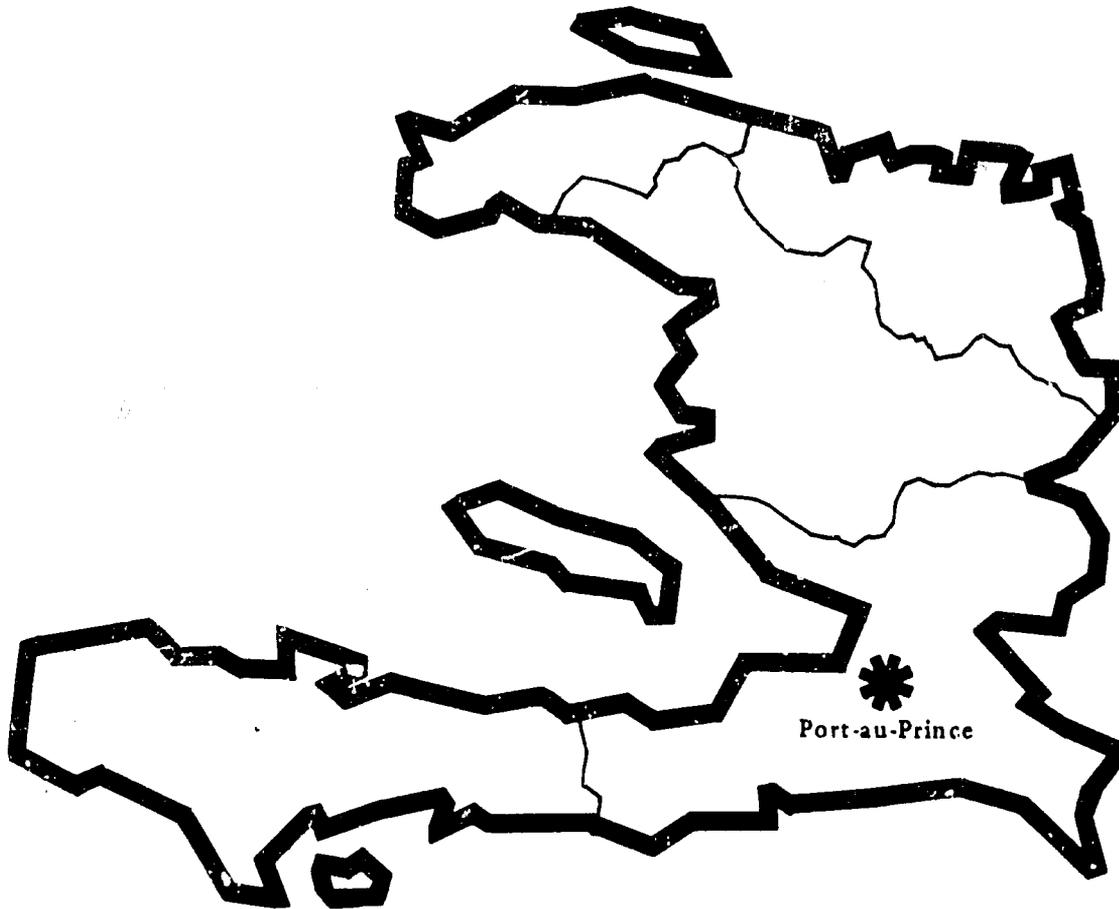


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Haiti

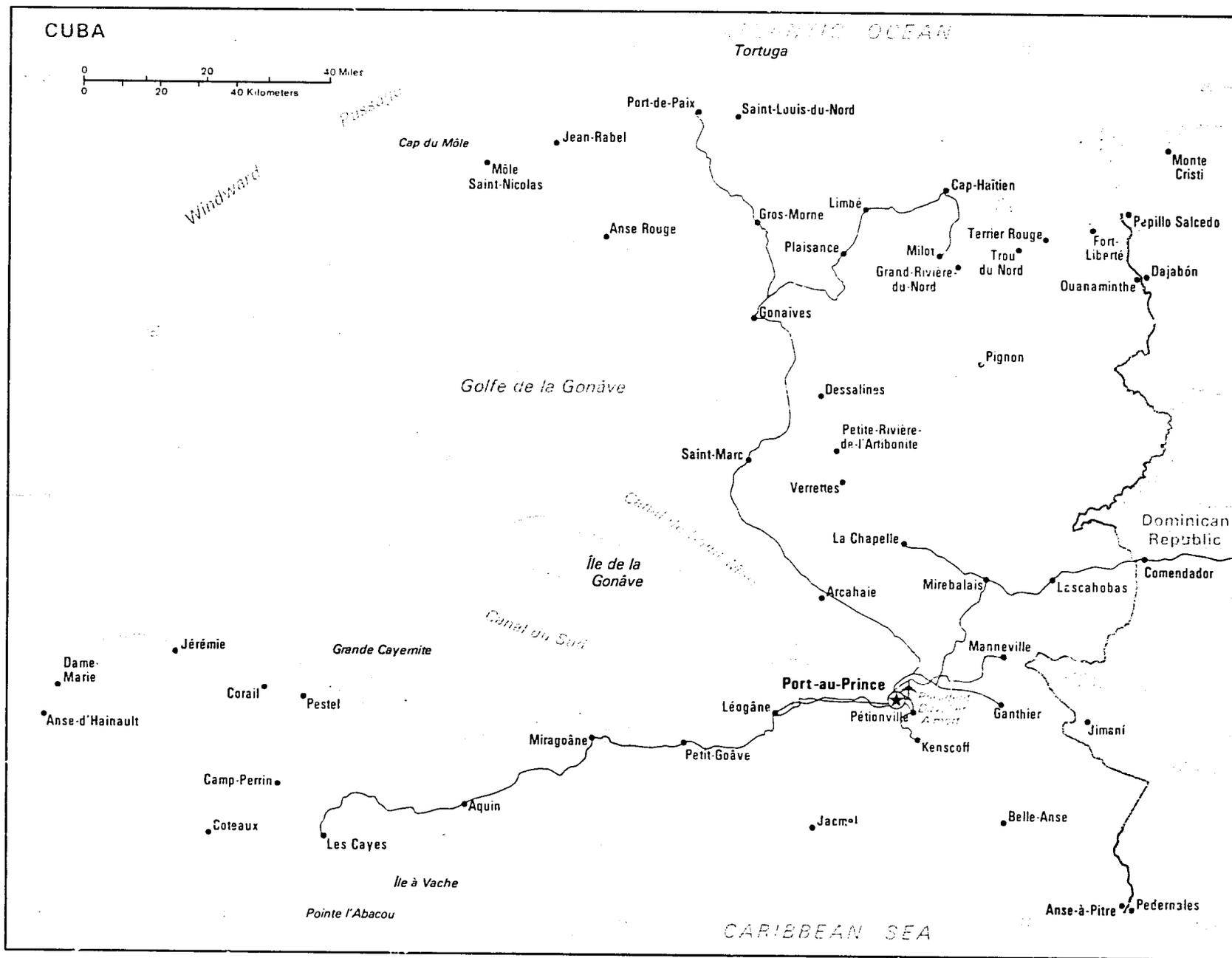
A Country Profile



June 1981

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

Haiti



592475 1:6 1541644
Lambert Conformal Projection
Standard parallels 17°20' and 22°40'
Scale 1:150,000

— Railroad
- - - Road
✈ Airport

HAITI: A COUNTRY PROFILE

prepared for

The Office of U. S. Foreign Disaster Assistance
Bureau for Private and Development Cooperation
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 Haiti 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, AID, as given above.

June 1981

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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 Information1.1 Geographic Codes

AID	521
State region	ARA
FIPS	HA

1.2 Country Names

Official	-	Republic of Haiti
Local	-	Republique d'Haiti
Short	-	Haiti

1.3 Calendar and Holidays

Independence Day	January 1	Ascension Day	*
Founder's Day	January 2	President's Day	June 22
Shrove Tuesday	*	Assumption Day	August 15
Easter Friday	*	United Nations Day	October 2
Easter Monday	*	All Saints Day	November 1
Pan American Day	April 14	All Souls Day	November 2
Labor Day	May 1	Army Day	November 18
Flag Day	May 18	Discovery Day	December 5
National Sovereignty	May 22	Christmas	December 25

* Varies according to year.

Fiscal year: October 1 - September 30

1.4 Currency Exchange Rate

5.00 Gourdes = US \$1

Note: US currency is legal tender in Haiti.

1.5 Time Zones

Same as EST; GMT - 5.

1.6 Host Country Embassy and Staff In US (February 1981)

4400 17th Steet, N.W.
Washington, D.C. 20011
Tel: 723-7000/7001

Staff:

Ambassador.....	Serge Elie Charles
Minister Counselor.....	Josette Philippeaux
Commercial Counselor.....	Orcena Gervais
First Secretary.....	Eddy V. Etienne
First Secretary.....	Henry R. Dubois
First Secretary.....	Ulderic Edouard
Second Secretary.....	Lionel Delatour
Attache.....	Berthe Danache
Attache.....	Louise Charles
Attache.....	Gisele Depestre
Attache.....	Dominique Boliere
Military, Naval, and Air Attache.....	Col. Cecillio Dorce

1.7 US Mission to Haiti and Staff (January 1981)

Harry Truman Blvd.
Port-au-Prince
Tel: 20200

Staff:

Ambassador.....	Henry L. Kimelman
Deputy Chief of Mission.....	Alf E. Bergesen
Economic/Commercial Officer.....	John B. Craig
Commercial Officer.....	Anne D. Cary
Political Officer.....	G. Jean Soso
Consular.....	Stanislaus R.P. Valerga
Administrative Officer.....	Caroline M. Turtle
Agriculture Officer.....	Robert Anlaug (resident in Santo Domingo)

AID Mission Director.....Allan R. Furman
Public Affairs Officer.....Charles H. Dawson

1.8 Treaties and Agreements

Agricultural Commodities agreement, Agricultural Development Agreements, Cotton Textiles, Trade-in agreements, Customs Privileges, reciprocal (American and Haitian Consular officers), Duty-free Entry and Exemption from Internal Taxation of Relief Supplies, Economic and Technical Cooperation agreement, Emergency Assistance to Haiti for Hurricane Disaster, Investment Guaranties, Military Assistance agreement, Radio Amateurs, Exchange of Third Party Messages.

1.9 International Organization Memberships

Member of: OAS, IDB, INTESAT, IMF, IDA, International Finance Corporation, GATT, UN and each of its related agencies and International Court of Justice, G-77, IADB, IAEA, IBA, IBRD, ICAO, ICO.

1.10 Consulates

In Alabama, California, Colorado, Florida, Illinois, Indiana, Louisiana, Massachusetts, Michigan, New York, Ohio, Pennsylvania, Puerto Rico, Texas, Virgin Islands, and Virginia.

1.11 Travel and Visa Information

Passport and visa not required of tourists for stay up to 3 months. Tourist card, valid 30 days, \$2.00; obtain on arrival; application for 2 separate 30-day extensions permitted. Passport and visa required for non-tourists. Consult embassy for specific requirements.

Yellow fever vaccination required of arrivals from infected areas.

1.12 Ethnic and Sociocultural Groups

Over 90% of the population is black; except for small numbers of recent European and Middle Eastern immigrants, the remaining 5-7% are mulatto. Preferential treatment accorded offspring of interracial unions by French resulted in formation of a mulatto elite, maintained by intermarriage. Though skin color is no longer an absolute determinant in choosing a spouse, and well-to-do educated blacks are entering the elite as well as forming a growing middle class, these social groups differ from black peasantry in residence, religion, language, and customs. Mulattoes are strongly francophile, speak French by preference (though bilingual in Creole), practice conventional Roman catholicism, and live almost exclusively in Port-au-Prince. In contrast, most blacks are poor, rural, speak only Creole, and practice voodoo; their customs are rooted in West Africa. Movement between classes is hampered by illiteracy of peasants (virtually all education is conducted in French only) and lack of inland transportation and, above all, by extreme poverty in the countryside.

1.13 Languages

French is the official language but it is spoken and understood only by the educated (middle and upper classes). The vast majority of the population uses only Creole, which probably evolved out of French West African trade language (Creole dialects throughout the Caribbean are markedly similar despite relative lack of interaction in the last century); it is characterized by French vocabulary and syntax based on West African languages. Creole has had legal status only since 1969; it may be used in courts and Congress, but not in public schools. (Some Protestant missionary groups have set up Creole schools.)

1.14 Education

The school system is modeled on that of France. Free and compulsory elementary education in French is mandated by law. Enrollment, however, is very low, especially among the rural population. It was estimated that only about 14% of the rural school population was regularly attending classes in the mid-1970's. An adult education program has been underway since the late 1950's. Literacy rate: 10-12%.

1.15 Religions

According to a Haitian folk expression, "Haiti is 90% Catholic and 100% voodoo." Roman Catholicism is the official religion but only about 30% of the population are active practicing Catholics. Historically, priests had little influence during the colonial period and were rejected by the new republic, which separated church and state. Catholicism was reinstated as the national religion in 1860, too late for the church to become a secular power in Haiti.

Voodoo (Voudun), the religion of the peasantry, fuses West African beliefs and Catholic practices. Ignored by his predecessors voodoo under Francois Duvalier was the favored religion; several voodoo priests held government positions.

Protestant groups, 5-10% of the population, provide one of the few vehicles for advancement of the peasantry: schools conducted in Creole, started by US missionary groups (see section 3.10, US volags). Thus, better-off peasants are frequently Protestants.

2. Government

2.1 National Government

Haiti is nominally a republic under a president, with a unicameral legislature (National Assembly) elected by universal adult suffrage, and a judiciary whose members are appointed by the President. In actuality, all members of the legislature are supporters of President Duvalier; President serves a life term, nominates his successor, and appoints his Cabinet and most local officials as well as judges. In cases of conflict, the President may dismiss the legislature and cabinet, and govern by decree. At present, policy is made by presidential decree.

Although the constitution (1964) establishes guarantees of various human rights, in practice they are often ignored. Near-complete illiteracy and political apathy in the countryside are reinforced by the "code rural," which permits military rule in rural areas.

The judicial system, headed by a Court of Cassation, includes four courts of appeal as well as magistrates' courts.

2.2 Regional Organization

The major administrative divisions are the 5 traditional departments: Northwest, North, West, South, and Artibonite. The last two constitutions have designated nine departments: West, North Artibonite, Northwest, Northeast, Central, South, Southeast, and Grande Anse, but the political structure has not registered this change. Subdivisions include 27 arrondissements, 117 communes, quartiers (wards), and rural sections. The civil administrator and president's representative at the arrondissement level is the prefect. Communes, the basic units of local government, theoretically have some decision-making capacity through elected communal councils. However, no elections have been held. Quartiers and rural sections have no functions independent of the central government. A military structure comprising departments, districts, and subdistricts parallels the civilian administrative structure. On the rural level, where civilian rule is non-existent, the military chef de section oversees maintenance of roads and natural resources as well as exercises public powers.

2.3 Major Government Figures (April 1981)

President.....	Jean-Claude Duvalier
Sec. of State for Agriculture, Natural Resources & Rural Development.....	Rene Destin
Sec. of State for Commerce & Industry.....	Jacques Simeon
Sec. of State for Finance & Economic Affairs.....	Emmanuel Bros
Sec. of State for Foreign Affairs and Worship.....	Dr. Edouard Francisque
Sec. of State for Information and Coordination....	Jean-Marie Chanoine
Sec. of State for Interior and Natl. Defense.....	Edouard Berrouet
Sec. of State for Justice.....	Rodrique Casimir
Sec. of State for Labor and Social Affairs.....	Ulysse Pierre-Louis
Sec. of State for Mines and Energy Resources.....	Fritz Pierre-Louis
Sec. of State for National Education.....	Joseph C. Bernard
Sec. of State for Planning.....	Pierre D. Sam
Sec. of State for Presidency.....	Henri P. Bayard
Sec. of State for Public Health and Population....	Dr. Gerard Desir
Sec. of State for Public Works, Transportation and Communications.....	Alix Cineas
Sec. of State for Youth and Sports.....	Theodore E. Achille
Under Sec. of State for Agriculture, Natural Resources and Rural Development.....	Nicot Julien
Under Sec. of State for Commerce and Industry.....	Jean-Michel Ligonde
Under Sec. of State for Finance and Economic Affairs.....	Jean Robert Estime
Under Sec. of State for Interior and National Defense.....	Daniel Suplice
Under Sec. of State for Natl. Education.....	Andree St. Lot
Under Sec. of State for Public Health and Population.....	Jeannot Cadet
Under Sec. of State for Youth and Sports.....	Henry Remy

2.4 Current Status

The relationship between Haiti and the Dominican Republic has been stormy at best. Language and racial differences, and Haitian population pressure along the border, sparsely populated on the Dominican side, have resulted in a series of plots and counter-plots. The 22-year Haitian occupation of the Dominican Republic until 1844 and the 1937 massacre of several thousand Haitians in the Dominican Republic are focal points of enmity between the two. During the regime of Jean-Claude Duvalier, however, foreign relations have generally improved.

The government party (National Unity Party) remains the sole official party. Three new parties appeared in 1979 though none has formally declared itself as the opposition. Recent laws limit freedom of cultural expression and the press.

3. Disaster Preparedness

3.1 Host Disaster Plan

As of May 1975, Haiti had no statutes or laws dealing with disaster situations; no government ministry was responsible for relief efforts. Instead, the president has designated the Haitian Red Cross as the official relief organization. The president of the Haiti Red Cross, aided by the central coordinating committee for disaster relief and by regional and local committees in 12 urban centers, directs planning, relief efforts, and operations.

A national disaster relief plan was prepared and approved in 1976; it is now being updated and improved. The president of the Haiti Red Cross directs sub-committees for technical services, collective assistance, transportation and communication, medical-social services, financial affairs, and public relations and information through a coordinator, who also serves as liaison between the central committee and regional and local organizations.

Regional and local committees are made up of principal civil and military leaders; most committees have formed disaster teams, which are prepared to assess local disasters, provide initial relief, and report to the national committee. Committees have been directed to establish and operate first aid stations in their communities. Communications between national and local levels are supposed to be maintained by use of a radio-telephone network. The mission plan does not indicate whether this was deployed in 1975.

When possible, regional and secondary first aid stations are staffed with a physician. A small stock of medical supplies and equipment, blankets, cots, clothing, tents, hard hats, and arm bands is at each station. Food supplies are issued yearly to each station at the start of the hurricane season. If not used for disaster, they are distributed for other purposes in December. The central stockpile is located in a Port-au-Prince warehouse.

Committee Staff and Members

Director: Dr. Victor Laroche
 Office: 5, Rue O. Durand, Port-au-Prince - Tel. 2-1035, 2-1054
 Home: Propriete Lyles - Tel. 2-04593

President of Red Cross & Committee.....Dr. Victor Laroche
 Red Cross Committee Coordinator.....Dr. Volvick H. Joseph
 Ministry of Agriculture.....Agronome Lucien Cantave

National Meteorological Service.....	Alexandra Gouthier
Housing & Urban Development Officer.....	Louis Jadotre
Secours Catholique.....	Gabriel Louis
Armed Forces of Haiti.....	Raymond B. Oriol
CARE.....	Christopher Schelfele
Catholic Relief Service.....	Serge Picard
Church World Service.....	Perry Smith
Seventh Day Adventist World Service.....	James Patton
Institute of Statistics.....	Jacques Vilgrain

NB - USMDRO became a committee member in 1975; the UNDP resident representative has been suggested for membership.

The following Haitian Government organizations, all represented on the Red Cross Central Committee but not on the disaster relief committee, have provided assistance in the past: the Ministries of Public Health, Foreign Affairs, Social Affairs, Education, Public Works, and the National Bank (BNRH).

Regional and Local Committees and Presidents:

Anse-a-veau.....	R.P. Nerva Guoin
Aquin.....	Mr. Anthony Cameau
Cap Haitien.....	R.P. Yvon Joseph
Cayes.....	Mr. Causel Sicard
Cotes de Fer.....	Mr. Gontran Bolivar
Gonaives.....	Mr. Voltaire Jacques
Gros Morne.....	Mr. Forche Geffrard
Jacmel.....	Dr. Rene Lherisson
Jeremie.....	Mr. Gerard Gilles
Petit Goave.....	Dr. Edwige Jacques
Port-de-Paix.....	Mr. Nestor Calixte
Saint-Marc.....	Dr. Roger Larose
Hinche.....	Mr. Gilbert Jouassin

3.2 US Plan and Team

DCM - CT Disaster Coordinator, represents the Ambassador in contacts with GOH and State Department, establishes command post, assigns duties within CT, authorizes expenditure of US funds, and considers Haitian requests for air transportation.

MDRO - primary responsibility for US disaster relief action, liaison with AID/OFDA and Haitian disaster relief organization, volags, and other international agencies.

AIDREP - Operations Director; prepares sitreps, determines relief supplies and logistics needs; assisted by AID Mission Disaster Relief Officer.

US Military Representative - Defense Attache; liaison with USCINSO and JCS; also with Haitian military.

Consular Officer - assists American citizens.

Embassy Administrative Officer - is responsible for procurement, receipt, and delivery of relief supplies/personnel (except for officials' travel and sustenance). Also, care/evacuation of USG employees affected by disaster.

Communications - Embassy Communications and Records Officer.

Reporting - Political Officer assists in preparation of disaster reports, information, and sitreps.

Food Distribution, Emergency Medical Supplies, Volag Liaison - AID Program Officer. US food and medicine distribution.

Finance and Records - AID Controller maintains financial system; issues reports.

Survey and Assessment - AID Engineer and Agricultural Officer organize and carry out inspections, surveys.

Press Relations - USIS representative.

Plan Outline:

The mission plan details disaster relief capabilities and responsibilities for the following areas and USG agencies:

AID

US Military

Command Relationships

USCINCSO Disaster Relief Policy

Disaster Area Survey Team

DAO - Haiti

Supply of Materials and Equipment
 Signal (Communications)
 US Information Service
 US Voluntary Agencies
 Haitian - American Organizations
 Disaster Relief from other sources

Annexes to the plan include:

AID Disaster Relief Organization
 Survey and Assessment Guidelines
 Field Survey Report Forms
 Disaster Reporting Guidelines
 Disaster Report Forms
 Relief Supply Requests
 Composition of AID Disaster Relief Stockpile
 Utilization of P.L. 480 Foods
 Financial Guidelines
 Basic Data on Haiti
 Haiti Disaster History

3.3 Contact List

See Section 1.7.

3.4 Host Contacts

<u>Name/Area</u>	<u>Title</u>	<u>Phone</u>
Survey and Assessment, Dr. Volvick Remy Joseph	Gen. Sec. Red Cross, Coor- dinator Relief Operations	Office: 2-1035, 2-1054 Home: 2-1794, 2-1873
Food and Water, Mr. Leon Bury	First Grade Administration Officer	Office: 2-1035
Health, Dr. Silvio Celestin	Director of Medical-Social Section, Red Cross	Office: 2-1035 2-1054
Relief Supplies, Mr. Denis Jean and Ms. Christine Alfred	Chief Warehouse	2-1035

<u>Name/Area</u>	<u>Title</u>	<u>Phone</u>
Coordination, Dr. Joseph		
Records and Reporting, Mr. Myrs Jasmin Mr. Yves Garaud	Red Cross First Aid	2-1035
Logistics and Transporta- tion, Engr. Louis Jadotte	Red Cross Planification Committee Member	2-1027
Infrastructure, Mr. Roger Mortes	Red Cross National Instructor	
Communications, Mr. Fritz Richard	Red Cross First Aid Monitor	
Security, Armed Forces of Haiti		

3.5 GOH Assessment

The survey and assessment function is directed by Dr. Volvick Remy Joseph of Haiti's Red Cross. Regional and local teams are supposed to have organized their own survey and assessment groups.

3.6 US Assessment

The mission's field survey/damage assessment role is filled by the USAID engineer and USAID agricultural officer. If US military assistance is needed, a USSOUTHCOM disaster area survey team (DAST) will be designated and dispatched, a 4-man quick-reaction element team within 6 hours, and any remaining specialists within 24 hours. A list of specialists available for the DAST is included as Annex D of the Mission Disaster Plan.

3.7 Host Resources by Agency

Haitian Armed Forces:

Transport - several DC-3 planes and four or five H-34 helicopters available and some twenty 2 1/2-ton trucks. Radio and TSF communication.

Ministry of Public Works, Transportation and Communications and SEPRRN:

Transport - a fleet of approximately 50 trucks (3/4, 2 1/2, and 5 ton). Quick repair of affected or cut roads; heavy earth-moving equipment available.

Ministry of Public Health:

Medical and paramedical personnel; drugs - anti-diarrhea, vitamins, vaccines, etc.; sanitary facilities needed.

National Bank of the Republic of Haiti:

Radio communication; transfer of funds.

National Weather Service:

Weather reports and forecasts.

Benevolent Organizations, Youth Groups, Welfare Groups and Others:

Voluntary personnel; donation of food, clothes, blankets; funds to fulfill immediate needs; other community services.

3.8 Emergency Stocks

The GOH has the following emergency supplies on hand: on the average, tents, blankets, and medicine sufficient for 100 persons.

As of 1978, CARE maintained a 300-ton operating reserve of PL 480 Title II commodities at all times, sufficient for about 200,000 persons for 70 days. CRS (Catholic Relief Services) stocks PL 480 food for 8,000 persons for 10 days. CWS (Church World Service) has food stocks sufficient for 10,000 persons for 10 days, and HACHO (Haitian American Community Help Organization) stocks supplies to feed 60,000 persons for 110 days.

In the event of a major disaster, it is anticipated that assistance from outside sources would be needed for the following: health personnel; health supplies and equipment; water related equipment, supplies, and personnel; other survival supplies (food grains, vegetable oils, dry milk, tents, cots, sleeping bags, blankets, cement, lumber, roofing supplies, fuel, clothing, etc.); transportation equipment; heavy equipment and tools; bridging equipment; communications equipment.

3.9 USAID Project

A USAID project undertaken in 1979 is assisting the GOH to establish a disaster relief organization. A preparedness and relief plan will provide for a system of storage points for disaster relief supplies, transportation and communication equipment, and an initial stock of non-perishable goods with the Haitian Red Cross. The Red Cross plans to establish a central warehouse in Port-au-Prince and 10 regional/local committees. Each center would be supplied with a small generator and a truck or ambulance; a larger generator and additional vehicles would be located in Port-au-Prince. A radio network would connect the base station in the Red Cross operations center in Port-au-Prince with each regional/local center.

US government excess property (unseized huts, trucks, ambulances, generators, possibly radios) is seen as a source of materials and equipment, at estimated minimum cost of \$231,000 (plus \$19,000 for skilled supervision and construction). The GOH would provide land, labor, and maintenance.

3.10 Storage

In addition to the projected GOH warehouses, several of the voluntary agencies have food storage facilities. CARE maintains 7 depots: 2 each in Port-au-Prince, Cap Haitien and Gonaives, and one in Port-de-Paix; in CARE also has access to 4 smaller warehouses in the Northwest. CRS has warehouses in Port-au-Prince and Les Cayes, and OWS has a warehouse in Port-au-Prince. HACHO maintains storage facilities in Port-au-Prince and Gonaives with a total capacity of 6,400 tons.

3.11 US Voluntary Agencies (Volags)

<u>Agency</u>	<u>Personnel Int'l/Local</u>	<u>Programs</u>
American Baptist Churches in the USA	11/350	Ed; Food Prod & Ag; Ind. Dev.; Med & PH; Pop & Fam Serv
American Dentists for Foreign Service	n.a.	Med & PH
American Foundation for Overseas Blind	4/4	Med & PH
American National Red Cross	n.a.	Equip. & Mt Aid
American Women's Hospital Service	0/6	Med & PH
Baptist World Relief	n.a.	CHP; Food & Ag
Brother's Brother Foundation	n.a.	Med & PH
CARE, Inc.	7/11	CD; Food & Ag; Ind. Dev.; Med & PH; Nutr
Catholic Medical Mission Board	n.a.	Med & PH
Catholic Relief Services	2/5	CHP; Ed; Equip & Mat Aid; Ind. Dev.; Med & PH; Nutr
Child Care Foundation	12/10	Med & PH
Christian Church (Dis. of Christ)	1/0	Med & PH
Christian Medical Society, Medical Group Missions	20/0	Med & PH
Christian Reformed World Relief Committee	2/0	Med & PH
Church of the Brethren	1/14	Med & PH
Church of the Nazarene	3/97	Ed; Med & PH

<u>Agency</u>	<u>Personnel Int'l/Local</u>	<u>Programs</u>
Church World Service	3/25	CD; Food Prod & Ag; Nutr
Churches of God In North Amer.	7/32	Ed; Food Prod & Ag; Nutr; Med & PH; SW
Compassion	n.a.	SW
Credit Union Nat'l Association	2/0	Coop
Direct Relief Foundation	n.a.	Equip & Mat Aid; Med & PH
Episcopal Church of the US	3/285	Ed; Med & PH; SW
Focus, Inc.	1-2/0	Med & PH
Ford Foundation	n.a.	Ed
Foster Parents Plan	2/86	CD; CHP; Coop; Ed; Food Prod & Ag; Med & PH; Nutr
Free Methodist Church of N.A.	2/46	Ed; Med & PH
Heifer Project Int'l.	n.a.	Food Prod & Ag
International Eye Foundation	4/0	Med & PH
MAP International	n.a.	Equip & Mat Aid; Med & PH; SW
Meals for Millions	n.a.	Equip & Mat Aid; Food Prod & Ag;
Medical and Surgical Relief Committee	n.a.	Med & PH
Medical Relief of Haiti	n.a.	Equip & Mat Aid; Med & PH
Mennonite Central Committee	17/75	Coop; Ed; Equip & Mat Aid; Food Prod & Ag; Med & PH; Pop & Fam Serv; SW

<u>Agency</u>	<u>Personnel Int'l/Local</u>	<u>Programs</u>
Missionary Church	8/30	CD; Ed; Food Prod & Ag; Med & PH
Montfort Missionaries, US Province	1/	Med & PH
National Council of Catholic Women	n.a.	Ed; Equip & Mat Aid
Oblates of Mary Immaculate	95/421	CD; CHP; Coop; Ed; Food Prod & Ag; Med & PH; SW
OMS International	43/0	Comm; Ed; Med & PH; SW
Pathfinder Fund	n.a.	Pop & Fam Serv
Planned Parenthood	n.a.	Pop & Fam Serv
Presbyterian Church in the US	3/56	Ed; Med & PH
Public Welfare Foundation	n.a.	Med & PH
Reorganized Church of Jesus Christ of the Latter Day Saints	200/49	Ed; Med & PH
Salesians of St. John Bosco	44/275	Ed; Equip & Mat Aid; SW
Salvation Army	20/	Ed; Med & PH; SW
Save the Children Federation	2/0	
Seventh Day Adventist World Serv.	n.a.	Med & PH
Unevangelized Fields Mission	51/103	CD; Med & PH; SW
United Methodist Com. on Relief	100/	CD; CHP; Ed; Med & PH
The Wesleyan Church	13/172	Ed; Food Prod & Ag; Med & PH
West Indies Mission	26/249	Ed; Food Prod & Ag; Med & PH

<u>Agency</u>	<u>Personnel Intl/Local</u>	<u>Programs</u>
West Indies Mission	26/249	Comm; CD; Ed; Med & PH; Pop & Fam Serv; SW
World Crafts Council	n.a.	Ind. Dev.
World Neighbors	0/7	CD; Food Prod & Ag
World Rehabilitation Fund	n.a.	Ed; Equip & Mat Aid
World Relief Commission of the N.A.E.	n.a.	Food Prod & Ag; Med &
World University Service	n.a.	Equip & Mat Aid;
World Vision Relief Organization	n.a.	SW

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 Voluntary Agencies Contact Addresses

The Red Cross
 Place des Nations Unies
 Port-au-Prince
 Tel: 2-1054 and 2-1035
 Cable: HAITICROSS, Port-au-Prince

Secours Catholique de Haiti
Place de l'Abreuvoir
Port-au-Prince
Tel: 2-0715

CRS (Catholic Relief Services)
14, rue Dantes Destouches
POB 947
Port-au-Prince
Tel: 2-0654
Cable: CATHWEL Port-au-Prince, 329-100 via RCA/Haiti

WCC: Service Chretien de Haiti
POB 285
Port-au-Prince

CARE
Directory: Christophe Scheiffele
21 Avenue Marie Jean
PO Box 733,
Port-au-Prince
Tel: 2-2314 and 2-3537

CWS (Chrch World Service)
Director: Mr. Perry Smith, BP 285
Port-au-Prince
Tel: 2-0714

Seventh Day Adventist World Service
Director: Mr. James Patton
EP 1339
Port-au-Prince
Tel: 4-0562

3.13 International Organizations

Organization of American States (OAS)
Mr. Ragnar Arnesen, Director, Tel: 2-4191

Although some material assistance has been provided in the past, limited funds and staff hamper the degree to which the OAS can provide assistance in periods of disaster. At the Washington level, the OAS can be expected to exercise a coordinating role during disasters.

International Red Cross

Dr. Victor Laroche, Haitian Representative, Tel: 2-1035

Considerable emergency assistance in previous disasters.

United Nations Development Program (UNDP)

Mr. Andre Wilnots, Acting Resident Representative

Cite de l'Exposition

Port-au-Prince

Cable: UNDEVPRO, Port-au-Prince

Telex: 349-0091

Tel: 2-1641

Any local disaster is reported by the UN resident representative to the UN Disaster Relief Coordinator in Geneva. He may request authorization to disburse up to \$20,000 for emergency assistance. Resident representative also acts as coordinator for other UN agencies' disaster inputs, i.e., WHO, FAO, UNICEF, AND WFP.

Inter-American Development Bank (IDB)

Mr. Terence Glavin, resident in Haiti

The IDB has no program for emergency disaster relief but sometimes participates in the rehabilitation stage of disaster recovery through their usual programs.

Pan-American Health Organization (PAHO)

Dr. Vladimir Rathauser

3.14 Disaster Types and History

Hurricanes, floods, fires, and droughts, earthquakes and tsunamis.

The highest frequency of seismic activity is at Port-au-Prince and Anse-a-Veau. The Port-au-Prince/Leogane area experienced severe shocks in 1701, 1749, 1751, 1770, and 1789; Anse-a-Veau was devastated by an earthquake and a tsunami in April 1860. Wood-reinforced masonry houses there heavily damaged by an earthquake in spring 1953. Cap-Haitien suffered earthquake damage in 1842.

Hurricanes usually strike in August, September, or October, most often on the south coast. Les Cayes was damaged at least 13 times between 1680 and 1890. On October 12, 1954, Hurricane Hazel ravaged the whole southern peninsula, destroying 40% of the nation's coffee crop, damaging small irrigation systems and flattening all housing in the commune of Marou.

Hurricane Flora caused 5,000 deaths and \$180,000,000 in damages on October 2, 1963; hurricanes subsequently struck Southwest Haiti in August 1964 and September 1966; several hundred deaths and damages in the millions of dollars resulted. Hurricane Allen lashed the Southern Peninsula in August 1980, affecting about 1,860,000 persons (killing 220) and causing extensive damage to houses, crops, and infrastructure.

Flooding, aggravated by erosion, affects even Port-au-Prince. A flood in the Les Cayes region of southern Haiti in May 1972 affected 40,000 people, leaving 78 dead, 32 missing, 5,000 homeless. Damage was estimated at \$959,000.

Drought in recent years (1967-68, 1972, 1975, 1976-77) led to food shortages, especially in northern areas. The 1975 drought was particularly prolonged and severe. (During the period June 1, 1975, to February 29, 1976, approximately 118,000 people per week were fed in an emergency feeding program.) Another severe drought occurred in 1977.

4. Population

4.1 National Population

The 1971 census showed an enumerated population of 4,314,628, considerably lower than government estimates for 1969 and 1970. Because of the difficulty of counting an illiterate, geographically remote, rural population, an under-enumeration of 8-10% was presumed; the US Census Bureau projected a population of 5,670,000 by 1979. 41-42% of the population was under 15 years of age in 1971. Although a family planning program has been a national policy since 1971, the number of acceptors of government-supported services was still relatively low in 1978.

The annual growth rate is estimated at between 1.8% and 2.5% overall, but urban growth rates in the 1970's were higher (Port-au-Prince, 5.2%; overall urban, 4.1%) and rural lower, 1.1%. About 23% of the population is classified as urban, but the Haitian definition may include hamlets of fewer than 100 inhabitants. The average peasant community numbers 50-100 members. Population density is high in all departments: 156 per sq km and 393 per sq km of cultivated land.* Internal migration, mainly to Port-au-Prince, is highest from the four departments surrounding the capital but especially from the old Department du Sud. External migration, which averaged 20,000 annually in the 1960's, was estimated at 0.4% per year in 1979; many emigrants are skilled workers or professionals. Recently, emigration to the US by political refugees has increased.

4.2 Regional Distribution

Though rural to urban migration is accelerating, the population is still predominantly rural. Port-au-Prince, almost 12 times the size of the second largest city of Cap Haitien, plays a dominant role because virtually all urban economic activity is concentrated there. Its population of 653,000 in 1976 was 60% of the urban population, 14% of country's total. The seven major provincial towns account for 17% of the urban population, small towns for 23%.

* World Bank's Haitian Urban Sector Survey, April 1979, puts the population density at 605 per sq km of arable land in 1976

Population by Department and Arrondissement
1950 and 1971 (in thousands)

<u>Administrative Unit</u>	<u>Total Population</u>		<u>Av. Annual growth (%)</u>
	<u>1950</u>	<u>1971</u>	
Department de l'Ouest	624.8	1,151.8	3.0
Port-au-Prince	413.8	877.3	3.6
Leogane	211.0	274.5	1.3
Department du Nord	431.4	583.1	1.4
Cap Haitien	118.2	199.8	2.5
Grande Riviere du Nord	106.5	100.4	-0.3
Trou du Nord	52.3	69.3	1.4
Borgue	57.6	80.3	1.6
Plaisance	57.2	96.8	2.5
Limbe	39.6	36.5	-0.4
Department du Nord-Est	107.7	116.8	0.4
Fort Liberte	64.4	68.9	0.3
Vallieres	43.3	47.9	0.5
Department du Nord-Ouest	168.3	216.5	1.2
Port-de-Paix	115.8	136.4	0.8
Mole St. Nicolas 1/	52.5	80.1	2.1
Department de l'Artibonite	466.9	622.2	1.4
Gonaives	165.7	186.7	0.6
Dessalines	129.1	174.6	1.5
St. Marc	96.6	147.6	2.1
Marmelade	75.5	113.3	2.0
Department du Centre	256.0	300.1	0.8
Hinche	100.3	133.5	1.4
Mirebalais	114.1	126.5	0.3
Lascahobas	41.6	40.1	-0.2
Department du Sud-Est	302.6	331.3	0.7
Belle Anse	56.9	52.2	-0.4
Jacmel	265.7	299.1	1.0

<u>Administrative Unit</u>	<u>Total Population</u>		<u>Av. Annual growth (%)</u>
	<u>1950</u>	<u>1971</u>	
Department du Sud	375.3	519.7	1.6
Cayes	195.2	272.7	1.6
Coteaux	56.2	86.4	2.1
Aquín	123.9	160.6	1.3
Department du Grande Anse	364.3	453.1	1.0
Jeremie	175.4	240.9	1.6
Tiburón	47.1	61.9	1.3
Anse a Veau (Nippes)	141.5	150.3	0.3
Total	3,097.2	4,314.6	1.6

:/ 9 departments

Source: IHS - Guide Economique de la Republique d'Haiti, 1977

May 1978 as cited in World Bank Current Economic Position and Prospects of Haiti. Vol. II, December 1978.

Population Density By Department and Arrondissement, 1971

<u>Administrative Unit</u>	<u>Population 1971</u>	<u>Area (km²)</u>	<u>Population Density (persons per km²)</u>
Department de l'Ouest	1,151.8	4,240	272
Port-au-Prince	877.3	3,430	256
Leogane	274.5	810	339
Department du Nord	583.1	2,290	255
Cap Haitien	199.8	490	408
Grande Riviere du Nord	100.4	320	314
Trou du Nord	69.3	290	239
Borgue	80.3	280	286
Plaisance	96.8	260	372
Limbe	36.5	650	56
Department du Nord-Est	116.8	1,890	62
Fort Liberte	68.9	990	175
Vallieres	47.9	900	53

<u>Administrative Unit</u>	<u>Population 1971</u>	<u>Area (km²)</u>	<u>Population Density (persons per km²)</u>
Department du Nord-Ouest	216.5	2,330	93
Port-de-Paix	136.4	1,100	124
Mole St. Nicolas	80.1	1,230	65
Department de l'Artibonite	622.2	4,760	131
Gonaïves	186.7	1,870	100
Dessalines	174.6	1,000	176
St. Marc	147.6	1,200	123
Marmelade	113.3	690	164
Department du Centre	300.1	3,410	109
Hinche	133.5	1,770	75
Mirebalais	126.5	850	149
Lascahobas	40.1	790	51
Department du Sud-Est	351.3	2,610	135
Belle Anse	52.2	1,100	47
Jacmel	299.1	1,510	199
Department du Sud	519.7	2,770	188
Cayes	272.7	970	281
Coteaux	86.4	580	149
Aquin	160.6	1,220	132
Department de la Grande Anse	453.1	3,370	164
Jeremie	240.9	1,540	156
Tiburon	61.9	590	105
Anse a Veau (Nippes)	150.3	1,240	121
Total	4,314.6 a/		

a/ Minor difference as compared to final census figure

Source: IHS - Guide Economique de la Republique d'Haiti, 1977 as cited
 in World Bank Current Economic Position and Prospects of Haiti.
 Vol. II, December 1978.

Resident Population of Departmental Capitals, Haiti 1976

<u>Department</u>	<u>Capital</u>	<u>Population</u>
Ouest	Port-au-Prince (metropolitan area)	652,900
Nord	Cap Haitien	53,797
Nord-Est	Fort-Liberte	3,509
Artibonite	Gonaives	35,096
Centre	Hinche	9,487
Sud-Est	Jacmel	12,165
Sud	Cayes	25,711
Grande Anse	Jeremie	19,697
Nord-Ouest	Port-de-Paix	16,735

Source: Institute Haitien de Statistiques as cited in World Bank Haiti Urban Sector Survey, April 1979

5. Health, Nutrition, and Housing

5.1 Health Sector Overview

Morbidity and mortality statistics are compiled only by some hospitals (perhaps 50% of total); since many peasants do not receive medical care, reliable data are available only for limited areas and for particular time periods. Data from Les Cayes project (see below) are perhaps the best now available; whether they are representative for Haiti is unknown. The focus on communicable disease is appropriate, although cancer and diseases of the circulatory system figure prominently in mortality data and are undoubtedly increasing along with urbanization and life expectancy. With the exception of nutritional diseases, the highest mortality rates are for pneumonia, tetanus, enteric diseases, and tuberculosis. Tetanus has been the most important cause of neonatal death in Haiti since colonial times, claiming about 1,100 infant lives annually. Malnutrition increases mortality for enteric diseases and tuberculosis, particularly in urban areas where crowding and lack of sanitation are unavoidable. Estimates of active tuberculosis cases run as high as 1-3% of total population, even among the military forces. Typhoid is endemic in most urban areas; a 1968 epidemic in Port-au-Prince resulted in 58 deaths. Gastroenteritis is a major cause of death in young children. Though the death rate for pneumonia masks many initial causes, influenza is common, especially in rural areas.

Malaria is no longer endemic at elevations below 500', nor is it a major cause of death. The incidence, however, rose from 8.2% in 1972 to 15% in 1978. About 50 endemic foci remain, the worst of which are Petit-Goave-Miragoane, Aquin, and Jean Rabel (all coastal lowland sites, the first two in south, last in north). The total population in hyperendemic areas is about 112,000, in zones of lower transmission about 3.7 million. Multitudes of mosquitos (vector) in high transmission areas peak after heavy rains and floods. The prevalence of various mosquito species also facilitates the spread of arboviruses, especially dengue. Fortunately, yellow fever is unknown, though the vector is present. Zoonoses: rabies and anthrax are common.

It cannot be overemphasized that nutritional deficiencies, both of calories and protein, aggravated by intestinal worms (3,200 cases per 100,000 in Les Cayes includes only those who sought medical care), are crucial factors in the health of Haitians. The most prevalent diseases in Haiti are not peculiar to a tropical environment, but to poverty.

Communicable Diseases in Les Cayes District During 1973

<u>Disease</u>	<u>District Hospital</u>	<u>Other Town *</u>	<u>Rural Areas</u>	<u>Total</u>
Tetanus	46	58	190	294
Anthrax	36	16	335	387
Gastroenteritis	188	821	2,775	3,784
Malnutrition	101	1,288	7,493	8,781
Bronchopneumonia	204	633	4,048	4,885
Whooping cough	2	64	740	804
Diarrhea	2	1,174	7,858	9,034
Dysentery	2	146	322	468
Gonorrhoea	1	238	2,239	2,478
Influenza	76	1,520	17,015	18,611
Infectious hepatitis	45	52	297	394
Meningitis	19	4	44	67
Malaria	65	485	1,997	2,487
Rheumatism	21	543	5,317	5,881
Measles	---	14	101	115
Typhoid	173	168	315	656
Tuberculosis	52	1,480	1,533	3,065
Chickenpox	---	11	67	78
Intestinal worms	---	3,310	18,229	21,539
TOTAL	1,033	12,039	70,736	83,808

*"Other Town" meaning from the other institutions in Les Cayes town.

5.2 Vital Statistics (1976)

Birth rate per 1,000	- 36.8
Death rate per 1,000	- 14.5
Infant mortality per 1,000 live births	- 149.1
Life expectancy (years)	- 52.2

Source: World Bank. Current Economic Position and Prospects of Haiti, Vol. I. December 22, 1978.

5.3 Health Services and Facilities

Traditional health care has been overwhelmingly oriented toward curative services and urban areas (e.g., nearly half of the country's 3,500 hospital beds are in Port-au-Prince). There is an acute shortage of health facilities: 24 general hospitals, 23 hospital dispensaries, 16 health centers and 190 dispensaries for a national average of about 1 unit/20,000 inhabitants. Many facilities are in poor operating condition, lacking adequate equipment and water, drainage, and electricity services. Missions operate health centers in some rural areas. The Schweitzer Hospital in Deschappies is the best known.

The 1971 Health Services Act and 1975 Health Service Regionalization Act have divided Haiti into 6 health regions: the metropolitan area of Port-au-Prince and environs, and the regions of the North, Northwest, West, Central, and South. Self-sufficiency in the provision of health services within each region is the eventual goal, with the metropolitan region providing specialized health services for the whole country. There are presently 11 districts within the 6 regions but each region will ultimately be divided into 3 districts, each to be served by 4 health centers and an average of 14 dispensaries. All special health services (nutrition, family planning, and malaria) are to be integrated within the regionalized health system. USAID is assisting with the development of a rural health system and providing support services; other donors (IDB, PAHO, UNICEF) are assisting the Ministry of Health (DSPP) in the support of higher level services such as health centers and hospitals.

Facility Inventory - DSPP, FY 77

<u>District</u>	<u>DP's</u>	<u>HC-B's</u>	<u>HC's</u>	<u>D/R HP's</u>	<u>Total*</u>
Belladere	3	1	0	1	5
Cap Haitien	32	1	0	1	34
Cayes	11	1	1	2	15
Gonaives	7	0	0	1	8
Hinche	6	0	0	1	7
Jacmel	15	0	1	1	17
Jeremie	10	0	0	1	11
Petit Goave	8	0	4	1	13
Port-au-Prince	24	17	1	5	47
Port-de-Paix	10	0	0	1	11
St. Marc	6	1	2	1	10
TOTAL	132	21	9	16	178

- DP - Dispensaries (serve up to 10,000 people)
 HC-B - Health centers with 12-25 beds (serve up to 32,000 people)
 HC - Health centers without beds (serve up to 40,000 people)
 D/R HP - District and regional hospitals (serve between 250,000 and 1,000,000 people)

* Does not include the National Hospital in Port-au-Prince

Source: IDB, Technical Cooperation for Preparation of the Second Stage of a Project for Construction of Rural Health Facilities. June 4, 1980.

5.4 Health Personnel

The shortage of health personnel in Haiti is also acute: 0.88 physicians, 0.12 dentists, 1.1 nurses, and 2.2 nursing auxiliaries/10,000 inhabitants. With emphasis shifting to preventive and community medicine, USAID is supporting the training of 1,500 agents de sante and 450 auxiliary nurses to provide basic curative services at the community level in 275 dispensaries.

DSPP Personnel by Type of Facility, FY 77

<u>Position</u>	<u>DP's</u>	<u>HC-B's</u>	<u>HC's</u>	<u>D HP's</u>	<u>Total*</u>
Doctors*	58	88	27	321	494
Dentists	12	23	6	22	63
Pharmacists	5	7	0	5	17
Nurses	49	38	21	303	411
Auxiliary Nurses	150	126	50	484	480
Laboratory Tech.	0	33	8	49	90
Radiologists	0	0	0	13	13
Anesthesiologists	0	0	0	21	21
Sanitation Insp.	35	98	13	49	195
Other Personnel	<u>304</u>	<u>344</u>	<u>143</u>	<u>933</u>	<u>1,724</u>
TOTAL	613	757	268	2,200	3,838

- DP - Dispensaries (serve up to 10,000 people)
 HC-B - Health centers with 12-25 beds (serve up to 32,000 people)
 HC - Health centers without beds (serve up to 40,000 people)
 D HP - District and regional hospitals (serve between 250,000 and 1,000,000 people)

* Excludes residents

Source: IDB. Technical Cooperation for Preparation of the Second Stage of a Project for Construction of Rural Health Facilities. June 4, 1980.

5.5 Diet Summary

A number of surveys in the late 1960's reported an average daily per capita calorie consumption of about 1,700; 2,000 cal./day are recommended.

Maize is the staple food of the majority of Haitians, with other important staples being sorghum and millet, rice (when it is affordable), sweet potatoes, plantains, and cassava. Wheat bread made from imported grain is eaten by upper income groups. Beans and peas provide an important source of protein because meat, fowl, and fish are rare in the rural diet. Fruits, especially mangoes and avocados, make an important contribution to the diet, though vegetable consumption is low in rural areas.

Taboos: it is widely believed that cow's milk is too strong for infants and that goat's milk is bad for young children (possible basis for lactose intolerance); meat is considered a poor food for children.

5.6 Food Staples

- Flour - corn flour and meal; manioc (cassava) flour; latter made into flat bread
- Cooking oil - vegetable oils: coconut, cottonseed, sesame, sunflower, soybean grown in country for processing into oil; soybean and cottonseed oil imported; animal fat when available
- Vegetables - yams, sweet potatoes, plantains, carrots, lettuce, tomatoes, beets, leeks, pumpkin, eggplant, potatoes, cabbage, beans, onions, turnips, wild greens. Acceptance of vegetables in rural areas is low. Wild greens most used, followed by onions and tomatoes
- Fruits - bananas, avocados, oranges, limes, lemons, grapefruit, mangos, papayas, pineapple, breadfruit, coconut, sugarcane, guavas, figs

-
- Milk - fresh, raw goat's, and cows' milk, when available, (which is seldom). Per capita consumption of milk less than 10 quarts annually (late 1960's)
 - Meat - fresh only. Goat and pork are usually the only meats available to peasants. Most beef goes to urban markets
 - Fowl - chicken, turkey, guinea fowl. Like meat, rare in rural diet
 - Legumes - red beans, pigeon peas, black-eyed peas, cow peas
 - Grain - corn, yellow flint variety is preferred; also millet, sorghum, rice (both whole and ground)
 - Fish - fresh in coastal areas only; not popular outside capital. Imported dried salt cod herring most widely accepted fish
 - Beverages - coffee, water, clairin, crude rum made on special occasions from rapadou (unrefined cane syrup)
 - Children's Diet - at age 6 months children are weaned from breast milk to protein-deficient foods like herb teas, starchy gruels, bananas soaked in sugarcane water

5.7 Meals

Morning - coffee, bread made from cassava or corn flour if available

Late

Afternoon - rice and beans, soup/stew which includes meat if available, in addition to cornmeal, beans or vegetables such as pumpkin, plantains, sweet potatoes, yams

Additionally, if food is available, a light meal may be eaten in fields at midday but it is often only fruit or sugarcane.

5.8 Nutritional Deficiencies

Undernutrition and malnutrition constitute a major health problem in Haiti, with chronic famine the condition of some population groups. A 1978 nutrition survey conducted on a sample group of 5,400 children (age 3 through 59 months) revealed that 15.9% were severely or moderately wasted (acutely malnourished with weight for height below 84.9% of reference median); over 19% showed signs of stunting (chronic undernutrition with height for age below 90% of reference median) by second year of life; 3.1% showed concurrent wasting and stunting (by Waterlow classification), putting them at greatest risk of increased morbidity and mortality.

More children in rural areas were acutely undernourished than in urban areas. Acute undernutrition was found to begin in infancy, assuming major proportions by the second year of life.

Between 22% and 52% of Haitian children are anemic by WHO standards, those in the 24 to 35 month age group most severely. Between 19% and 52% of the mothers/guardians of the children surveyed were also found to be anemic. (Insufficient iron, protein, vitamins and/or hookworm may be implicated.) Vitamin A deficiency is especially severe in the North. A high prevalence of goiter is found in the Department de l'Ouest (8.0%) and the Antiboite (4.3%).

5.9 Utensils

Food is cooked outside the house; no stoves are available to most peasants. An open fire is fueled by wood/charcoal with pots balanced on 3 stones. The typical peasant household has 1-2 tin pots. Cheap metal knives, wooden spoons, bowls, tin goblets, or glass/plastic cups are used for eating.

5.10 Overview of Housing

The housing situation in Port-au-Prince is one of the worst in the world. Sixty-four percent of the housing stock is built of scrap, wattle, straw and wood, and is collectively considered slum-level. 43.7% of the population lives in densities of 800 people per hectare. In some areas of the city, the density reaches 2,000 people per hectare. More than 80% of the housing stock is not connected to the water supply system, and 61% of dwelling units offer less than 3 sq m per resident.

Although shelter conditions in provincial towns and rural areas are better by comparison, construction activity in these areas is inadequate and shortages of housing are felt at all income levels.

5.11 Housing Policy and Institutions

At present, a coherent material housing strategy does not exist. The housing section of the five-year development plan consists of several projects, but offers no guiding policy. However, the government has adopted a policy of decentralization of economic activity toward rural areas which, once implemented, will affect the housing situation.

The basic legislation for control of shelter development is an Executive Order, (Decret-Loi Etablissant des Regies Speciales Relatives a l'Habitation et a l'Amenagement des Villes et des Campagnes, Le Moniteur 92 no. 63, 5 August, 1937), which contains rules pertaining to town planning and the supply of services. However, this legislation is deficient since there is no provision to ensure basic infrastructure, nor is there any mechanism to determine the appropriateness of a subdivision or building. Instead, the procedures for obtaining a permit focus on design and structural characteristics.*

Expropriation of land for public purposes can occur quickly, once a declaration of public interest has been made. A lack of cadastres, inventories of public land, and zoning regulations aggravates the shelter problem.

Although there is no large-scale formal production of housing by either the public or private sector, the following institutions play a significant role in the shelter sector.

Ministry of Planning (Division de l'Amenagement du Territoire et de la Protection de l'Environnement -- DATPE, formerly National Development Planning Council -- Conseil National de Developpement et de Planification-- CONADEP). Created in November 1978, the Ministry of Planning is expected to define regions in the country, undertake studies, and formulate strategies concerning regional decentralization and development. Since there is no provision for linking its activities with sectoral departments and financial divisions of the planning ministry, DATPE's plans bear little relevance to actual investments. Substantial foreign assistance has been the sole reason for DATPE's continued existence.

* In addition, the regulations are not followed by the authorities.

Town Planning Service (Service de Planification Urbaine - SPU, formerly Service d'Urbanisme). Established within the Department of Public Works, Transport and Communications (Department des Travaux Publics, Transports et Communications DTPTC) the service is charged with the physical and economic planning of urban and rural centers, including formulating plans for reconstruction following a natural disaster. Detailed control of urban development is the responsibility of the Urban Engineering Service (Service de Genie Urbain), while the SPU has the more general responsibility of planning and standardization. The absence of a zoning plan and building code severely constrains the control of private construction activities and the SPU is forced to rely on the general prescriptions of the 1937 Town Planning Law.

Programming Unit (Unit de Programmation--UP). As part of the DTPTC, the UP prepares 5-year and annual plans in the areas of public works, urbanization, transport, energy, drinking water, and communications. There is some confusion as to the functional overlap between UP and SPU; however, the coordinating mandate of UP is of great potential importance.

The Municipalities. Poor financial status, lack of technical expertise, and limits on local authority render the planning activities of municipalities of little significance.

The National Housing Office (Office National du Logement - ONL) ONL's activities have been confined to the maintenance and management of housing projects planned, built, and financed by other state agencies, and its staff is not directly involved in planning, programming finance, or construction of shelter. The ONL is charged with executing low-income housing policy.

Housing Bank (Banque du Logement - BDL). BDL was created to promote private property access for middle income groups in the population and to improve the housing conditions of low income families. Specific duties include: creation of savings and loan mechanisms, preparation of loan guarantees, and the supervision of private home savings and loan associations. The ONL and BDL functions overlap in the areas of constructing low-income housing, setting physical and financial standards for low income housing, maintaining and managing buildings built by BDL, and determining property acquisition and transfer methods.

Service related institutions include:

Centrale Autonome Metropolitaine d'Eau Potable (CAMEP). CAMEP is the responsible for water supply, management of distribution facilities, and planning extensions and improvements to the system.

Service National d'Eau Potable (SNEP). SNEP has the same responsibilities as CAMEP only for provincial towns.

5.12 Shelter Disaster History

Since one of the major Caribbean hurricane tracks crosses Haiti, heavy damage is often suffered by the low-lying coastal settlements. Sections of Port-au-Prince which house the majority of the low income population may be subject to up to two meters of flood waters.

5.13 Housing Types, Materials, Construction and Services

Shelter production is customarily the result of individual efforts, whether for low-, medium-, or high-income families. The following table summarizes the urban housing types and their characteristics:

Type of Settlement	Materials	Avg. Dwelling Unit Size	Cost US \$	Avg. Monthly Rent US \$
High density , low-income, uncontrolled, spontaneously settled access ways. No infrastructure.	Scrap or concrete block masonry and sheet metal roof.	10 m ²	100-300	40
High density, low-income, planned road layout	Concrete masonry and sheet metal roof or wood walls and sheet metal roof	15 m ²	100-2,000	40
Medium and low density, low income on peripheral unserviced land	Wattle and straw roof or wattle and sheet metal roof or concrete block and sheet metal roof	11 m ²	300	25

Type of Settlement	Materials	Avg. Dwelling Unit Size	Cost US \$	Avg. Monthly Rent US \$
Medium density, low-income. Internal road networks, minimal infrastructure.	Concrete block and sheet metal roof or concrete block and reinforced concrete roof	40 m ²	1,000-4,000	70
Mixed commercial and residential. Residences of upper-income business owners and low-income spontaneous settlers	Concrete block, reinforced concrete roofs	60 m ²		

Source: USAID, Housing Office Shelter Section Assessment: Haiti, June 1980.

The following tables indicate the costs of materials and labor associated with housing construction and repair:

Housing Construction Costs
(US \$ per sq m)

Builder	Walls and Structure	Roof	Materials \$/sq. m	Labor \$/sq. m	Total
Low-income	scrap	scrap or straw	5-10	2-3	7-13
	wattle	straw	15-20	5-7	20-27
	wood	sheet metal	20-30	5-8	25-38
	blocks	sheet metal	25-35	10-13	35-48
Middle-income	blocks	sheet metal	50-80	25-40	75-120
	blocks	concrete	90-140	45-70	135-210

Cost of Construction Materials in Port-Au-Prince (US\$1976)

<u>Item</u>	<u>Unit</u>	<u>Price (\$)</u>	<u>Price Increase 1970-1976</u>
Small tree trunks (5 cm. dia)	dozen	2.00-7.00	--
Quarry stone	m ³	2.50	50%
Rocks	m ³	5.00	50%
Wattle	m ²	6.00	--
Blocks, 10 cm vibrated	each	0.12	--
nonvibrated	each	0.12	--
Blocks, 15 cm vibrated	each	0.14)	55%
nonvibrated	each	0.13)	
Blocks, 20 cm vibrated	each	0.16)	45%
nonvibrated	each	0.16)	
Wood planks, scrap	m ²	3.00-5.00	--
Wood planks, local-wholesale	m ²	2.50)	105%
retail	m ²	3.60)	
Wood planks, local-wholesale	m ²	3.50)	65%
retail	m ²	5.00)	
Sheet metal, scrap	each = m ²	0.90	--
Corrugated sheets, inferior	each = m ²	2.00)	30%
Corrugated sheets, inferior	hundred	140.00)	

<u>Item</u>	<u>Unit</u>	<u>Price (\$)</u>	<u>Price Increase 1970-1976</u>
Corrugated sheets, superior	each = m ²	3.00)	20%
Corrugated sheets, superior	hundred	175.00)	
Asphalt panels	each = m ²	4.90	30%
Sand delivered by wheelbarrow	m ³	8.50)	65%
delivered by truck	m ³	5.00)	
Cement	sack	2.40	60%
Reinforcing steel	pound	0.21)	130%
Reinforcing steel	1,000 lbs.	190.00)	

Source: World Bank Haiti: Urban Sector Survey, 1979

Shelter conditions in provincial towns and rural areas are somewhat better than in major urban centers. Most units are independent structures with more space than urban ones. Interior space is used primarily for sleeping and storing goods, while external space is used for cooking, washing, eating, and social gathering. Most families rent a bare plot and build their own houses. Housing construction costs are lower than in urban areas. Low-income families tend to build with wattle and mud with straw roofs.

Higher income groups invest in corrugated metal roofs and corrugated metal supporting structures. Sand, rocks, and labor costs are lower, while cement, wood, and metal sheets are higher than those in urban areas.

Haiti's urban areas have a serious lack of adequate service provision. For example, the existing water supply systems in Port-au-Prince and Cap-Hatien serve about one third of the population. On a per unit basis, the prices paid by the low income population are at least ten times the average paid by those connected to the water distribution. Consumption by low income families averages 12-15 liters per capita per day compared to more than 130 liters per day for high income families.

Structure of Port-Au-Prince Residential Water Distribution,
From The CAMEP System, 1976

<u>Supply Source</u>	<u>No. of Consumers</u>	<u>% of Consumers</u>	<u>Daily per Caput Consumption (liters)</u>
Private connections (legal and illegal)	150,000	23%	156
Public fountains (free)	55,000	9%	15
From another's private collection (free)	95,000	15%	32
From leaks and breaks	40,000	6%	18
Purchase from intermediaries	<u>300,000</u>	<u>47%</u>	<u>11</u>
Total (Average)	640,000	100%	49

Source: World Bank. Haiti: Urban Sector Survey, 1979.

There is no sanitary sewer system in operation in any of Haiti's urban areas. Septic tanks are utilized by higher income households, while pit latrines are the most common form of sanitary facility used in low income neighborhoods. In many cases, the households do not have any form of sanitary facility.

Nearly 95% of the rural population depends upon springs, wells, or streams for their water supply which are usually contaminated; only 1% had adequate sewage disposal by 1970.

6. Economy

6.1 Overview of Economy

The economy is based on agriculture which provides occupations for virtually the entire rural population, raw materials for traditional industries, and half the value of exports. Despite the heavy dependence on agriculture, which averaged a slow 2% growth rate during the last decade, the economy as a whole grew at a rate of 4% during 1970-77, slowing to about 3.5% in 1978 and 1979. Agriculture's poor performance, due generally to extreme population pressure, a low level of technology, and uncertain weather, was partly offset by gains in manufacturing, particularly in the assembly industries, and by increased public investment. In 1979 (at constant 1955 prices), agriculture accounted for 40.7% of GDP, manufacturing 11.8%, construction 4.5%, commerce and transport 13.3%, and services (including government) 26.2%.

Though industry is playing a growing role in the economy, its contribution to employment remains small at 6-7% (1977). Its growth prospects are limited by the small domestic market and resource supply, and by a lack of infrastructure, adequate export promotion, managerial and adequate export promotion, managerial and technical talent, and quality control. Enterprises producing for the domestic market are largely capital intensive and locally owned. The fastest growing products are: flour (138,000 tons was the expected 1978 output) and construction materials (cement - 320,000 tons annually and structural steel in quantities to supply half of Haiti's needs). Export industries, in contrast, tend to be labor intensive and foreign controlled; clothing, sporting goods, electronic components are major products. Tourism is a recent development but growing; 293,000 arrivals in 1977 compared to 50,000 annually during the sixties. Continued expansion depends on promotion and improved infrastructure.

With an average GNP per capita/income between \$230 and \$240, Haiti is the poorest country in the Americas. Income distribution is extremely uneven: 5% of the population received 50% of the national income in 1976. An estimated 75% of the population (the percentage is even higher in rural areas) live under conditions of absolute poverty.

Regional differences are also marked, with government highly centralized and industry concentrated in Port-au-Prince. Income differentials between rural towns, provincial towns, and the capital (1:3.7:6.7 in 1976) intensify the rural to urban population trend. Two out of three migrants trade rural underemployment for urban underemployment. The urban labor force is expected to grow by about 4% per year during the next decade, making job creation urgent in non-agricultural sectors.

A complex, inelastic, and often regressive tax system has been an obstacle to effective budgetary policies; an estimated one-third of revenue has not come under central government control. Inadequate mobilization of resources has resulted in weak government institutions, made even weaker by low public salaries and limited expenditures for goods and services. With IMF technical assistance, the GOH is carrying out fiscal reform. Measures aimed at improving the administration of taxes and the budgetary process, and at simplifying the tax system and bringing all public revenue into the budget was adopted in June 1980.

Growing government commitment to progress seems evident in the goals set forth in the current Five-Year Plan (1976-81): improvement of the quality of rural life, expansion of production, protection of the environment, reduction of regional differences, and strengthening of government institutions. Unfortunately, even with extensive donor assistance, the government has often lacked the capacity to effectively implement programs.

6.2 GNP

			<u>Annual Rate of Growth</u> (%, Current Prices)		
			<u>1960-67</u>	<u>1967-72</u>	<u>1972-77</u>
<u>Gross National Product in 1977</u>					
	<u>US \$ Million</u>	<u>%</u>			
GNP at Market Prices	1,177.7	100.0	0.1	1.9	4.1
Gross Domestic Investment	207.2	17.6	-3.0	18.5	11.4
Gross National Saving 1/	106.9	9.1	-16.5	23.4	-4.3
Current Account Balance	-6.4	-0.5	-	-	-
Export of Goods, NFS	242.5	20.6	-2.2	11.2	5.8
Imports of Goods, NFS	335.8	28.5	0.2	11.0	11.9

1/ Data does not include current transfers

Source: World Bank, Current Economic Position and Prospects of Haiti, 1978

6.3 Balance of Payments

The resource gap continued to widen between 1975 and 1980 as exports failed to cover imports. The latter grew at an average rate of 19% as a result of increased public investment, soaring oil prices, world inflation, and rising food requirements to meet the local deficit. The assembly industry, now accounting for about 35% of exports, is the most

promising feature in the structure of exports. Tourism has added to the services account. Though an increase in the inflow of transfer payments and official loans has kept the balance of payments in surplus, (with the exception of the severe drought year of 1975), future prospects are not bright. The likely trend will be rising import levels, slower growth in inflows of official grants and loans. Interest payments on the external debt, which has been largely in the form of concessionary loans are low; the debt service ratio to exports is about 5%. Both the trade deficit and the deficit on current account are expected to nearly double in 1981 because of hurricane damage; the latter is expected to rise from a 1975 level of 2.6% of GDP to 6.4% of GDP.

6.4 Imports

Of total 1979 imports valued at US \$229.8 million, food imports accounted for 26.5%, capital goods for 17%, intermediate goods for 20%, petroleum for 17% and other for 19%. By IDB estimates, the foreign exchange outlay for oil is expected to rise to US \$80 million between 1979 and 1982.

Principal trade partners: US is the leader, accounting for more than 70% of imports; Netherlands Antilles, Canada, and Japan are other important suppliers.

6.5 Exports

Agricultural exports (coffee, sugar, sisal, cocoa, essential oils) have declined or shown little growth in the past decade. Increased coffee prices have partially offset reduced volume. Bauxite, second to coffee in traditional exports, contributed 12.5% of total net exports in 1970-77, but Reynolds has announced its intention to close operations in Haiti. Non-traditional exports, principally assembly industries, are the most promising activity.

Exports valued at US \$140.6 million in 1979 included: coffee 29.9%, bauxite 13%, sisal less than 1%, essential oils 5%, meat 2%, cocoa 4.8%, cement less than 1%, manufactured products 33%, other 12%.

Principal trade partners: US, France, Italy, Belgium.

7. Agriculture

7.1 Overview of Agriculture

Although agriculture is the mainstay of the economy, providing 41% of GDP and 53% of all exports, the sector's growth has been negligible for years and problems abound. Modern farming methods are rare: crop rotation and use of fertilizer are unknown or prohibitively expensive. Soil infertility is aggravated by over-cropping and erosion, both of which are major problems. Agricultural tools are primitive; the machete and hoe stereotype is often close to the actual situation. Existing irrigation systems, many dating to the colonial period, are often inoperable. Storage facilities are inadequate, as is transportation. Marketing techniques have changed little since the 19th. century. Credit facilities are almost non-existent.

Haitian agriculture is characterized by heavy demographic pressure on arable land; since 80% of the population is engaged in farming and since suitable land is limited by rugged terrain or lack of water for irrigation, the average land holding is 1.40 ha (population density of 4 persons/hectare persons/hectare of farmland), with holdings frequently non-contiguous. The situation is further aggravated by fragmentation of individual holdings due to inheritance laws, and tenure is often insecure. A dearth of agricultural inputs leads to low productivity which in turn increases over-cultivation and destruction of wooded and mountainous areas for new farmland.

Traditional government inattention to peasants, in addition to pricing policies and export taxes on agricultural products, has resulted in a shift in production from industrial or export crops (coffee and sugar) to staples (corn, beans, and manioc). Since the former are land-intensive and the latter labor-intensive, the shift is enhanced by population pressures. However, production is still cash-oriented; on farm consumption has not increased. Instead, growth of the non-producing urban population (mostly Port-au-Prince) has increased the domestic demand for staples.

Production and yields per ha increases in neighboring countries with similar climate and topography imply that present production levels in Haiti could increase 2-5 times, depending on the crop. Improvement of existing irrigation facilities and extension of irrigation to other areas is a major prerequisite. Fertilizer, pesticides, and herbicides, and improved seed varieties should enhance benefits of irrigation. A growing recognition of the importance of the agricultural sector in Haitian society is reflected in the priority assigned to it in the current Five-Year-Plan; it accounts for 27.2% of the 1979-82 investment program.

7.2 Crops

Accurate production figures are lacking and past surveys of agricultural output and area devoted to various crops have not yielded consistent data. Much of the following information comes from World Bank estimates.

Industrial and Export Crops

Coffee is the main net foreign exchange earner; grown on 132,800 ha or 11.4% of total cropped area, mostly on smallholdings in mountainous areas of the Southern Peninsula. Local types of arabica are low yielding (average 250 kg beans/ha) but of generally high quality. Age and overcrowding of trees, poor maintenance, and crude harvesting and processing techniques contribute to low and declining productivity. Coffee crop losses from hurricane Allen are estimated at US\$ 23.2 million.

Cocoa is grown on an area estimated at 10,000 ha, about half in the Grande Anse region of the Southern Peninsula. Old plants produce only about 3,000 tons annually.

Essential oils include vetiver, grown on some 3,400 ha, mainly on the Southern Peninsula (about 250 tons annually), amyris (230 tons), lime (200 tons), and bitter orange (25 tons). Stricter quality control is needed to enhance export prospects.

Sugarcane occupies about 126,000 ha: on large plantations in irrigated areas, on small irrigated or rainfed plots, or in the Central Plateau intercropped with corn. Low-yielding varieties (30-40 tons of cane per ha), poor water management, lack of fertilization are among the causes of declining productivity. Haiti has changed from an exporter to an importer of sugar.

Sisal is grown on about 17,000 ha (down from 33,000 ha in 1950) on both large plantations and small farms.

Cotton production, which peaked in the 1930's (43,000 tons), had dropped to 1,400 tons by 1977. A new variety has substantially replaced traditional plants, plagued by insect problems. The Gonaives Plain is the principal growing area.

Oilseeds are grown for domestic consumption; peanuts (3,000 tons in 1976) and coconuts (about 24 million nuts per year from 480,000 trees in coastal zones of Southern Peninsula) are the main crops.

Vegetables, both typical and temperate, are an important source of income. Main growing areas: mountains south of Port-au-Prince and irrigated areas of Artibonite and Gonaïves plains.

Fruits include a wide variety such as mangoes, citrus, papayas, bananas, avocados, guaves, etc.; mangoes are exported (1,000 tons in 1976). As with vegetables, better transport and marketing conditions are necessary for expanded fruit production. Banana and fruit tree losses from hurricane Allen were extensive, cutting into the food supplies of the poor.

Food Crops

Maize, the staple food of the majority of Haitians, occupies the largest area (about 239,000 ha.). New hybrid being tested which yields 2.75 tons per ha compared with 1.5 tons per ha for local maize.

Sorghum and millet occupy some 220,000 ha; millet is grown in the driest areas (Northwest Peninsula, Gonaïves Plain).

Rice is grown on 39,000 ha, mainly the Artibonite and small irrigated areas in the south; harvested throughout the year and milled by hand. Varieties in common use yield only 0.6-0.7 ton per ha, but higher yielding varieties are being introduced.

Peas and beans (red beans, pigeon peas, black eye peas) are grown on about 82,000 ha with yields of 0.6-0.7 tons per ha. Red beans are grown under irrigation, cow peas in dry areas.

Plantain, an important food crop, occupies about 86,000 ha in association with food crops and coffee.

Root crops (sweet potatoes, yams, manioc) are grown throughout the country.

Most peasant plots are under mixed cultivation. An upper story of fruit trees (mango, papaya) shades coffee trees; sweet potatoes are grown between rows of corn.

Livestock

Livestock are a form of savings and insurance in Haiti, though the subsector is one of the least developed. Farmers typically raise one to three head of cattle, along with a few goats, pigs, and chickens. Animals generally roam freely, foraging on available vegetation and domestic refuse. Crossing of small, bony domestic cattle with imported breeds has been successful on a limited scale. FAO estimate for 1978 ('000 head): horses, 400; mules, 85; asses, 245; cattle, 900; pigs, 2,000; sheep, 85;

goats, 1,200; poultry, 4,265. Livestock losses in hurricane Allen were considerable; African swine fever has greatly reduced pig numbers.

Forestry

Forests, once a major resource, are being rapidly depleted to provide fuel; 4.75 million m³ of wood consumed in 1978 according to FAO estimate. About 250,000 ha (9% of total area) are now under forests. In view of the serious soil erosion problem and growing fuel consumption, reforestation is urgently needed.

Fisheries

A catch of 8,000 tons in 1976 represents 30-50% of the potential harvest. The fishing industry is presently at subsistence level, employing some 3,000 fishermen full-time and 8,000 part-time. Haiti is a net importer of fish.

7.3 Planting and Harvesting Dates

<u>Commodity</u>	<u>Locale</u>	<u>Planting</u>	<u>Harvest</u>
Corn	Mountains	Jul - Sep	Oct - Nov
	N Plains	Feb - Apr	Sep - Nov
	S Plains	Jan - Feb	Apr - May
Rice	Artibonite	Oct - Nov	Mar - Apr
	S Coast	Apr - May	Aug - Sep
Millet		July 1/	Dec - Jan
Kidney beans	Mountains	Apr - Sep	Jun - Jul,
			Nov - Dec
Lima beans	Plains	Nov - Dec	Feb - Mar
		Apr	Sep - Oct
Congo peas		Apr (perennial)	Sep - Oct

7.4 Agricultural Imports

Food imports, rising rapidly in recent years to meet a growing food deficit, accounted for 28% of total imports in 1977. Wheat grain and flour, entirely imported, amounted to 96,000 MT and 10,000 MT respectively that year. Domestic production of corn and rice does not meet the demand, necessitating substantial imports of those grains also. Though vegetable oil is now largely imported, possible increases in domestic cultivation of oilseed crops could affect future requirements.

A Title III program providing import commodities valued at \$25 million annually has been proposed. Commodities and projected amounts (excluding Title II and other donations) are as follows ('000 MT)*:

<u>Fiscal Year</u>	<u>80</u>	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>	<u>86</u>
Wheat	108	112	118	124	131	138	145
Veg Oil	16	17	18	19	20	21	22
Rice	20	20	15	15	10	10	10

* AID, Country Development Strategy Statement FY 82

7.5 Agricultural Exports

Traditional exports, largely agricultural (coffee, sugar, sisal, essential oils), have stagnated or declined in recent years. Increased domestic demand, tax and price policies serving as disincentive to coffee and sugar production, and unfavorable trends in world market for sisal and cotton are among the causes cited for the shift from export crops to food crops. Recent coffee price boom has offset lower volume to some extent. Damage to coffee trees from hurricane Allen was expected to reduce exports from an originally projected 350,000 bags to 250,000 bags in 1981 (worth Gourdes 53 million). Sisal contributed 2.3% and essential oils averaged 6.2% of net exports during 1970-77; their respective shares had dropped to less than 1% and about 5% in 1979.

8. Physical Geography

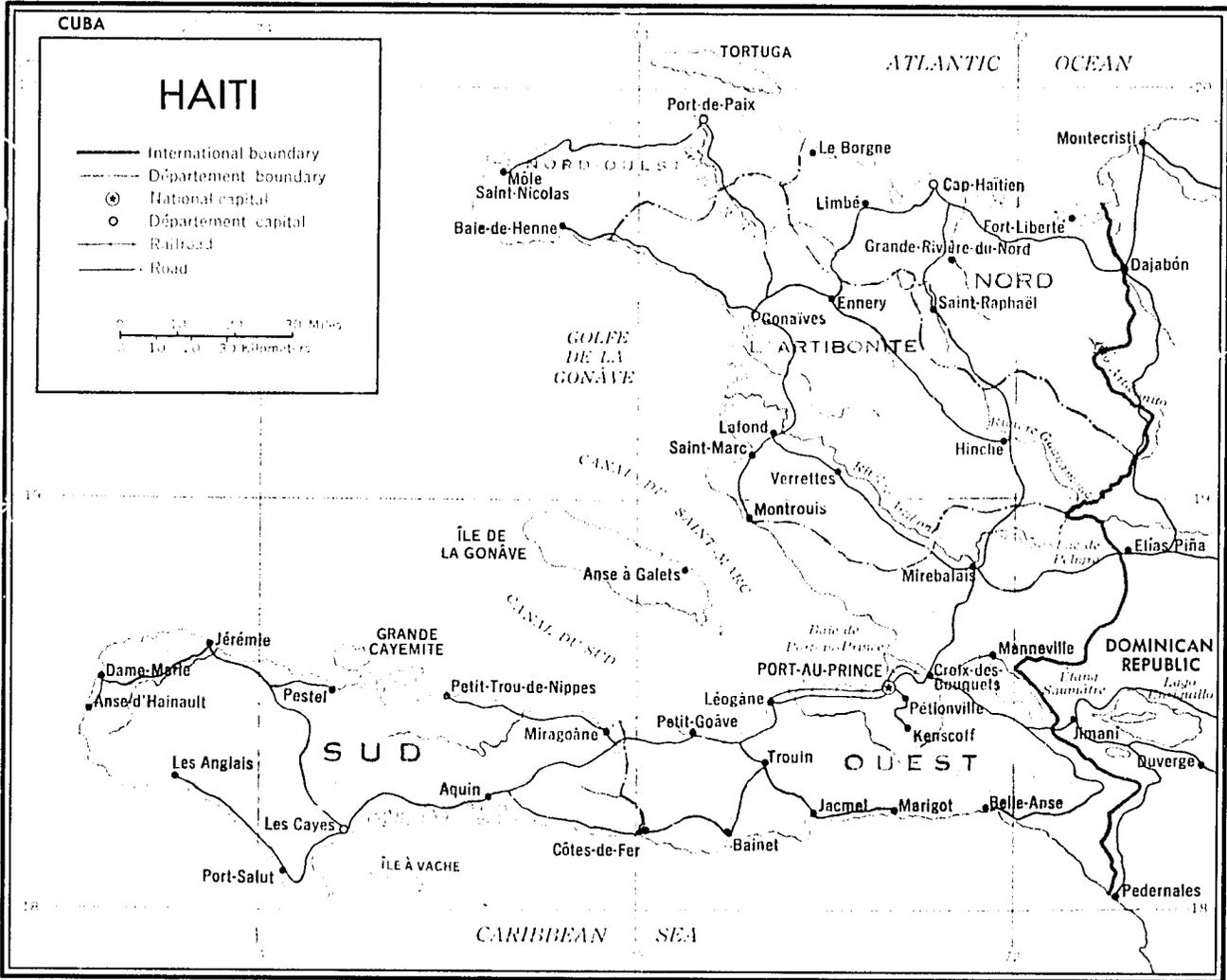
8.1 Climate

Haiti's location within the northern tropics ensures year-round average temperatures above 25° C at sea level. (Surrounding shallow waters never fall below 25°C.) The difference between the warmest and coldest months is only 4°C; daily variation is often greater than seasonal. The mountainous landscape of Hispaniola results in a climatic division by altitude: 0-900 m., tierra templada, average 21-16° C; over 2,000 m., tierra fria, less than 16° C. Frost occurs sporadically in tierra fria. (This terminology is standard for Latin America.)

The rainy season extends from April through December. Variations: the north coast has more winter rain; the Port-au-Prince area has two maxima, April-June and August-November. Hurricanes, generally moving S-N, are likely in June and October. Since precipitation occurs as north and east tradewinds are cooled over Hispaniola's eastern mountains, Haiti lies in the rain shadow of the Dominican Republic. Rainfall is highest on the northern and eastern slopes of mountains, and lowest in the northwest, on la Gonave Island and in the western and southern lowlands. In the latter, high rates of evaporation result in semi-desert flora despite moderate rainfall. Average rainfall ranges from 500 to over 2,000 mm. (20100"). Even in the arid lowlands, humidity is usually high, although its effect is tempered by sea breezes.

8.2 Regional Geography

<u>Topography</u>	<u>Climate</u>	<u>Vegetation</u>	<u>Area</u>
Lowland Plain	Arid	Semi-desert; cactus and thorn scrub savanna; tropical thorn and deciduous woodland	North coast of the Gulf of Gonave; Cul-de-Sac
	Sub-humid	tropical deciduous forest; semi-ever-green seasonal forest; savanna	Plain du Nord
	Humid	tropical rain forest	Plain des Cayes



Base 77975 9/70

<u>Topography</u>	<u>Climate</u>	<u>Vegetation</u>	<u>Area</u>
Upland Basin	Sub-humid	semi-evergreen seasonal forest; moist savanna	Plateau Central
Mountainous Country	Humid	Tropical rain forest; lower montane and (sub-humid) tropical montane forest; elfin woodland	All Mountains

8.3 Topography

600 miles SE of Florida, Haiti occupies the western third of the Island of Hispaniola, which it shares with the Dominican Republic. Area: 10,714 sq. mi. (27,750 sq. km.); 1,100 mi. of coastline, with the Atlantic in the north, and the Caribbean on the west and south. Windward Passage intervenes between northwest and Cuba. The 193 mile land border with the Dominican Republic generally follows streams and mountain ridges.

All of Hispaniola is mountainous. The island consists of several mountain systems trending northwest-southeast or east-west, joined or bordered by narrow lowlands. 75% of Haiti is highland: northern and southern ridges extend westward as peninsulas; lowlands lie between landward slopes and/or along coasts.

Lowland areas are generally discontinuous, often small. The largest is the Plaine du Nord, about 150 sq. mi. in area, fronting on the Atlantic and continuing in the Dominican Republic as the Cibao Valley, the best farmland in the country. The Central Plateau lies between the Montagnes Noires and the Massif du Nord, and consists of 840 sq. mi. of rolling, thin-soiled terrain with an average elevation of 1,000'. The Artibonite Plain, a 300 sq. mi. river valley rimmed by the Montagnes Noires and the Chaîne de Mateaux, has fertile soils but is poorly drained so that the soils at the river's mouth are too alkaline for agriculture. The Cul-de-Sac, 150 sq. mi., is a down-faulted depression, formerly a channel filled by seawater. Brackish lakes, of which Saumatre is the largest, are remnants of earlier flooding. Sixteen other lowland areas, most coastal plain or river valley/delta, total 300 sq. mi.

8.4 Land Use

Land use statistics are inexact since no cadastral survey has ever been made. 63% of the country's land area of about 27,700 sq. km. is on slopes with an inclination of more than 20°. Though only 30% of the land is considered suitable for cultivation, more than 40% is presently cropped. Cultivated land is divided into over 560,000 farms (the exact number is unknown), the majority (perhaps as many as 80%) of which are worked by owners.

<u>Soil Class</u>	<u>Land Suitability</u>	
	<u>Potential</u>	<u>% of Total Area</u>
II	Suitable for rainfed and irrigated agriculture; few limitations	8.4
III	Suitable for rainfed agriculture and for irrigation of high value crops; more limitations; requires soil conservation measures	11.0
IV	Limited possibilities for field crops; suitable for permanent crops (pastures, trees)	9.2
V	Severe limiting factors (salinity, drainage, fertility); requires substantial investments for field crops such as rice	2.8
VI	Suitable for trees and pastures; requires terracing for field crops	13.8
VII	Suitable for tree crops, forestry, and pastures	51.0
VIII	Mountain areas and coastal marshes, best suited as forest or game reserves	<u>3.8</u>
	Total	100.0
	Total in 1,000 km ²	27,700

<u>Land Use</u>	
Irrigated cropping	2.6
Rainfed crops - plains and valleys	10.4
Rainfed crops - mountains	29.9
Pastures	10.8
Forests	9.3
Waste land	<u>37.0</u>
Total	100.0

Source: IICA as cited in World Bank, Current Economic Position and Prospects of Haiti, Vol. 1, December 1978.

<u>Size of Holding</u>	<u>Land Holdings</u>					
	<u>South</u>	<u>West</u>	<u>Region North-west</u>	<u>Arti-bonite</u>	<u>North</u>	<u>Total</u>
Under 1 Carreau						
% of Area	31.0	38.0	19.7	35.0	29.5	32.6
% of Population	66.5	78.4	52.0	64.1	62.5	66.3
Density/HC	6.8	8.0	6.3	5.2	5.9	6.6
1-10 Carreaux						
% of Area	61.0	61.9	63.5	62.1	64.5	62.4
% of Population	32.9	27.6	45.5	35.6	36.6	33.2
Density/HC	1.7	1.9	1.7	1.6	1.6	1.7
Over 10 Carreaux						
% of Area	7.0	0.1	16.8	2.9	6.0	5.0
% of Population	0.6	0.0	2.5	0.3	0.9	0.5
Density/HC	0.3	0.4	0.4	0.4	0.4	0.3

Note: 1 Carreau = 1.29 hectares

8.5 Waterways

More than one hundred rivers and streams drain Haiti's highlands. Most are permanent and swift-running in the mountains but they become intermittent or nearly so in the plains. Only the Artibonite, which has been dammed for flood control, is navigable for about 40 km. However,

the hydroelectric potential of others is considerable. The Artibonite is the longest, and has ten times the flow of the second largest, the Trois Rivieres, which empties into the Atlantic near Port-de-Paix; the Grande Anse in the southwest and the Massacre and the Pedernales, which form the north and the south ends of the border with the Dominican Republic, are economically important.

8.6 Mountain Systems

There are at least five major systems, with numerous spurs. From north to south, the main east and west running ranges are:

Massif du Nord - the western arm of the Cordillera Central of the Dominican Republic, extends westward almost to Port-de-Paix. Elevations in Haiti are below 4,000' but terrain is rugged. Satellite ranges in the west reach the coast at Mole St. Nicolas; in the southwest the Montagnes Noires range (heights to 2000') rises between Central Plateau and the Artibonite River. South of Artibonite, the Chaîne de Mateaux runs southwest from Gulf of Gonave into the Dominican Republic, where it is called the Sierra de Neiba. The highlands are interrupted by the Cul-de-Sac Plain, a rift valley cutting through all of Hispaniola. South of it, mountains run from the western tip of the peninsula into the Dominican Republic; the highest in the east, the Massif de la Selle, has several peaks over 7,000'. In the west, the Massif de la Hotte is somewhat lower.

8.7 Seismicity

The Cul-de-Sac Plain, which (with its extension in Dominican Republic) constitutes an east-west rift valley dividing Hispaniola into two distinct mountain systems, is frequently shaken by minor earthquakes. The edge of the Caribbean plate lies between Hispaniola and Cuba.

9. Transportation and Logistics

9.1 Road Network

The country's totally inadequate transport system has been cited as a major impediment to economic growth. The inter-city network extends for only 4,000 km, 25% of which is paved. Provincial capitals are largely separated from one another and from Port-au-Prince. Unpaved roads are often suitable only for 4-wheel drive vehicles or animals.

A program of road construction and repair has been underway since the mid-1970's with the help of external agencies and increased budget allocations. The IDB-assisted Southern Highway (200 km), linking Port-au-Prince and Les Cayes via Leogane, Petit Goave, Miragoane, Aquin, and St. Louis du Nord, was completed in 1979. Reconstruction of the Northern Road (250 km) was undertaken in 1974-75 with IDB and World Bank backing. A third major road, linking the Southern Highway and Jacmel, was funded by France. The USAID is assisting in the rehabilitation of 340 km of agricultural roads and is providing advisory service to the GOH in a maintenance program.

Recently proposed IDB projects also include highway components. One would assist in the construction of roads connecting Port-Sondi and Mirabalais (73 km), and Mirabalais and Hinche (60 km) as well as 140.2 km of agricultural roads in the Artibonite Valley. Another proposes to construct or upgrade 179 km of roads in the Southern Peninsula regions of L'Asile and Coteaux as part of a rural development program. Still another would improve 132 km of secondary and access roads in areas of the Southern Peninsula most affected by hurricane Allen. The roads tentatively chosen for upgrading in that project are: Anse d'Hainault-Dame Marie (12 km); Dame Marie-Jeremie (48 km); Fond Verretes-Thiote (32 km); Thiote-Belle Anse (32 km); Carrefour Joute-St. Jean du Sud (7 km).

9.2 Vehicles

Traffic volume is low and there are relatively few vehicles in the country: 15,618 passenger vehicles, 8,758 commercial vehicles in 1977 (Europa). Available statistics, however, show an upsurge in vehicle registration at a rate of about 25% per annum since 1974. Most buses and taxis are privately owned and located in the Port-au-Prince area. Even so, road transport is estimated to constitute four fifths of all transportation activity. (Man- and animal-drawn vehicles are important in the context of limited motor vehicles and cheap and/or underdeveloped labor.)

9.3 Railroad

The only operating railroad is a 50-mile, 2'6" gauge, single track, privately owned industrial line: the Cul-de-Sac Railroad Company. It carries only sugar and freight. The 5-mile, dual-gauge 2'6" to 3'6" government line is dismantled.

9.4 Ports

Two major ports, Port-au-Prince and Cap Haitien, are open to shipping; there are also 12 minor ports. An expansion program at Port-au-Prince, where the bulk of imports and exports are handled, was expected to be completed in 1978. Included in the project are a new reinforced concrete quay and two warehouses; a new channel provides access to vessels up to 52,000 tons. Cap Haitien can accommodate only one ship at a time. The IDA-assisted development of coastal shipping ports at Port-de-Paix and Jeremie should help integrate their respective regions (northwest and Grande Anse) with the rest of the country.

All ports are handicapped by inadequate harbor facilities and shallow coastal waters. Nearly all lighthouses along the Haitian coast are out of order.

Cap Haitien

Coordinates: Lat. 19°46'N; long. 72°12'W.

Authority: Resident Inspector of Customs

Approach: Approach from the westward until Picolet Light bears 160 to 220°. From the eastward, having passed Monte Christi shoal, stand to the westward until the highest part of Haut du Cap bears 225°, and steer towards it. When Picolet Point Light is sighted, stand in for the entrance. When the N. extremity of Cap Haitien bears 270°, the vessel will be abreast the N end of the reef.

Accommodation: Depth at entrance, 36.6 m. Depth on bar, 3.66 m. Depth in harbor, 17.6 m. Wharf, 182.9 m. long, depth alongside 6.70 m., providing berth for one sea-going ship. Automatic blinker light on buoy on Mardi Gras Reef.

Aux Cayes

Coordinates: Lat. 18°11'N; long. 73°44'W. Port closed to shipping.

Fort Liberte

Coordinates: Lat. 19°41'N; long. 71°51'W. Port closed to shipping.

Gonaives

Coordinates: Lat. 19°27'N; long. 72°42'W. Port closed to shipping.

Jeremie

Coordinates: Lat. 18°39'N; long. 74°07'W. Port closed to shipping.

Miragoane

Coordinates: Lat. 18°27'N; long. 73°06'W.

Ore and Bulk
Cargo

Terminal

Facilities: A pier accommodating ships up to 10,000 tons has been built by the Reynolds Co. for the shipment of bauxite in bulk. Port closed to other shipping.

Port-au-Prince

Coordinates: Lat. 18°33'0"N; long. 72°21'W.

Approach: Depth at entrance, minimum 15.24 m.

Accommodation: Depth in harbor, 6.10 m. up to 8.53 m. alongside southern part of pier. From August to November, to be approached with caution. Three quays with 6.10 to 8.53 m., 5.49 to 6.70 m. and 2.13 to 3.66 m. alongside respectively. Inner Harbor on north side of pier dredged to a depth of 9.14 m. and is able to accommodate three vessels including container ships. A finger pier, extension of the existing pier, is 243.8 m. long can accommodate two cruise ships (one each side) up to 20,000 tons each. Draft alongside 9.14 m.

A new port, north of the Old Pier, has been built and is operational. This pier can accommodate three vessels, particularly container ships. A port trailer for discharge of containers (6 to 12 m.) is available. Capacity 30 tons. Water depth, 9.7 m.

Private

Wharves: Owned by the cement factory, flour mill and various oil companies.

Container and
and Ro/Ro

Facilities: A container pier and roll-on/roll-off platform are available.

Ship Repairs: Dry dock at Bizoton capable of taking vessels up to 1,000 tons displacement. Cale de Halage de Bizoton capable of handling repairs.

Towage: One tug of 2,000 hp. available.

Airport: International Airport 4.8 km from port.

St. Marc

Coordinates: Lat. 19°07'N; long. 72°42'W. Port closed to shipping.

9.5 Shipping Lines

Coastal shipping, concentrated in the Gulf de Gonave, accounts for 18% of all freight, but 75% of shipping is by sailboat and necessarily slow, though cheap. Shipping can reach all regions of the country except the central plateau; particularly important to areas inaccessible by road: Jeremie, Ile de Gonave, and Ile de la Tortue.

Regular service to and from Haiti by: ALCOA, French, Lykes, Pickford and Black, Royal Netherlands, Saguenay Terminals and Ward lines. The Carol Line, a European Consortium, began weekly containership calls in February, 1978.

9.6 Airports

Air transport is the most reliable mode available in Haiti. Two International airports: Francois Duvalier International in Port-au-Prince and Cap Haitien. Cap Haitien cannot handle planes larger than a DC-6. Chancerelles Airport, also in Port-au-Prince, handles military aircraft and helicopters. Other airports, capable of handling up to DC-3 size planes, include Jacmel, Les Cayes, Port de Paix, and Jeremie; as of early 1975, all had radios and were scheduled to receive lights and other navigational aids. Eight other usable airfields; 2 seaplane stations. No domestic or public helicopter service.

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.

CAP HAITIEN/Cap Haitien

Runway Characteristics

<u>Location Coordinates</u>	<u>Eleva- tion M/ Temp C</u>	<u>NR/Type</u>	<u>Slope %</u>	<u>Aircraft/ Length M</u>	<u>CL</u>	<u>Aircraft Strength (1,000 kg)</u>	<u>Fuel/ Octane</u>
19°44'N 72°12'W	17 n.a.	NE/SW		1500		BN2	100

Aids: D,C,T should be provided; L4, 9

PORT-AU-PRINCE/President Duvalier Intl.

<u>Location Coordinates</u>	<u>Eleva- tion M/ Temp C</u>	<u>NR/Type</u>	<u>Slope %</u>	<u>Aircraft/ Length M</u>	<u>CL</u>	<u>Aircraft Strength (1,000 kg)</u>	<u>Fuel/ Octane</u>
18°34'45"N 72°17'44"W	108 35	09/27 Instr	0.37	DC8-61 2940 2440	A	DC8-61 AUW 147 AUW 130	100/JA2

Remarks: alternate aerodromes-Kingston/Norman Manley Intl., Santo Domingo/de las Americas Intl.

Aids: VOR, DME, LR, LTX, LO, MD, MC, MT, MTX, L4.

KeyAbbreviations

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)

9.7 Personal Entry Requirements

Passport and visa required.

Yellow fever immunization required of arrivals from infected areas.

Tourist card in lieu of passport and visa available to US citizens for stay up to 30 days; renewable up to 90 additional days. Crew members of private planes require no documentation as long as the plane remains in Haiti.

Embassy Address: Embassy of Haiti, 4400 17th Street, NW, Washington, DC 20011.

9.8 Aircraft Entry Requirements

Private and non-scheduled commercial aircraft overflying need not obtain prior permission. However, a flight plan must be on file.

All private and non-scheduled commercial aircraft landing for commercial or non-commercial purposes, except private aircraft carrying less than 8 people, including crew, must obtain prior permission from the Director of Civil Aviation, Francois Duvalier Airport, Port-au-Prince, Haiti (telegraphic address: CIVILAIR PORT-AU-PRINCE/TELEX: none) well in advance of departure. All requests should include all details pertinent to the flights and should include provision for pre-paid reply.

Special Notices:

1. Caution in landing at all airports in Haiti; barrels may be on the runway.
2. Flights across the Haitian-Dominican border must cross at altitude of 10,000 ft. or above. Flights below this altitude should avoid the border by flying route G-2.

9.9 Air Carriers

International carriers are Air France, Pan Am, Eastern, American, and ALM, Air Jamaica.

Haiti Air Inter, managed by Turks and Caicos Airways, provides internal transport. Haiti Air Transport operates freight service between Port-au-Prince, Miami and San Juan.

9.10 Air Distances (Statute Miles)

Port-au-Prince to:

Baltimore.....	1,662	Panama City.....	1,139
Caracas.....	747	Port of Spain.....	915
Houston.....	1,693	St. Louis.....	1,764
Kingston.....	296	San Juan.....	406
Mexico City.....	1,987	Santiago de Cuba.....	249
Miami.....	714	Santo Domingo.....	176
New Orleans.....	1,383	Washington, DC.....	1,645
New York.....	1,736		

10. Power and Communications

10.1 Electric Power

The nominal installed capacity of public power totalled 110 MW in 1978, an increase of 90 mW since 1970. The 47 mW Pelligre plant, completed in 1971, is the country's only large hydro-power station. A first IDA-financial power project, approved in 1976, added 21 mW to the thermal generating capacity in Port-au-Prince; 20 mW (thermal) were purchased by the government during the 1977 drought. Privately owned industrial plants generate an additional 20-25 mW. The state-owned Electricite d'Haiti, with sole responsibility for power supply, has received external financing for a second power project to be carried out during 1979-82. That will include the expansion of diesel plants in Port-au-Prince (20-23 mW), Cap Haitien (3.5 mW), Port-de-Paix (1 mW), and Miragoane (0.25 mW) as well as the construction and rehabilitation of several substations and distribution lines.

Per capita power consumption is very low with less than 50 kWh in the Port-au-Prince metropolitan area in 1977 (compared with 530 kWh in Jamaica the same year). Only about 5% of the population has access to power service, with Port-au-Prince accounting for 80% of that.

Imported petroleum is the main energy source. A power sector study found the hydro-power potential to be about 100 mW (with the lower end of the Artibonite River the most promising site). Lignite deposits in Maissade can operate thermal plants with a capacity of 120 mW for about 25 years. The extensive use of wood and charcoal for fuel contributes to the country's severe erosion problems, which in turn have caused siltation in the Pelligre Reservoir, reducing its useful volume.

There is a need for standardization of electricity specifications. The supply system is generally based on American standards, though a European type network has been introduced at Cap Haitien and in the Gonaives area. Frequency is 60 Hz throughout. Domestic power is 110V/60cy./AC; industry is 20 V/60cy. Single and three phase is available.

10.2 Radio Network

Radio constitutes the primary information and advertising source for most of the country. Most stations broadcast in Creole as well as in French. The number of receivers in the country in 1978 was estimated at 100,000. Many poor peasants do not have regular access to radio. Most of the country's 23 stations are located in Port-au-Prince and Cap Haitien.

Departement des Travaux Publics: Service des Telecommunications, Port-au-Prince. Principal stations are Radio Haiti Inter: B.P. 737; Radio Metropole: B.P. 62; Radio Nationale: rue du Magasin de l'Etat; Radio Nouveau Mond: place de l'Hotel de Ville - all located in Port-au-Prince.

Others include Voix de la Revolution Duvalieriste, Radio Union, Radio Port-au-Prince, M.B.C. Radio Cacique, Radio Lumiere, Radio 4 VEH.

10.3 Telephone Network

The internal telephone system, generally described as inadequate and undependable, has reportedly been improved significantly since the system was sold to a Canadian company (TELECO) in 1968 and later incorporated into a national organization; an expansion program is underway. The number of lines is estimated at between 10,000 and 18,000, with most in the Port-au-Prince area. Various internal radio networks are run by police, UN, and missionary groups.

TELECO is also responsible for overseas phone connections. A new satellite ground station provides service to all world points. RCA Communications, Inc. (offices in Port-au-Prince), All America Cables and Radio, and a government-owned enterprise provide cable and wireless services.

10.4 Television Stations

Tele-Haiti: B.P. 1126, Port-au-Prince; a private commercial company, at present holding monopoly rights of transmission; programs are transmitted by color cable in French and English; received only in Port-au-Prince area; 15,000 receivers (1978).

RCA Instituted a television broadcasting station in 1978.

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