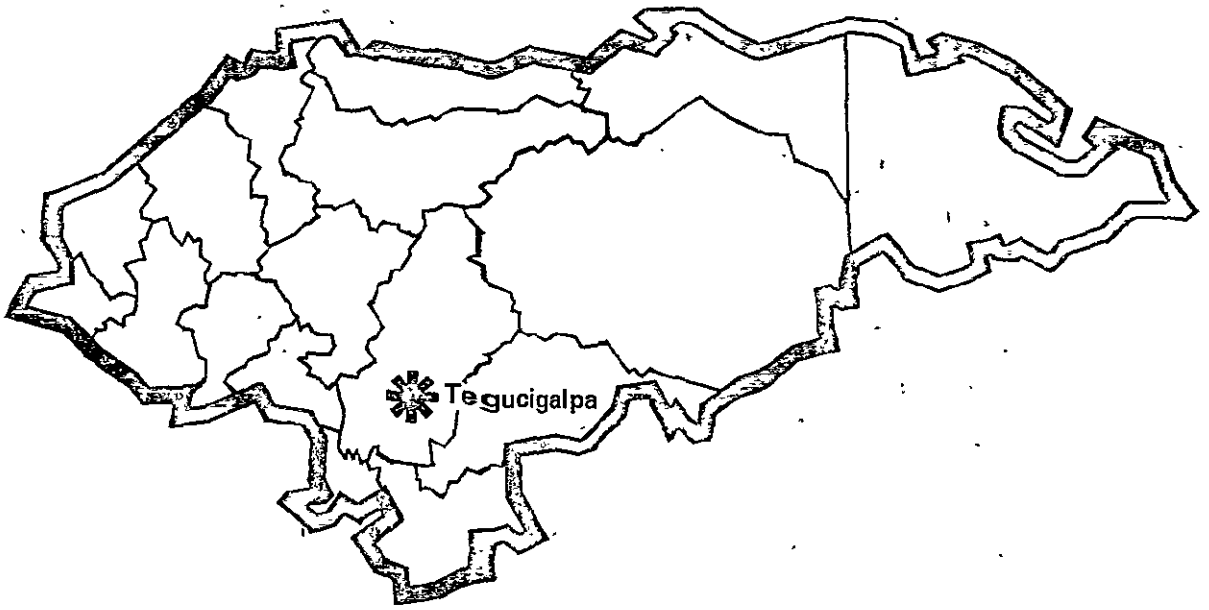
PN-AAK-313

Honduras
A Country Profile



June 1981

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

Honduras

502476 1-76 (541405)
Lambert Conformal Projection
Standard parallels 9°20′ and 14°40′
Scale 1:3,400,000
Boundary representation is not necessarily authoritative

Railroad
Road
Airport

HONDURAS: 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.
Arlington, Virginia
under contract AID/SOD/PDC-C-0283

The profile on Honduras 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.

June 1981

OFDA COUNTRY PROFILES: DECEMBER 1981

AFRICA

Cape Verde
Chad
Djibouti
East Africa Regional Profile*
Ethiopia
Mali
Mauritania
Niger
Sahel Transportation Survey*
Senegal
Somalia
Uganda
Upper Volta
Zaire
Zambia

ASIA

Bangladesh
Burma
India
Indonesia
Malaysia
Nepal
Pakistan
Philippines

CARIBBEAN

CARICOM Regional Profile*
Dominican Republic
Haiti

LATIN AMERICA

Bolivia
Chile
Costa Rica
Ecuador
El Salvador
Guatemala
Honduras
Nicaragua
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NEAR EAST

Turkey

SOUTH PACIFIC

Fiji
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Island Countries of the Indian Ocean*

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TO:

COUNTRY PROFILE USER Dear _____

Please use this form to note any changes, additions, corrections or suggestions you think would update and improve this country profile. Since our aim is to make these profiles as relevant as possible, your critique is essential and very much wanted. Return comments to Lucy Drobot, OFDA Country Profiles, Room 1262A.

NAME/OFFICE:_____ PHONE:_____ Date:_____

TOPIC	COMMENTS

1. General Information

1.1 Geographic Codes

AID standard	522
State regional	ARA
FIPS	HO

1.2 Country Names

Official	Republic of Honduras
Local	Republica de Honduras
Short	Honduras

1.3 Official Holidays

New Years' Day	January 1
Day of the Americas	April 14
Labor Day	May 1
Independence Day	September 15
Birthday of Francisco Morazan	October 3
Columbus Day	October 12
Army Day	October 21
King Alfonso's Decision	December 18
Christmas	December 25
Year's End	December 30

Moveable religious holidays include Holy Thursday, Good Friday, and Holy Saturday.

Fiscal year: January 1 - December 31

1.4 Currency (February 1982)

2.00 Lempiras = US $1.00

1.5 Time Zones

EST -1

1.6 US Mission and Staff (September 1981)

Embassy:

Tegucigalpa Avenido la Paz,
APO, Miami 34022
Tel: 32-3121/22/23/24/27

Staff:

Ambassador.....Jack R. Binns
Deputy Chief of Mission.....William G. Walker
Economic/Commerical Officer.....Paul H. Wackerbarth
Commerical Officer.....Robert J. Higgins
Political Officer.....David G. Shaw
Labor Officer.....John D. Fernandez
Consular.....Sarah Horsey
Administrative Officer.....George W. Clift
Agricultural Officer.....Harry C. Bryan (resident in Guatemala City)
AID Mission Director.....John R. Oleson
Public Affairs Officer.....Cresencio S. Arcos
Office of the Defense Attache.....Col. Dale Bollert, USAF

1.7 Sister Cities

Juticalpa - Postville, IA
San Pedro Sula - North Miami Beach, FL
Tegucigalpa - Gainsville, FL

1.8 Host Mission in US (November 1981)

4301 Connecticut Avenue, N.W., Suite 100
Washington, D.C. 20008
Tel: 966-7700, 7701, 7702

Staff:

Ambassador.....Col. Federico A. Poujol
Minister-Counselor.....F. Salomon Jimenez
Economic Counselor.....Mario A. Zea
Financial Counselor.....Mario Rietti
Defense & Armed Forces Attache.....Col. Ramon Reyes Sanchez
Asst. Armed Forces Attache.....Maj. Hector Rene Fonseca
Asst. Armed Forces Attache.....Maj. Ricardo Zuniga

Consulates General:

17 Battery Place New York	Aguilar, 904 International Bldg. New Orleans, La.	Nine First Street, Rm. 704 San Francisco, Ca.

Consulates:

Baltimore, Boston, Brownsville, Chicago, Dallas, Detroit, Fort Worth, Galveston, Houston, Jacksonville, Los Angeles, Miami, Mobile, Norfolk, Philadelphia, Port Arthur, St. Louis, San Antonio, San Mateo, and Tampa.

1.9 Treaties and Agreements

Agricultural commodities agreement
Agricultural cooperative agreeements for the prevention of animal crop diseases
Military air transit agreement
Military assistance agreements
Economic and technical cooperation
Investment guaranties
Arrangement for hydrographic and nautical mapping
Agreements establishing U.S. Air Force and U.S. Army missions to Honduras
Peace Corps programs

Agreement concerning entry into Honduras of relief supplies and packages
Agreement relating to radio communications between amateur radio stations on behalf of third parties
Reciprocal authorization of licensed amateur operators in the other country
Treaties relating to trade and commerce
Visa fees waiver for non-immigrants
Weather stations

1.10 Travel and Visa Information

Passport required. Visa valid up to 3 months, no charge. Check Embassy/consulate for specific requirements. Yellow fever immunization required of travelers arriving from infected areas.

1.11 Ethnic and Sociocultural Groups

Mestizo (mixed Amerindian and European) element of the population predominates; Ladino value system has superseded Indian traditions in all but a few isolated groups. In the northeast, Miskito, Paya, and Sumo Indians retain much of their traditional culture; western Indians, e.g., Lenca, differ from Ladinos in specific traits of land use and religion but not in language or, in broad terms, social organization. On the Atlantic coast Black Caribs, descendants of runaway slaves and Carib Indians of St. Vincent who were deported by the British to one of the Bay Islands in 1796, still live there and also along north coast. They retain some Carib and some West African cultural traits, practice a variant of Catholicism, speak Carib, Spanish, and sometimes English. Most Bay Islanders, black and white, are descendants of Protestant English-speaking emigrants from the Antilles but are integrated into Honduran culture only in political terms.

1.12 Languages

Spanish is the official language and is spoken by most Hondurans, including many Indian groups. The major exception is the Bay Islanders, most of whom speak only English. Indian languages belong to both South and

Middle American families; Carib, Miskito, and Sumo languages are still in use.

1.13 Education

The educational system is seriously lacking in trained teachers, classrooms, and other resources. The problem is most severe in rural areas where enrollment of school age children is about 71% (and average attainment under 2 years) compared with 97% in urban areas. Actual attendance is estimated at 60%.

1.14 Religion

Religious freedom is guaranteed by the 1957 constitution. Over 90% of the population is nominally Catholic but few are regular church-goers. The Methodist denomination, the faith of the Bay Islanders, is the major Protestant church. Society of Friends, Mennonites, Church of God, and Seventh-Day Adventists are other minority sects.

2. Government

2.1 National Government

The 1965 constitution, which declared Honduras a Republic under a President elected by direct popular vote, has been partially suspended since the 1972 coup. Since that time, military juntas have controlled the country. (The second coup of April 1975, replaced Gen. Lopez Arellano with Col. Melgar Castro, his Minister of Government and Justice.) Even while the constitution was in force, the tradition of a strong executive, usually backed by the military, has led to a highly centralized government controlled by the President. Executive functions are shared by a Council of Ministers and 12 cabinet heads appointed by the Chief of State.

Despite constitutional authority, the National Congress and Supreme Court have had little real influence. Historically, the National Congress (unicameral, popularly elected by department) has been dominated by presidential supporters and reluctant to act in opposition to the executive. The seven Supreme Court Justices are named by, and serve at the pleasure of, the President.

2.2 1980 Status

On August 7, 1978, a three-man military junta, apparently approved by the highest Honduran military body, the Armed Forces Council, overthrew the government of President Juan Alberto Melgar. The junta announced it would respect international commitments and individual liberties. No violence or display of military force was reported. The coup was preceded by several months of conflict over land reform between right- and left-wing political groups.

In July 1980, power was handed over to a newly elected 71-seat Constituent Assembly in which the Liberal Party holds 35 seats, the Nationalist Party 33, and the National Innovation and Coalition 3. A Cabinet was named by President Gen. Policarpo Paz Garcia the same month. Presidential elections are slated for December 1981.

By the terms of a treaty signed in Lima, Peru in October, a 10-year old conflict between Honduras and El Salvador was settled and the border reopened.

2.3 Regional Organization

The country is divided into 18 departments, with the capital located in a central district consisting of Tegucigalpa and its suburb, Comayaguela. Departments, headed by governors appointed by the President, carry out central government decisions. Departments are subdivided into municipalities; the departmental capital is the capital of its largest municipality. Some 282 municipalities, most of which did not qualify as urban centers, existed in 1976.

Municipalities are subdivided into aldeas, villages or hamlets. Widely scattered homes in rural areas are grouped into caserios, classed as subdivisions of aldeas. Localities with populations of 500-1,000 may elect a mayor, a legal representative, and a councilman. For each additional 1,000 citizens, another councilman may be elected, with the total not to exceed 7.

2.4 Key Leaders (January 1982)

President.....Paz Garcia, Policarpo, Brig. Gen.
Sec. of State for Communications,
Public Works & Transport.....Casco, Mario Ivan
Sec. of State for Defense &
Public Security.....Flores Theresin, Mario, Col.
Sec. of State for Economy & Commerce.....Mondragon Carrasco, Ruben T.
Sec. of State for Finance &
Public Credit.....Villanueva Tabora, Benjamin
Sec. of State for Foreign Affairs.....Elvir Sierra, Cesar, Col.
Sec. of State for Government & Justice....Mejia Arellano, Oscar
Sec. of State for Labor & Social
Security.....
Sec. of State for Natural Resources.....Castillo Aguilar, Rodrigo
Sec. of State for Public Education.....Pineda Ponce, Rafael
Sec. of State for Public Health &
Social Service.....Andonie Fernandez, Juan
Sec. of State for Tourism & Culture.....Alvarez Martinez, Armando
Director, Natl. Agrarian Institute.....Zuniga Robelo, Edgardo
Executive Secretary, Planning Council.....Reconco Murillo, Efrain

3. Disaster Preparedness

3.1 Host Disaster Plan

A permanent Council for National Emergencies (COPEN), created by executive decree in 1973, directs disaster relief. COPEN's responsibilities include: establishment and coordination of committees/work groups necessary for effective emergency assistance; organization and coordination of all participants (including bilateral and international donors) in prevention, planning, rescue, and rehabilitation activities; requesting Chief of State to declare state of emergency; creating sub-councils in departments and major urban areas to assist COPEN; preparation of work plans which include rescue, evacuation, first aid, and rehabilitation instructions for use in the event of disasters. COPEN is also required to submit initial and final disaster reports and yearly operation reports (including budget recommendations) to the Chief of State.

COPEN membership:

President.....Lt. Col. Inf. Rigoberto Regalado Lara
Sub-Sec. Health and
Social Assistance.....Dr. Rigoberto Alvarado
Rep. of the University
of Honduras.....Lic. Gustavo Alvarado Aguilar
Rep. of the Private
Enterprise Council.....Agronomist Roberto F. Vanegas
Rep. of the Confederation
of Honduran Workers.....Andres Victor Artiles
President of the Red Cross...Dr. Jorge Gomez Andino
Director General of the
Budget, Treasurer.....Hector V. Medina

COPEN's National Control Center is located at Army General Staff Headquarters in Comayaguela (Tel. 22-2384).

3.2 Disaster Functions of GOH Agencies

Survey of damage and assessment of needs

Honduran Armed Forces; Honduran Red Cross; Ministry of Communications; Public Works and Transportation; Ministry of Public Education;

Ministry of Natural Resources; and National Social Welfare Agency (JNBS)

Food

Ministry of Natural Resources; Ministry of Public Health and Social Assistance; the Central District Council and Municipalities

Water

Armed forces; National Autonomous Water and Sewage Service (SANAA); and the Ministry of Communications, Public Works, and Transportation

Health

Honduran Red Cross; Honduran Medical Association; Honduran Social Security Institute; Honduran Armed Forces; Central District Council and Municipalities, Ministry of Natural Resources; Ministry of Public Health and Social Assistance; and Ministry of Communications, Public Works, and Transportation

Relief supplies

Honduran Armed Forces; Honduran Red Cross; the Central District Council; the National Social Welfare Agency (JNBS); the Municipalities; and the Ministry of Government and Justice

Communications

Honduran Armed Forces; Honduran Red Cross; and the Ministry of Communications, Public Works, and Transportation

Security

Honduran Armed Forces; Central District Council; the Municipalities; and the Ministry of Government and Justice

Rescue

Honduran Armed Forces; Honduran Red Cross; Fire Department and the Ministry of Government and Justice

Technical and personnel assistance

Honduran Armed Forces; National Social Welfare Agency (JNBS); National Autonomous Water and Sewage Service (SANAA); Housing Insti-

tute (INVA); Ministry of Economy and Commerce; Ministry of Labor and Social Security; and the Ministry of Public Health and Social Assistance

Coordination with local, international, and voluntary organizations

COPEN; Honduran Armed Forces; Honduran Red Cross; Ministry of Government and Justice; Ministry of Foreign Relations; and the Ministry of Finance and Public Credit

Records and reporting

Each institution has the responsibility for submitting to COPEN a final report 30 days after terminating their disaster relief assistance or every 15 days for long-term assistance, whichever is applicable.

The use of buildings as centers or for keeping supplies

Honduran Armed Forces; Honduran Red Cross; National Social Welfare Agency (JNBS); National Development Bank (BNF); Central District Council and Municipalities; Ministry of Government and Justice; Ministry of Natural Resources; and the Ministry of Public Education

Social services

Honduran Red Cross; National Social Welfare Agency (JNBS); Honduran Development Foundation (FUNHDESA); Central District Council and Municipalities; and the Ministry of Public Education

Pre-education and training

Honduran Red Cross; National Social Welfare Agency (JNBS); Fire Department; Central District Council and Municipalities; Ministry of Public Education; and Ministry of Public Health and Social Assistance

Reconstruction

Honduran Red Cross; National Social Welfare Agency (JNBS); Central District Council and Municipalities; Honduran Development Foundation (FUNHDESA); Housing Institute (INVA); Ministry of Natural Resources; Ministry of Finance and Public Credit; Ministry of Labor and Social Security; and the Ministry of Communications, Public Works, and Transportation

Logistics and transportation

Honduran Armed Forces; Central District Council and Municipalities; Honduran Social Security Institute (IHSS); Housing Institute (INVA); National Electric Company (ENEE); National Autonomous Water and Sewage Service (SANAA); Ministry of Labor and Social Security; and the Ministry of Communications, Public Works, and Transportation

Infrastructure

Fire Department; National Electric Company (ENEE); Ministry of Government and Justice; Ministry of Labor and Social Security; and the private sector

3.3 Host Contacts

See COPEN membership, section 3.1.

3.4 US Mission Disaster Relief Committee

MDRO: Represents Ambassador on Disaster Relief Committee (DRC); monitors and coordinates all incoming and outgoing messages concerned with disasters and/or requests for US assistance; coordinates with consulate; approves outgoing messages except those needing Ambassador's personal approval; informs DRC and, via cable, Washington about developing disasters.

Disaster Relief Coordinator: (Political and/or Economic Counselor) assists MDRO in all aspects of disaster situation; acts as liaison with foreign office and other ministries.

Joint Administrative Officer: Coordinates use of Embassy and other available resources; aids consulate in caring for US citizen casualties.

USAID Representative (Ass't Director/USAID): guides policy, coordinates activities of USAID in relief operations; serves as liaison with representatives of UN, OAS, and other international organizations.

Chief, USAID Multi-sector Office (or designee): acts as liaison with COPEN, US Volags receiving PL 480 title II foods.

Defense Attache and Chief, Army Section: is liaison with GOH military elements active in disaster relief and with USSOUTHCOM; coordinates activities involving use of military elements (air and sea rescue teams, DAST team, etc).

Peace Corps Country Director: coordinates disaster activities involving PC volunteers.

USIS Public Affairs Officer: acts as liaison with all news media in country and with bi-national centers; directs messages from State to CM, DCM, MDRO.

3.5 US Contact

MDRO: Jimmie Stone
Asst. Mission Director, HRD
(as of 1/81)

3.6 Host Assessment

GOH agencies concerned with survey and assessment are listed in Disaster Functions of GOH Agencies, section 3.2. Specific skills and responsibilities are listed below. Honduran Armed Forces provide aerial photographic reconnaissance. Ministry of Communications, Public Works, and Transportation, Ministry of Public Education, and National Social Welfare Agency (JNBS) are charged with determining extent of damage and number of victims; Honduran Red Cross performs similar task. Ministry of Natural Resources assesses damage to crops, livestock, fish, and wildlife.

3.7 GOH Capacity

Decrees which created COPEN are the only laws dealing with disaster relief and its financing. A national disaster plan exists, but "it needs improvement." COPEN'S performance in Hurricane Fifi relief operation was "adequate," when the magnitude of the storm, in-country transportation difficulties, and the inexperience of personnel were taken into account. (All quotes are from Mission Plan.)

Honduras has sent participants to AID/W seminars from 1972 to 1976; unfortunately, the only participant still able to assist in the event of a disaster is Capt. Dr. Armando Guillen, Chief of Medical Department of the second military region (headquartered in San Pedro Sula).

Mission's opinion is that outside aid will be required for any disaster involving more than 2,000 victims.

3.8 Lessons Learned

The US Mission indicated 2 specific problems after Hurricane Fifi disaster: 1) Type and quantity of stockpiled medicines were unknown in detail; also acquisition and shipment from US were delayed. 2) Communications between field and Embassy was restricted until commercial service was restored.*

* Note: USSOUTHCOM now provides Mission with a list of stockpiled medicines issued quarterly. Also USAID/Honduras now has 3 SSB transceivers and is in the process of acquiring mobile units for field vehicles.

3.9 Host Resources

By late 1976, GOH did not have a significant stockpile or emergency supplies. Tents are "unavailable" - no large retail or wholesale outlets sell them. However, canvas covers used for loads on large open trucks are obtainable. Blankets, simple hand tools, and construction materials are available within 1-2 days; largest outlets are in San Pedro Sula and Tegucigalpa. A partial list of companies dealing in construction materials is included in Mission plan.

Health System Network

A two-way radio communications system is used by the Ministry of Health in major hospitals and centers; no direct communications with ambulances. Locations of radios are as follows:

Tegucigalpa
San Pedro Sula - Swan model 310, Freq 6659.0 K
Santa Rosa de Copan, Copan
Santa Barbara, Santa Barbara
Yoro, Yoro
Juticalpa, Olancho

La Ceiba, Atlantida
Tocoa, Colon
Olanchito, Yoro

The Health Department has three warehouses, each with 20,000 cubic meters capacity, located in the following cities:

Tegucigalpa - Instituto Nacional del Torax
San Pedro Sula, Cortes
La Ceiba, Atlantida

The pharmacies in Honduras do not stock their goods but buy them from large Honduran distributors who in turn buy from other countries. Most of these distributors do not stock antivenin or vaccines but are able to get them. The distributors are:

Tegucigalpa

Mandofer - Carretera Suyapa facing Hospital Materno Infantil Tel. 22-1191
Latin American Hospital Supply - 2 AVE 4-5 Calle #404 Tel. 22-2054
Equipos Medicos - S.A. 12 AVE 5 Calle #412 Tel. 22-6556
American Hospital Supply
Rivera y CIA
611 6 AVE 513 - Tegucigalpa, D.C.
Tel. 22-8753

San Pedro Sula

Laboratory Finlay
Farcimar

Food Programs

JNBS has an ongoing program (with food provided by World Food Program) which can be tapped for emergency use. CARITAS/CRS and CARE distribute PL 480 commodities but amounts in storage at any given time would be insufficient for the needs of most disaster victims.

Equipment

Heavy construction equipment commonly available in the country is listed in chapter 4J-4 of the Mission disaster plan, as are major construction companies.

Transport

Lists of transportation services, airfields, and registered planes, and of vehicles available from private, international, and voluntary agencies are included in the Mission disaster plan.

3.10 Food Storage

Grain warehouses are maintained by the National Development Bank (BNF) and by private firms. Following is a list of warehouses by location and capacity in quintals (1 quintal=100lbs) and in metric tons:

National Development Bank (BNF)

Location	Quintals	Metric tons
Tegucigalpa, D.C. FCO Morazan	464,600	21,079
San Pedro Sula, Cortes	374,600	16,996
Comayagua, Comayagua	25,600	1,161
Choluteca, Choluteca	15,700	712
Puerto Cortes, Cortes	15,000	680
Danli, El Paraiso	14,600	662
Tela, Atlantida	13,700	621
Olanchito, Yoro	10,400	471
El Porvenir, FCO Morazan	6,600	299
La Entrada, Copan	6,600	299
Quimistan, Santa Barbara	6,600	299
El Negrito, Yoro	6,600	299
El Triunfo, Choluteca	6,600	299
Cuyamel, Cortes	6,100	276
Catacamas, Olancho	5,500	249
Total	989,200	44,882

Private

Department	Name	Quintals	Address & Telephone
Tegucigalpa		177,000	
	Hasbun warehouse	20,000	Col 15 Sept 34-0561
	Facusse warehouse	40,000	Bo la Hoya
	Moncada warehouse	10,000	Blvd Miraflores
	Zuniga warehouse	12,000	1 C11 Bo 22-3763 San Rafael 517
	GN Store Aldesa	15,000	9 C11 Col 22-4601/9 Alameda 507
	GN Store Aldesa	80,000	Bo la Hoya 22-4210 22-0155
San Pedro Sula		685,000	
	Hurth warehouse	35,000	3A Ave 14-15 C11 SO
	Rivera warehouse	50,000	3A Ave behind Fecochal off
	GRN Store Aldesa	500,000	Col Fesitranh
	Flour mill Sula	100,000	3A Ave 14-15 C11 SO
Valle	San Lorenzo warehouse	70,000	Cotton Coop-Whse #2
El Paraiso	Danli warehouse	10,000	exit rd to Valle Jamastran
Comayagua	La Hondurena warehouses	35,000	main entrance road to Comayagua
Olancho	Juticalpa warehouse	30,000	main entrance to Juticalpa
Total		1,007,000	

3.11 US Voluntary Agencies (Volags)

Agency	Personnel Intl/Local	Programs
Agricultural Missions Foundations Gracia A Dios	--	Comm; CD; Food Prod & Ag
The Americas - Hand In Hand La Joya	9/7	Ed; Med & PH

Agency	Personnel Intl/Local	Programs
Baptist Missionary Association of America Capules, San Marco	3/	Med & PH
Brother's Brother Foundation	--	Equip & Mat Aid; Med & PH
La Buena Fe Association	2/15	Ed; Food Prod & Ag; Med & PH
CAM International	4/21	Ed; Med & PH
CARE, Inc.	6/	CHP; Med & PH
Catholic Medical Mission Board	--	Med & PH
Catholic Relief Services	1/4	CD; Coops & Loans; Equip & Mat Aid; Food Prod & Ag
Christian Medical Society La Ceiba	--	Med & PH
Christian Reformed World Relief Committee Tegucigalpa	3/2	Ed; Equip & Mat Aid; Food Prod & Ag; Med & PH
Church of the United Brethern in Christ	4/	Med & PH
Church World Service	--	Equip & Mat Aid
Claretian Fathers (C.M.F.) La Ceiba, Tela, Masica	7/11	Ed; Food Prod & Ag; Med & PH
Compassion, Inc. Tegucigalpa	--	SW
Conservative Baptist Home Mission Society	1/1	Ed; Food Prod & Ag; Med & PH
Conventional Franciscans (OFM Conv.) Gualaco Comayagueia	9/15	CD; Ed; Equip & Mat Aid; Med & PH

Agency	Personnel Intl/Local	Programs
Direct Relief Foundation	--	Equip & Mat Aid
Eastern Mennonite Board of Mission and Charities La Ceiba, Tegucigalpa	5/6	CD; Coops & Loans; Ed; SW
Episcopal Church in the US La Ceiba, Omoa, Tegucigalpa	12/local teachers	Ed; Med & PH; SW
Family Planning International Assistance	--	Pop & Fam Serv
Foster Parents Plan	1/62	Ed; Food Prod & Ag; Med & PH
School Sisters of Saint Francis (O.S.F.) Comayagua, Tegucigalpa	4/15	Ed; Med & PH; SW
Heifer Project International, Inc.	2/16	Food Prod & Ag
Hermandad, Inc. San Marcos	1/1	CD; Coops & Loans; Ed; Food Prod & Ag; Med & PH
International Eye Foundation	1/	Med & PH
International Voluntary Services, Inc. Choluteca, San Pedro Sula	6/	Food Prod & Ag; Med & PH
Society of Jesus (S.J.)	20/1	Comm; Ed
Lutheran World Relief, Inc. San Marco Ocotepeque	--	CD; Food Prod & Ag; Med & PH
Map International	--	Equip & Mat Aid
Meals for Millions/Freedom from Hunger Foundation Olancho Department	6/	Med & PH
Sisters of Mercy of the Union La Ceiba	12/	Ed

Agency	Personnel Intl/Local	Programs
Missionary Aviation Fellowship Siguatepeque, Anuas	6/	Comm; Med & PH
Moravian Church in America, Inc. Brus Laguna, Ahuas, Wompasirpi, Mosquitia Cauquira	9/15	Coops & Loans; Food Prod & Ag; Med & PH
School Sisters of Notre Dame (S.S.N.D.)	4/7	Ed; Med & PH
Pan American Development Foundation	--	Coops & Loans; Ed; Equip & Mat Aid; Med & PH
Partners of the Americas		Ed; Med & PH; SW
The Pathfinder Fund	/46	CD; Ec & Dev Pl; Equip & Mat Aid; Pop & Fam Serv
Presbyterian Church in the US	2/6	CD
Reorganized Church of Jesus Christ of Latter Day Saints Mogote	5/2	Ed; Food Prod & Ag; Ind Dev; Med & PH
Salesians of St. John Bosco (S.D.B.) Tegucigalpa	--	Ed; SW
Save the Children Federation Pespire, La Esperanza, Tegucigalpa	/13	CD; Equip & Mat Aid; Ind Dev
Self Help Foundation	/6	Ed; Food Prod & Ag; Ind Dev
Seventh-Day Adventist World Service, Inc.	--	Equip & Mat Aid
Southern Baptist Convention	2/	Med & PH
United Church Board for World Ministries	3/	Ed; Med & PH

Agency	Personnel Intl/Local	Programs
United Methodist Committee on Relief San Pedro Sula	--	Food Prod & Ag; Equip & Mat Aid
Volunteers in Technical Assistance, Inc. (VITA)	--	Ed
World Education, Inc. Yoro, Cortes, Choloma	/198	CD; Med & PH
World Relief Corporation Choluteca	1/	Equip & Mat Aid
World Vision Relief Organization, Inc. Choluteca	/2	CD

Key

Comm	Communications
CD	Community Development
CHP	Construction, Housing, Planning
Coop	Cooperatives, Credit Unions, Loans
Ec & Dev Pl	Economic and Development Planning
Ed	Education
Equip & Mat Aid	Equipment and Material Aid
Food Prod & Ag	Food Production and Agriculture
Ind Dev	Industrial Development
Med & PH	Medicine and Public Health
Nutr	Nutrition
Pop & Fam Serv	Population and Family Services
Pub & Bus Adm	Public and Business Administration
SW	Social Welfare
Women	Women
Youth	Youth

3.12 Volag Resources

CARE

Main Office: Tegucigalpa; Regional office: San Pedro Sula
Sub Offices: La Ceiba, Choluteca
Staff: 6 executives, 22 field supervisors with vehicles, 6 warehouse/port personnel, 3 drivers, 16 office workers; total: 53
Vehicles: two 4-wheel drive 1/2-ton pick-ups; 20 4-wheel drive jeeps for field supervisors; one 4-wheel drive jeep for Choluteca medical staff.
Communications: RFZ 2,200 radios operating on 3,505.0 and 4,628.0 MH in Tegucigalpa, San Pedro Sula (office and warehouse), and Tocoa.
Warehouses: Tegucigalpa (5,580 MT capacity) and San Pedro Sula (5,989 MT capacity)

CARITAS/CRS

Offices: Tegucigalpa; Sub-offices (Caritas Diocesana): San Pedro Sula, El Progreso, Sta Rosa de Copan, Orocuina, Sta Barbara, Comayagua, Puerto Cortes, Omoa, Salama, Sonaguera, La Ceiba
Employees: 80-100, many in San Pedro Sula
Communications: 2-way radio network between Tegucigalpa, San Pedro Sula, La Ceiba, Tela, Trujillo, and Puerto Lempire
Vehicles: Seven 10-ton trucks, 6 Ford 1 1/2-ton trucks, 20 passenger vehicles
Warehouses (PL-480 Food): Tegucigalpa, San Pedro Sula, El Progreso, Sta Rosa de Copan, San Marcos, Sta Barbara, San Lorenzo, Comayagua
Total capacity: 1,075 MT

3.13 Volag Contact Addresses

The Red Cross: Honduran Red Cross, la Avenida Entre 3a, Calles No. 313, Comayaguela D.C. Cable: HONDUCRUZ Comayaguela. Tel.: 22-8654.

WCC: Acorde (Asociacion coordinadora de recursos para el desarrollo) 2A Av. 5A y 6A Calle No. 522, Tegucigalpa D.C.

CRS: 6a Calle No. 1106, Boulevard Morazan, Apartado 257, Tegucigalpa, Honduras. Cable: CATHWEL Tegucigalpa. Tel.: 22-6836 and 22-3042.

CARITAS: Apartado Postal 257, Tegucigalpa. Cable: CARITAS TEGUCIGALPA. Tel.: 22-6836.

UNDP: Colonia Palmira, 2a Calle y 3a Avenida, Casas No. 302-304, Tegucigalpa D.C. Cable: UNDEVPRO/Tegucigalpa. Telex: 1177 UNDEVPRO

3.14 Early Warning

The Ministry of Communications, Public Works, and Transportation and National Water and Sewage Service are charged with the establishment and maintenance of permanent meteorological and physical surveillance systems over all significant bodies of water; these agencies are to notify COPEN of any abnormal weather conditions or other "natural phenomena" which could cause disaster.

3.15 Disaster Types and History

Hurricane, flood, epidemic, earth tremor, drought, civil strife.

Weather history alternates between droughts and floods (usually from tropical storms). The severe drought of 1975 was preceded by Hurricane Fifi in September 1974, the worst storm in Honduras in the 20th. century; the fertile agricultural region in the north was the hardest hit, just before harvest. Damage was increased by a meteorological anomaly: the hurricane moved E to W, perpendicular to a chain of mountains which intensified cloud convection, thereby increasing wind speed and rainfall. All north coast primary roads were damaged, especially roads from San Pedro Sula to La Ceiba and Puerto Cortes; 27 primary bridges were also downed.

Summary Disaster History

Disaster	Location	Date	# Killed	# Affected	Dmg ($ 000)
Flood	Central & South	9/24/65		6,000	$500
Epidemic	San Pedro Sula	8/00/65	7	170	
Drought	S,Valle&Choluteca	0/00/66		100,000	
Civil Strife	Valle,Lempira,Octep	7/14/69	300	92,800	$2,500
Hurricane	Roatan,Utila,Guanaja	9/01/69		8,000	$19,500
Accident	Marcala	5/10/71	37	160	
Drought		0/00/73		300,000	$7,000
Hurricane	Widespread	9/18/74	8,000	600,000	$540,000
Hurricane	N Coast Gracias Dios			7,000	$1,000
Flood	N Coastal Area		1	40,000	$13,000,000

Source: Disaster History on file at OFDA in Washington, D.C. Covers 1965 to present.

4. Population

4.1 National Population

The population was estimated at 3.4 million in mid-1978 (World Bank) and at about 3.7 million in January 1980 (CIA, National Basic Intelligence Factbook). Estimates of the country's high growth rate range between 3.3 and 3.5%. While the GOH does not have a population policy based on demographic considerations, family planning for health reasons is gaining official acceptance. Services are provided (though are not yet widely accessible) through the existing health delivery system.

The urban growth rate is about 5.5% per year; 36% of the population was urban in 1980. The proportion of the population of working age (15-64 years) declined from 52% in 1960 to 49% in 1978. (See also section 5.9, Overview of Housing.)

4.2 Regional Population

Despite a high population growth rate, the country's demographic density is still low, estimated at 29-31 persons/per sq. km. overall. The disparity between regions is marked, however, ranging from 66 to 1.4 persons/per sq. km. Largest concentrations are in the northwestern and western parts of the country -- in the departments of Ocotepeque, Cortes, Copan, Valle, Choluteca, and Francisco Morazan. The central area and the southern Caribbean coastal region are sparsely populated.

Regional Distribution (1975)
('000)

Region	Population
Atlantida	150.9
Colon	70.0
Comayagua	154.5
Copan	188.1
Cortes	339.9

Region	Population
Choluteca	244.8
El Paraiso	158.1
Francisco Morazan	530.2
Gracias a Dios	19.1
Intibuca	99.7
Islas de la Bahia	10.1
La Paz	76.9
Lempira	151.5
Ocotepeque	64.9
Olancho	160.1
Santa Barbara	260.8
Valle	112.0
Yoro	190.3
Total	2,981.9

Population Density (1975)

Region	Area	Pop/sq. km.
Francisco Morazan	7,946.2	66.7
Atlantida	4,251.2	35.5
Colon	8,874.8	7.9
Comayagua	5,196.4	29.7
Copan	3,203.0	58.7
Cortes	3,954.0	86.0
Choluteca	4,211.0	58.1
El Paraiso	7,218.1	21.9
Gracias a Dios	16,630.0	1.1
Intibuca	3,072.2	32.5
Islas de la Bahia	260.6	38.8
La Paz	2,330.6	33.0
Lempira	4,289.7	35.3
Ocotepeque	1,680.2	38.6
Olancho	24,350.9	6.6
Santa Barbara	5,115.3	51.0
Valle	1,564.6	71.6
Yoro	7,939.2	24.0
Total	112,088.0	26.6

4.3 Urban Population (1975)

By Department, Towns of 2,000 or more Population.

*Francisco Morazan	410,300
**Tegucigalpa, DC	270,645
El Porvenir	2,343
Guaimaca	3,920
San Ignacia	2,204
Talanga	4,805
Villa de San Francisco	2,517
*Atlantida	81,900
**La Ceiba	38,582
Tela	19,268
Colon	
**Trujillo	4,019
Sonaguera	2,262
Sava	2,809
Tocoa	2,840
*Comayagua	54,500
**Comayagua	13,396
Ajuterique	2,782
La Libertad	2,250
Minas de Oro	2,716
Siguatepeque	12,005
Villa de San Antonio	2,418
Lempira	
**Gracias	2,580
El Paraiso	
**Yuscaran	1,831
Danli	11,369
El Paraiso	6,717
Teupasenti	1,999
Copan	
**Santa Rosa de Copan	12,103
Copan Ruinas	2,306
Corquin	2,629
Dulce Nombre	2,328
El Paraiso	2,654
Florida	2,803
Nueva Arcadia	5,853
*Cortes	315,200
**San Pedro Sula	148,082
Choloma	9,671
Chamelecon	3,014
Cofradia	2,738
La Lima	14,255
Potrerillos	6,312
Puerto Cortes	25,661
San Antonio de Cortes	2,090
San Manuel	2,301
Santa Cruz de Yojoa	1,849
Villanueva	4,914
*Choluteca	47,400
**Choluteca	25,120
El Triunfo	2,913
Pespire	2,010
San Marcos de Colon	4,397
Ocotepeque	
**Nueva Ocotepeque	4,622
San Marcos	2,001
*Olancho	33,600
**Juticalpa	10,095
Campamento	2,274
Catacamas	9,081
Gualaco	3,001
San Francisco de La Paz	2,288

Gracias a Dios	
(largest towns)	
**Puerto Lempira	742
Brus Laguna	921
Intibuca	
**La Esperanza	2,241
Intibuca	2,988
Jesus de Otoro	2,962
Islas de la Bahia	
(largest towns)	
**Roatan	1,952
Guanaja	1,938
Utila	1,183
La Paz	
**La Paz	6,743
Marcala	2,685
Santa Barbara	
**Santa Barbara	5,910
Azacualpa	3,350
El Mochito	4,036
Las Vegas (El Sauce)	5,592
Naranjito	2,766
San Jose de Colinas	2,754
San Luis	2,244
San Marcos	2,519
San Nicolas	1,931
San Pedro Zacapa	3,382
Trinidad	2,491
Valle	
Nacaome	5,894
Amapala	1,908
Langue	2,456
San Lorenzo	9,261
*Yoro	64,000
**Yoro	4,233
El Negrito	2,592
El Progreso	28,014
Morazan	4,648
Olanchito	7,727
Santa Rita	5,292

* 1978 urban population figures from World Bank, Honduras: Eighth Highway Project, August 1980.

** Departmental Capital.

5. Health, Nutrition, and Housing

5.1 Common Diseases

Malnutrition, unsafe water, poor sanitation, overcrowded housing, and insufficient medical care enhance transmission and aggravate the effects of major communicable diseases: enteritis and other diarrheal diseases, malaria, whooping cough, measles. The incidence of dysenteries and malaria are among the highest in the Americas, as is the death rate for whooping cough. The prevalence of intestinal worms, of which ascaris, trichurus, and hookworm are the most common, ranged in different age groups from 20-80% in both urban and rural areas (in 1965-67 survey). Viral encephalitis (epidemic in 1969) and American Trypanosomiasis (52 cases reported in 1971) are potential threats as long as no vector control is practiced. Both poliomyelitis and typhoid fever are endemic, especially in the northeast lowlands, though no major outbreaks have occurred in the last decade. Rabies is reportedly a problem in some localities: 50 persons were bitten by rabid dogs in Tegucigalpa during a 3 month period in 1974.

Note - In banana plantation areas, widespread plant disease necessitates extensive spraying of trees, which may affect the health of workers. Virtually the entire population in these areas is infected with ascaris (roundworms); about 40% have amoebic dysentery.

Incidences of the Most Common Diseases During the Period of January to July of 1975 in the Seven Health Regions

	I	II	III	IV	V	VI	VII	Total
Amoebic dysentery	3,871	1,651	865	1,506	1,176	563	628	10,260
Bacillary dysentery	247	162	995	105	634	265	83	2,491
Diarrheic diseases (Gastro-enteritis)	14,546	7,541	11,367	7,873	7,729	7,066	3,413	59,535
Typhoid fever	67	137	31	38	100	17	12	402
Measles	158	202	816	180	435	388	56	2,235
Whooping cough	781	513	522	430	267	237	187	2,937
Total	19,670	10,206	14,596	10,132	10,341	8,536	4,379	77,860

Note:
I - Francisco Morazan, El Paraiso, Gracias A Dios, Yoro (Southern)
II - Comayagua, La Paz, Intibuca
III - Santa Barbara, Cortes, Yoro (Central, Western)
IV - Choluteca, Valley, La Paz (Southern)
V - Copan, Lempira, Ocotepeque
VI - Atlantida, Colon, Yoro (Northern), Islas de la Bahia
VII - Olancho

5.2 Vital Statistics (1978)

Crude birth rate	47/1,000 population
Drude death rate	12/1,000 population
Infant mortality	118/1,000 live births
Mortality ages 1-4	14/1,000 population
Life expectancy at birth	57 years

Source: World Bank Development Report, 1980.

5.3 Health Facilities and Services

Approximately half of the population had no access to health care in 1978. However, the GOH plans to expand health care coverage and has begun development of a network of facilities to be located throughout the country's seven health regions. A teaching hospital, at the top of the stratified system, has been completed in Tegucigalpa which, with the adjacent Materno-Infantil Hospital, has approximately 1,200 beds. Three regional hospitals (with varied specialties) are being built in San Pedro Sula, Choluteca, and Comayagua. The largest (500 beds), providing such sophisticated services as an intensive care unit, will be in San Pedro Sula. Central emergency hospitals (CHE's) having 50-100 beds each, staffed with doctors, and providing general medical care, are to be located in Tocoa, Olanchito, San Lorenzo, La Esperanza, San Marcos y Gracias, El Progreso, and Cortes. Health centers (CESAME's), with a physician in charge, and rural health units (CESARE's), staffed by auxiliary personnel, will provide outpatient and preventive health care. 79 rural health units had been completed by 1978 and 40 were under construction. The community itself is the primary level of health care served by a volunteer health guardian, a midwife, and a health representative. Private facilities include missionary hospitals and a hospital of the Standard Fruit Co. in La Ceiba.

Region	Location	Regional Chief	Telephone
I	Centro de Salud Alonso Suazo, Bo Morazan Tegucigalpa, D.C.	Dr. Manuel Alfredo Leiva	26-6105
II	Comayagua, Comayagua	Dr. Jose Adrian Chavarria	52-3212
III	Hospital Leonardo Martinez	Dr. Humberto Pineda Santos	
IV	Hospital Del Sur, Choluteca, Choluteca	Dr. Oscar Antonio Molina	82-0241
V	Centro de Salud Santa Rosa de Copan, Copan	Dr. Alberto Hernandez Santos	62-0095
VI	La Ceiba, Atlantida	Dr. Maria Del Carmen Miranda	42-2595
VII	Juticalpa, Olancho metropolitan region (includes hospitals, health centers, etc. in Tegucigalpa), Centro de Salud Alonso Suazo	Dr. Ubence Calix Dr. Maria Santos de Avilles	22-8555 Ext-280

Major Public Hospitals

Name	Location	Director	Tel.	Beds	Ambulance
Materno Infantil	Tegucigalpa, D.C.	Dr. Carlos Medina	22-4646	487	1
San Felipe	Tegucigalpa, D.C.	Dr. Manuel Rivera	22-8457	684	-
Instituto Nacional Del Torax	Anexo San Felipe, Teg.	Dr. Daniel Mencia	22-9096	373	
Neuro Psiquiatrico	Colonia Miramontes, Teg.	Dr. Dagoberto Mourra	22-6327	51	-
Santa Rosita	Tamara	Dr. Emerito Pacheco	22-4141	300	-
Fabriela Alvarado	Danli	Dr. Roberto Ortiz	93-2021	45	-
Santa Teresa	Comayagua	Dr. Antonio Suazo	72-0094	92	-
Leonardo Martinez	San Pedro Sula	Dr. Reynaldo Urtecho	52-1400	286	-
Santa Barbara Integrado	Santa Barbara	Dr. Juan De Dios Paredes	-	123	-
Manuel de Jesus Subirana	Yoro	Dr. Saul Calix	-	47	-

Hospital del Sur	Choluteca	Dr. Maurice Perez	82-0231	156	.2
Hospital de Occidente	Sta Rosa de Copan	Dr. Rodolfo Torres	62-0107	211	-
Atlantida Integrado	La Ceiba Atlantida	Dr. Jose Matta Reyes	42-2294	95	-
Salvador Paredes	Trujillo	Dr. Rodriguez	-	50	-
Hospital de Tela	Tela	Dr. Ruben Martinez	48-2073	45	-
San Francisco	Juticalpa	Dr. Ferrufino Paz	-	59	1
Isletas	Colon	Dr. Jose Salazar	-	56	-
Tocoa	Colon	Dr. Pastor Ramirez	-	30	-
I.H.S.S.	Tegucigalpa	Dr. Humberto Rivera M.	22-1124/ 26	183	6
I.H.S.S.	San Pedro	Dr. Carlos A. Pineda	-	89	4

Only Hospital San Felipe (Tegucigalpa) and Leonardo Martinez (SPS) have special equipment for chest and brain surgery.

The General Director of the Public Health Department is Dr. Carlos Godoy Artega and the Director of Division III (North Coast) is Dr. Humberto Pineda Santos, (office in Hospital Leonardo Martinez. Telephone: 52-3699).

Major Private Clinics

Name	Location	Director	Tel	Beds
Policlinica	Comayaguela D.C.	Dr. Manuel Echeverria	22-3504/5	50
Hospital Viera	Tegucigalpa D.C.	Dr. Juan Andonie	22-0820	50
El Carmen	Tegucigalpa D.C.	Dr. Augusto Caceres	22-2681	20
Centro Medico	Comayaguela D.C.	Dr. Virgilio Banegas	22-7494	20
Simos	San Pedro Sula	Dr. Cuzano		20
Hondureno	San Pedro Sula	Dr. Irias		20
Bendana	San Pedro Sula	Dr. Bendana		50
Villas	Comayagua	Dr. Vinias		20
Clinica Evangelica	Siguatepeque	Dr. Sierra		20
Clinica Ferguson	Choluteca	Dr. Ferguson		20
Clinica Canahuati	Choluteca	Dr. Canahuati		20
Centro America	Juticalpa	Dr. Bulmond		20

Ministry of Health Rural Health Centers - 1976

Department	Cesar *	Cesamo **
Francisco Morazan	27	11
Atlantida	13	3
Colon	15	2
Comayagua	19	5
Copan	13	4
Cortes	25	7
Choluteca	27	5
El Paraiso	21	3
Gracias a Dios	2	1
Intibuca	12	3
Islas de la Bahia	0	2
La Paz	21	3
Ocotepeque	6	2
Olancho	18	6
Santa Barbara	21	10
Valle	11	6
Yoro	18	6
Total	290	80

* Cesar - rural health center
** Cesamo - health center with doctor

5.4 Health Personnel

Human resources in the health sector are limited: 780 physicians (2.9/10,000 population) and 199 dentists (0.7/10,000 population) in 1972, 316 graduate nurses (1.1/10,000 population) and 1,647 nursing auxiliaries (5.9/10,000 population) in 1973.* Tegucigalpa, which has 11% of the total population, has 54% of country's physicians. Rural population has minimal access to medical care, if any. Annual output of medical personnel (circa 1976): 25 physicians, 35 nurses, and 150-200 auxiliary nurses. Half the Honduran doctors who go abroad for advanced studies do not return.

* Population per physician in 1977: 3,420; per nursing person: 1,240.

The national health services program, begun in 1975, includes plans to build over 200 rural health centers, to be staffed by nursing auxiliaries with periodic visits by physicians and nurses from 1 of 8 emergency hospital centers. Lack of manpower is the major impediment to implementation. During 1975-1980, the program would have required an annual addition of 300 auxiliaries, 55 nurses, and 30 medical technicians; current training programs cannot meet this demand.

5.5 Diet Summary

The main staple is white maize (except in the northern part of the country where it is rice and bananas). Rice consumption is increasing generally, and wheat bread is popular in the cities.

The three daily meals consist typically of rice, red or black beans, and corn or sorghum tortillas. Meat (beef or pork) is eaten only rarely. All meals are similar in content and size. Children's diet is similar to adult's but somewhat lower in protein; milk intake falls off after one year of age and consumption of eggs, meat, and beans is not great enough to compensate for the decrease.

5.6 Staple Foods

Flour: Corn or sorghum made into tortillas (10-15 daily is the average consumption).

Vegetables: Beans, onions, garlic, chilies, yucca, tomatoes in season; occasionally greens; potatoes in higher altitudes.

Fruits: Plantains, bananas, grapefruit, mangoes, chayote, guavas, lemons.

Cooking Oil: Pork lard, cottonseed oil, coconut oil.

Milk: Rarely cow's milk; occasionally dry white cheese.

Meat: Beef, pork (preferred), chicken (rarely 2 a month per family), lizard (10/year), some goat meat.

Fish: Rare in inland areas; fresh fish very common on north and south coasts.

Starches: Rice, yucca, white wheat bread in cities.

Sweets: Brown sugar in cake form (panela) furnishes significant number of calories (av. 225/day in 1962).

Beverages: Unboiled spring or river water and sweetened coffee; soft drinks (refrescos).

5.7 Nutritional Deficiencies

Malnutrition is severe, with an estimated three quarters of pre-school children suffering from protein and caloric deficiencies; 67% of all Hondurans have diets somewhat deficient in calories and 43% receive inadequate amounts of protein. Anemia is widespread in pregnant women and children (of both dietary and parasitic etiology), and Vitamin A deficiency is particularly common among rural children.

5.8 Cooking/Utensils

Cooking is done inside the house with earthenware crocks on wood-fueled clay stoves. Food is eaten with fingers or tortillas. Soup is drunk from earthenware bowls, beverages from crockery or plastic cups.

5.9 Overview of Housing

In the past rural to urban migration in Honduras has been relatively limited compared to other Central American countries. In 1980 only 36% of the Honduran population was urban, in contrast to 53% in Nicaragua, 43% in Costa Rica, 41% in El Salvador, and 39% in Guatemala. However, in recent years the annual urban growth rate has been increasing (average of 5.5% p.a. during 1970-80). The general pattern of migration is south to north with San Pedro Sula the fastest growing urban area. Over the years the northern coastal and lowland areas have experienced the most population growth due to employment opportunities offered by two fruit companies. As both companies expanded, they could offer services such as housing, education, and medical facilities which were unavailable in the rest of the country.

Highland settlements range from large urban centers (Tegucigalpa, Comayagua, Copan) to small villages which have grown up around local agricultural, lumber, and mining enterprises, to isolated subsistence farms which are scattered throughout the mountainous areas in the west and southwest. Also characteristic of this area are large agricultural estates

where workers' housing is provided by the landowner. Overall, the population of Honduras is distributed very unevenly. While rapid growth is occurring in a corridor which includes La Ceiba, Tela, Puerto Cortes, San Pedro Sula, Siguatepeque, Comayagua, Tegucigalpa, and Choluteca, other areas (particularly in the east) are under-settled or even devoid of population.

5.10 Housing Policy and Institutions

The National Housing Plan clearly distinguishes between rural and urban housing with greater emphasis placed on the former. The rural housing program is being coordinated with the development of new rural settlements through the agrarian reform program. Use of local construction materials and aided self-help housing methods are stressed. However, to date little progress has occurred in the rural sector. In urban areas the trend is toward decentralization and the development of secondary cities. Greater participation by the public sector in urban areas is encouraged. The National Housing Agency (INVA) is the main implementing agency for both urban and rural housing in the public sector. The National Board for Social Welfare is responsible for rural housing improvement programs.

Role of the Government of Honduras

- Provides financial support to INVA
- Creates public bodies related to housing as well as semi-autonomous banks and other financial and technical institutions
- Supports the creation and development of private organizations such as the Honduran Cooperative Housing Federation (FEHCOVIL) and savings and loan associations
- Sets housing policy and makes regulations for the housing industry as a whole

Honduran National Housing Institute (INVA) - autonomous public agency charged with carrying out the national housing plan. It is responsible for the development of housing for low to moderate income families throughout the country, though most projects have been located in Tegucigalpa and San Pedro Sula; no rural projects have been built by INVA. Principal sources of income have been the government and the InterAmerican Development Bank.

National Agrarian Institute (INA) - principal agency for land reform and agricultural development. Collaborates with INVA by designating sites eligible for housing programs and providing non-technical assistance.

Asociacion Por Desarrollo Humano - a private institution involved in low cost housing. Usual construction technique is a primitive wooden frame modular which has found wide local acceptance. Funding comes from overseas grants and locally raised capital.

Federation of Credit Unions of Honduras (FACACH) - private group involved in two low cost semi-urban housing projects.

Three private groups have been involved in middle income housing: the savings and loan association system; Banco Hipotecario, a commercial bank; and the Honduran Cooperative Housing Federation (FEHCOVIL). FEHCOVIL has been assisted by A.I.D. since its inception in 1963. Two unions, the Federacion de Sindicatos de Trabajadores del Notre de Honduras (FESITRANH) and the Sindicato de Trabajadores de la Tela Railroad Company (SITRATERCO) have sponsored housing in the San Pedro Sula area for lower middle income families.

City Planning

City planning and zoning regulations are the responsibility of municipal governments. However, financial constraints and a lack of trained personnel in the municipalities have prompted the national government to organize a Department of Urban Planning (Direccion General de Urbanismo) to assist local governments in preparing master plans.

5.11 Disaster/Low-cost Housing

Effects of Natural Disasters on Housing

The lack of adequate housing affects roughly one million Hondurans (over one-third of the population), most with very low incomes. Besides the general deficit of housing stock which increases year after year, the housing situation has worsened since 1974 due to a series of natural disasters. Disaster vulnerability in Honduras is overwhelmingly related to floods like those that accompanied Hurricane Fifi in September 1974. An estimated 15,000 housing units were destroyed. Most of those destroyed were rural huts of cane and thatch, though some 2,500-3,000 houses of permanent construction were also destroyed. The majority of victims lived either in the flood plains or on steep slopes which are vulnerable to mud-slides. In most cases, the housing destroyed or damaged was among the poorest quality and belonged to those least able to afford repairs or replacement. Floods and mudslides in the middle of 1976 also caused substantial damage to the housing sector and contributed to a greater degree of overcrowding and the growth of uncontrolled settlements. A major lesson learned from these experiences was that the site of a unit is more

crucial than the materials or construction method used. If appropriately sited, even houses made of bajareque or wood are able to withstand heavy rains.

Honduras: Estimate of Destruction of and Damage to Housing a/

Location	Before the Hurricane b/	Affected by the Hurricane Destroyed	Damaged	Percent Affected
Total		2,898	12,500	
Tegucigalpa-Comayaguela	50,950	3	25	
San Pedro Sula & La Lima	31,820 c/	500	4,000	14
Santa Rita	1,620	200	500	43
Choloma	1,680	500	500	60
Puerto Cortes	5,480	400	500	16
Omoa	312	150	300	d/
Progreso	5,625	500	3,000	62
San Manuel	405	50	150	49
Villanueva	940	100	400	53
Pimienta	404	50	150	49
Potrerillos	1,334	50	500	41
Tela	3,975	n.a.	80	2
La Masica	360	20	50	19
Tocoa	542	100	1,200	d/
Sonaguera	390	n.a.	300	77
Saba	395	n.a.	150	25
La Ceiba	7,615	150	500	9
Utila	310	5	50	18
Santos Guardiola	290	10	20	10
Roatan	490	10	25	7
Guanaja	474	100	100	42

a/ Not including an undetermined number of rural dwellings.
b/ In the municipal district, according to the 1974 Population and Housing Census.
c/ Includes 3,070 dwellings in La Lima.
d/ The figures for houses affected also include dwellings in neighboring villages and hamlets and thus exceed the figure given for the number of houses in the municipal district.

Source: Technical Secretariat of the Higher Council for Economic Planning.

Government-sponsored Housing

In urban low-cost housing the basic house, as built by INVA, consists of reinforced concrete footing, clay brick on block walls, concrete floors, asbestos cement roof, wood-framed glass windows, and wood doors. Interior and exterior walls are left bare and no ceilings are put in. These houses have electricity and indoor plumbing. The kitchen is equipped with a concrete sink with cold water only, while electrical wiring is left exposed. Pipes are concrete and galvanized iron. A typical lot is 72 sq. m. and the building area 30 to 35 sq. m.

Construction materials for urban middle income housing are the same as in low cost housing, but with improvements and larger spaces. The bathroom is complete with lavatory and probably a ceramic tile wainscot. A dropped ceiling is included and electric conduits are concealed in the walls. Lots are larger, 150 to 200 sq. m. and the constructed area is 70 to 80 sq. m.

Physical Design of Two Urban Housing Projects

	INVA	FEHCOVIL
Lot	6 x 12 meters (72)	5 x 13 meters (65)
Dwelling	3 x 6 meters (18)	5 x 5 meters (25)
Materials		
Floors	Concrete	Concrete
Walls	Concrete panels	Concrete block & wood
Roof	Galvanized sheets	Galvanized sheets
Expansion Area	9 x 6 meters (54) w/o preparation or retaining walls	6.5 x 5 (32.5) meters leveled, with retaining walls
Utilities	Water, sewer, electricity	Water, sewer, electricity

Source: Lindsay Elmendorf, Housing Project in Honduras, 1980.

5.12 Housing Types, Materials, Construction and Services

Housing Types

The traditional owner-built house in urban areas has exterior walls of adobe or bajareque except in the northern coastal area where wood is predominant. Brick and cement walls are used by upper income families and in government-sponsored projects. In the major cities clay and cement tiled floors are usual, though earth floors are still found in marginal areas and in smaller cities. Wood floors are common in the low coastal areas and off-shore islands where houses are often constructed on wood pilings. Because of the increasing cost of ceramic tile, zinc sheeting and corrugated asbestos are replacing tile as the most common roofing materials.

A typical rural house has a packed earthen floor, an unsawed timber frame, walls of bajareque (packed mud and straw) on a woven "manaca" (palm leaf), no interior partitions, one door, no windows, and a manaca roof. Cooking facilities are minimal and are often in a corridor outside the living quarters. There is no electricity, indoor water supply, or plumbing. Most of these houses are built by their owners and are small (one room) and overcrowded. Most rural families are homeowners in contrast to being renters (only 2% rent), though they probably do not have title to their lot. Incomes in rural areas are so low that nearly all rural families are unable to purchase a home. Based on this situation, the government has not found it feasible to develop housing programs in rural areas. To date there have been only a handful of rural projects, generally after a disaster.

Construction Materials

Approximately 90% of all building materials are produced locally, although they are not always readily available. Overall quality of domestic materials is acceptable but orders must be placed well in advance to assure prompt delivery.

Cement - one plant in San Pedro Sula has a capacity to fill domestic needs and produce a surplus for export.

Concrete blocks and clay bricks - generally sufficient supply. To ensure availability order should be placed in advance.

Sand and gravel - abundant in northern coastal areas; shortages in highlands near Tegucigalpa.

Wood - although Honduras has the largest forest reserves in Central America, most of the lumber produced is exported. High domestic demand has caused scarcities and high prices. Honduras is industrializing its forest reserves with the assistance of international agencies. Five zones have been designated as potential forestry development areas with projects presently being carried out in two: Olancha and Comayagua. Timber production has shown an upward trend since 1975: 203 million board feet that year compared with 260 million board feet in 1979. The proportion of exports has been declining: 95% in 1975 and 54% in 1979. Common grade lumber is generally left to meet domestic demand for construction; standing timber is sold to sawmills for primary transformation.

There were 118 sawmills in 1977 and 58 secondary wood processing plants, including 2 companies producing 13,000 cubic m. of plywood.

Roofing - asbestos cement planks are most widely used; local plants maintain adequate supplies. Traditionally clay tiles were used but, due to increased costs, only upper income families can afford them. Corrugated galvanized iron sheets are imported.

Construction Costs

Item	Unit	1974
Layout	M^2	$ 0.05
Excavation	M^3	1.50
Footings (cyclopean concrete)	M^3	68.49
Drainage (concrete pipe 4")	M^1	4.36
Compacted fill	M^3	2.50
Brick walls	M^2	5.90
Roof (wood purlins covered with asbestos-cement pants)	M^2	3.90
Water supply lines	M^2	3.55
Cement floor tile	M^2	6.00
Wood doors	U	30.00
Electricity	U	15.61

Source: USAID, Honduras Housing Sector Analysis, 1974.

5.13 Services

Water Supply

Of the approximately 7,500 villages in Honduras, only 389 have some type of water system. The majority of these systems are inadequate and/or in need of repairs. Only 60% of the systems provide water all day during the dry season and in only 20% is the bacteria level of the water satisfactory. Servicio Autonomo Nacional de Acueductos y Alcantarillado (SANAA) is the government agency in charge of the water supply in the larger urban areas. Smaller cities and towns generally operate local plants and systems. Approximately 70% of urban families have piped water, while only 4.2% of rural families have direct access; 89% of urban and 15% of rural families have general (communal) access to safe water.

Sanitary Facilities

Approximately 80% of the population has no access to sanitary facilities and there are no sewage treatment plants in the country. Throughout the country, about 45% of the homes in urban areas and 90% of those in rural areas are without sanitation facilities. Septic tanks are used in 50% of the homes with facilities. In Tegucigalpa there is a main underground collector running along the Rio Choluteca which collects most of the sewage and discharges it into the river outside the city limits.

Electricity

Electric power is supplied to about 15% of the population, primarily urban, by municipal or community owned systems. Electricity is generally used for lighting only; heating is done by kerosene, wood, or charcoal. Empresa Nacional de Energia Electrica (ENEE) is responsible for the provision of electric energy. This agency operates in most of the municipal capitals and larger cities. In some of the smaller cities on the north coast, electricity is purchased from banana companies. Power is available an average of 5 hours daily. The sources of electric energy are 61% hydraulic and 39% diesel or gas turbine.

6. Economy

6.1 Overview of Economy

Honduras is primarily a land of small farmers (68% of population is rural); upper classes are still oriented toward traditional professions: church, political life, military, so that until the early 1970's, most entrepreneurial efforts occurred as a result of foreign investment in banana plantations, mining, banking, and forestry. The limited domestic enterprise was concentrated in farming and stockraising, while the commercial sector was dominated by first and second generation immigrants. The lack of a transport infrastructure and the isolation of Tegucigalpa from the foreign investment enclave on the north coast (San Pedro Sula-centered) presumably assisted foreign dominance of the economy. A per capita GNP of US $480 (1978) is one of the lowest in the Western Hemisphere Hemisphere. Sector contributions to GDP (1978) were as follows: agriculture 32%, industry 26% (of which manufacturing accounted for 17%), service 42%.

The limited natural resource base includes the agricultural lands of the north coast and interior river valleys, extensive unexploited pine forests, and small deposits of silver, lead, zinc, and low grade iron ore. Fossil fuel supplies are now being explored; natural gas, oil, and low grade coal deposits appear to exist but commercial viability has not yet been established.

Manufacturing is characterized by small-scale firms, intermediate technological levels, and limited processing capabilities. Major products are food products, beverages, textiles and clothing, lumber and paper products; production of capital goods and heavy intermediate goods are minimal.

A number of factors combined in late 60's and early 70's to slow economic growth. In 1969, a war with El Salvador and damage from Hurricane Francella caused a sharp drop in GDP and a rise in inflationary pressures, aggravated by the country's withdrawal from the Central American Common Market. Stagnation in private investment and exports also reflected uncertainties in the private sector regarding socio-economic reforms then enacted. In 1974, the situation further deteriorated as prices for petroleum products and other imported goods rose, major export prices dropped, and Hurricane Fifi severely damaged the northern economic center and banana plantations. 1975 brought world recession and a prolonged drought (resulting in diminished grain harvest).

6.2 Recent Trends and Future Prospects

The Honduran economy made a strong recovery during 1976-78 (GDP growth averaged 7.4%) as public and private investment increased, banana production recovered, and world coffee prices soared (doubling in both 1976 and 1977). Larger export volumes of both coffee and bananas and increased public expenditures sustained the growth rate at 6.5% in 1979, despite falling coffee prices. However, a sharp drop in GDP growth to about 2% in 1980, reflected reduced capital formation (believed due to uncertainty caused by political unrest in Central America), weaker export performance, and a continued rise in imports. Inflation, moderate in recent years, accelerated sharply in 1979 to 19% and remained at about 14% in 1980.

Slower economic growth has been forecast for 1980-83 (World Bank predicted an average 5.6% yearly growth) due primarily to slower expansion of the main exports. Banana production has recovered to its pre-hurricane level and coffee reached a cyclical peak in 1979/80 harvest. Future growth depends on the expansion of other exports, particularly timber, but also beef, sugar, fruit and vegetables, and tourist promotion, as well as on retaining the confidence of the private sector and foreign lenders.

The emphasis of the GOH investment program for 1980-83 is on infrastructure (especially power and transport), export diversification (mainly toward forestry products), agricultural development to increase rural productivity and advance agrarian reform, and social welfare (especially health).

6.3 GNP/GDP

GNP at 1978 market prices (preliminary): $1,650 million, $480 per capita. GNP per capita (real) growth rates for 1970-77: 0.0%.

Source: World Bank Atlas, 1979. GNP at market prices rounded to US$ tens of millions. GNP per capita to nearest US $10.

GDP (1978)

National Accounts (1) (Millions of US$ at 1975 Prices)		Growth Rate 1977-1979
Gross Domestic Product	1,334.5	7.2
Gains from Terms of Trade	53.6	
Gross Domestic Income	1,388.1	3.7
Imports	607.0	8.4
Exports Volume	480.8	17.2
Exports TT. Adjusted	534.3	6.9
Resource Gap TT. Adjusted	72.6	
Total Consumption	1,128.8	4.6
Investment	331.9	4.1
National Savings	211.5	-4.9
Domestic Savings	259.2	-0.5
GDP at Current US$	1,819.0	18.4

6.4 Balance of Payments

Despite significant export growth in recent years (27% per year in dollar terms during 1976-78 and 20% in 1979), the balance of payments has shown large current account deficits as the level of imports has also risen (20% during 1976-78 and 18% in 1979), fueled by higher import prices and the expansion of economic activity. The current account deficit increased from US $154 million in 1978 to about US $183 million in 1979 (World Bank). International reserves have remained roughly at the equivalent of two months of imports of goods and factor services.

Heavy import requirements to carry out the public investment program, combined with expected slower export growth, will place a strain on future balance of payments. The current account deficit is expected to increase to about US $329 million by 1983, necessitating large capital inflows to finance it. The debt service ratio, 8.6% at the end of 1978, could increase to about 13% in 1986 and 15% in 1982, even if external borrowing continues to be on concessional terms.

6.5 Imports

Imports have grown at an average rate of 18.5% in recent years and were expected to have a dollar value of $1 billion in 1980. The percentage share of merchandise imports in 1977 was as follows: food (9), fuels (12), other primary commodities (2), machinery and transport equipment (31), other manufactures (46). Though the quantity of fuel imports rose only slightly between 1977 and 1980, the cost jumped from $71 million to a projected $176 million. The import value of food and edible oils rose from $49 to $80 million over the same period.

6.6 Exports

Primary commodities constitute the majority of exports (90% in 1977). Coffee and bananas are the leading products (each 27% of total in 1979), while beef, wood, and minerals each account for another 5-10% of exports. The value of agricultural and forestry exports doubled between 1975 and 1978; growth was projected to be less but still significant (39%) over 1979-80. The total value of exports was expected to reach $870 million in 1980.

The U.S. is the leading trade partner for both imports and exports, though imports from Japan and exports to the Federal Republic of Germany are also significant. In 1979 only 6.5% of exports and 10.8% of imports were with other Central American countries. Main markets for timber exports are in the Caribbean, Europe, and Central America.

7. Agriculture

7.1 Overview of Agricultural Sector

Though agriculture accounted for one-third of value added in the early 1970's, employed two-thirds of the labor force, and was the source of 80% of exports, crop yields are low, the use of improved seed and of fertilizers is minimal, and losses to disease are high. Bananas, 65% of which are produced by two foreign companies, is the major exception. Other major crops, coffee, corn, and beans, are more often grown by small farmers using traditional methods. Coffee, corn, and beans, as well as being the primary subsistence crops, are exported, the latter two primarily to CACM countries. Sector development is limited by ignorance of modern farming techniques, deficient public services to farmers, lack of access to land, skewed ownership of land now under cultivation, and land use patterns.

In 1974 the rural population of about 1.93 million (300,000 families) was distributed over 178,000 farm units, 75,000 of which exceeded 5 hectares. One-third of these rural families had incomes above subsistence level (75,000 who had larger farms and 25,000 banana workers), one-third had insufficient land for subsistence, and one-third were landless. Poverty is greatest in the southwest along the border with El Salvador because of rough terrain, poor soils, and limited infrastructure. Increasing peasant unrest has recently resulted in a rural development policy emphasizing land redistribution, based on allowable maximum farm sizes and efficiency of use and production. Land under banana, sugarcane, African palm, coffee, pineapple, citrus, and tobacco (all significant or potential exports) is not subject to expropriation as long as efficient production is maintained.

Redistribution of expropriated land was begun in October 1975 with groups (asentamientos) working larger farms on a cooperative basis the major beneficiaries. By the end of 1978, the National Agrarian Institute (charged with implementation of the Agrarian Reform Program) had distributed 203,833 ha. of land to a total of 35,586 families organized into 1,240 groups.

Expanding sugarcane plantings and sugar production, for which Honduras' climate and cheap labor market are ideal, are expected to increase exports substantially by early 1980's. Experimental planting of melons, cucumbers, and other vegetables for export is underway in the Choluteca area.

Cattle production is the primary livestock activity and beef is the fourth largest export. Recent improvements in animal nutrition indicate improvement in management practices, although death rates have been higher than in neighboring countries, and reproduction rate and marketing weights lower. Little incentive is given to dairy production and milk imports have increased significantly.

Forestry products are potentially the greatest exportable natural resource: two-thirds of the country's land area (about 7.0 million ha.) is forested. At present roughly 2.7 million ha. of coniferous and 4.0 million hectares of broad-leaved forest exist; the remaining 0.3 million hectares are mangroves and swamps. Since broadleaved forests contain relatively few commercially known species and since these do not grow in pure stands and, once cut, are difficult to process, nearly all wood used for commercial purposes comes from coniferous forests.

The practice of shifting agriculture, employing widespread burning of forests, as well as cutting for fuelwood have caused rapid depletion of forest resources and increasingly serious soil erosion problems. Present exploitation practices are also wasteful; only about 70% of usable wood reaches the mills, and only one-third of that ends up as lumber. Very little additional processing of lumber exists. Plywood and minor forest products are produced in small quantities. With a view to better forest management, the GOH passed a decree in 1974 creating the Honduran Forest Development Corporation (COHDEFOR) and put all forest trees (regardless of land ownership) under state ownership.

(See also section 5.12, Housing Types, Materials, Construction, and Services.)

7.2 Current Status (1980)

Crops, accounting for about three-fourths of agricultural production, grew by less than 2% in 1980. Gains were largely from new coffee trees coming into production and from a 66% expansion in sugarcane area since 1978. Most of the area under banana cultivation damaged by Hurricane Fifi had been rehabilitated; the national target is to surpass the 1974 area of 21,530 ha. by another 2,470 ha. Though corn production exceeded the 1979 level of 343,000 tons by 5%, it was below earlier estimates due to flooding in the northern part of the country in mid-September. The output of rice, sorghum, and cotton was below 1979 levels. Reduced slaughter kept livestock production 5% below the 1979 output of 61,000 tons despite an increase in the national herd from 2.2 million head in early 1980 to 2.3 million at the beginning of 1981.

7.3 Crop Dates

Crop	J	F	M	A	M	J	J	A	S	O	N	D	Comments
Cereals									H	H	H		
Wheat									H	H	H		
Maize									H				Some Yield Aug-Mar
Sorghum									H				Some Yield Aug-Oct
Rice				P	P					H			Some Yield Sep-Nov
Sugar													
Cane cut		H	H	H	H								
Tubers													
Potatoes								H	H				Some Yield Oct-Dec
Sweet Potatoes								H	H				Year round Yields
Cassava								H	H				Year round Yields
Legumes													
Dry beans	PH	P						H	HP	PH		HP	Some Yield Aug-Jan
Green beans and peas	H	H	H										
Groundnuts			H	H									
Oranges	H	H	H	H									Some Year Round
Mangoes				H	H	H							
Bananas and Plantains						H	H						Some Year Round
Coffee											H	H	
Cacao								H					
Cotton	H											H	
Tobacco	H	H	H	H									

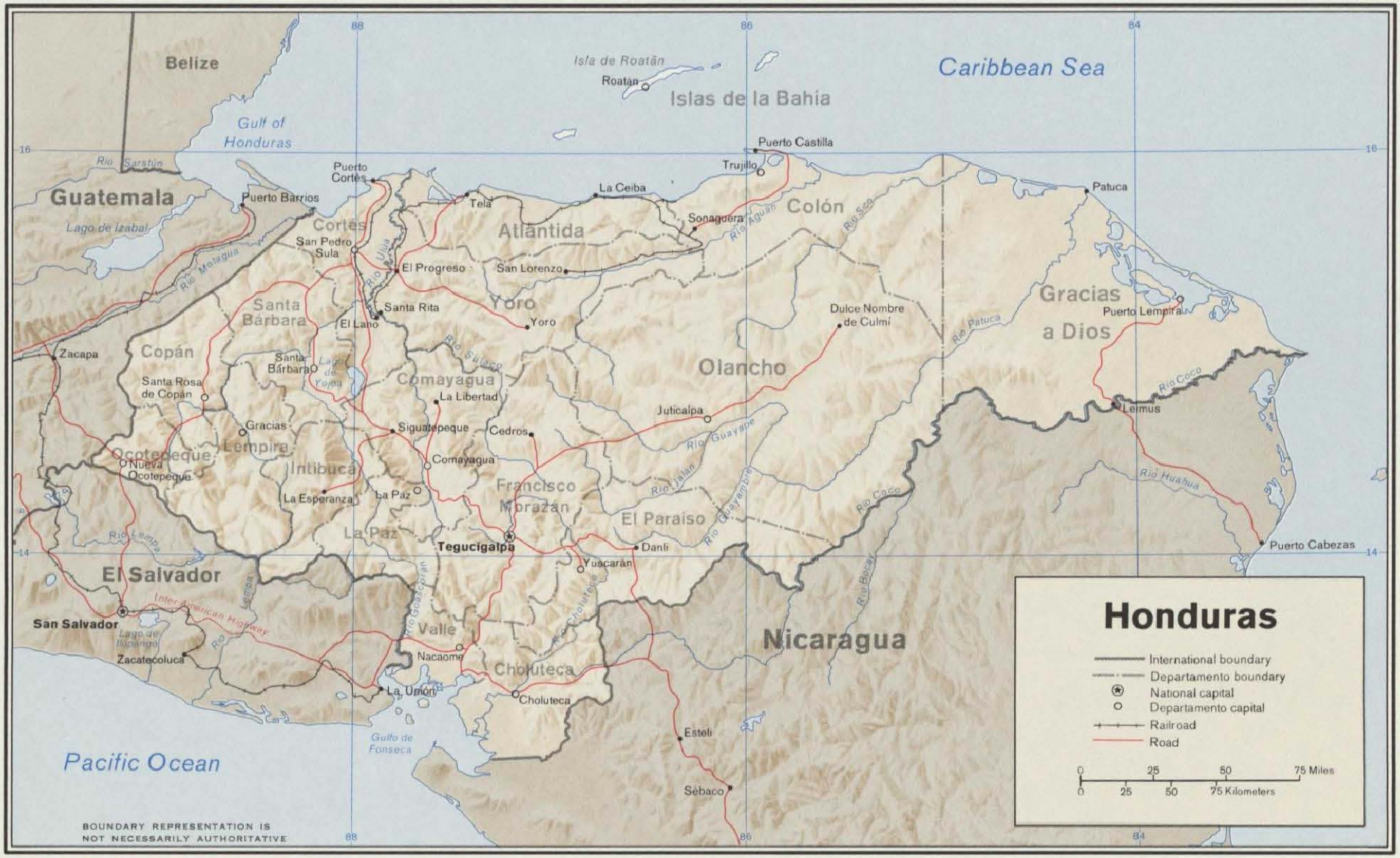
H - Harvesting
P - Planting

7.4 Agricultural Imports

The value of agricultural imports in 1980, $81 million, was $11 million over the 1979 total. Grains, including 80,000 tons of wheat, 60,000 tons of corn, and 5,000 tons of rice, constituted the main import.

7.5 Agricultural Exports

Agricultural exports totaled $536 million in 1980 compared with $499 million in 1979. Earnings from coffee were 23% above the 1979 level although the volume of coffee remained virtually unchanged. Banana prices were also slightly higher. 1980 exports included (value in US$ millions): 61,000 tons of coffee (223), 847,000 tons of bananas (207), 26,000 tons of refrigerated meat (109), 83,000 tons of sugar (56), 9,000 tons of cotton (56), 4,000 tons of tobacco (22), 13,000 tons of fruit preserves (9).



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8. Physical Geography

8.1 Climate

Although Honduras is located well within the tropics (most of the country lies at elevations of 2-7,000 ft.), temperatures are moderate rather than hot, except in coastal lowlands. On the north coast and in the area around Gracias a Dios, a tropical climate prevails below 2,000 ft. Mean annual temperatures vary between 79°and 82°F (85°-90°F during day, 70°-75°F at night). The narrower Pacific coast is tropical below 1500 ft. Temperate climate characterizes the highland areas (2,500-7,000 ft.) and intermontane basins. There, the mean annual temperature range is 67°-74°F, with daytime highs 75°-80°F, up to 90° in April or May. Nights may be as cool as 45°-50°F in winter.

Rainfall averages 60-100 inches annually, most of it falling from mid-April through October. The "winter" dry season lasts from November to April. Rainfall is higher on the north coast and northern mountain slopes (70-100 inches yearly) than on the south coast and slopes facing it (60-80 inches). An abnormally short rainy season means disastrous drought in the south and west but hurricanes have caused extensive damage and flooding on the northern coast, notably Francelia in 1969 and Fifi in 1974.

Regional Rainfall

North: Total of 3000 mm. (120"); average of 100 mm. (4") per month in driest months, March, April, May; 250-400 mm. per month June through January.

Interior: Total of 900-1800 mm. (36-70"); 0-50 mm. between December and April.

South Coast: Total of 1700 mm. (68"), with longer dry period beginning in November.

Temperatures

Tropical zone (below 600m) - average mean is about 26°C.
Temperate zone (600-2100m) - mean temperatures range from 16°C-24°C.

Temperatures at Selected Stations

	Tegucigalpa		Amapala		Tela		Puerto Lempira	
	Month	°C	Month	°C	Month	°C	Month	°C
Average		19-5		27-9		26-0		27-6
Maximum	Mar	34-0	Apr	38-3	Mar	34-4	Mar	35-0
Minimum	Feb	6-7	Dec	20-0	Mar	12-3	Dec	17-8
Max mid-day	Apr	23-0	Apr	29-4	Jun	28-1	Aug	28-7
Min mid-day	Jan	18-8	Oct	26-8	Jan	23-2	Jan	26-3
Relative Humidity		%		%		%		%
Average		72		74		84		77
Max daily	Jan	87	Apr	92	Jan	99	Jun	96
Min daily	Apr	54	Apr	50	May	71	Mar	56

Source: Caribbean Year Book 1979/80.

8.2 Land Forms

Area: 43,277 sq. mi., or about the size of Tennessee. Bounded on the northwest by Guatemala, on the southwest by El Salvador and the Gulf of Fonseca (Pacific), and on the north and east by the Caribbean Sea; on the south and southeast the Segovia river (also known as Coco or Wanks) forms greater part of border with Nicaragua. Offshore territories include: the Islas de la Bahia (Roatan, Guanaja, Utila) 40 miles off Caribbean coast; and the Swan Islands (Great Swan and Little Swan) 97 mi off the same coast; Pacific islands, all in Gulf of Fonseca, are Tigre, Grand Zacate, and Gueguensi.

Over 80% of the land is mountainous. The Central American Cordillera extends across the northeast, roughly paralleling the coast. The newer Volcanic Highlands rise in the south. The only level arable land between the two mountain systems lies in river valleys 2-7 miles wide. This series of valleys, drained by the Ulua-Humuya river system in the north and the Choluteca in the south, extends across the country, providing the only easy transport routes.

Both coastal plains are swampy and mangrove forested along seaward margins, with tropical woodlands further inland. Northern lowlands extend about 75 miles inland, gradually rising into mountains; in the south, the coastal plain is about 25 miles wide and mountains rise more abruptly.

Coordinates

Location	°N	°W
Agua Salada	14 02	87 12
Choluteca	13 18	87 12
Comayagua	14 25	87 37
Comayagua	15 38	88 17
Comayaguela	14 05	87 13
Copan (department)	14 50	89 00
Cortes (department)	15 30	88 00
El Ojo de Agua	14 03	86 53
El Paraiso (department)	14 10	86 30
El Socorro	14 12	87 50
El Zamorano	14 00	87 02
Gracias a Dios (department)	15 10	84 20
Gualaco	15 06	86 07
Guanaja	16 27	85 54
Intibuca (department)	14 20	88 15
Islas de la Bahia (department)	16 20	86 30
Islas de la Bahia (islands)	16 20	86 30
Jimilile	14 34	88 52
La Ceiba	15 47	86 50
La Lima	15 24	87 56
La Paz (department)	14 15	87 50
Lempira (department)	14 20	88 40
Ocotepeque (department)	14 30	89 00
Olancho (department)	14 45	86 00
Rio Aguan (stream)	15 57	85 44
Rio Lean (stream)	15 47	87 20
San Marcos de Colon	13 26	86 48
San Pedro Sula	15 27	88 02
Santa Rosa de Copan	14 47	88 46
Siguatepeque	14 32	87 49
Tegucigalpa	14 06	87 13
Tocoa	15 41	86 03
Trujillo	15 55	86 00
Valle (department)	15 15	87 15
Valle del Aguan (valley)	15 28	86 36
Valle de Lean (valley)	15 46	87 16
Yoro (department)	15 15	87 15

8.3 Land Use

According to a 1979 CONSUPLANE (Council for Economic Planning) estimate, there were 2.8 million hectares of farmland: 48% used for pasture, 18% for seasonal crops, 8% for permanent crops, and 26% lying fallow. It is estimated that only 28% of land potentially usable for annual crops and 18% of that suitable for perennial crops is actually used for those purposes. Roughly two-thirds of the land area, about 7 million ha., are now forested or potentially best used as forest. 2.7 million ha. are coniferous forest, about 4 million ha. are broadleaf, and 0.3 million ha. are mangoes and swamps. (See also Overview of Agriculture, Section 7.1.)

Land Availability and Utilization: 1975-1977

	Area	
	1000 ha.	%
Farmland (including potential farmland)		
Cultivated land		
Seasonal crops	505.2	4.5
Permanent crops	214.4	1.9
Sub-total	719.6	6.4
Pastures	1,049.5	9.4
Sub-total	1,769.1	15.8
Uncultivated land		
Grassland	289.9	2.6
Cultivable land	741.0	6.6
Sub-total	1,030.9	9.2
Sub-total for farmland	2,800.0	25.2
Forest and uncultivable land		
Tropical hardwoods	3,920.0	35.0
Pines	2,700.0	24.0
Sub-total for forest	6,620.0	59.0
Eroded and other land (including swamps and urban areas)	1,788.8	16.0
Sub-total	8,408.0	75.0
Total National Area	11,208.8	100.0

Source: CONSUPLANE as cited in World Bank, Second Agricultural Credit Project: Honduras, March 1980.

8.4 Rivers

River traffic is only important for access to agricultural areas along the Ulua and the Aguan and their tributaries in the north, and along the Choluteca in the south. The 300 mile long Rio Segovia system is navigable for 200 miles. (Flota Mercante Gran Centroamericana, a joint Guatemala-Honduran operation, serviced the country in 1970.)

Major rivers in the Caribbean watershed are (west to east): Chamelecon, Ulua, Aguan, Sico, Paulaya, Platano, Sicre, Patuca, Segovia.

Major rivers of the Pacific watershed (west to east): Tempa, Sumpul, Goascoran, Nacaome, Choluteca.

The northern coastline is 450 miles long, that on the south 90 miles.

8.5 Mountains

Steep, rugged landforms are typical. Elevations range from 2,400 m. in the north to 3,000 m. in the west. Slopes under 20% are restricted to larger river valleys (Sulu, Aguan), the Nacaome-Choluteca plain in the south, and the Guayape valley in the central zone. There are two distinct series of mountain ranges: in the north, the Central American Cordillera extends from the Guatemalan border in the west to the Platano river in the east. Component ranges trend ENE-WSW, and run parallel to the north coast and to each other. Bay islands are summits of the undersea range of the Cordillera.

In the south, the Volcanic Highlands, which have no recognizable trend, run from the El Salvador border to the Nicaraguan border. They are newer and, on the average, higher than the Cordillera. (Highest peaks in Honduras are west of Lake Yojoa, 9,300', and southwest of Gracias, capital of Lempira Department, 9,400'.) The most recent volcanic eruption occurred in 1854.

8.6 Volcanism

No activity within the last century. Many sources refer to Honduras as the only Central American country with no volcanoes.

8.7 Seismicity

Though no major earthquakes have been recorded in the country, the Nicaraguan Rift Valley extends across the coastal plain and the Gulf of Fonseca into central Guatemala. Francisco Morazan, Valle, La Paz, Intibuca, Ocotepeque, Copan, Santa Barbara, Cortez, Comayagua, and Yoro departments are considered earthquake zones. Tremors have been recorded in Tegucigalpa and Comayagua (1899, 1915, 1976), Santa Rosa de Copan, Gracias, Marcala, Talanga (1915), and the Western departments and Cortez (1976).

9. Transportation and Logistics

9.1 Road Network

Roads carry 86% of freight tonnage and 96% of passenger traffic in Honduras. Rugged terrain has favored development of roads over railroads except in the northern coastal strip where specialized railways serve banana plantations. The primary road network, the backbone of which is the North-South highway connecting the Pacific port of San Lorenzo and the Caribbean port of Puerto Cortes by way of Tegucigalpa and San Pedro Sula, provides access to the most important agricultural areas: Sula and Choluteca valleys and the Atlantic coast. Most development in the transport sector is recent. The Interamerican Highway in the south dates to the mid-1950's; the modern all-weather road between the capital and San Pedro Sula was completed in 1970. Investment in infrastructure rose in the 1970's; the primary highway network, scheduled for completion in the early 1980's, will provide modern all-weather access to the most important productive areas in the east: Aguan valley, Guayape valley, and Olancho forest reserve, and the Danli area. By 1979, the road network comprised 8,540 km. (1,610 paved) including the Western Highway from San Pedro Sula south-west to the El Salvador border, and a road along the northern coast from San Pedro Sula to La Ceiba as well as previously mentioned highways.

Secondary and tertiary routes are not yet well developed. Future GOH emphasis will be on development of a maintenance program and the construction of feeder and secondary roads. Recent and on-going projects include the following: reconstruction, including paving, of 155 km. of the Talanga-Juticalpa-Catacamas road, scheduled for completion in 1980; construction of 457 km. of feeder roads in the southwest region (Choluteca), where population density is high, during the 1977-1980 period; a GOH feeder road program (about 500 km. per year), assisted by USAID, IDB, and the World Bank, to improve rural access to the Guayape, Yoro, La Masica, and Comayagua valleys and some of the western valleys; improvement of 3 secondary roads-the Rio Dulce-El Porviner Road (48 km.), the Danli-Santa Maria Road (47 km.), and the Telica-San Francisco de La Paz Road (20 km.) - as part of a proposed World Bank project.

The Secretariat of Communications, Public Works and Transport (SECOPT) has overall responsibility for road construction and maintenance.

Types of Paved Roads
(km.)

Asphalt Concrete

	Chamelecon - Santa Rosa de Copan	147
CA-4*	Santa Rosa de Copan - Nueva Ocotepeque	93
	Nueva Ocotepeque - Frontera El Salvador	8
CA-10	Nueva Ocotepeque - Frontera Guatemala	22
	San Pedro Sula - La Lima - Progreso - TELA	94
CA-13	Puerto Cortes - Cuyamelito	47
		411

Macadam Asphalt

CA-5	Tegucigalpa - El Tizatillo	18

Double Treatment

CA-5*	El Tizatillo - Jicaro Galan	79
CA-1	El Amatillo - El Espino	149
	Choloma - Arenales	25
	Villanueva - San Manuel	2
CA-1	Tela - La Ceiba	100
	Choluteca - Cedeno	33
CA-3	Choluteca - Guasaule	45
	Tegucigalpa - Potrerillos	210
CA-5	Tegucigalpa - Las Tapias	11
	Tegucigalpa - Suyapa	8
	Tegucigalpa - El Picacho	7

		679

Hot Mixed In Plant RC-2

CA-5	Bufalo - Puerto Cortes	75

Mixed In Site

CA-6	Danli - Las Manos	32
CA-5	Potrerillos - Bufalo	25
		57

*Codes are route numbers for the Central American road system

Unpaved Central American Roads
(km.)

CA-6	Tegucigalpa - Danli (incomplete paving, under construction)	108
	Los Mangos - La Paz (finished construction, double treatment)	126
CA-7	La Paz - Marcala (gravel under construction)	79
	Frontera Guatemala - Copan Ruinas (dry season)	12
CA-11	Copan Ruinas - La Entrada (all seasons)	65
	Santa Rosa - Gracias (all seasons)	46
CA-11A	Gracias - San Juan (all seasons)	46
	San Juan - La Esperanza (dry season)	46

Kilometers of Roads Without Central American Route Numbers

Road	Paved	All Seasons	Dry Season	Total
Branches northern highway	37	370	251	658
Branches southern highway		85	27	112
Branches oriental highways		480	76	556
Branches western highways		185	86	271
Road to Olancho and Baraches		653	252	905
Branch to CA-1	33	416		449
San Pedro Sula - Progreso - Tela	94	8		102
Progreso - Yoro - Olanchito and Branches		135	286	421
San Esteban - Corocito - Iriona			210	210
CA-4 - Santa Barbara		187	34	221
Olanchito - Sava - Corocito		62	41	103
Smith - Sonaguera, Tocoa - Ilanga		69		69
Corocito - Puerto Castilla - Trujillo and branches		81		81
La Ceiba - Jutiapa - Armenia		41		41
Branches of CA-11A		110	77	187
Branches of CA-7		27		27
Tela - La Ceiba	100			100
Roatan - French Harbor		20		20
Puerto Lempira - Mocoron - Ausbila		95	92	187
Toncontin - Las Tapias	11			
Branch to El Picacho	7			7
Sub-total	282	3,024	1,432	4,738
Central American Roads	950	356	58	1,364
Total	1,232	3,380	1,490	6,102

9.2 Vehicles

The vehicle fleet grew by 190% between 1968 and 1978, increasing from 24,750 to 71,980. A Land Transport Law enacted in 1976 regulates freight and passenger transport. Both passenger transport service by bus and freight transport service are described as good. Independent owner operators haul most local freight; companies and cooperatives compete for regional and international traffic.

9.3 Surface Miles

Campamento													
131	Catacamas												
397	528	Chamelecon											
423	554	26	Choloma										
277	408	392	418	Choluteca									
243	374	154	180	238	Comayagua								
578	709	189	215	573	335	Copan							
510	461	113	87	505	267	302	Cuyamel						
250	381	365	391	245	211	546	478	Danli					
522	653	152	178	517	279	107	265	490	Dulce Nombre				
273	404	388	414	268	234	569	501	23	513	El Paraiso			
416	547	27	44	411	173	216	131	384	179	407	El Progreso		
315	446	430	456	38	276	611	543	283	555	306	449	El Triunfo	
460	591	200	226	455	217	155	313	428	62	451	227	493	Gracias
200	331	315	341	195	161	496	428	96	440	119	334	233	Guinope
622	753	233	250	617	379	422	337	590	385	610	206	655	Jutiapa
81	50	478	504	358	324	659	591	331	603	354	497	396	Juticalpa
584	715	195	212	579	341	384	299	552	347	575	168	617	La Ceiba
365	496	204	230	360	122	250	317	333	157	356	223	398	La Esperanza
403	534	13	31	398	160	203	118	371	166	394	13	436	La Lima
540	671	151	168	535	297	340	255	508	303	531	124	573	La Masica
242	373	166	192	237	20	347	279	210	530	233	185	275	La Paz
150	281	387	413	267	233	568	500	240	512	263	406	305	Minas de Oro
238	369	353	379	49	199	543	466	206	478	229	372	87	Nacaome
507	638	118	144	502	264	73	231	475	34	498	145	540	Nueva Arcadia
599	730	210	227	594	356	399	314	567	362	590	183	632	Olanchito
368	499	29	55	363	125	218	142	336	181	359	48	401	Potrerillos
463	594	66	40	458	220	255	53	431	218	454	84	496	Pto. Cortez
184	315	299	325	93	145	480	412	152	424	175	318	131	Sabana Grande
246	377	361	387	31	207	542	474	214	486	237	380	69	S. Lorenzo
337	468	452	478	60	298	633	565	305	577	328	471	98	S. Marcos de Colon
406	537	9	17	401	163	198	104	374	161	397	27	439	S. Pedro Sula
360	491	101	127	355	117	218	214	328	181	351	128	393	Sta. Barbara
342	473	81	107	337	99	270	194	310	233	333	100	375	Sta. Cruz de Yojoa

447	578	58	75	442	204	247	162	415	210	438	31	480	Sta. Rita
505	636	155	181	500	262	110	268	473	17	496	182	538	Sta. Rosa
279	410	121	147	274	36	302	234	247	247	270	140	312	Siguatepeque
84	215	313	339	193	159	494	426	166	438	189	332	231	Talanga
302	433	95	121	297	59	276	208	270	239	293	114	335	Taulabe
141	272	256	282	136	102	437	369	109	381	132	275	174	Tegucigalpa
479	610	90	107	474	236	279	194	447	242	470	63	512	Tela
397	528	64	90	392	154	181	177	365	144	388	91	430	Trinidad
380	511	17	43	375	137	206	130	348	169	371	36	413	Villanueva
524	655	135	152	519	281	324	239	492	287	515	108	557	Yoro
218	349	333	359	213	179	514	446	68	458	91	352	251	Yuscaran

Gracias													
378	Guinope												
433	540	Jutiapa											
541	281	703	Juticalpa										
395	502	38	665	La Ceiba									
95	283	429	446	391	La Esperanza								
214	321	219	484	181	210	La Lima							
351	458	82	621	44	347	137	La Masica						
229	160	391	323	353	134	172	309	La Paz					
450	190	612	231	574	355	393	530	232	Minas de Oro				
416	156	578	319	540	321	359	496	198	228	Nacaome			
82	425	351	588	313	177	132	269	276	497	463	Nueva Arcadia		
410	517	389	680	351	406	196	307	386	589	555	328	Olanchito	
229	286	254	449	216	175	35	173	137	358	324	147	231	Potrerillos
266	381	290	544	252	270	71	208	232	453	419	184	267	Pto. Cortez
362	102	524	222	486	267	305	442	144	174	55	409	501	Sabana Grande
424	164	586	327	548	329	367	504	206	236	18	471	563	S. Lorenzo
515	255	677	418	639	420	458	573	297	327	109	562	654	S. Marcos de Colon
209	327	233	487	195	213	14	151	175	396	362	127	210	S. Pedro Sula
229	278	334	441	296	167	118	252	129	350	316	147	311	Sta. Barbara
244	260	306	423	268	149	87	224	111	332	298	199	283	Sta. Cruz de Yojoa
258	365	237	528	199	254	44	155	216	437	403	176	214	Sta. Rita
45	423	388	586	350	140	169	306	274	495	461	37	365	Sta. Rosa
185	197	346	360	308	90	127	264	52	269	235	231	323	Siguatepeque
376	116	538	165	500	281	319	456	158	74	154	423	515	Talanga
204	220	320	383	282	109	127	238	71	292	258	205	297	Taulabe
319	59	481	222	443	224	262	399	101	131	97	366	458	Tegucigalpa
290	397	143	560	105	286	76	61	248	469	435	208	246	Tela
192	315	297	478	259	204	81	215	166	387	353	110	274	Trinidad
217	298	242	461	204	187	23	160	149	370	336	135	219	Villanueva
335	442	314	605	276	331	121	232	293	514	480	253	75	Yoro
396	64	558	299	520	301	339	476	178	208	174	443	535	Yuscaran

Potrerillos													
95	Puerto Cortes												
270	365	Sabana Grande											
332	427	62	San Lorenzo										
423	518	153	91	San Marcos de Colon									
38	57	308	370	461	San Pedro Sula								
124	167	262	324	415	110	Santa Barbara							
52	147	244	306	397	90	98	Santa Cruz de Yojoa						
79	115	239	411	502	58	159	131	Santa Rita					
184	221	407	469	560	164	184	236	213	Santa Rosa				
92	187	181	243	334	130	84	66	171	230	Siguatepeque			
284	379	100	162	253	322	276	258	363	421	195	Talanga		
66	161	204	266	357	104	58	40	145	242	26	218	Taulabe	
227	322	43	105	196	265	219	201	306	364	138	57	161	Tegucigalpa
111	147	382	443	534	90	191	163	94	245	203	395	177	Tela
93	130	299	361	452	73	37	135	122	147	121	313	95	Trinidad
12	83	282	344	435	26	118	64	67	172	104	296	78	Villanueva
156	192	426	488	579	135	236	208	139	290	248	440	222	Yoro
304	399	120	182	273	342	296	278	383	441	215	134	238	Yuscaran

Tegucigalpa					
338	Tela				
256	154	Trinidad			
239	99	78	Villanueva		
383	171	199	144	Yoro	
77	415	333	316	460	Yuscaran

9.4 Railroad Network

Three small narrow gauge railways, originally built to serve banana plantations in the Sula Valley and northern coastal strips, total 992 km. of line. The government-owned railway, Ferrocarril Nacional de Honduras (FNH), runs from Puerto Cortes to San Pedro Sula and along the upper Sula valley, totalling 203 km. FNH hauls timber and agricultural imports and exports. The Tela Railway serves plantations of the eastern Sula Valley and part of the coastal strip, with access to both Puerto Cortes and Tela. Originally owned by United Brands, it was acquired by the GOH in 1975; it operates a network of 343 km. Like FNH, it is 1.07 m gauge. The Standard Fruit Railroad (446 km. total) runs from Tela east along the coastal strip to Balfate with a branch line into upper Aguan valley. It has access to the sea at La Ceiba, an outlet for banana exports. Though also government-owned, its 0.91 m. gauge prevents connection to other railroads.

Rolling Stock

Equipment	FCN	TELA	Standard
Coal locomotive	12	1	
Diesel - elec loco	8	25	23
Banana cars	326	769	459
Cattle cars	14	19	20
Open cars	234	365	166
Liquid container cars	3	52	22
Refrigeration cars	0	1	1
Others	84	291	163
Total	681	1,523	854

9.5 Rail Carriers

Ferrocarril Nacional de Honduras (National Railway of Honduras): Apdo. Postal 496, San Pedro Sula; government-owned.

Tela Railroad Co.: La Lima.

Standard Fruit Co. Railway (Vaccaro Line): La Ceiba; routes between La Ceiba and Tela, and La Ceiba and Olanchito; a common carrier on all routes operated.

9.6 Ports

All ports are operated by Empresa Nacional Portuaria or ENP (National Port Authority), a semi-autonomous government agency, with a good management record. Major Atlantic ports are Puerto Cortes, Tela, La Ceiba, and Puerto Castilla. On the Pacific coast, there is a deepwater anchorage at Ampala on El Tigre island and the recently completed (1978) mainland port of San Lorenzo. Because it faces Europe and North America, it serves the better-developed Sula valley, is well sheltered, with good facilities, and well connected by road to the rest of Honduras as well as adjacent Central American countries, Puerto Cortes has been and will continue to be the principal port, accounting for 63% of dry cargo flows in 1979. La Ceiba and Tela carried 21% and 10% respectively, mostly bananas; San Lorenzo accounted for 6%, most of it timber. Puerto Castilla had little significant traffic. As the internal transport situation improves, La Ceiba may well decline in importance; it is not well sheltered. The construction of a new port at Puerto Castilla, which will serve the Aguan valley and handle the output from the timber and chip mill at Corocito, is scheduled

for completion in late 1981. The new port at San Lorenzo will continue to handle a major portion of timber exports as well as sugar and molasses from the Choluteca valley.

Amapala

Coordinates: Lat. 13°18'N; long. 87°41'W. On the Pacific coast, in the Golfo de Fonseca.

Accommodation: Open anchorage. It is located on Tigre Island, and is visited regularly by a number of large shipping lines. Approach entrances not less than 9.1 m. with 11 to 16.5 m. anchorage in harbor, max. draft for vessels 8.53 m. Entrance and sailings, high water only. Loading and discharging by launches. Lifts up to 8 tons. No provisions, water or refrigerated space.

Bunkers: Not available.

Shiprepairs: No facilities.

Pilotage: Available if needed.

Local Holidays: No work on Good Friday or Labor Day, or after 15:00 on Santa Cruz (May 3). Double rates on other holidays except New Year's Day. Independence Day and Christmas Day when triple rates apply.

Airport: Small airport on island; nearest large airport at Tegucigalpa.

La Ceiba

Coordinates: Lat. 15°46'N; long. 86°50'W.

Accommodation: Anchorage in stream, 11 to 16.5 m. Well constructed pier, 426.7 m. long with drafts alongside of 5.79 to 10.06 m. (west-side) and 5.18 to 7.92 m. (east), extending at right angles from beach. Bananas loaded by mechanical conveyor; other cargo by ship's gear.

Cranes: One 15-ton and one 3-ton crane ashore.

Bunkers: Not available.

Shiprepairs: Minor repairs by Standard Fruit Co.

Pilotage: Required for docking.

Airport: About 8 km.

Castilla

See Trujillo

Puerto Cortes

Coordinates: Lat. 15°51'N; long. 87°58'W.

Accommodation: Fine spacious harbor with good anchorage (in stream, 11 to 16.5 m.) and 5 wharves. No. 2 is the United Fruit Co. Wharf used for banana export and lumber loading; Nos. 3, 4 and 5 are used for general cargo discharge. Maximum draft for vessels docking is 9.14 m. Good lighting for night working. Bananas loaded by mechanical conveyor; other cargo by ship's gear to shipside and thence direct to Port Authority's warehouse. Cargo handled direct shipside to Port Authority's warehouse. Operated by the National Port Authority, also a marshalling railroad track of 4,500 m. VHF radio service provided by the Port Authority is free of charge and permits communication with incoming ships. The regular channels are operated.

Cranes: Two mobile cranes of 35 and 55 tons. Shore cranes available from Port Authority.

Container and RO/RO facilities: Roll-on/roll-off facilities available. Bananas shipped in containers by vessels with suitable equipment; a parking zone for containers of 62,500 sq. m. and an auxiliary zone of 15,200 sq. m. available. A special crane for lifting containers up to 12.19 m. long and 40 tons weight available.

Shiprepairs:	Minor repairs. No dry dock.
Towage:	Compulsory for vessels over 1,000 g.r.t.
Pilotage:	Compulsory for vessels over 300 g.r.t.
Airport:	N.I.A.: San Pedro Sula. International airport "La Mesa" 72 km. by road.

San Lorenzo

Coordinates:	Lat. 13°25'N; long. 87°27'W.
Accommodation:	One pier 300 m. long, depth 6.71 m. at H.W.

Téla

Coordinates:	Lat. 15°46'30"N; long. 87°27'W.
Accommodation:	Anchorage in stream 10 to 14.6 m. Pier, 618.1 m. long, 9.75 m. alongside, on wooden pilings, extending out to open sea at right angles to beach. Pier can accommodate two vessels of 7,500 tons simultaneously--one at each side. Good lighting for night working. Cargo handled by ship's gear.
Cranes:	Two stream-operated cranes, 15 tons and 3 tons.
Weather:	Northern season (October-March).
Provisions:	Available.
Bunkers:	Diesel oil available.
Shiprepairs:	Minor repairs available.
Towage:	Not compulsory.
Pilotage:	Not compulsory.

Airport NIA:	"La Mesa," 96 km. by rail or road.
Local holidays:	January 1, Thursday, Friday, Saturday of Holy Week, April 14, May 1, September 15, October 3, 12, 21, December 25.

Trujillo

Coordinates:	Lat. 15°54'N; long. 86°2'W.
Accommodation:	Harbor inside Cape Honduras, safe in NE and S winds but dangerous during NW or W winds. An old dock for schooners is available, also one concrete dock, approximately 73.14 m. long and 4.27 m. wide is under construction--suitable for schooners only. No docks for liners. Trujillo Bay proper ranges from 18.3 to 55 m.
Bunkers:	Not available.
Shiprepairs:	No facilities.
Towage and pilotage:	Not available.
Airport:	Approx. 1.6 km. away.
Local holidays:	June 21.

9.7 Shipping Lines

The United Fruit Co. (USA), sailing from New York and New Orleans, calls at Tela and at Puerto Cortes. The Standard Fruit Co., calls at La Ceiba. The ports on the Pacific coast may be reached by the Grace line, sailing between San Francisco and Los Angeles and Amapala. Other shipping lines serving Honduras are: Elders and Fyffes, Italian, Royal Netherlands, S.S. Caribbean, and Mamenic.

Empresa Nacional Portuaria (National Commission): APDO 18, Puerto Cortes; has jurisdiction over all ports in Honduras; manages Puerto Cortes, Tela, La Ceiba, Trujillo/Castilla, Roatan, Amapala, and San Lorenzo.

An improvement program costing US $10 million has increased the container traffic at Puerto Cortes and San Lorenzo; a network of paved roads connects Puerto Cortes and San Lorenzo with the main cities of Honduras, and with the principal cities of Central America.

9.8 Airports

Air traffic peaked in 1969 but it has fallen off since the opening of major highways and the improvement of intercity bus and truck service. Villeda Morales Airport at San Pedro Sula is the largest airfield (paved runway 2,800 m. long). Tegucigalpa's Toncontin Airport is considered hazardous; its 1,980 m. runway is barely adequate for modern jets. A new airport for the capital has been proposed. Of total 248 airstrips, 222 are usable; airfields distributed as follows: Francisco Morazan-10, Atlantida-10, Colon-8, Comayagua-8, Copan-7, Cortes-12, Choluteca-15, El Paraiso-8, Gracias a Dios-8, Intibuca-4, Islas de la Bahia-4, La Paz-5, Lempira-5, Ocotepeque-3, Olancho-15, Santa Barbara-12, Valle-8, Yoro-12.

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.

LA CEIBA/Goloson

Runway Characteristics

Location Coordinates	Elevation M Temp C	NR/Type	Slope %	Aircraft/ Length M	CL	Aircraft/ Strength (1,000 kg)	Fuel Octane
15°45'N 86°50'W	8 26	09/27 N-INSTR 03/21	n.a.	CV44 1480 3050	C	CV44 AUW 24 AUW 46/2 130/14	100/JA1

Remarks: Operates sunrise to sunset. Longest runway 4,900'; 16,000 sq. m. parking space for planes. Can handle Boeing 737. No telex.

Aids: MD, MC, MT, R.

SAN PEDRO SULA/
Ramon Villeda Morales

Runway Characteristics

Location Coordinates	Elevation M Temp C	NR/Type	Slope %	Aircraft/ Length M	CL	Aircraft/ Strength (1,000 kg)	Fuel Octane
15°27'54"N 87°56'45"W	27 29.5	03/21 INSTR 03/21	0.05	B737-200 1760 2803	B	B737-200 AUW 44 AUW 59/2 130/4	100,JA1

Remarks: Alternate aerodrome-Belize/Int'l., Tegucigalpa/Toncontin. Operates sunrise to sunset and nights by permission of Directorate General of Civil Aviation. 53,000 sq m parking space for planes. Can handle Being 747. No telex.

TEGUCIGALPA/
Toncontin

Runway Characteristics

Location Coordinates	Elevation M Temp C	NR/Type	Slope %	Aircraft/ Length M	CL	Aircraft/ Strength (1,000 kg)	Fuel Octane
14°02'N 87°14'W	930 30	01/19 INSTR 01/19	1.18	B737-200 2950 2000	A C	B737-200 AUW 46/2	100/JA1

Remarks: Alternate aerodrome - San Pedro Sula/Ramon Villeda Morales. Storage; minor aircraft, minor engine repairs. Rules of operation same as La Mesa Intl. 10,200 sq. m. parking for planes. Can handle Boeing 737. No telex. To be replaced by Laguna del Pedegral Int'l.

Aids: VOR, LR, LTX, LB, MD, MT, MFD, MTX, MO, L6.

TEGUCIGALPA/
Laguna de Pedegral Int'l.

Runway Characteristics

Location Coordinates	Elevation M Temp C	NR/Type	Slope %	Aircraft/ Length M	CL	Aircraft/ Strength (1,000 kg)	Fuel Octane
n.a.	1500 23	02/20 INSTR	n.a.	B737-200 2950	A	B737-200 AUW 48	n.a.

Remarks: New (1982).

Key

Abbreviations

INSTR	Instrument Approach Runway
N-INSTR	Non-Instrument Runway
PA I	Precision Approach Runway Category I
PA II	Precision Approach Runway Category II
REG-NS	Intl Non-Scheduled Air Transport, Regular Use
REG-S	International Scheduled Air Transport, Regular Use

Radio Aids

ILS	Instrument Landing System
DME	Distance Measuring Equipment
VOR	VHF Omni-Directional Range
RL	Radio Locator

Lighting Aids

LPA	Precision Approach Lighting System
LSA	Simple Approach Lighting System
LVA	Visual Approach Slope Indicator System
LAV	Abbreviated Approach Slope Indicator System
LR	Runway Edge, Threshold & Runway End Lighting
LC	Runway Center Line Lighting
LTD	Runway Touchdown Zone 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

Runway Surface and Length

H	Hard Surface (numbers = ft. in hundreds)
S	Non-Hard Surface (number = ft. in hundreds)

Additional Lighting

L1	Portable Runway Lights (electrical)
L2	Boundary Lights
L3	Runway Flood Lights
L4	Low Intensity Runway Lights
L5	Low Intensity Approach Lights
L6	High Intensity Runway Lights
L7	High Intensity Approach Lights
L8	Sequenced Flashing Lights
L9	Visual Approach Slope Indicator (VASI)

9.9 Personal Air Entry Requirements

Passport and visa required. Tourist card, valid for 90 days, may be substitued for visa. Yellow fever vaccination required of arrivals from infected areas.

9.10 Aircraft Entry Requirements

All private and non-scheduled commerical aircraft overflying or landing for non-commercial purposes must give at least 24 hour prior notification to the Directorate General of Civil Aeronautics, P.O. Box 250, Tegucigalpa, D.C., Honduras (telegraphic address: DIRGA TEGUCIGALPA/Telex: None). All notifications must include: (a) names and nationality of crew; (b) aircraft type and registration marks; (c) date and time of arrival; (d) route to be followed and airport of entry.

Non-scheduled commercial aircraft landing for commercial purposes must obtain permission from the Director General prior to departure. In addition to above, requests must include (a) name of operator, (b) number of passengers, (c) type and amount of cargo, (d) purpose of flight. Requests must be submitted far enough in advance for flight approval to be given. For air travel club flights, proof of a currently valid commercial insurance policy must be submitted with the request for permission to land or clearance will not be granted.

Special Notices

1. VFR night flights and flights by an aircraft weighing less than 12,500 lbs. are not permitted between the hours of 1800-0600 local time.

2. Direct flights between Honduras and El Salvador are not permitted.

9.11 Airlines

Local airlines make up for the deficiencies of road and rail transport, linking together small towns and inaccessible districts.

The two major private airlines, Servicio Aereo de Honduras, S.A. (SAHSA) and Transportes Aereos Nacionales, S.A. (TAN), have merged and consolidated their operations. At the time of the merger, SAHSA's fleet included 2 Electra, 4 DC-3, 1 Boeing 737-200, 2 Convair CV 580; TAN's consisted of 1 Boeing 737, 2 L-188 Electra, 1 DC-6.

Two smaller airlines, Aerovias Nacionales de Honduras (ANHSA) and Lineas Aereas Nacionales (LANSA), provide domestic service to 13 cities, including the Bay Islands.

Aerovias Nacionales de Honduras, S.A. (ANHSA): c/o SAHSA; a local airline which serves the north coast and the east of the country; 2 DC-3.

Lineas Aereas Nacionales S.A. (LANSA): Apdo. Postal 35, La Ceiba; scheduled services within Honduras and to Islas de Bahia; 1 F27J, 4 DC-3, 1 Cessna 182, 1 Cessna 206.

Air Florida operates international flights between Miami and Tegucigalpa and San Pedro Sula. Honduras is also served by Aviateca (Guatemala) and Belize Airways.

9.12 Aircraft

Registered Planes in Honduras, 1974

Private

1 DC-3	3 C-180
1 Queen Air	1 C-177 RG
1 Chief A-6	1 C-175
1 BC-65	7 C-172
1 BJ-50	3 C-170 B
1 J-3	2 C-150
1 415-C	1 C-140
1 VH-12C Helicopter	1 C-45
1 C-337A	2 PA-32
1 C-337	1 PA-31
1 C-336	11 PA-28
3 C-210	4 PA-25
2 C-206	2 PA-24
1 C-195	6 PA-23 Aztec
3 C-185	1 PA-22
12 C-182	1 PA-20
4 PA-18	1 PA-14
1 PA-12	1 Pathfinder
1 Seneca II	1 Pawnee
1 Islander	

Commercial

1 B-737	1 B-737-200
1 B-737-2A3	4 L-188 A
2 CV-580	2 CV-440
1 CV-340	1 DC-6A
1 DC-6	1 DC-4
9 DC-3	1 C-206
5 C-180	1 C-46
3 PA-23 Aztec	2 PA-23 Apache

Fumigation

20 PA-25	1 PA-18/150
9 PT-17	4 Snow
47-G-2A Helicopter	

Official

1 C-182	1 C-180

The commercial planes are based in Miami, Tegucigalpa, and La Ceiba. Those for fumigation are based in Choluteca, Valle, Catacamas, La Ceiba, La Lima, and Jamastran. Official planes are based in Tegucigalpa; private are based in Tegucigalpa, San Pedro Sula, La Ceiba, Ahuas (Gracias a Dios), Choluteca, Brus Laguna, Roatan, La Lima, and USA.

9.13 Air Distances

Tegucigalpa to:	Statute Miles
Caracas	1,385
Havana	696
Houston (International)	1,217
Lima	1,929
Managua	151
Mexico City	868
Miami	928
Panama City	631
San Andres Island (COL)	385
San Francisco	2,698
San Jose International (Costa Rica)	348
Victoria	55
Yoro	67

10. Power and Communications

10.1 Electric Power

The electric power sector is dominated by the government-owned Empresa Nacional de Energia Electrica (ENEE) which serves all major cities and towns through the National Interconnected System. Only a few small installations remain to be absorbed in the future.

About 22% of the total population is served by ENEE, mostly in urban areas in the more densely populated regions. The percentage of the population reached in 5 major urban centers is as follows: San Pedro Sula (6), Puerto Cortes (85), Santa Barbara (83), La Ceiba (77), and Tegucigalpa (76). A rural electrification program was undertaken in 1971 and ENEE expects to make electric service available to 37% of the people by 1986. Though power generation grew at an annual average rate of 15.1% between 1967 and 1977, annual net generation per capita remains low (about 176 kWh in 1976) relative to other Central American countries. Most power generated is used by industry.

Total generating capacity of about 191 MW is divided among 7 power plants (2 hydro, 3 diesel and 2 gas turbines) in the main system interconnected by 564 km. of 138 kV and 200 km. of 69 kV lines. An additional 10 MW is installed in several isolated diesel stations. ENEE has been constructing transmission lines to extend the main system to all major cities in Honduras and to link the Honduran system with the Nicaraguan. (The line linking ENEE to the Nicaraguan system will use 230 kV operation.)

Use of the country's large hydroelectric potential, estimated at 4,000 MW with annual production capacity of about 35,000 GWh, is becoming increasingly attractive as the cost of diesel increases. It's role will expand with the recently completed Rio Lindo plant extension (46 MW), the Nispero power project (52.5 MW), and the proposed El Cajon hydropower project, all assisted by World Bank and other donors. The latter, a 292 MW plant to be built on the Humuya river (80 km. SE of San Pedro Sula), will not be completed before 1985. An additional 52.5 MW of diesel units will be needed to meet demand between 1982 and 1985. Investigation of other possible energy sources includes off-shore oil exploration, an evaluation of the potential for geothermal development and use of woodwaste for small steam plants.

ENEE Generating Plant

	Installation Date	No. of Units	Nominal Unit Size MW	Total Capacity MW	Annual Energy Firm GWh	Annual Energy Average GWh
Hydroelectric				122	594 /f	656
Canaveral	1963	2	15	30	151 /f	166
Rio Lindo	1970 (Nos. 1&2)	2	20	46 /d	284 /f	294
	1978 (Nos. 3&4)	2	20	46 /d	159 /f	196
Diesel-Heavy Fuel a/						
La Ceiba	1974	4	6.65	26.6	186	186
Diesel-Light Diesel Oil /b				14	62	62
Santa Fe	1969	4	2	10	44	44
San Lorenzo	1970	2	2	4	18	18
Gas Turbine /c				28	73	73
La Puerta	1970	1	15	15	39	39
Miraflores	1972	1	13	13	34	34
Total Interconnected System				190.6	915	977
Isolated Diesel Stations				10.0 /e		

/a Energy at a plant factor of 80%.
/b Energy at a plant factor of 50%.
/c Energy at a plant factor of 30%.
/d Available capacity 15% higher than nominal capacity.
/e Approximate capacity.
/f Primary energy.

ENEE's Electricity Generation

Year	Population (000's)	GDP /a (US$ million)	ENEE Generation (GWh) /b	Generation /GDP /a (kWh/US$)	Generation per capita (kWh/person)
1967	2,335	609	153	0.251	66
1969	2,461	659	219	0.332	89
1971	2,593	722	273	0.378	105
1973	2,733	787	361	0.459	132

Year	Population (000's)	GDP /a (US$ million)	ENEE Generation (GWh) /b	Generation /GDP /a (kWh/US$)	Generation per capita (kWh/person)
1975	2,881	792	484	0.611	168
1977	3,043	904	622	0.688	204
1979	3,207	1,026	794	0.774	248
1981	3,380	1,131	998	0.882	295
1983	3,563	n.a.	1,262	n.a.	354
1985	3,756	n.a.	1,562	n.a.	416

/a In 1967-1969 constant prices.
/b Includes losses of 12 to 16% of generation.

Source: IMF, IBRD, ENEE, EBASCO, MONENCO as cited in World Bank, Honduras: El Cajon Power Project, February 1980.

10.2 Electricity Requirements

Energy Requirements (in GWH)

Main System	1973	1974	1975	1976	1977
Central District	122,407	140,053	158,302	177,845	199,798
Tegucigalpa	116,824	131,427	147,855	166,366	187,128
San Juancito	458	588	647	712	784
Comayagua	1,836	2,111	2,426	2,784	3,194
Siguatepeque	1,518	1,787	2,099	2,462	2,831
Valle de Tamara	891	1,871	1,949	2,027	2,116
San Juan de Flores	25	59	64	68	74
El Zamorano	-	866	1,794	1,858	1,926
Valle de Angeles	226	247	271	296	325
La Paz	444	489	538	591	651
Ajorerque	40	98	106	114	124
Lejamani	28	68	74	80	86
Valle de San Antonio	93	222	240	259	280
San Sebastian	24	56	61	66	71
Lamani	-	82	89	96	104
Others	-	82	89	96	104

	1973	1974	1975	1976	1977
San Pedro Sula District	220,845	285,718	312,003	340,363	375,244
San Pedro Sula	123,937	141,288	161,068	183,617	209,324
Puerto Cortes	9,053	10,139	11,356	12,719	14,245
Mineral El Mochito	46,400	58,600	60,900	63,600	69,350
Cementos Bijao	28,500	48,000	48,000	48,000	48,000
El Progreso	4,749	5,509	6,379	7,374	8,510
Santa Barbara	-	810	891	980	1,079
Lima Nueva, United Fruit Co	7,500	20,590	21,160	21,740	22,320
Santa Rita	-	-	118	363	404
Guanchias	-	-	1,059	1,059	1,059
El Hambu	706	728	749	772	795
Cron	-	54	123	139	158
La Ceiba District	-	31,336	40,783	45,017	49,053
La Ceiba-Municipalidad	-	18,846	22,144	25,442	28,504
La Ceiba-Standard Fruit Co	-	2,850	3,000	3,150	3,300
Tela Municipalidad	-	2,462	2,784	3,130	3,514
Tela Nuevo-United Fruit Co	-	6,813	12,180	12,570	12,970
La Masica San Francisco	-	365	675	725	765
Choluteca District	-	-	-	22,990	26,220
Choluteca	-	-	-	13,806	16,208
San Lorenzo	-	-	-	6,512	7,145
Nacaome	-	-	-	923	987
Pespire	-	-	-	253	278
El Triunfo	-	-	-	125	141
Yusguare	-	-	-	59	65
Namasigue	-	-	-	67	76
Marcovia	-	-	-	115	132
El Corpus	-	-	-	54	59
Langue	-	-	-	112	124
Goancoria	-	-	-	58	63
Ingenio Las Piletas	-	-	-	906	942
Total Main System	343,252	457,107	511,088	586,215	650,315

	1973	1974	1975	1976	1977
To Be Interconnected	17,233	16,833	19,733	-	-
Santa Barbara	737	-	-	-	-
La Ceiba-Municipalidad	-	-	-	-	-
La Ceiba-Standard Fruit Co	-	-	-	-	-
Tela Municipalidad	2,200	-	-	-	-
Choluteca	8,446	9,966	11,740	-	-
San Lorenzo	4,907	5,397	5,931	-	-
Nacaome	753	805	861	-	-
Pespire	109	209	230	-	-
Marcovia	-	44	100	-	-
Ingenio Las Piletas	-	412	871	-	-
Other Systems	7,591	8,940	9,918	11,018	12,255
Trujillo	573	608	645	687	729
Ocotepeque	524	556	589	624	661
Santa Rosa de Copan	1,514	1,590	1,669	1,753	1,840
Juticalpa	1,320	1,518	1,742	1,997	2,284
Danli	1,328	1,567	1,846	2,171	2,549
Marcala	260	273	287	301	316
La Esperanza	379	435	500	573	655
El Paraiso	1,011	1,162	1,334	1,529	1,749
Catacamas	353	634	671	708	752
Amapala	294	315	336	360	386
San Marcos de Colon	35	282	299	315	334
Total - Isolated Systems	24,824	25,773	29,651	11,018	12,255
General Total	368,076	482,880	540,739	597,233	662,570

10.3 Radio Network

In 1978 there were 173,000 radio receivers in the country and 110 stations: 36 in Tegucigalpa, 29 in San Pedro Sula, 14 in La Ceiba, 9 in Choluteca, and 22 in other towns.

Empresa Hondurena de Telecommunicaciones (Hondutel): Tegucigalpa, D.C.

Radio America: Apdo. 259, Tegucigalpa, D.C.

Radio Eco: San Pedro Sula.

Radio Honduras: official station, operated by the Government.

La Voz de Atlantida: La Ceiba.

La Voz de Honduras: Apdo. 642, Tegucigalpa, D.C.

La Voz del Junco: Calle Independencia, Sta. Barbara.

Two-way Radios

Locations by department. Source: Peace Corps Emergency Handbook.

Francisco Morazan

1. Tegucigalpa	SAHSA, COHDEFOR, Caminos, Red Cross, FASP, Alas de Socorro, CARITAS, Rosario Mining Co, Banco Atlantida, Public Health, CARE

Atlantida

1. La Ceiba	SAHSA, Caminos, Red Cross, CARITAS, Banco Atlantida, Public Health
2. Tela	SAHSA, Red Cross, CARITAS, Banco Atlantida

Colon

1. Trujillo	SAHSA, Alas de Socorro, CARITAS, Banco Atlantida
2. Tocoa	SAHSA, Caminos, Alas de Socorro, CARE, Public Health
3. Sonaguera	CARITAS

Comayagua

1. Comayagua	COHDEFOR, Caminos, Red Cross, Banco Atlantida
2. Siguatepeque	COHDEFOR, Alas de Socorro, Banco Atlantida

Copan

1. Santa Rosa de Copan	COHDEFOR, Caminos, Red Cross, Banco Atlantida, Public Health Copan
2. Ruinas de Copan	SAHSA, Red Cross
3. Santa Rita	Red Cross

Cortes

1. San Pedro Sula	SAHSA, COHDEFOR, Caminos, Red Cross, Banco Atlantida, FASP, CARITAS, CARE, Public Health
2. OMOA	Red Cross
3. Puerto Cortes	Red Cross, Banco Atlantida
4. Choloma	Red Cross
5. La Lima	Red Cross

Choluteca

1. Choluteca	Caminos, Red Cross, Banco Atlantida

El Paraiso

1. Danli	COHDEFOR, Red Cross, Banco Atlantida
2. El Paraiso	Banco Atlantida

Gracias a Dios

1. Puerto Lempira	CARITAS
2. Brus Laguna	Alas de Socorro
3. Ahuas	Alas de Socorro

Intibuca

None

Islas de la Bahia

1. Roatan	SAHSA
2. Guanaja	SAHSA, Banco Atlantida
3. Utila	SAHSA

La Paz

1. La Paz	Banco Atlantida

Lempira

None

Ocotepeque

1. Nueva Ocotepeque	Red Cross

Olancho

1.	Juticalpa	SAHSA, COHDEFOR, Banco Atlantida, Public Health
2.	Catacamas	SAHSA, Banco Atlantida
3.	La Union	SAHSA
4.	San Esteban	SAHSA
5.	Galeras	Caminos
6.	Carta	Codefor

Santa Barbara

1.	Santa Barbara	Banco Atlantida, Public Health
2.	El Mochito	Rosario Mining Co.
3.	San Marcos	Banco Atlantida

Valle

1.	Nacaome	Red Cross
2.	San Lorenzo	Red Cross, Banco Atlantida
3.	Langue	Red Cross
4.	Goascoran	Red Cross
5.	El Amatillo	Red Cross

Yoro

1.	Yoro	COHDEFOR, Banco Atlantida, Public Health
2.	El Progreso	Banco Atlantida, Red Cross
3.	San Lorenzo	Banco Atlantida
4.	Olanchito	SAHSA, Rosario Mining Co., Banco Atlantida
5.	Victoria	SAHSA
6.	Sulaco	Caminos

Ham Operators

A list of in-country ham operators is provided in the mission plan; since it was originally compiled in 1972 (Annual Listing of Federation of Affiliated Radio Clubs of Central America and Panama), it is not included in this profile.

10.4 Telephone System

Telecommunications "improved, but still inadequate," (CIA Factbook). 100 telephone-telegraph offices, 230 telegraph offices, and 50 telephone offices owned and operated by the government. Multiplex radio relay with 34 telephone channels and 36 teleprinter circuits links Tegucigalpa and San Pedro Sula. Connection into Central American Microwave network, Tropical Radio-Telegraph Co., and All American Cables and Radio provide international radio-telegraph and radio telephone service. External connections are usually good; internal communications, particularly for San Pedro Sula (as of mid-1976), are often poor. Telephone system is now (1976-78) being updated.

10.5 Television Stations

Compania Television Hondurena, S.A.: Apdo. 734, Tegucigalpa; D.C.; four relay stations; transmissions began in 1959.

Telesistema Hondureno S.A.: Apdo. 734, Tegucigalpa; one relay station. In 1977 there were 50,000 sets.

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