	Telecommunications
Defense	Trade and Commerce
Economic and Technical Cooperation	Weather Stations
Highways	
Investment Guaranties	
Mapping	

1.10 International Organization Memberships

CACM (Central America Common Market), FAO (Food and Agriculture Organization of the U.N.), IADB (Inter-American Defense Board), IAEA, IBAD, ICAO, ICO, IDA, IDB, IFC, IFO, IMF, IPU, ITU, IWC (International Wheat Council), NAMUCAR (Caribbean Multinational Shipping Line) OSA, ODECA, SELA, U.N., UNESCO, UPEB, UFU, WHO, WMO, WTO.

1.11 Travel and Visa Information

Passport and visa are not required if a tourist card is obtained prior to departure, however, a valid passport is highly recommended. A tourist card is available through the consul, a travel agent, or any airline servicing Costa Rica at a cost of \$2.00 and is valid for 30 days. The tourist card may be extended up to 6 months (\$.75 for each additional month) upon presentation of a valid passport. An exit permit (\$2.96) is required for stays over 30 days and a passport is required if traveling by auto. Check the Embassy/consulate for specific requirements.

1.12 Ethnic and Sociocultural Groups

Costa Rica is the most homogeneous country in Central America with 97% of the population descendants of Spanish colonizers. A small percentage of

this group are mestizos, persons of mixed Indian and Spanish ancestry; however, little distinction is made between them. This European population is concentrated in the Meseta Central region around the capital city of San Jose.

Along the Caribbean coast in Limon Province, a large black population, descendants of Jamaican and other West Indian blacks brought to Costa Rica to build the railroad and work the banana plantations in the 19th century, maintains a distinct community and identifies more strongly with their British roots on the islands than with the dominant Spanish culture of the highlands. This isolation is changing, however, as the younger generations of blacks, who have been taught Spanish in school, begin to migrate to the Meseta Central in search of greater educational and employment opportunities.

The principal Indian tribes in the country are the Chorotegas, the Talamancas, the Borucas, and the Guatutos. The Chorotegas have become almost totally indistinguishable from the mestizos of Guanacaste province, where they have intermingled in the northwest. The Talamancan tribe, composed of two major subgroups, the Eribri, numbering about 4,000, and the Cabecares, numbering about 1,500, are located in the Talamancan Valley where they were forced to move by missionary priests in the 18th century. About 1,500 members of this group have relocated to the Pacific coast during the past seventy years. The Borucas, concentrated in the southeast, are highly assimilated within the dominant Costa Rican society. There are about 200 members of the Guatuto tribe located in the North; this tribe continues to retreat from encroaching Western society.

1.13 Languages

Spanish is the official language of Costa Rica spoken by the majority of the population. The only competitive language is the English spoken by the blacks of Limon province along the Atlantic Coast. As the second language of the country, English is used extensively in business and industry. The various Indian tribes speak languages which belong to the Chibcha family of Colombia, but are not mutually intelligible between tribes.

1.14 Education

Costa Ricans are very proud of their education system. Nearly 30% of the government's annual budget is devoted to elementary, secondary, and university level education, which is free and in great demand. 97% of all

children between the ages of 6 and 13 attend school, and the result is a 90% literacy rate, the highest in Central America.

1.15 Religion

Roman Catholicism is the official religion of Costa Rica, although all forms of worship are tolerated.

2. Government

2.1 National Government

Costa Rica is universally regarded as one of the most stable democracies in Latin America. Unlike its neighbors, Costa Rica has experienced no radical crises of authority since 1948 when Jose Figueres Ferrer took power and established the present unitary republic. Under the constitution of 1949, executive power is vested in the President, assisted by two vice presidents and a twelve-member cabinet. The President is elected for a four year term and must receive at least 40% of the vote. Suffrage is universal and compulsory for those over 18 years of age. The Legislative Assembly is composed of 57 members elected every four years, and is empowered to make laws and levy taxes. A Supreme Court of seventeen justices, elected by the Legislative Assembly for an eight year term, has the power to declare laws and decrees unconstitutional and appoint judges to the lower courts.

A large share of the functions of Costa Rican government are outside the domain of the executive or legislative branch, being under the jurisdiction of some fourteen autonomous agencies and 122 small and large local and national semi-autonomous agencies. Many functions of the executive branch are extremely decentralized to eliminate the possibility of unauthorized or excessive executive control of budgetary matters. The autonomous agencies are constitutionally guaranteed independence in matters of government and administration, and it is their directors who are responsible for their management. While the purpose of these constitutional protections is to insure against possible executive abuses of power, they have had several negative affects on the cohesion of the economy, resulting in the virtual paralysis of the GOCR with regard to correcting or changing policy or appropriations in the face of the country's deteriorating economic condition. (See section 6.1, Overview of Economy.)

On February 7, 1982, national elections gave Luis Alberto Monge a landslide (58%) victory as president, and his party, the social democratic National Liberation Party (PLN), a comfortable majority of 33 (of 57) deputies in the legislative assembly.

2.2 Regional Organization

Costa Rica is divided into seven provinces, each of which is administered by a presidentially appointed governor. Each province is further divided into cantons, and each canton into districts. Each of the 81 cantons is supervised by an elected municipal council in the canton's chief

city; however, municipal government and economic affairs are closely regulated by the national government. The seven provinces are Alajuela, Cartago, Guanacaste, Heredia, Limon, Puntarenas, and San Jose.

2.3 Major Government Figures (September 1981)

President.....	Carazo Odio, Rodrigo
1st Vice President.....	Altmann Ortiz, Rodrigo, Dr.
2nd Vice President.....	Alfaro Rodriguez, Jose Miguel
Min. of Agriculture & Livestock.....	Fonseca Zamora, Hernan
Min. of Economy, Industry & Commerce.....	Alfaro Rodriguez, Jose Miguel
Min. of Education.....	Dengo de Vargas, Maria Eugenia
Min. of Energy.....	Altmann Ortiz, Fernando
Min. of Finance.....	Garnier Borelia, Emilio
Min. of Foreign Relations.....	Niehaus Quesada, Bernd
Min. of Government.....	Carmona Benavides, Arnulfo
Min. of Health.....	Carvosa Chacon, Carmelo, Dr.
Min. of Housing & Human Settlements.....	Saborio, Alvaro
Min. of Human Promotion.....	Volio Brenes, Marina
Min. of Justice.....	Odio Benito, Elizabeth
Min. of Labor.....	Serrano Pinto, German
Min. of Planning and Economic Policy.....	Jimenez Castro, Wilburg
Min. of Presidency.....	Cordero Croceri, Jose Rafael
Min. of Public Security.....	Carmona Benavides, Arnulfo
Min. of Public Works & Transport.....	Fernandez Ortiz, Mario
Attorney General.....	Odio Benito, Elizabeth
Sec. of Government.....	Carrillo Diaz, Bernardo

3. Disaster Preparedness

3.1 Host Disaster Plan

Costa Rica has no formal national disaster plan at the present time. However, the National Emergency Law, passed in 1974, describes the role of the government in planning, directing, controlling, and coordinating all programs and activities concerning protection, safety, and reconstruction of "disaster zones" in any part of the country affected by a disaster or epidemic. In the event of a major disaster, a special National Emergency Commission composed of the Minister of Public Works and Transport, the Minister of Health, and the Minister of Government, is convoked. The Office of Civil Defense, a part of the Ministry of Public Works and Transport, is responsible for coordination of relief operations during disaster and emergency situations. The director of this office is in charge of both disaster preparedness and relief operations. Other members of the Emergency Commission include representatives of the Banco Central de Costa Rica, the Instituto de Tierras y Colonizacion, the Consejo Nacional de Produccion, the Instituto Nacional de Vivienda y Urbanismo, the Costa Rican Red Cross, and the Caja Costarricense de Seguro Social.

During the most recent flood disaster on the Atlantic Coast (December 1980), the Atlantic Basin Port and Development Agency (JAPDEVA), the government agency responsible for promoting development of this region, worked with the Costa Rican Red Cross to evacuate individuals stranded by the flooding and established refugee centers in the larger population centers for those displaced from their homes. JAPDEVA and the Red Cross also distributed food, clothing, medicines, and other supplies to residents of this area.

3.2 Host Resources

When a major disaster strikes, the GOCR is not likely to have sufficient emergency supplies of tents, blankets, and medicines immediately on hand. However, most supplies can be purchased from commercial establishments in San Jose, Limon, Heredia, Alajuela, Cartago, Nicoya, Liberia, and San Isidro del General.

The GOCR does not maintain separate food storage and distribution facilities for emergency purposes, so emergency needs must be met through existing public and private facilities from normally maintained food stocks. Local organizations such as the Red Cross, Caritas, and Consejo Nacional de Produccion have limited amounts of relief supplies including food. CARE

also usually has supplies of P.L. 480, Title II food, including flour, oil, milk, and soy flour.

The Ministry of Public Works and Transport maintains a sufficient variety and number of heavy equipment pieces, including bulldozers, road graders, draglines, hoists, etc., in different parts of the country to handle emergency construction requirements of a short term nature.

3.3 US Plan

In the event of a major catastrophe in Costa Rica, the U.S. Mission Disaster Assistance Plan would be implemented at the direction of the Ambassador. The plan calls for the mobilization of a mission disaster relief coordination team composed of mission personnel and others who would carry out specific duties. The mission team is under the direction of the Mission Disaster Relief officer (MDRO) who establishes liaison with the GOCR, the Office of Civil Defense, and the members of the the National Emergency Commission to assure continuing contact with host country disaster relief officials. In November 1981, the MDRO was David Grossman; the alternate MDRO was Leticia Diaz.

Once determination of a disaster is made by the GOCR, assistance should be offered to survey damage and assess requirements, and appropriate Mission personnel, engineers, technicians, medical/para-medical personnel, a housing officer, and a photographer, should be dispatched to help the GOCR make the initial on-site survey. The MDRO will then determine the magnitude of the disaster and whether the Ambassador should exercise his disaster relief authority and activate the Disaster Relief Coordinating Team. In the event of a major disaster, AID's Office of U.S. Foreign Disaster Assistance (OFDA), and through OFDA, SOUTHCOM, should be contacted to help assess damages and provide emergency relief assistance. The MDRO will establish and maintain continuing liaison with voluntary agencies, non-governmental organizations, international organizations, and other major donor representatives for the purpose of obtaining data on relief supplies, transport, and personnel; exchanging information; determining priority needs; and organizing a coordinating committee.

The Ambassador and the DCM will receive periodic (hourly or daily) reports on recent developments. The MDRO will also report to AID/W providing information and data on the scope of the disaster, as well as daily situation reports during the emergency phase and the initial rehabilitation phase.

Medical Services

The medical services representative will receive and evaluate GOCR requests for medical services, determine needs based on recommendations of the disaster assessment team, and prepare a list of medical equipment, drugs, and medicines for OFDA in AID/W, and assist in rapid and efficient distribution of these supplies when they arrive in Costa Rica.

Shelter, Survival, and Engineering Services

Team members will assist the GOCR in inspections of damaged areas and will receive and evaluate requests for assistance and equipment based on disaster assessment reports and locally available stocks. Recommendations of required actions should be made to the MDRO, and a detailed list of supplies should be prepared for transmission to OFDA/AID/W and/or USSOUTHCOM/Panama Canal Zone. Upon arrival of supplies, GOCR personnel should be assisted in planning and administering shelter areas, determining suitability of buildings and/or sites for mass shelters and food centers.

Communications

The Communications team member will establish the Disaster Operations Center in the offices of the American Embassy, and will establish direct radio contact between the Mission team assigned to assess damage and the Operations Center. If necessary, direct radio contact with the GOCR National Emergency Commission headquarters will be established to ensure close liaison and information exchange.

Other members of the Mission Disaster Relief Team will be responsible for consular affairs, transportation, logistics, fuel supplies, distribution, rescue and relief assessments/operations, and clerical and typing support. (For more detailed information, please refer to the U.S. Mission Plan on file with OFDA, Washington, DC.)

3.4 Voluntary Agencies

Voluntary and international organizations that could be of important assistance in a disaster situation are:

Cruz Roja de Costa Rica
Avenida 8, Calles 14-16
Tel: 22-85-62, 21-58-88

CARE, Inc.
Apartado 3571, San Jose
Tel: 21-19-78, 22-04-49

Care is engaged in community development, feeding programs for young children, pregnant and lactating women, health education and well construction and agricultural development projects, especially in rural areas.

Catholic Relief Services
Apartado 5483, San Jose
Tel: 32-64-61

CRS provides grants, clothing, vehicles and supplies, and finances numerous small community development, nutrition, and rural health care projects.

Church of God, Inc., Missionary Board
Apartado 6048, San Jose

Working to set up a community center which will train nurses and provide elementary preventive medicine and medical education.

Church World Service
c/o Association Caravanas de Buena Voluntad
Apartado 10250, San Jose
Tel: 26-63-50, 26-35-71

CWS provides funds, clothing, food commodities, seeds, and medical supplies to the local Goodwill Caravans which operates in San Jose.

United Nations
Los Yoses 100 sur de la 4a entrada
Tel: 25-03-65

World Health Organization
Pan American Health Organization
Ministerio de Salud, Calle 6, Avenidas 6-8
Tel: 23-16-86

World Meteorological Organization
Instituto Meteorologico Nacional
Avenida Central, Calle 17

Goodwill Caravans Inc.
San Francisco Dos Rios, Faro del Caribe,
Apartado 10-250, San Jose
Tel. 26-63-50, 26-35-71

Goodwill Caravans operates a number of programs throughout Costa Rica with the support of a large number of voluntary agencies who do not operate directly in the country.

The Salvation Army
Avenida 5, entre 6 and 8, San Jose
Tel: 22-26-81

Latin American Mission
Community of Latin American Evangelical Ministries
Apartado 1307, San Jose

The Latin American Mission works with a large number of other voluntary agencies to provide health care, education, agricultural training, and industrial development programs with a staff of 84 Americans and Canadians, including a doctor, nurses, agronomists, and teachers.

National 4-H Council
c/o Fundacion Nacional de Clubes 4-S
Apartado 6704, San Jose
Tel: 21-83-91

Youth training in communications, leadership, and food production and agriculture.

Mennonite Central Committee
c/o Servicio Voluntario Menonita
Apartado 4520, San Jose
Tel: 25-94-15

Provides funds in support of a well digging project by the Conservative Mennonite Board of Missions and Charities.

3.5 Other Voluntary Agencies and Resources

There are currently 126 skilled Peace Corps Volunteers actively engaged in health education, agriculture, and community development activities in Costa Rica. A large number of these volunteers could be mobilized to provide information on the extent of damage in isolated areas, assist in distribution of relief supplies, and provide technical assistance in many

areas. Approximately 3,500 retired Americans residing in Costa Rica possess valuable technical and professional skills (i.e., doctors, engineers, lawyers, technicians) which could be useful in the event of a major disaster. Other voluntary and international organizations that could be of assistance in a disaster situation are listed below.

Accion International
Apartado 5860, San Jose
Tel: 35-16-13

Operates a rural integrated development program in four different areas of the country, working with small farmers.

Episcopal Church of the U.S.
Apartado 2773 San Jose

Supports programs administered by Goodwill Industries and the Demographic Association of Costa Rica to provide counseling, education, and orientation for young people and adults.

Seventh-day Adventist World Service, Inc.
c/o La Obra Filantropica y Asistencia Social Adventista
Calle 33, Avenida 13, No. 3178, Barrio Escalante, San Jose
Tel: 25-06-65

Programs in maternal/child health and nutrition and drug abuse education in schools.

Young Men's Christian Association
A.C.J. Apartado 70190, San Jose
Tel: 22-12-79

The YMCA is working with the rural Indian population in development, self-help projects, and adult education.

Partners of the Americas, Inc.
c/o Sherman Thomas
Chemistry Department
University of Costa Rica, San Jose.

Sponsors a student exchange program in Oregon and Costa Rica, and vocational training for young women. Rehabilitation of the handicapped.

School Sisters of St. Francis
Apartado 2910, San Jose
Tel: 24-41-91

Operates a co-educational secondary school in San Jose, and provides staff for the Children's Village in Cartago, and the Family Education Center in Tilaran.

Heifer Project International
Iglesia Metodista, Villa Neilla

Provides swine and goats to small farmers and assists them in learning better feeding and management skills.

Intermedia
Apartado 292, Alajuela
Tel: 41-12-73

Supports work of Alfalit International in community development, literacy, and overall education.

Federacion de Organizaciones Voluntarias
San Jose
Tel: 23-13-41

Fundacion Costarricense de Desarrollo
Edificio Trejos Gonzalez #211
Apartado 7-1270
Tel: 23-57-35

3.6 Disaster Types and History

Costa Rica is prone to flooding, earthquakes, and volcanic eruptions. In recent years, flooding in the Meseta Central, the most populous area of the country, as well as in the Caribbean coastal areas, has caused serious damage to croplands, roads, and residences. Heavy rains in December 1980 caused extensive flooding of the Atlantic coastal region from the Nicaraguan border to the city of Limon, displacing 1,350 people, and inundating homes, agricultural areas, and roads.

Summary Disaster History

<u>Disaster</u>	<u>Location</u>	<u>Date</u>	<u>No. Killed</u>	<u>No. of Victims</u>	<u>Damage ('000)</u>
Volcanic Eruption	Meseta Central	3/18/63	15	n.a.	n.a.
Volcanic Eruption	Mt. Arenal, N	9/29/68	3	45,000	\$5,000
Floods	W Coast, Meseta, Limon	10/69-1/70	7	4,578	\$4,000
Flood	Limon & Cartago Provinces	4/9/70	23	10,000	\$6,000
Flood	Estrella Valley	12/4/70	1	5,200	\$24,000
Earthquake	S. of Laguna Arenal	6/75	21	3,563	200
Drought	Laguna Arenal	73			
Volcanic Eruption	Mt. Arenal	6/75	2	n.a.	n.a.
Forest Fire	Chirripo Mountain	4/76			
Volcanic Eruption	Mt. Arenal	10/21/76		70,000	n.a.
Flood	East Coast	12/80	1	1,350	n.a.

Source: Disaster History Data Base at the Office of U.S. Foreign Disaster Assistance in Washington, D.C. covers 1900 to present.

4. Population4.1 National Demographic Characteristics

Population (January 1982).....	2,333,593
Growth rate (percent).....	2.7
Density per sq. km. (urban).....	41.0
(agricultural land).....	102.0
Urban (percent).....	42.5
Age structure (percent) 0-14.....	39.7
15-64.....	56.7
65 and above.....	3.6

The population of Costa Rica is concentrated on the Meseta Central, a 15 by 40 mile plateau on which four of the country's largest cities are situated. Almost 43% of the population lives in urban areas, 37% in the province of San Jose. Migration to urban centers continues at a rapid pace, outstripping the cities' ability to provide adequate housing, employment and municipal services. This is true in the major population centers of Limon, Puntarenas, Liberia, Nicoya, Golfito, Desamparados, Guadalupe, San Pedro, San Isidro de el General, Ciudad Quesada, and Turrialba.

The GOCR is encouraging migration into the lightly populated areas of the north Atlantic coast under the direction of JAPDEVA, the Atlantic Basin Port and Development Agency. Irrigation projects and land reclamation projects in this region are expected to yield new areas for agricultural development.

Family planning programs have been widely accepted in Costa Rica, and 67% of the married women are reported to practice some form of birth control. This widespread use has contributed to a substantial decline in the national population growth rate from 3.7% in 1960 to 2.5% in 1979. A temporary population growth rate increase has been observed during 1980-81. During this period, Costa Rica's population has grown at the rate of 2.72%.

4.2 Regional PopulationPopulation by Province, January 1981

<u>Province</u>	<u>Pop</u>	<u>% of Total</u>
San Jose	843,818	37

<u>Province</u>	<u>Pop</u>	<u>% of Total</u>
Alajuela	392,590	17.3
Cartago	246,448	10.8
Heredia	161,963	7.1
Guanacaste	217,367	9.5
Puntarenas	270,332	11.8
Limon	144,158	6.3
Costa Rica	2,276,676*	100

* This is the national total for 1981; the national population as of January 1982 is estimated to be 2,333,593. Detailed population data for Costa Rica as of January 1981, organized by province, canton and district, are provided in Appendix A.

4.3 Urban Population

Urban Population, January 1981

San Jose	259,126	Desamparades	37,869
Alajuela	40,184	Quesada	21,135
Cartago	78,399	Golfito	17,162
Heredia	27,869	Nicoya	25,352
Liberia	21,521	San Isidro de el General	40,222
Puntarenas	33,416	San Pedro	28,679
Limon	50,471	Turrialba	22,593

Source: Poblacion de la Republica de Costa Rica por Provincias, Cantones, y Distritos to January 1, 1981.

5. Health, Nutrition, and Housing

5.1 Overall Health Status

Costa Ricans enjoy an overall high level of health care and a corresponding low level of disease. The Ministry of Health and the National Social Security system cooperate in administering health care to the population through a system of national and regional hospitals, regional health centers, and local health posts in rural areas. A fully integrated information collection system gathers data on rural and underserved urban populations for use in national and local health monitoring and planning. Comprehensive immunization programs are administered throughout the country with a high degree of success; in 1980, 68% of the children under one year of age were vaccinated against measles, 65% completed the series of vaccines against poliomyelitis (87% received the first dose), 65% were vaccinated against whooping cough, 60% against diphtheria, and 65% against tuberculosis. Malaria has been completely eradicated from the Meseta Central area and is now in the "consolidation phase" through most of the rest of the country, except along the Atlantic coast, where cases continue to appear. Clean water is now available to 95% of the urban population, and 62% of the rural population; access to sewage removal, either by septic tank, municipal sewerage systems, or latrines, is almost universal (urban-94%, rural-93%). This has contributed substantially to the virtual elimination of fatal incidences of diarrheal diseases.

The ratio of doctors to population was 1 to 1,390, nurses 1 to 453 in 1978, with one hospital bed for every 288 people. However, most doctors are located in the Meseta Central, where 37% of the population dwell. In outlying areas, it is the rural health post that provides most health services. These facilities are manned by two health workers, an auxiliary with one year of training, and an assistant who receives four months of training. The team members' skills are augmented by monthly refresher courses, and a monthly visit and review by a licensed nurse. The health posts provide primary care, inoculations, first aid, family planning information, and diagnosis and initial treatment of common illnesses. Preventive health care is emphasized. It is through this extensive system of local health posts that regular health surveillance and monitoring of the entire population is conducted.

Incidence of Disease in Costa Rica, 1979

<u>Disease</u>	<u>Total Cases</u>	<u>Rate per 100,000</u>	<u>Total Deaths</u>	<u>Deaths per 100,000</u>
Enteritis and other diarrheal diseases	n.a.	n.a.	164	7.6
Malignant neoplasms (all types)	n.a.	n.a.	1,491	68.7
Typhoid and paratyphoid fever	57	2.6	--	--
Salmonella infections	54	2.5	--	--
Dysentery, bacillary	18	0.8	--	--
Amebiasis	10	0.5	1	.0
Brucellosis	8	0.4	2	.1
Whooping Cough *	298	13.7	5	.2
Strept. sore throat & scarlet fever	412	19.0	--	--
Meningococcal infection	--	--	--	--
Poliomyelitis (all types)	--	--	--	--
Chickenpox	1,304	60.1	--	--
Measles *	6,410	295.4	34	1.6
Yellow Fever	--	--	--	--
Encephalitis, viral	--	--	--	--
Hepatitis, infectious	835	38.5	15	.7
Mumps	278	12.8	--	--
Malaria	307	14.1	--	--
Influenza	19,623	904.3	22	1.0
Tuberculosis, all types	566	26.1	92	4.2
Tuberculosis, respiratory	536	24.7	72	3.3
Leprosy	50	2.3	--	--
Erysipelas	--	--	3	.1
Tetanus	22	1.0	17	.8
Leishmaniasis	1,366	62.9	--	--
Syphilis, all types	2,168	99.9	4	.2
Gonococcal infections	8,687	400.3	--	--
Rheumatic fever, active	51	2.4	1	.0

-- = None

* In 1980, 586 cases of whooping cough were reported. In 1980, only 749 cases of measles were reported, a substantial decline from previous years.

Source: Pan American Health Organization, Statistical Services, November 1981, and Pan American Health Organization, Expanded Program on Immunization (EPI) Newsletter, October 1981.

5.2 Vital Statistics (1978)

Crude birth rate/1000 population	28
Crude death rate/1000 population	5
Infant mortality/1000 live births	28
Life expectancy at birth	70

Source: World Bank, World Development Report, August 1981.

5.3 Health Facilities

Distribution of
Health Facilities by Region, 1976

	1 <u>Central</u>	2 <u>North Central</u>	3 <u>North Pacific</u>	4 <u>Atlantic</u>	5 <u>South Pacific</u>
Hospitals	14	5	3	5	5
National/	6	2	3	4	3
- Regional					
Local	1	3	2	1	2
Specialized	7				
Health Centers	17	10	14	9	8
Health Posts	16	24	56	29	33
Dispensaries	5	19	11	11	3
Mobile Units	1	2	3	3	5

Hospitals: National- Health centers with the most advanced technical and human resources to provide the full range of treatment, including highly specialized cases.

Regional-The most complete health center of a region, offering diagnosis, surgery, X-rays, laboratory work, and some specialties.

Local-Small hospitals with principal function of receiving patients referred from the local health centers and health posts.

Specialized-Maternity psychiatric, tuberculosis and other hospitals.

Health Centers: Small rural health facilities which provide general preventive health care, obstetrics, and emergency care.

Health Posts: Two-person health units, which provide out-patient care, first line of treatment, basic diagnosis and prescriptions, obstetrics, pediatrics, and family planning.

Dispensaries: Health service on an out-patient basis and emergencies.

Source: USAID Mission Disaster Plan, Costa Rica 1977.

A detailed listing of hospitals, health centers, dispensaries, and health post by region can be found in Appendix B.

5.4 Nutrition and Diet

The Costa Rican diet is similar to that of other Central American countries and consists of rice, beans, corn, fruits, and beef. Because Costa Ricans raise cattle for export, there is more beef available for domestic consumption than in neighboring countries. Large amounts of sugar are also consumed. Costa Ricans generally receive approximately 56 grams of protein per day, 36% of which is from animals and pulses. Per capita calorie supply is 98% of requirements.

In rural areas, diet consists of milk, rice, beans, coffee, sugar, corn tortillas, and fresh fruits and vegetables when available. These would include beets, cabbage, carrots, spinach, grapefruit, oranges, lemons, limes, and bananas. In urban areas of the Meseta Central, food preferences tend to be more diversified, and include wheat flour in white breads and pastas, meat, milk, fresh fruits, roots, and vegetables. Nutritional deficiencies occur primarily in children and pregnant women in rural areas. It is currently estimated that 37.2% of children have first degree malnutrition. While serious undernutrition is rare, 8.3% of children were diagnosed as having second degree malnutrition and 0.4% had third degree in 1978. This is substantially better than other Central American countries where the rate for second and third degree malnutrition is 33% among children. The country's broad system of rural health posts and the nationwide Centers for Nutrition and Education for maternal-child health and feeding are largely responsible for this difference.

Nutritional values of foods commonly eaten in Costa Rica, including cereals, vegetables, fruit, meat, fish, and dairy products, are presented in Appendix C.

5.5 Housing

Traditional housing in Costa Rica is of wood construction with cement foundations; however, increasingly, cement blocks are becoming the preferred building material because of their durability and low maintenance requirements. Cement is the most extensively used material in modern construction and is produced by one company located in Cartago. The cement is transported by truck to small companies throughout the country which produce cement blocks for local construction needs. Galvanized corrugated iron sheets (GCI) were used to roof 87% of the houses in the country in 1975; about 3% of the roofs were made of asbestos cement sheets.

Housing can be classified as low cost, middle income, and upper income. Except for some multi-family dwellings in San Jose, most residences are one level units. Low cost urban housing usually features a compacted tuff (porous rock formed by consolidation of volcanic ash) floor, covered with a cement surface, single sheathing wood walls and beams, and a galvanized corrugated iron roof. Windows are glass or screen in wood frames, depending on the climate. In an effort to reduce termite infestation, walls are built of cement block to about one meter height with wood construction above. Interior walls and ceiling are usually left unfinished and electrical wiring and plumbing are left exposed. Most of these units have indoor baths, kitchens and electricity, although plumbing is cold water only. (See section 10.1, Electric Power, for extent of electricity distribution.) Because of the poor quality of the wood used in this construction, these homes are frequently in need of repair and are affected by termites, especially in the lowland areas along the Pacific and Atlantic coasts. Individual or group septic tanks are the usual means of sewage disposal, although sewers are sometimes used in metropolitan areas when connections are available in metropolitan areas when connections are available.

Middle income units are usually concrete block walls with cement plaster, wood trusses with GCI roofing, wood frame and glass windows, cement tile floor finish and asbestos cement or plywood finished ceilings. Plumbing is built in and complete in the bathroom and kitchen. Septic tanks are the predominant means of sewage disposal, although in large urban areas sewerage systems, often discharging directly into the river, are installed.

Upper income housing is distinguished from middle income housing primarily by the degree and quality of finishing. These homes might include servants' quarters, garages, decorative tile in the kitchen and bathroom, terrazzo or wood parquet floor finishing and decorative cabinet work.

Multi-family housing, found almost exclusively in the San Jose metropolitan area, is expensive to construct and is limited to middle and upper income class groups. These buildings do not usually exceed five stories, and are normally about three stories high, and include full electrical and plumbing connections.

In rural areas houses are of wood construction with GCI roofs, mud floors and screened windows. In some areas latrines or large pits are the only means of garbage and sewage disposal.

6. Economy

6.1 Overview of Economy

After more than thirty years of continuous growth, the Costa Rican economy began to experience a steady slowdown in the early 1970s. This decline accelerated in 1977, and has led to the virtual standstill of the economy in late 1981. In 1977 the resource deficit reached 12% of the GDP, and the rate of inflation rose to 24%. Between 1977 and 1979 Costa Rica's terms of trade fell by 20%. Coffee prices dropped from a 1977 record high of \$217.2/quintal to \$146.4/quintal in 1979, at the same time that petroleum prices doubled. Although domestic real output increased by 10.6% between 1977 and 1979, real incomes increased by only 5.3%, and inflation increased from an annual rate of 7.4% to 21.1%. In 1980, real GDP grew only 1.9%, compared to 3.3% in 1979, and an average annual rate of 6.9% in 1976-77. In 1981, GDP decreased by 1%. Agricultural and commercial activities were particularly depressed as bad weather, strikes on the banana plantations, and restricted access to bank credit took their toll. Poor performance in these sectors contributed to a 1.5% decline in exports, further depriving the economy of needed foreign exchange.

There are several built-in causes for the economic imbalance, as well as international factors and conditions which are not favorable to the country's growth. There is no central authority that monitors expenditures of central government, but rather many independent authorities which have discretionary authority over their own budgets. In addition, fifty percent of the country's tax revenues are "earmarked" or designated by law to be spent in predetermined areas. This effectively limits the central government's ability to shift resources or manipulate fiscal policy in response to changing needs and conditions. The GOCR continues to support programs which subsidize basic commodities such as rice, beans, and other foodstuffs, even when this results in significant losses to the government. Manufacturing, as a whole, is a net exporter of foreign exchange because such a large part of the raw materials are imported. As members of the Central American Common Market (CACM), the GOCR has pursued a trade policy directed toward trade between CACM members, even though demand among CACM members has declined substantially. Little effort has been made to expand exports to non-CACM member countries, and in fact, several anti-export incentives make it far more profitable to sell to the domestic market.

At the end of December 1980, the Central Bank of Costa Rica withdrew from the foreign exchange market to allow the exchange rate to float freely. By April 1981, the Central Bank had instituted a fluctuating exchange rate, and by mid-September the dollar was quoted at about 26 colons, representing a devaluation of over 250%. The GOCR hopes that the downward trend will bottom out in 1981 and recovery will begin in 1982.

In June 1981 Costa Rica and the International Monetary Fund (IMF) entered into an agreement which would provide a three-year, \$330 million extended fund facility. It was hoped that this infusion of capital would help to offset the deficit projected for the 1981 balance of payments current account. (Costa Rica has been able to pay only partial interest on its \$2.7 billion debt and international commercial banks have suspended all lending to the country.) However, the GOOCR failed to meet the economic targets agreed to with the IMF, and no disbursements have been made. The GOOCR must reduce its large public sector deficit before even a one-year standby agreement can be finalized.

The industrial sector had begun to diversify and expand before the current economic disarray. In 1979 manufacturing and mining accounted for 23% of the GDP as compared with 18.9% for agriculture. Major industrial projects include a pulp and paper plant, a cotton processing mill, and plans to develop the estimated 150 million tons of bauxite discovered in the southeast, construction of an aluminum smelter to produce 280,000 metric tons of aluminum per year, and two new hydroelectric plants in Santa Rosa and Angostura. Other areas of industrial activity include textiles, chemicals, plastics, and food processing.

6.2 Gross Domestic Product

Costa Rica's real GDP decreased about 1% in 1981. The agricultural sector showed slight growth with production increasing by 5% over 1980. Financing the large public sector deficit skewed credit growth toward the public sector, producing tight credit in the private sector. Hardest hit were construction (-20%), commerce (-9.3%), and transport and communications (-1%).

Gross Domestic Product-1980

	<u>(US \$ Millions)</u>	<u>% of GDP at Current Market Prices</u>
GDP at Market Prices	4,583	100
Agriculture	811	17.1
Industry	1,407	30.7
Services	2,365	51.6
Consumption	3,942	86.0

	<u>(US \$ Millions)</u>	<u>% of GDP at Current Market Prices</u>
Gross Investment	1,104	24.1
Exports of goods and NFS	1,220	26.2
Imports of goods and NFS	1,664	36.3
Gross national savings	450	9.8

Source: World Bank, Costa Rica Petroleum Sector Technical Assistance Program Report and Recommendation, June 1981.

6.3 Balance of Payments

The balance of payments most clearly shows the severe economic adjustment imposed on the economy in 1981. The trade deficit and current account deficit decreased. Imports dropped 22%, but exports, 2.9% higher than in 1980, declined in real terms.

Balance of Payments 1979-81 (net) (\$ millions)

	<u>1979</u>	<u>1980</u>	<u>1981</u>
Exports (f.o.b.)	942	1,002	1,031
Imports (c.i.f.)	1,397	1,540	1,205
<u>Trade account</u>	-455	-538	-174
Service and Transfers	-103	-122	-208
<u>Current Account</u>	-558	-660	-382
Capital Flows:			
Official	426	378	257
Private	58	78	-56
Interest not paid			126
SDR		6	5
<u>Capital Accounts</u>	484	462	332
Change in Reserves	-74	-198	-50

Source: World Bank, Costa Rica Petroleum Sector Technical Assistance Project, June 1981.

6.4 Imports

As Costa Rica's manufacturing sector has grown, so has the level of imports of raw materials, and non-consumer goods. More and more capital goods have been imported resulting in serious balance of payments difficulties. In 1981, however, imports dropped drastically as a result of the devaluation of the colon and a severe dollar shortage. Imports of consumer goods showed the greatest decrease of 32%, raw materials declined by 6.7%, capital goods, -22.5%; construction materials, -20.9% and fuels and lubricants, -3%.

Principal sources of imports are the United States, the Federal Republic of Germany, Guatemala, El Salvador, the Netherlands, Japan, and the United Kingdom.

Principal Imports, 1977-1979
(Millions of U.S. dollars)

	<u>1977</u>	<u>1978</u>	<u>1979</u>
Consumer goods	245.5	289.2	317.1
Nondurables	(151.2)	(170.7)	
Durables	(94.3)	(118.5)	
Raw materials	377.4	442.1	475.4
Agriculture	(29.2)	(32.7)	
Manufacturing and mining	(305.9)	(338.4)	
Construction	(42.3)	(71.0)	
Petroleum and derivate products	98.5	132.3	201.0
Capital goods	228.8	320.9	395.1
Agriculture	(28.4)	(28.0)	
Manufacturing and mining	(84.3)	(91.3)	
Transport	(93.6)	(109.0)	
Construction	(31.4)	(38.0)	
Other	(51.1)	(54.6)	
Other	17.1	5.9	21.4
Total Imports, c.i.f.	1,027.3	1,190.4	1,410.0

Source: Central Bank of Costa Rica, as cited in World Bank, Costa Rica Current Economic Position and Prospects, November 1980.

6.5 Exports

With the anticipated twofold increase in coffee production by 1984, coffee exports are expected to increase to help meet the growing import deficit. However, low prices continue to limit this sector's contribution. In 1981, bananas were the only traditional export to show a significant increase. For the first time in many years, the value of banana exports exceeded that of coffee exports. Costa Rica's Industrial sector was expanding before the current economic decline and can be expected to contribute to the export market as the economy recovers, although economic dependence on the economically troubled Central American Common Market poses a continuing problem. Principal recipients of Costa Rican exports in 1978 were the United States, Japan, Guatemala, El Salvador, the Federal Republic of Germany, the United Kingdom, and the Netherlands.

Principal Exports, 1977-1979

(Value in millions of US dollars; volumes in thousands of units;
unit value in US dollars)

	<u>1977</u>	<u>1978</u>	<u>Prel.</u> <u>1979</u>
Coffee (value)	319.2	313.7	289.5
Volume (quintal)	1,470	1,877	1,977
Unit value (per quintal)	217.2	167.1	146.4
Bananas (value)	150.3	169.9	170.2
Volume (metric ton)	1,003	1,058	1,001
Unit value (per ton)	149.9	160.6	170.0
Meat (value)	44.1	60.3	81.5
Volume (quintal)	31.9	34.6	31.6
Unit value (per quintal)	1,380	1,740	2,579
Sugar (value)	15.6	15.9	15.4
Volume (quintal)	1,479	1,486	1,484
Unit value (per quintal)	10.6	10.7	10.4
Cocoa (value)	17.1	15.1	9.1
Volume (quintal)	122	127	86
Unit value (per quintal)	140.4	118.9	105.8

	<u>1977</u>	<u>1978</u>	<u>Prel.</u> <u>1979</u>
Fertilizer (value)	13.7	11.0	9.4
Volume (metric ton)	108.0	83.1	64.3
Unit value (per ton)	127.0	132.4	146.0
Other products (value)	268.1	279.1	315.1
Agricultural	(52.1)	(66.3)	65.1
Industrial	(216.0)	(212.8)	(250.0)
Total Exports, f.o.b.	827.8	863.3	890.2
Adjustment	-0.3	-1.4	-

Source: Central Bank of Costa Rica; Directorate General of Statistics and Census, as cited in World Bank, Costa Rica Current Economic Position and Prospects, November 1980.

7. Agriculture

7.1 Overview of Agriculture

Agriculture and stockraising are the mainstays of the Costa Rican economy. In 1980, 30% of the labor force was engaged in agricultural production. This sector produces 19% of the GDP and the country's principal exports - coffee, bananas, meat, sugar, and cocoa.

Agricultural production is concentrated in the Meseta Central and the coastal lowlands. The Meseta Central is a volcanic plateau at an altitude of between 1,065 m. and 2,150 m., and is layered with rich volcanic ash, an ideal growing medium for coffee. The area around Golfito on the Pacific coast produces almost 75% of Costa Rica's banana crop, and the northern province of Guanacaste is the site of the country's significant cattle raising activity.

Most agricultural and stockraising activity is conducted on small and medium sized family-owned farms; in 1973, 81% of the farms in Costa Rica were properties of less than 50 hectares. These small farms are the major producers of corn, beans, and milk, staples in the Costa Rican diet. Until 1975, the GOCR promoted the development and production of crops for export. This resulted in a decline in production of crops for domestic consumption, requiring purchases from abroad to supplement the food supply. Adverse weather conditions, plant diseases, labor problems, and the high cost of inputs, resulted in a 4% decline in food production in 1980. However, agricultural output increased 2% during this year, principally because of a 25% increase in coffee production and a slight increase in banana production.

The poor condition of Costa Rica's economy contributed to the 18% decline in production of rice, the major grain consumed domestically, while government programs to expand areas of cultivation produced favorable results in increased corn and bean harvests. The GOCR has undertaken an aggressive program to increase agricultural production through increased assistance to small and medium sized farmers, higher support prices for basic crops, and expanded cultivation in Guanacaste province through irrigation. However, it is likely that Costa Rica will continue to import food products in the next few years.

7.2 Principal Crops

	<u>Principal Crops</u> ('000 metric tons)		
	<u>1978</u>	<u>1979</u>	<u>1980</u>
Rice, paddy	121	128	106
Corn	63	57	71
Beans, dry	9	11	13
Potatoes	25	24	25
Sugarcane	2,578	2,600	2,650
Tobacco	2	2	2
Oranges	74	74	74
Bananas	1,149	1,100	1,187
Coffee	96	90	112
Cocoa beans	9	9	6

Source: U.S. Dept. of Agriculture, World Indices of Agricultural and Food Production, July 1981.

7.3 Crop Dates

<u>Commodity</u>	<u>Planting Season</u>	<u>Harvesting Season</u>
Beverages		
Cocoa		
Main Crop	-- -- --	October-January
Intermediate crop	-- -- --	May-June
Small crop	-- -- --	July-September
Coffee:		
Atlantic zone	-- -- --	September-January
Central Plateau	-- -- --	November-March
Cereals and grains		
Corn	March-May, July-September	August-September, December-February
Rice	March-May, July-August	August-September, November-January
Fibers		
Abaca	-- -- --	Throughout year
Cotton	July-August	December-January

<u>Commodity</u>	<u>Planting season</u>	<u>Harvesting Season</u>
Forest products Ipecac root	-- -- --	Throughout year.
Fruits Bananas	-- -- --	Throughout year.
Oilseeds Sesame seed Cottonseed	September July-August	December-January Do.
Sugarcane	-- -- --	October-March.
Tobacco Seedbeds Transplanting	June-August August-September	-- -- -- December-March.
Vegetables Beans Potatoes	March-May, July-September April-May, November	August-September, November-February. September-October, February

(1) Harvested from 12 to 18 months after planting.

7.4 Food Storage and Distribution

From 1973 through 1975, Costa Rica experienced dramatic increases in production of basic grain crops as a result of government programs which supported expansion of land under cultivation, and provided subsidies and incentives to farmers to encourage production. Rice production increased 94%, corn 75%, beans 47%, and sorghum 109%. Yet, despite these increases, in 1975 Costa Rica had to import corn, beans, and sorghum to meet domestic demand. There was a surplus of rice; however, because of its poor quality, it could not be exported. The reason for these shortfalls is that 21% of the corn harvest, 24% of the bean crop, and 21% of the sorghum yield were lost due to spoilage, infestation, and consumption by rodents. The lack of adequate storage facilities on the farm and adequate transportation infrastructure to move the grain from the producing areas to the marketplace are cited as the major causes of these losses. Approximately 67% of the grain losses nationwide occur on the farm, 14% occur at the wholesale level, and 19% at the retail level. Both qualitative and quantitative losses can be traced to the farm, where exposure to moisture, insects, rodents, birds,

and micro-organisms contribute to the growth of potentially lethal mycotoxins and general deterioration of the harvest. Corn and beans are particularly susceptible to this type of infestation. At the retail and wholesale levels, losses are due to insufficient disinfection of transport and storage facilities and improper handling.

It is estimated that 34% of the corn yield, and 41% of the bean harvest remain on the farm for domestic consumption. If storage facilities here were improved, supplementary grain purchases could be reduced and more grain would be available for sale on the open market. (Between 1979 and 1980, Costa Rica imported more than 50,000 MT of sorghum, valued at US \$7,115,000, from the United States alone.)

The National Production Council (CNP) is the authority responsible for maintaining and expanding food storage facilities. As of January 1982, CNP reported that national food warehouse facilities had a total bulk storage capacity of 150,000 MT, of which 75,000 MT was in the private sector, and 25,000 MT was flat warehouse space, in both the private and public sectors. An additional 10,000 MT capacity will be available by mid-1982 in silos under construction at the new port at Caldera. Plans are being developed to construct additional silos at Guacimo and Puerto Limon, with a combined total capacity of 20,000 MT, for completion by December 1982. The new construction will bring the national total to 180,000 MT by January 1983.

Most food produced in Costa Rica is transported by truck either to CNP warehouses (grains and pulses) or directly to supermarkets or farmers' markets. CNP sells to wholesalers who in turn sell to retail outlets; the farmers' markets sell directly to the consumers. Often these marketing channels break down, however, due to poor conditions of roads to markets, especially during the rainy season when the poorly constructed and maintained bridges and dirt and gravel roads wash out.

Foreign food assistance has been limited to PL 480, Title II, programs aimed primarily at improving the local school feeding program, and a \$34 million Commodity Credit Corporation program, begun in 1981, to provide for importation of wheat, feed grains, vegetable oil, white corn, and protein meals.

Crop Production by Region
(Percent of National Total, 1975)

<u>Region</u>	<u>Corn</u>	<u>Beans</u>	<u>Rice</u>	<u>Sorghum</u>
Pacifico Seco	14	15	40	28
Pacifico Sur	46	32	40	33
Meseta Central	20	21	1	1

<u>Region</u>	<u>Corn</u>	<u>Beans</u>	<u>Rice</u>	<u>Sorghum</u>
Zona Norte	6	29	4	--
Atlantico	12	--	1	--
Sub. Region (Parrita-Quepos)	1	2	13	37

Source: IGAD/LAC, Costa Rica: Project for the Reduction of Post-Harvest Losses of Maize, Beans, Sorghum and Rice, June 1977.

7.5 Agricultural Exports

Agricultural Exports (US \$ million)

	<u>1977</u>	<u>1978</u>
Coffee	319.2	307.4
Bananas	150.3	169.8
Sugar	15.6	15.9
Cattle and Meat	44.1	61.5
Cocoa	17.1	15.0

Source: Europa Yearbook, 1981.

8. Physical Geography

8.1 Climatic Zones

The climate in Costa Rica, like that of all Central America, can be divided into two seasons, a dry summer from December to April, and a wet winter from May to November. The temperature varies with altitude, being cool, crisp and temperate in the populous central plateau, and hot and humid in the coastal lowlands.

8.2 Precipitation

During the rainy seasons, from May to November, light showers can be expected daily during the late afternoon in the Meseta Central and highland areas, and throughout the day in the coastal lowlands. In the highlands, these showers are usually followed by clearing skies, except during the "temporals," when it drizzles continuously for days at a time. On the Caribbean side of the country, rain falls year-round, averaging up to 275 inches per year in some places. This area is particularly prone to flooding.

Average Annual Precipitation (Inches)

	<u>J</u>	<u>F</u>	<u>M</u>	<u>A</u>	<u>M</u>	<u>J</u>	<u>J</u>	<u>A</u>	<u>S</u>	<u>O</u>	<u>N</u>	<u>D</u>	<u>Year</u>
San Jose	0.5	0.2	0.5	1.8	9.0	11.0	8.3	9.2	13.0	12.8	5.7	1.6	73.7

8.3 Temperatures

Average Daily Temperature (°F)

	<u>January</u>		<u>April</u>		<u>July</u>		<u>October</u>		<u>Extreme</u>	
	<u>max.</u>	<u>min.</u>	<u>max.</u>	<u>min.</u>	<u>max.</u>	<u>min.</u>	<u>max.</u>	<u>min.</u>	<u>max.</u>	<u>min.</u>
San Jose	75	58	79	62	77	62	77	60	92	49

8.4 Land Use

Land Use, (1978)
('000 hectares)

Arable land	283
Land under permanent crops	207
Permanent meadows and pastures	1,558
Forests and woodland	2,500
Other land	518
Inland water	4
 Total	 5,070

Source: Europa Yearbook, 1981.

8.5 Landforms

Costa Rica, encompassing a total land area of 51,100 square km., is located on the Central American Isthmus, bordered on the north by Nicaragua and on the south by Panama, on the west by the Pacific ocean, and on the east by the Caribbean.

As in most of Central America, the topography of Costa Rica features a narrow strip of hot lowlands on the Pacific coast, a central highland region formed by a series of mountain chains, and a broad extension of dense, swampy jungle on the Atlantic or Caribbean coast. The 200 km. long Atlantic coast is level and open to the sea, contrasting sharply with the Pacific coast. This 965 km. expanse is marked by two mountainous peninsulas which jut out into the sea to form two natural bays, the sites of two of Costa Rica's major ports. Two mountain ranges, the Volcanic Range, which includes the Guanacaste, Tilaran, and Central mountain chains, and the Talamanca Range, form a nearly continuous divide between the east and the west for the length of the country. The Volcanic Range rises along the volcanic axis of Central America and includes eleven volcanoes, while the Talamanca Range emerges near the center of the country and forms the backdrop for the General Valley, an upland basin of flood plains and rolling hills to the south.

In the north, in Guanacaste province, the landscape is composed of broad rolling savanna lands between the Guanacaste mountains on the east, and the Pacific coast on the west. The Nicoya Peninsula in the north-west has some of the country's most beautiful beaches, both on the Pacific

Coast and along the bay. The central highlands region, referred to as the Meseta Central, measures only 25 x 65 km. and forms the cultural and geographical center of the country.

8.6 Waterways

The country's principal rivers are the Rio San Juan forming the border between Nicaragua and Costa Rica, Rio Colorado, Sixola, and Grande de Tarcoles. On the Atlantic coast, the Tortuguero Canal, an inland waterway formed by man-made passages between the natural lagoons in the coastal lowlands, extends northwesterly from Moín, just north of Limón, some 97 km. to meet the Rio Colorado at Barra del Colorado. The canal is one of the only means of travel and trade for this sparsely populated region, and is traversed by local traders in dugout canoes and motorized launches.

8.7 Seismicity and Volcanicity

Situated along the Circum-Pacific volcanic belt on the edge of one of the Earth's tectonic plates, Costa Rica is a part of the "Ring of Fire," a zone susceptible to volcanic eruptions and the shallow but very hazardous plate-edge type earthquakes which accompany collisions between the Cocos and Caribbean plates.

There are seven historically active volcanoes within the borders of Costa Rica: Orosí (elev. 1,660 m.), Rincon de la Vieja (1,916 m.), and Arenal (1,640 m.) along the Cordillera de Guanacaste, and Poas (2,704 m.), Barva (2,920 m.), Irazú (3,490 m.), and Turrialba (3,335 m.) along the Cordillera Central. Miravalles (2,028 m.) and Platanar (2,240 m.), have not been active in the recent past; however, both of these are currently fumarolic, i.e., steaming with measurable subsurface temperatures indicating some level of activity in the past. Rincon de la Vieja, Arenal, Irazú, and Poas are the volcanoes which have been most active during the last twenty years, and have caused substantial damage to populations and property.

9. Transportation and Logistics

9.1 Road Network

Costa Rica's extensive road network consists of 27,631 km. of roads and highways providing access to all the major producing areas of the country and between principal cities. Roads are classified as national (1,832 km.), regional (1,247 km.), and cantonal or local roads (24,552 km.). More than 10,000 km. are all-weather surfaces, 2,447 km. are paved, and 8,732 km. have been improved with gravel surfacing and ballast material. The remaining 16,452 km. are dirt roads, most of which are impassable during the rainy season.

Roads are concentrated in the Meseta Central region and branch out from the Inter-American Highway as it cuts through Costa Rica from Nicaragua in the northwest to Panama in the southeast. Most of the highway traffic is centered around the capital and the Meseta Central, although access roads to the provincial capital cities, the trunk roads serving the Nicoya Peninsula, and the Inter-American highway are well traveled.

The Ministry of Public Works and Transport maintains the national and regional highways and authorizes and executes construction of new roads. The latest five-year transportation system development program (1981-85) emphasizes rehabilitation and improvement of the national road network at a rate of about 100 km. per year. There is an adequate supply of construction and maintenance equipment throughout the country.

Three major highways currently under construction are the San Jose - Siquirres - Puerto Viejo highway, the Costanera highway in Puntarenas province; and a two-lane highway from San Jose to the new port at Caldera.

9.2 Railroads

Ferrocarriles de Costa Rica, S.A. (FECOSA) which has the only electrified lines in Central America, is a government-owned corporation operating two railway systems, the Pacific railway connecting San Jose and Puntarenas, and the Atlantic railway operating from San Jose to Limon and Siquirres to Rio Frio. The Compania Bananera de Costa Rica operates a Southern railway of approximately 250 km.

FECOSA's electrified Pacific line operates over 160 km. and averages 400,000 tons of freight traffic annually in its old, but well-maintained rolling stock.

The Atlantic railway consists of 220 km. of main line and 400 km. of branch lines in the banana plantation areas along the Atlantic coast. The physical plant of this system is both old and in poor repair; however, it continues to carry approximately 1,200,000 tons p.a., principally bananas for export. Recently the 138 km. line from Moín to Siquirres to Río Frío was electrified and FECOSA purchased twelve new electric locomotives. The idea is to electrify the whole system eventually. Until the mid 1960s, railroads provided the principal means of transporting people and products within the country; by 1978, the railroads were carrying only about 8% of the ton/km. traffic and 1% of the passenger/km. traffic, increasingly replaced by the automobile.

9.3 Ports

The two main ports of Costa Rica are Porto Limón on the Atlantic, and Puntarenas on the Pacific in the Gulf of Nicoya. These two ports are in such poor condition and have such limited capacities that the GOCCR has undertaken a large scale improvement program to accommodate anticipated expansion of exports. This program includes substantial rehabilitation and expansion of the port at Limón, and construction of new installations at nearby Moín, as well as construction of a completely new facility at Caldera to replace the badly deteriorated port at Puntarenas. Both the renovated facility at Limón and the new port at Moín will relieve serious congestion on the Atlantic coast. The new port at Caldera has direct railroad access, as do Limón and Moín, and a grain silo, and will be capable of handling containers. In addition to these major ports, there is a small port at Quepos on the Pacific coast and a port at Golfito on the Gulf of Dulce which is served by a small railroad branch line to Panama.

Port of Moín

Coordinates:	Lat. 10° 01' N, long. 83° 05' W.
Accommodation:	Petroleum unloading facilities. Crude oil berth, steel piled open type wharf, 200 m. long and 14 m. deep. Roll-on/roll-off berth: 30 m. wide and 12 m. deep. Banana handling berth, steel piles open type wharf, 400 m. long and 12 m. deep. Gantries for bananas. Water available.
Administration:	RECOPE

Port of Limon

Coordinates:	Lat. 9° 59' N., long. 83° 01' W.
Approach:	Hazard free entrance, depths range from 14.5 to 18 m. Anchorage between Uvita Island and port installations.
Tides Range:	0.3 m. - 0.4 m.
Accommodation:	
Metallic Pier:	Berth No 1, length 160 m., 8.8 m. depth. Berth No 2, length 160 m., 7.9 m. depth, used for general cargo. Berth No 3, 122 m. length, 6.7 m. depth, used for general cargo. Ancillary facilities: Railway sidings, belt conveyor for banana handling.
National Pier:	Steel piled pier, 156 m long and 6.7 m. deep, with railway sidings.
Pier Seventy:	2 berths with depth of 9 m and one berth with 6 m. deep. The pier has railway sidings and
German Pier:	Concrete piles open type wharf, 360 m. length, 11 m. depth. Ro/Ro berth: Concrete block wharf, 90 m. length, 10 m. depth. This pier will have a 35 ton container crane.
Storage:	Covered storage area: 18, 200 sq. m. Open storage area: 1,200 sq. m. New facilities: 5,400 sq. m. warehouse; 20,000 sq. m. container yards.
Cranes:	3 mobile cranes, 3 fixed cranes 10, 30 and 50 ton. fork lifts.
Provisions:	Available from ship chandlers.
Water:	Available from pipes at quay.
Ore and belt cargo facilities:	Mobile grab can be used for bulk cargo discharge.
Tanker Terminal:	Discharge at the Port of Moin.

Bunkers: Bunker C and diesel oil available.

Ship repairs: Minor repairs at town machine shops.

Pilotage: Pilots available VHF Channel 16.

Medical Facilities: Local hospital.

Airport: 4.8 km. from the port. Juan Santamaria International Airport is about 145 km. to the west.

Port of Punta Morales

Coordinates: Lat. 10° 04' N, Long. 84° 58' W. Specialized port for sugar, 12 m. depth. Warehouse with conveyor belt.

Port of Caldera

Coordinates: Lat. 9° 54' N, Long 84° 43' W. Situated on the Pacific Coast in the mouth of the Gulf of Nicoya.

Approach: Hazard free entrance. Minimum depth at approaches 11.0 m. Short term anchorage at Caldera.

Wharves: Steel sheet pile type.
1. Depth: -11 m., length: 210 m.: now at -10 m., will be dredged in the near future.
2. Depth: -10 m., length: 150 m.
3. Depth: 7.5 m.; length: 130 m.

Tides: Small differences with the tide of Puntarenas. Tide observation at Caldera is insufficient to establish a defined pattern.

Storage: Transit shed, area: 7,200 sq. m. Warehouse, area: 5,400 sq. m.

Water: Fresh water. 560 cubic m. tank.

Container Facilities: Studying feasibility of installing a 35 ton container crane. Forklift with spreaders for containers of 20' and 40', container yards.

Pilotage: Available

Facilities: For loading and unloading: Forklift 3, 5, 6 and 15 ton, trailer heads and chassis, pallets (wooden), scales 50 ton and 3 ton railroad.

Medical Facilities: Hospital at Puntarenas.

Golfo

Coordinates: Lat. 8° 37' N, long. 83° 10' W. Situated in the south of the Pacific Coast on the Gulf of Dulce.

Approach: Minimal draft in approaches, 9.14 m. No bars. One wharf affording two berths accommodates vessels drawing maximum of 7.31 m. at banana pier, and 7.92 m. at general cargo pier. Facilities for loading and unloading (grabs, pallets, and hysters) are available. Rail spur on wharf, direct loading to rail trucks. Ample labor, average working rate 18 tons/gang/ hour.

Tides: From January to June, tide of about 2.8 m. From June to December tide of about 3.1 m.

Private Wharves: Owned by Cia. Bananera.

Storage: Not available.

Provisions: Available.

Water: Fresh water, 500 tons maximum quantity.

Container Facilities: Not available.

Tanker Terminal: Fuel discharged by pipeline at cargo berth.

Shiprepairs: Carried out by Cia. Bananera de Costa Rica

Pilotage: No pilot. Launch can be sent to guide ships if requested on radio system, VHF Channel 16.

Airport: At Golfito with plane service to San Jose.

Puntarenas

Coordinates: Lat. 9° 58' N, long. 84° 49' W. This port is being replaced by new facilities at Caldera.

Accommodations: Outer roadstead, in open sea, with sufficient depth for the largest ships. Good anchorage. Depth inside pier 7.31 m. LW, 9.14 m. HW, outside pier 8.23 m. LW, 10.67 m. HW. Agents recommend that inward vessels, berthed to load, should not draw more than 7.31 m. Pier takes two ships at time, length inner side 109.7 m., outer side 137.2 m. giving all the facilities and security of modern wharfage. Four breast or mooring buoys, anchored to cement blocks, alongside the pier. Crane, gangway and slings. No elevators. Six railroad tracks run into pier. Discharging is made directly into the railroad cars. Electric railway connects Puntarenas with San Jose, 128 km. away. Lightering is available.

Water: Delivery 60 tons/hour.

Pilotage: Available.

Tanker Terminals: One oil berth. Length 149.3 m., 7.31 m. depth. Night berthing possible. Water and bunkers available.

Bunkers: Diesel oil at 7,500 gallons per hour.

Shiprepair: Available.

Airport: Two hours by road to San Jose, connections there with international flights.

Holidays: Carnival in April, religious holiday in July.

Quepos

Coordinates: Lat. 9° 25' N, long. 84° 10' W.

Accommodations: Depth at 152.4 m. from wharf, 36.3 m. One wharf 140.2 m. by 12.8 m. with 12.19 m. depth forward and 7.31 m. aft.

Cranes: Two 15-ton railway cranes.

Bunkers: Crude and diesel bunker connections.

9.4 Airports

Costa Rica's main international airport is Juan Santamaria Airport in El Coco, 16 km. from San Jose. A Class B airport at Puerto Limon is operational and is being improved, and new air facilities have been constructed at Golfito and Liberia.

NB: For up-to-date information consult latest issue of weekly International Notams, International Flight Information Manual, and/or ICAO's Air Navigation Plan for appropriate region.

SAN JOSE/Juan Santamaria International

Runway Characteristics

<u>Location</u> <u>Coordinates</u>	<u>Eleva-</u> <u>tion M/</u> <u>Temp°C</u>	<u>NR/Type</u>	<u>Slope</u> <u>%</u>	<u>Aircraft/</u> <u>Length M</u>	<u>CL</u>	<u>Aircraft</u> <u>Strength</u> <u>(1,000 kg)</u>	<u>Fuel/</u> <u>Octane</u>
09°59'58"N 84°12'20"W	921 23.3	07/25	1.09	DC8-63 3000 3012	A	DC8-63-L10-11 AUW.140 B 747-DC 10 AUW.280 AUW.240/4	100, JA1

Remarks: Alternate aerodromes- GUATEMALA/La Aurora, MANAGUA/Augusto Cesar Sandi PANAMA/General Omar Torrijos Herrera

Aids: ILS (07), DME, VOR, NDB, LSA - (07), LVA, LR, LTX, LB, LO, MD, MC, MT, MTD, MS, MTX, MO, L4, L5, L9. Telex: 2926. AFTN: MROCYA and MRSJYA

PUERTO LIMON/Puerto LimonRunway Characteristics

<u>Location Coordinates</u>	<u>Eleva- tion M/ Temp °C</u>	<u>NR/Type</u>	<u>Slope %</u>	<u>Aircraft/ Length M</u>	<u>CL</u>	<u>Aircraft Strength (1,000 kg)</u>	<u>Fuel/ Octane</u>
09°57'35"N 83°02'30"W	2 25.3	14/32 N-Instr	0	BAC-111-500 1800 B	-	727-500	N.F.

Aids: Visual flight rules only. MD, MC, MT, L4, NDB, LR, LB, LO, L9

TOMAS GUARDIA/LiberiaRunway Characteristics

<u>Location Coordinates</u>	<u>Eleva- tion M/ Temp °C</u>	<u>NR/Type</u>	<u>Slope %</u>	<u>Aircraft/ Length M</u>	<u>CL</u>	<u>Aircraft Strength (1,000 kg)</u>	<u>Fuel/ Octane</u>
10° 36' N 85° 33' W	80 mts 26.g° C	07/25	0.21	BA11-500 2240	B	DC8-33 B727/100	N.F.

Remarks: VOR, LR, MD, MC, MT, L9 - Visual flight rules only.

GOLFITO/GolfitoRunway Characteristics

<u>Location Coordinates</u>	<u>Eleva- tion M/ Temp °C</u>	<u>NR/Type</u>	<u>Slope %</u>	<u>Aircraft/ Length M</u>	<u>CL</u>	<u>Aircraft Strength (1,000 kg)</u>	<u>Fuel/ Octane</u>
08° 39' N 83° 11' W	15 mts NIC	07/25	0.38	C46 1400	B	C46	N.F.

Remarks: MD, MC, MT, - Visual flight rules only.

KeyRadio Aids

ILS	Instrument Landing System
DME	Distance Measuring Equipment
VOR	VHF Omni-Directional Range
NDB	VHF Directional Range

Lighting Aids

LPA	Precision Approach Lighting System
LSA	Simple Approach Lighting System
LVA	Visual Approach Slope Indicator System
LR	Runway Edge, Threshold & Runway End Lighting
LTX	Taxiway Lighting
LB	Aerodrome or Identification Beacon
LO	Obstruction Lighting

Marking Aids

MD	Runway Designation Markings
MC	Runway Center Line Markings
MT	Runway Threshold Markings
MTD	Runway Touchdown Markings
MS	Runway Sidestripe Markings
MFD	Fixed Distance Markings
MTX	Taxiway Center Line & Holding Position Markings
MO	Obstruction Markings

Additional Lighting

L4	Low Intensity Runway Lights
L5	Low Intensity Approach Lights
L9	Visual Approach Slope Indicator (VASI)

9.5 Personal Entry Requirements

Passport is not required but is recommended; visa is not required; tourist cards, obtainable from the Embassy or Consulate, may be used in lieu of both a visa and a passport for 30 days. Tourist cards can be renewed for up to a total of six months by the Costa Rican Department of Immigration. Smallpox vaccination required if traveler has resided outside of the U.S. or Canada during the fourteen day period prior to entry.

9.6 Aircraft Entry Requirements

All private and non-scheduled commercial aircraft overflying or landing for noncommercial purposes must provide at least 24 hour advance notification to the Director-General of Civil Aviation, Apartado Postal 5026, San Jose, Costa Rica (telegraphic address: AEROCIVIL SAN JOSE/Telex: 2926). Notification must include (a) type of aircraft and registration marks, (b) name of operator and purpose of flight, (c) dates and times of entry into and departure from Costa Rica airspace. If landing, include: (a) dates and times of arrival and departure at airport(s) of entry, (b) number of passengers, (c) type and amount of cargo. Non-scheduled commercial flights landing for commercial purpose must request permission two weeks in advance and submit all of the above information.

9.7 Airlines

Lineas Aereas Costarricenses, S.A. (LACSA) operates international services to the Cayman Islands, Colombia, El Salvador, Mexico, Panama, Venezuela, and the United States. Internal air service is provided by Servicios Aereos Nacionales, S.A. (SANSA).

Foreign airlines serving Costa Rica include COPA (Panama), Iberia (Spain), KLM (Netherlands), Air Florida (USA), SAHSA (Honduras), SAM (Colombia), and TACA (El Salvador).

LACSA's fleet of aircraft includes: 2 BAC 1-11-500, 3 Boeing 727-200, DC-8 (Cargo). SANSA: 2 Casa 212C, and 1 DC-3.

9.8 Air Distances

<u>San Jose to:</u>	<u>Statute Miles</u>
Golfito	114
Guatemala City	533
Nicoya	85
Panama City	334
Parrita	33
Puerto Armuelles, Panama	149
San Juan, Puerto Rico	1,349
San Pedro Sula, Honduras	454
San Salvador	419

<u>San Jose to:</u>	<u>Statute Miles</u>
Santa Cruz, Costa Rica	14
Tegucigalpa	348
Toronto	2,342
Upala	84
Washington	2,423

10. Power and Communications

10.1 Electric Power

Total installed electric capacity was 535 MW* in 1981, of which 93% was owned by the Instituto Costarricense de Electricidad (ICE), a government agency, and its subsidiary, Compañía Nacional de Fuerza y Luz (CNFL). ICE built a national electricity transmission system, the National Interconnected System (NIS), which connects principal distributing agencies and load centers in the country. The NIS has expanded electricity production and distribution to more rural areas. In 1981 approximately 72% of the country's housing had electricity, but in rural areas, this figure is 50%.

Hydroelectric power is the principal domestic energy source, providing 10% of the secondary energy consumed. Petroleum (53%) and biomass (37%) supply the balance of the national energy needs. In 1981 hydroelectric power was generating 98.3% of total electricity, as the GOCR's policy of maximizing use of national resources through expanded generation by hydroelectric and geothermal plants, is implemented. At present, only 544 MW of an estimated potential of 9,000 MW of hydroelectric power are installed*. Recent exploration in Guanacaste province has yielded promising reports of potentially large sources of geothermal energy. The GOCR is working to develop domestic energy sources with a view to decreasing dependence on foreign oil imports.

Hydroelectric plants currently account for 76% of the total capacity of the ICE system. The remainder is provided by thermal installations powered by gas turbines, steam, and diesel units. Overall energy consumption has grown at an average annual rate of 9.1% and in 1979 amounted to 767 kWh per inhabitant, the highest in Central America. As could be expected, 60% of this consumption is concentrated in San José province. The National Rural Electrification Plan, instituted in 1975, is an attempt to broaden electric power availability from the present 76% of the country to 90% by the year 2000. This plan, now in Stage II, is attempting to provide fundamental coverage to the center of each canton. Stage II will provide service for the main city in each district and expand geographic coverage in rural areas.

*Starting in February 1982, a new hydroelectric plant will go into production with a capacity of 174 MW, making a total installed capacity of 759 MW.

10.2 Radio Network

In 1981 there were 98 radio stations operating in Costa Rica, 97 are commercial, 49 on AM, and 48 are FM stations. Sistema de Radio y TV Cultural, a government-owned radio and TV network, transmits news and cultural programs from San Jose. Faro del Caribe, a non-commercial station in San Jose, broadcasts religious and cultural programs in English as well as Spanish. In 1981, there were 254,774 radio receivers in the country.

10.3 Television

All five television stations in Costa Rica are commercial and operate from San Jose. An estimated 81% of all homes in Costa Rica have television sets in 1981.

10.4 Telephone System

Costa Rica has an extensive and efficient telephone network which provides service to more than 153,501 subscribers. Telephone density, at 10.12 per 100 population, is in the medium range for neighboring countries; however, both expressed demand and the waiting period for service are much shorter in Costa Rica than in other countries.

Existing telephone service is concentrated in the Meseta Central; in San Jose, density is 25.4. In the provinces, densities can vary between 12.8 and 3.8. At present, 514 communities in the rural area have access to telephone service. In 1981, 78.5% of the population had access to telephone service.

Costa Rica has good international telecommunications facilities to countries in Central America, Europe, and the United States. A high capacity microwave system exists with other countries of Central America. At present, Costa Rica can communicate with 41 countries by MIDA (direct dial) system, and with the rest of the world by operator.

Appendix APopulation by Province, Canton and District, January 1981

<u>San Jose Province</u>	<u>843818</u>	Grifo Alto	1364
<u>Canton San Jose 1</u>	<u>259126</u>	San Rafael	2275
Carmen	10050	Canuelarita	1400
Merced	23161	Desamparaditos	593
Hospital	40629	San Antonio	1157
Catedral	33072	<u>Canton Tarrazu 5</u>	<u>8861</u>
Zapote	20295	San Marcos	4688
San Francisco		San Lorenzo	2981
de dos Rios	12747	San Carlos	1192
La Uruca	9758	<u>Canton Aserrí 6</u>	<u>25201</u>
Mata Redonda	9078	Aserrí	15053
Las Pavas	22969	Tarbaca	1029
Hatillo	39126	Vuelta De Jorco	3520
San Sebastian	38241	San Gabriel	2888
<u>Canton Escazu 2</u>	<u>30546</u>	La Legua	1598
Escazu	12603	Monterrey	1113
San Antonio	10099	<u>Canton Mora 7</u>	<u>12496</u>
San Rafael	7844	Colon	6182
<u>Canton Desamparados 3</u>	<u>92360</u>	Guayabo	1579
Desamparados	37869	Tabarcia	3197
San Miguel	10325	Piedras Negras	691
San Juan De Dios	8385	Picagres	847
San Rafael	7137	<u>Canton Giocoechea 8</u>	<u>73354</u>
San Antonio	6303	Guadalupe	33806
Frailes	2906	San Francisco	4508
Patarra	2585	Calle Blancos	13896
San Cristobal	2773	Mata De Platano	4284
Rosario	1754	Ipis	15443
Damas	4971	Rancho Redondo	1417
San Rafael Abajo	7352	<u>Canton Santa Ana 9</u>	<u>17601</u>
<u>Canton Puriscal 4-</u>	<u>27984</u>	Santa Ana	6502
Santiago	8638	Salitral	2020
Mercedes Sur	9944		
Barbacoas	2613		

Pozos	2761	San Rafael	3296
La Uruca	2594		
Piedades	3067	<u>Canton Turrubares 16</u>	<u>5564</u>
Brasil	657		
<u>Canton Alajuelita 10</u>	<u>28936</u>	San Pablo	851
Alajuelita	2871	San Pedro	712
San Josecito	4588	San Juan De Mata	3469
San Antonio	776	San Luis	532
Concepcion	11801	<u>Canton Dota 17</u>	<u>4918</u>
San Felipe	3500	Santa Maria	3079
<u>Canton Coronado 11</u>	<u>19684</u>	El Jardin	457
San Isidro	7802	Copey	1382
San Rafael	5236	<u>Canton Curridabat 18</u>	<u>19132</u>
Jesus	2372	Curridabat	11887
Patillillo	4274	Granadilla	4378
<u>Canton Acosta 12</u>	<u>17122</u>	Sanchez	980
San Ignacio	5289	Tirrases	1887
Gualtii	2589	<u>Canton Perez Zeledon 19</u>	<u>82022</u>
Palmichal	2689	San Isidro De El General	40222
Cangrejal	2556	General	3872
Sabanillas	3999	Daniel Flores	6853
<u>Canton Tibas 13</u>	<u>45526</u>	Rivas	5816
San Juan	22636	San Pedro	4516
Cinco Esquinas	17626	Platanares	6680
Anselmo Llorente	5266	Pejibaye	9704
<u>Canton Moravia 14</u>	<u>23814</u>	Cajon	4359
San Vicente	18809	<u>Canton Leon Cortes 20</u>	<u>8630</u>
San Jeronimo	1636	San Pablo	2546
Trinidad	3369	San Andres	1420
<u>Canton Montes De Oca 15</u>	<u>40939</u>	Llano Bonito	1832
San Pedro	28679	San Isidro	1099
Sabanilla	4760	Santa Cruz	1733
Mercedes	4204	<u>Alajuela Province</u>	<u>392590</u>

<u>Canton Alajuela 1</u>	<u>11485</u>	<u>Canton San Mateo 4</u>	<u>3268</u>
Alajuela		San Mateo	1698
San Jose	11429	Desmonte	495
Carrizal	3252	Jesus Maria	1075
San Antonio	9294		
La Guacima		<u>Canton Atenas 5</u>	<u>14273</u>
(Santiago Oeste)	4982	Atenas	4118
San Isidro	8562	Jesus	2608
Sabanilla	3519	Mercedes	1299
San Rafael	6515	San Isidro	2221
Rio Segundo		Concepcion	1578
(Santiago Este)	5348	San Jose	1341
Turrucare	3116	Santa Eulalia	1108
Tambor	3929		
La Garita	3587	<u>Canton Naranjo 6</u>	<u>23088</u>
Sarapiquí	1794	Naranjo	11843
		San Miguel	1546
<u>Canton San Ramon 2</u>	<u>39917</u>	San Jose	2035
San Ramon	11263	Cirri Sur	1911
Santiago	1935	San Jeronimo	1216
San Juan	4031	San Juan	2737
Piedades Norte	2685	Rosario	1800
Piedades Sur	2676		
San Rafael	3955	<u>Canton Palmares 7</u>	<u>16737</u>
San Isidro	1425	Palmares	3732
Los Angeles	2671	Zaragoza	3979
Alfaro	1480	Buenos Aires	2919
Volio	899	Santiago	2163
Concepcion	1070	Candelaria	936
Zapotal	776	Esquipulas	1383
Penas Blancas	4046	La Granja	1625
<u>Canton Grecia 3</u>	<u>37541</u>	<u>Canton Poas 8</u>	<u>11873</u>
Grecia	12266	San Pedro	4679
San Isidro	3598	San Juan	1263
San Jose	3125	San Rafael	2609
San Roque	4741	Carrillos	2616
Tacares	4110	Sabana Redonda	706
Rio Cuarto	3400		

<u>Canton Orotina 9</u>	<u>9229</u>	Bi Jagua	2318
Orotina	5692	Delicias	1947
Mastate	1002	Dos Rios	1947
Hacienda Vieja	819	Yolillal	2450
Coyolar	1047	<u>Canton Los Chiles 14</u>	8077
La Celba	918	Los Chiles	4828
<u>Canton San Carlos 10</u>	<u>68794</u>	Cano Negro	1206
Quesada	68794	El Amparo	1132
Florencia	8670	San Jorge	911
Buenavista	332	<u>Canton Guatuso 15</u>	6260
Aguas Zarcas	5280	San Rafael	4007
Venecia	3883	Buenavista	1142
Pital	5207	Cote	1111
La Fortuna	3462	<u>Cartago Province</u>	<u>246448</u>
La Tigra	2098	<u>Canton Cartago 1</u>	<u>78399</u>
La Palmera	2793	Oriental	17146
Venado	3185	Occidental	9195
Cutris	9564	Carmen	8413
Monterrey	3185	San Nicolas	11493
<u>Canton Alfaro Ruiz 11</u>	<u>7306</u>	San Francisco	6196
Zarcero	2583	Guadalupe	9645
Laguna	1019	Corradillo	6896
Tapezco	1798	Tierra Blanca	3202
Guadalupe	445	Dulce Nombre	3851
Palmira	669	Llano Grande	2362
Zapote	792	<u>Canton Paraiso 2</u>	<u>26704</u>
<u>Canton Valverde Vega 12</u>	<u>10167</u>	Paraiso	12550
Sarchi Norte	4260	Santiago	3345
Sarchi Sur	2440	Orosi	6541
Toro Amarillo	411	Cachi	4268
San Pedro	1441	<u>Canton La Union 3</u>	<u>28827</u>
Rodriguez	1611	Tres Rios	8671
<u>Canton Upala 13</u>	<u>22026</u>	San Diego	3397
Upala	5183	San Juan	1682
Aguas Claras	3530		
San Jose	4270		

San Rafael	3111	Heredia	27869
Concepción	5043	Mercedes	7385
Dulce Nombre	2553	San Francisco	3399
San Ramon	2160	Ulloa (Barrial)	5304
Rio Azul	2210	Varablanca	598
<u>Canton Jimenez 4</u>	<u>13626</u>	<u>Canton Barba 2</u>	<u>16052</u>
Juan Viras	7170	Barba	4047
Tucurrique	3069	San Pedro	3469
Pejibaye	3387	San Pablo	2769
<u>Canton Turrialba 5</u>	<u>51372</u>	San Roque	981
Turrialba	22593	Santa Lucia	2275
La Suiza	6359	San Jose De La Montana	2511
Peralta	2146	<u>Canton Santo Domingo 3</u>	<u>20788</u>
Santa Cruz	2969	Santo Domingo	6631
Santa Teresita	3537	San Vicente	1607
Pavones	2952	San Miguel Sur	2423
Tuis	1764	Paracito	1293
Tayutic	2940	Santo Tomas	2459
Santa Rosa	6112	Santo Rosa	3691
<u>Canton Alvarado 6</u>	<u>8684</u>	Tures	1443
Pacayas	4004	Para	1241
Cervantes	3068	<u>Canton Santa Barbara 4</u>	<u>12935</u>
Capellades	1612	Santa Barbara	3336
<u>Canton Oreamuno 7</u>	<u>21265</u>	San Pedro	1530
San Rafael	12548	San Juan	2198
Cot	4354	Jesus	2584
Potrero Cerrado	1100	Santo Domingo	1824
Cipreses	1507	Puraba	1573
Santa Rosa	1756	<u>Canton San Rafael 5</u>	<u>18897</u>
<u>Canton El Guarco 8</u>	<u>17571</u>	San Rafael	6210
Tejar	8113	San Josecito	6536
San Isidro	6419	Santiago	1088
Tobosi	2679	Los Angeles	3351
Patio de Agua	360	Concepcion	1712
<u>Heredia Province</u>	<u>161963</u>	<u>Canton San Isidro 6</u>	<u>6982</u>
<u>Canton Heredia 1</u>	<u>44555</u>	San Isidro	4424
		San Jose	1466

Concepcion	1092	Bolson	1374
<u>Canton Belen 7</u>	<u>10202</u>	Veintisiete De Abril	8322
San Antonio	5312	Tempate	3793
La Ribera	3041	Cartagena	2241
La Asuncion	1849	Cuajiniquil	3801
		Diria	2674
<u>Canton Flores 8</u>	<u>7833</u>	<u>Canton Bagaces 4</u>	<u>11596</u>
San Joaquin	4615	Bagaces	5855
Barrantes	1598	La Fortuna	3177
Llorente	1584	Mogote	2564
<u>Canton San Pablo 9</u>	<u>7820</u>	<u>Canton Carrillo 5</u>	<u>5528</u>
San Pablo	7820	Filladelfia	5528
<u>Canton Sarapiquí 10</u>	<u>15899</u>	Palmira	1810
Puerto Viejo	3243	Sardinal	5676
La Virgen	3760	Belen	4721
Las Horquetas	8896	<u>Canton Canas 6</u>	<u>16160</u>
<u>Guanacaste Province</u>	<u>217367</u>	Canas	16160
<u>Canton Liberia 1</u>	<u>28091</u>	<u>Canton Abangares 7</u>	<u>13798</u>
Liberia	21521	Las Juncoas	6627
Canas Dulces	2636	La Sierra	1971
Mayorga	1411	San Juan	1864
Nacascolo	1316	Colorado	3336
Curubande	1207	<u>Canton Tilaran 8</u>	<u>15350</u>
<u>Canton Nicoya 2</u>	<u>44264</u>	Tilaran	5747
Nicoya	25352	Quebrada Grande	2059
La Mansion	5870	Tronadora	1637
San Antonio	8020	Santa Rosa	1607
Quebrada Honda	2273	Libano	1047
Samara	2749	Tierras Morenas	1547
<u>Canton Santa Cruz 3</u>	<u>34983</u>	Arenal	1706
Santa Cruz	12778	<u>Canton Nandayure 9</u>	<u>14209</u>
		Carmon	1941
		Santa Rita	2131

Zapotal	2040	<u>Canton Buenos Aires 3</u>	<u>25963</u>
San Pablo	1803	Buenos Aires	8027
Porvenir	1806	Volcan	4243
Bejuco	4488	Potrero Grande	7521
<u>Canton La Cruz 10</u>	<u>12062</u>	Boruca	2547
La Cruz	6379	Las Pillas	1865
Santa Cecilia	3167	Colinas	1760
La Garita	1753	<u>Canton Montes De Oro 4</u>	<u>8183</u>
Santa Elena	363	Miramar	4512
<u>Canton Hojancha 11</u>	<u>9119</u>	La Union	1557
Hojancha	9119	San Isidro	2114
<u>Puntarenas Province</u>	<u>270332</u>	<u>Canton Osa 5</u>	<u>30015</u>
<u>Canton Puntarenas 1</u>	<u>76134</u>	Puerto Cortes	9160
Puntarenas	33416	Palmar	16611
Pitahaya	4099	Sierpe	4244
Chomes	2911	<u>Canton Aguirre 6</u>	<u>17536</u>
Lepanto	11927	Quepos	10672
Paquera	5744	Savegre	4132
Manzanillo	2808	Naranjito	2732
Guacimal	1508	<u>Canton Golfito 7</u>	<u>28443</u>
Barranca	7056	Golfito	17162
Monte Verde	1614	Puerto Jimenes	2937
Isla Del Coco		Guaycara	8344
Cobano	5051	<u>Canton Coto Brus 8</u>	<u>26558</u>
<u>Canton Esparza 2</u>	<u>14242</u>	San Vito	9986
Espiritu Santo	7963	Sabalito	7665
San Juan Grande	1661	Agua Buena	4930
Macacona	2761	Limoncito	3977
San Rafael	909		
San Jeronimo	948		

<u>Canton Parrita 9</u>	<u>14046</u>	<u>Canton Siquirres 3</u>	<u>22244</u>
Parrita	14046	Siquirres	12610
<u>Canton Corredores 10</u>	<u>25719</u>	Pacuarito	3248
Corredor	17426	Florida	1626
La Cuesta	4413	Germania	2704
Canoas	3880	El Cairo	2056
<u>Canton Garabito 11</u>	<u>3493</u>	<u>Canton Talamanca 4</u>	<u>7528</u>
Jaco	3493	Bratsi	4125
<u>Limon Province</u>	<u>144158</u>	Sixaola	1320
<u>Canton Limon 1</u>	<u>50471</u>	Cahuita	2083
Limon	50471	<u>Canton Matina 5</u>	<u>13158</u>
<u>Canton Pococi 2</u>	<u>36609</u>	Matina	3222
Guapiles	9600	Batan	6557
Jimenez	3143	Carrandi	3379
Rita	7777	<u>Canton Guacimo 6</u>	<u>14148</u>
Roxana	5330	Guacimo	5708
Caritari	9471	Mercedes	855
Colorado	1288	Pocora	1763
		Rio Jimenez	3563
		Duacari	2259

Source: Poblacion de las Republica de Costa Rica por Provincias, Cantones, y Distritos, January, 1981.

Appendix BLocation of Health Facilities by RegionRegion 1 (Central)

<u>Hospitals</u>	<u>Beds</u>
Hospital San Juan de Dios	1058
Hospital Mexico	697
Hospital Dr. Calderon Guardia	517
Hospital Nacional de Ninos	497
Hospital Dr. Max Teran Valls (Quepos)	60
Clinica Biblica	35
Clinica Catolica	n.a.
Instituto Materno-Infantil Carit (Maternity)	120
Hospital Psiquiatrico Chapul (Psychiatry)	1092
Hospital Chacon Paut (Psychiatry)	370
Hospital Nac. para Tuberculosis (Tuberculosis)	276
Comision sobre Alcoholismo & Hospital Las Mercedes (Alcoholism)	85
Clinica Nutricion de Tres Rios (Nutrition)	41
Clinica Santa Rica (Maternity) (Private)	22
Clinica Dr. Ricardo Moreno Canas - B'. Cuba - San Jose	n.a.
Clinica Dr. Clorito Picado - Cinco Esquinas - San Jose	
Clinica Dr. Ricardo Jimenez Nunez - Guadalupe - San Jose	
Clinica Dr. Carlos Durna - B'. Vasconia - San Jose	
Clinica Dr. Marcial Fallas - Desamparados - San Jose	
Clinica Dr. Solon Nunez - Hatillo - San Jose	

<u>Health Centers</u>	<u>Tel. No.</u>	<u>Tel. No.</u>
Alajuelita	26-05-58	Ravas 32-17-30
Curridabat	25-11-05	Santa Ana 28-60-81
Aserri	26-80-48	Villa Colon 28-63-87
Cristo Rey	26-06-86	Tibas 21-55-58
Desamparados	26-21-86	Hatillo 26-12-63
Escazu	28-03-76	Acosta 49-01-42
Guadalupe	25-10-05	Quepos, Parrita 77-00-81
Montes De Oca	25-21-65	Puriscal 49-61-70

Dispensaries

Puriscal
San Gabriel
San Ignacio de Acosta

La Union
Parrita

Health Posts

Santiago De Puriscal
San Ignacio De Acosta
La Legua De Aserrí
Palmical De Acosta
Gualtí De Acosta
Sabanillas De Acosta
San Juan De Tobosí Norte
Bijagual De Acosta
Naranjito De Aguirre

Los Angeles, Parrita
Damas
Santiago De Puriscal
San Miguel De Puriscal
Salitrales De Puriscal
La Gloria De Puriscal
San Gabriel De Turrubares
Bijagual De Turrubares
San Pablo De Turrubares

Region 2 (North Central)Hospitals

	<u>Beds</u>
Hospital San Rafael (Alajuela)	220
Hospital San Vicente de Paul	159
Hospital San Francisco de Asis (Grecia)	83
Hospital de San Carlos (Ciudad Quesada)	119
Hospital Dr. Carlos L. Valverde Vega (San Ramon)	111
Centro Rural de Orotina	19
Clinica Marcial Rodriguez - Alajuela	

Health Centers

	<u>Tel. No.</u>
Barreal, Sn Rafael	37-17-08
San Pablo	47-14-77
San Joaquín-Sta Barbara	47-13-88
Santo Domingo	37-05-51
Heredia Centro	
Sn Isidro De Heredia	47-58-03
Barva	

	<u>Tel. No.</u>
Alajuela Centro	41-07-43
Grecia, Valverde Vega	44-51-48
Sarchi	
San Pedro De Poas	44-54-03
Atenas	46-50-45
Naranjo	45-01-14
Orotina, San Mateo	46-80-02

Dispensaries

Alajuela
San Pedro de Poas

Atenas
San Ramon

Ciudad Quesada
Grecia
Tacares
Sarchi Norte
Naranjo
Orotina
Zarcelero
Palmares

Heredia
Santo Domingo
Venecia
Pital
La Fortuna
Altamirita
Rio Frio

Health Posts

Barranca Puntarenas
Playa De Jaco Puntarenas
Tarcoles De Puntarenas
Ciudad Quesada
Puerto Viejo Sarapiquí
San Miguel Sarapiquí
La Virgen Sarapiquí
Rio Cuarto De Grecia
Venecia De San Carlos
Buenos Aires de Sarapiquí
Pto. Viejo De Sarapiquí
Boca De Arenal De San Carlos
Pital De San Carlos
Boca De San Carlos
San Fco. De La Palmera S.C.
Boca De Arenal S.C.
Buena Vista de Guatuzo

El Porvenir De Chiles
Ciudad Quesada
Los Chiles San Carlos
La Tigra De San Carlos
Sto. Domingo San Carlos
Venado De San Carlos
La Cabanga De Guatuzo
Palenque Margarita
Ciudad Quesada
Sucre San Carlos
Vasconia De Los Chiles
Medio Queso De Los Chiles
Isla Chica De Los Chiles
Cano Negro De Los Chiles
San Joaquín De Cutris S.C.
Ata. Rosa De Curtis S.C.
Cano Negro De Los Chiles
Buena Vista de Guatuzo

Region 3 (North Pacific)

Hospitals

	<u>Beds</u>
Hospital Monsenor Sanabria (Puntarenas)	194
Hospital Dr. Enrique Baltodano (Liberia, Gte.)	155
Hospital de la Anexión (Nicoya, Gte.)	100
Clinica San Rafael - Puntarenas	

Health Centers

	<u>Tel. No.</u>
Bagaces	66-06-22
Canas	69-00-69
Liberia	66-03-40
La Cruz	66-02-66
Filadelfia	
Nandayure	
Las Juntas de Abangares	110-186

	<u>Tel. No.</u>
Nicoya	68-50-2
Santa Cruz	68-01-21
Puntarenas	68-01-60
Miramar	61-05-40
Esparza	61-09-03
Tilaran	69-05-32
Upala	110

Health Posts

Puntarenas	Villarreal Sta. Cruz.
Las Juntas De Abangares	Cartagena Sta. Cruz.
Isla Chira Puntarenas	Ortega Sta. Cruz.
Pozo Azul Abangares	Palmira Sta. Cruz.
Manzanillo Puntarenas	San Juanillo Sta. Cruz.
Colorado De Abangares	La Cruz Guanacaste
San Rafael Abangares	Santa Cecilia La Cruz
Las Juntas Abangares	Las Vueltas La Cruz
Buenos Aires	Quebrada Grande De Liberia
Barranca De Puntarenas	Canas Dulces De Liberia
Chomes De Puntarenas	La Garita De La Cruz
Guacimal De Puntarenas	CuaJiniquill De La Cruz
Sta. Elena De Puntarenas	Sardinal De Carrillo
Palmital De Montes De Oro	Upala De Alajuela
Pitahaya Puntarenas	Bijagua De Upala
Canas De Guanacaste	Col. Puntarenas, Upala
Bebedero De Canas	San Isidro De Upala
Quebranda Grande Tilaran	Santa Clara De Upala
Arenal De Tilaran	Mexico, Upala
Tierras Morenas Tilaran	San Jose De Upala
Fortuna De Bagaces	Cuatro Bocas De Upala
San Isidro Aguas Claras	Jicaral De Puntarenas
Guayabo De Bagaces	Lepanto Puntarenas
Nicoya De Guanacaste	Paquera Puntarenas
Quebrada Honda De Nicoya	Cobano De Puntarenas
Calmital De Nicoya	Manzanillo De Arío
Samara De Nicoya	La Fresca Puntarenas
Nosara Nicoya	Pochoto Puntarenas
Mansion De Nicoya	Colonia Carmona Nandayure
La Virginia Nicoya	Pueblo Nuevo Nandayure
Hojancha Guanacaste	Jabillo De Nandayure
Santa Cruz Guanacaste	Porvenir De Nandayure
Marbella Sta. Cruz.	San Pedro Nandayure
Paraiso De Sta. Cruz.	Monterromo Hojanca
27 De Abril Sta. Cruz.	San Pablo De Nandayure
	Pilas De Canjel Nandayure

Region 4 (Atlantic)HospitalsBeds

Hospital Max Peralta (Cartago)	290
Hospital Dr. Tony Facio	184
Hospital de Turrialba	194
Hospital de Guapiles	69
Hospital de La Fortuna	38

<u>Health Centers</u>	<u>Tel. No.</u>		<u>Tel. No.</u>
Orosi, Cachi	51-28-21	Limon	76-80-38
Cartago	51-02-66	Siquirres	71-61-12
Turrialba, Juan Vinas	56-01-28	Guapiles	29-52-95
Tarrazu, Dora, Leon	110	Tres Rios	n.a.
Cortes	58-11-90	Paraiso, Oremuno,	n.a.

Dispensaries

Cartago	San Marcos
Paraiso	Limon
Juan Vinas	Siquirres
Tucurrique	B'. El Carmen
Pacayas	Bataan
Santa Maria	

Health Posts

Turrialba	Limon
Cahuita Talamanca	Guacimo De Limon
Amubri Talamanca	Turrialba
Bambu Talamanca	Plantanillo De Turrialba
Sixola Talamanca	La Suiza De Turrialba
Puerto Viejo Talamanca	Pacayitas De Turrialba
Cahuita Talamanca	Barra De Parismain Siquirres
Penshurt Limon	Jimenez Pococi
La Bomba Limon	Vallafranca
Siquirres Limon	Roxana De Pococi
Matina Limon	La Ria De Pococi
Cimarrones Siquirres	Los Angeles Pococi
Battan Matina	Tacaban No. 1 De Pococi
Cairo Siquirres	San Marcos De Tarrazu
Pocora Guacimo	San Andres De Leon Cortes
Peralta, Turrialba	Liano Bonito
Tres Equis De Turrialba	San Carlos Tarrazu
Barra De Colorado Del	Copey De Dota
Sector Sur Pococi	San Lorenzo De Tarrazu
Guapiles Pococi	El Empalme Del Guarco
Rio Jimenez De Guacimo	Sta. Cruz De Leon Cortes
Sta. Teresita De Turrialba	Tucurrique De Jimenez
Capellades De Alvarado	Pejibaye De Jimenez
Tucurrique De Jimenez	Tucurrique De Jimenez
Sta. Cruz De Turrialba	

Region 5 (South Pacific)

<u>Hospital</u>	<u>Beds</u>
Hospital Compañia Bananera (Golfito)	157
Hospital Compañia Bananera (Coto 47)	27
Hospital Compañia Bananera (Palmar Sur)	16
Hospital de San Isidro de El General	191
Hospital de Ciudad Cortes	60

<u>Health Centers</u>	<u>Tel. No.</u>		<u>Tel. No.</u>
Ciudad Cortes	75-09-16	Puerto Jimenez	n.a.
Palmar Norte	n.a.	San Isidro De El General	71-04-84
Golfito	5-00-48	(C.S. Perez Zeledon)	
Ciudad Nelly	75-09-03	Laurel	n.a.
San Vito De Java	71-09-78		
	71-09-92		

Dispensaries

Puerto Cortes
Palmar Norte
San Isidro de El General

Health Posts

San Isidro Del General	Jabillo De Buenos Aires
Platanillo De Perez Zeledon	Changuena De Buenos Aires
Rivas De Perez Zeledon	Boruca De Buenos Aires
San Pedro De Perez Zeledon	Malz De Boruca B.A.
San Rafael De Plantanares	Salitre De Buenos Aires
Pejibaye De Perez Zeledon	Palmar Sur De Osa
Concepcion De Buenos Aires	Coronado De Osa
Cajon De Perez Zeledon	Sierpe De Osa
San Pablo De Perez Zeledon	Tinoco De Osa
San Ramon Sur De P. Z.	Palmar Norte
La Palma De P.Z.	Puerto Cortes De Osa
Las Angeles De P.Z.	Agujitas De Osa
General Viejo De P.Z.	San Vito De Coto Brus
Savegre De Perez Zeledon	La Union De Coto Brus
Palmares De P.Z.	Los Reyes De Coto Brus
Buenos Aires	Col. Gutierrez Brown
Volcan De Buenos Aires	La Lucha De Coto Brus
Rio Brujo De B. Aires	San Vito De Coto
Las Brisas De Buenos Aires	Sabalito De Coto Brus
Potero Grande De B.A.	Agua Buena De Coto Brus

Health Posts (cont.d)

Ciudad Nelly
Villa Briceno
Rio Claro De Golfito
Paso Canoas De Corredores

La Cuesta De Corredores
Bella Luz De Corredores
Pueblo Nuevo De Coto
La Mona De Golfito

Appendix CNutritional Composition of Common Foods
(100 grams of edible portion)

<u>Food</u>	<u>Calories</u>	<u>Protein</u> (grams)	<u>Fat</u> (grams)	<u>Total</u> <u>Carbohydrates</u> (grams)
<u>Cereals</u>				
Bread, whole grain	286	9.4	1.5	57.5
Bread, white	307	9.3	0.7	64.4
Corn, dried yellow kernel	361	9.4	4.3	74.4
Corn, white degermed	354	8.0	1.1	76.2
Tortilla, ash-treated ¹	202	3.9	2.1	43.1
Tortilla, lime-treated ¹	210	4.6	1.8	45.3
Tortilla flour, refined ¹	361	9.7	4.0	74.8
Rice, brown	357	7.2	1.5	77.6
Corn, dried yellow kernel	361	9.4	4.3	74.4
Corn, white degermed	354	8.0	1.1	76.2
Tortilla, ash-treated ¹	202	3.9	2.1	43.1
Tortilla flour, refined	361	9.7	4.0	74.8
Rice, brown	357	7.2	1.5	77.6
Rice, milled white	364	7.2	0.6	79.7
Rice, enriched imported	363	6.6	0.5	80.2
Sorghum, whole grain flour	342	8.8	3.2	76.3
Wheat, enriched imported	364	10.5	1.0	76.1
<u>Vegetables</u>				
Beets	46	1.9	0.1	10.5
Broad beans, fresh	118	9.3	0.4	20.3
Broad beans, dried	339	4.0	2.2	58.2
Kidney beans, fresh	150	9.8	0.3	27.8
Broad beans, dried	339	4.0	2.2	58.2
Kidney beans, fresh	150	9.8	0.3	27.8
Kidney beans, dried	337	2.0	1.6	60.8
Lima beans, fresh	146	9.2	0.1	27.9
Green or wax beans	36	2.0	0.2	6.6
Cabbage	2.6	0.7	0.1	6.0
Carrots	40	0.9	0.7	9.6
Sweet cassava (yuca)	132	1.0	0.4	32.8
Chickpeas, dried	364	8.2	6.2	61.1
Corn, fresh	129	4.1	1.3	30.3
Garlic bulbs	134	5.3	0.2	29.3
Lentils, dried	340	23.7	1.3	60.7
Onions	45	1.4	0.2	9.7

<u>Food</u>	<u>Calories</u>	<u>Protein</u> (grams)	<u>Fat</u> (grams)	<u>Total</u> <u>Carbohydrates</u> (grams)
Peas, fresh	45	2.6	0.1	10.5
Peas, dried	343	22.5	2.0	61.0
Peppers, fresh sweet	38	1.9	0.6	8.0
Peppers, fresh hot	36	1.2	0.2	8.7
Potatoes, whole fresh	79	2.8	0.2	18.2
Spinach, raw	26	2.1	0.2	5.3
Squash, summer	30	0.6	0.2	7.6
Squash, winter	35	1.7	0.2	8.1
Tomato, ripe	21	0.8	0.3	4.6
Yams	100	2.0	0.2	24.3
<u>Meat/Fish</u>				
Beef, medium fat	244	18.7	18.2	0.0
Beef, dried salted	317	64.8	4.5	0.0
Chicken	246	18.1	18.7	0.0
Fish, raw fresh water	101	17.9	2.7	0.0
Fish, raw salt water	100	19.3	1.4	0.0
Goatmeat	165	18.7	9.4	0.0
Hare	135	21.0	5.0	0.0
Mutton and lamb, med. fat	253	18.2	19.4	0.0
Pork, medium fat	216	15.5	16.6	0.0
Rabbit	159	20.4	8.0	0.0
<u>Dairy products/oils</u>				
Cow's milk, whole	61	3.5	3.0	5.5
Skim or buttermilk	38	3.6	0.1	5.6
Whole dried milk, Imported from USA	503	26.4	27.5	38.3
Dried skim milk, Imported from USA	363	35.9	0.8	52.4
Unsweetened evaporated milk in cans, Imported	137	7.0	7.9	9.7
Condensed sweetened milk, Imported	321	8.1	8.1	55.7
Goat's milk	92	3.9	6.2	5.4
Butter, unsalted	743	1.0	84.0	0.0
Lard	879	0.0	99.4	0.0
Margarine	720	0.6	81.0	0.4
Oils, pure, all kinds	884	n.a.	100.0	0.0
Pork fat	861	3.0	89.0	0.0

<u>Food</u>	<u>Calories</u>	<u>Protein</u> (grams)	<u>Fat</u> (grams)	<u>Total</u> <u>Carbohydrates</u> (grams)
<u>Fruits</u>				
Avocado	121	1.4	11.3	6.1
Banana, yellow	91	1.2	0.2	23.7
Banana, red	97	1.2	0.2	25.3
Banana, green	110	1.4	0.2	28.7
Coconut	296	3.5	27.5	13.7
Grapefruit	34	0.8	0.1	8.6
Lemon	29	0.6	0.6	8.1
Lime	32	0.4	1.4	7.0
Mango	59	0.5	0.2	15.4
Orange	42	0.8	0.2	10.5
Plantain, yellow	122	1.0	0.3	32.3
Plantain, red	92	1.2	0.2	24.1
Plantain, green	132	1.2	0.1	35.3

1 Yellow or white corn

Source: INCAP-ICNND. Food Composition Table for Use in Latin America, 1961.

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