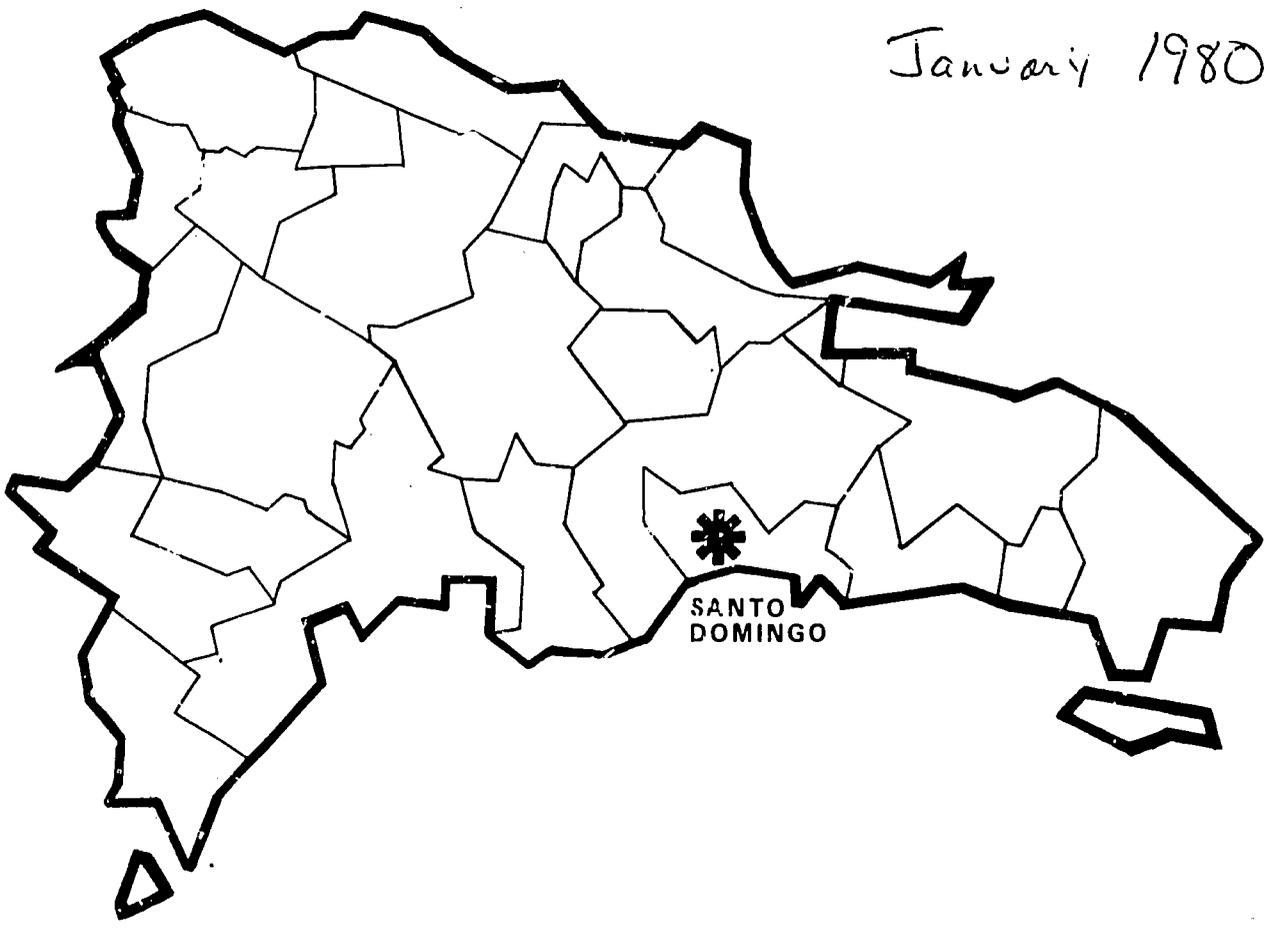


PH-111-513  
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# Dominican Republic

## A Country Profile

January 1980 updated



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

DOMINICAN REPUBLIC: 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 the Dominican Republic is one in a series designed to provide baseline country data in support of the planning, analysis and relief operations of the Office of U. S. Foreign Disaster Assistance (OFDA). 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.

January 1980  
~~May 1978~~

see last page  
for dates of  
publication

OFDA COUNTRY PROFILES: JANUARY 1980

AFRICA

Angola\*\*  
Cape Verde  
Chad  
Djibouti  
Ethiopia  
Madagascar  
Mali  
Mauritania  
Niger\*  
Sahel Transportation Survey  
Senegal  
Somalia  
Upper Volta  
Zaire

ASIA

Afghanistan  
Bangladesh  
Burma  
India  
Indonesia  
Malaysia  
Nepal  
Pakistan  
Philippines

CARIBBEAN

CARICOM Regional Profile  
Dominican Republic  
Haiti

LATIN AMERICA

Bolivia  
Brazil  
Chile  
Ecuador  
Guatemala  
Honduras  
Nicaragua  
Peru

NEAR EAST

Lebanon\*\*  
Turkey

SOUTH PACIFIC

Fiji  
Tonga  
Western Samoa

\* in preparation  
\*\* out of print

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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

---

## GEOGRAPHIC CODES

AID STANDARD	517
STATE REGIONAL	ARA
FIPS	DR

## COUNTRY NAMES

OFFICIAL	DOMINICAN REPUBLIC
LOCAL	REPUBLICA DOMINICANA
SHORT	DOMINICAN REPUBLIC

## ETHNIC AN SOCIOCULTURAL GROUPS

DOMINICAN REPUBLIC HAS BEEN DESCRIBED AS "THE ONLY PREDOMINANTLY MULATTO NATION IN THE WORLD.\*" HISPANIOLA'S INDIAN POPULATION DID NOT SURVIVE SLAVERY AND OLD-WORLD DISEASES: BY 1550, ABORIGINES HAD DIED OUT. AFRICAN SLAVES, IMPORTED TO REPLACE THEM, INTERBRED WITH SPANISH COLONISTS; HAITIAN OCCUPATION (1822-44) FORCED OUT UPPER CLASSES, DECIMATED WHITE POPULATION AND LEFT SOCIETY (AND ECONOMY) IN CHAOS. OCCUPATION PROBABLY ACCELERATED RACIAL MIXING, BUT REINFORCED SPANISH, "WHITE", VALUE SYSTEM, WHILE EQUATING HAITIAN, "BLACK", AND AFRICAN WITH BARBARISM GENERATED BY WAR. PRESENT MULATTO POPULATION CONSTITUTES 60-70% OF TOTAL, WITH WHITE POPULATION ESTIMATED AT 5-25%, BLACKS AT 10-20%. UPPER CLASS "ELITE" IS LARGELY WHITE, MIDDLE CLASSES AND ESPECIALLY MILITARY ARE MULATTO, POOREST SOCIAL STRATA TEND TO BE DARKEST-SKINNED, AND, TO THE EXTENT THAT RURAL POOR ARE AUGMENTED BY MIGRATION OF STILL DESPISED HAITIANS, SOMEWHAT ISOLATED FROM REST OF SOCIETY. (URBAN POPULATIONS TEND TO HAVE RELATIVELY LARGER WHITE POPULATIONS.)

SMALL POCKETS OF MINORITY GROUPS ARE NOT NUMERICALLY SIGNIFICANT, EXCEPT FOR HAITIAN COLONY, ESTIMATED AT 50,000 IN 1975; HOWEVER, AMERICAN, SPANISH, LEBANESE, AND CUBAN MINORITIES HAVE HAD DISPROPORTIONATE POLITICAL INFLUENCE.

\* WIARDA, DICTATORSHIP, DEVELOPMENT AND DISINTEGRATION, P. 115.

## LANGUAGES

SPANISH, THE OFFICIAL LANGUAGE, IS SPOKEN BY 98% OF THE POPULATION. THREE REGIONAL DIALECTS EXIST, BUT ONLY CIBAENA, THE SPEECH OF THE RURAL LOWER CLASSES IN NORTHERN CIBAO VALLEY, IS DISTINCTIVE. HAITIAN CREOLE, ENGLISH, CHINESE AND JAPANESE ARE AMONG PRIMARY LANGUAGES OF REMAINING 2%. ENGLISH IS BECOMING FIRST FOREIGN LANGUAGE FOR BOTH THE PROFESSIONAL AND WORKING CLASSES BECAUSE OF INCREASING BUSINESS CONTACT WITH ENGLISH SPEAKING COUNTRIES, NOTABLY THE US.

## EDUCATION

LITERACY RATE, 60%, HAS STAGNATED SINCE 1960; MANY OF THOSE WHO ATTEND SCHOOL DO NOT GO BEYOND THIRD GRADE AND, ONCE OUT OF SCHOOL, DO NOT USE WHAT SKILLS THEY MAY HAVE ACQUIRED THERE. LITERACY RATES IN RURAL AREAS AVERAGE ABOUT HALF THOSE IN CITIES.

## RELIGIONS

RELIGIOUS FREEDOM IS GUARANTEED BY LAW. ROMAN CATHOLICISM IS THE STATE RELIGION AND 98% OF POPULATION IS NOMINALLY CATHOLIC, BUT POPULAR PARTICIPATION\* IS LIMITED AND SECULAR POWER OF CHURCH IS NOT SIGNIFICANT AT PRESENT. MOST OF THE REMAINING 2% OF POPULATION ARE PROTESTANT; HAITIAN VODOO HAS HAD SOME INFLUENCE IN HAITIAN COLONIES, BUT LITTLE IMPACT ON SOCIETY AS A WHOLE.

BOTH CATHOLIC AND PROTESTANT CHURCHES ARE ACTIVE IN SOCIAL WORK AND EDUCATION. IN MANY RURAL COMMUNITIES PRIEST IS MOST EDUCATED MEMBER OF COMMUNITY, THUS SECULAR AS WELL AS RELIGIOUS LEADER. RELATIONS BETWEEN CATHOLIC AND PROTESTANT CHURCHES HAVE BEEN CORDIAL SINCE END OF TRUJILLO ERA.

\* RATIO OF PRIESTS TO INHABITANTS IS AMONG LOWEST IN LATIN AMERICA: 1/8,945 IN 1969.

OFFICIAL HOLIDAYS

1977

MAY DAY	MAY 1
CORPUS CHRISTI*	JUNE 9
RESTORATION DAY	AUGUST 16
MERCEDES	SEPTEMBER 24
CHRISTMAS	DECEMBER 25

1978

NEW YEAR'S DAY	JANUARY 1
ALTAGRACIA	JANUARY 21
DUARTE	JANUARY 26
INDEPENDENCE DAY	FEBRUARY 27
GOOD FRIDAY*	MARCH 24

\* MOVEABLE HOLY DAYS OF CATHOLIC CHURCH

CURRENCY EXCHANGE RATE

RD \$1(PESO) = US \$1

DOMINICAN PESO (100 CENTAVOS) IS A NON-CONVERTIBLE CURRENCY WITH ONE EXCHANGE RATE. THERE ARE COINS OF 1, 5, 10, 25 AND 50 CENTAVOS AND NOTES OF 1, 5, 10 AND 100 PESOS.

HOT MISSION IN US

EMBASSY:

1715 22ND ST NW  
WASHINGTON, DC 20008  
PHONE: 332-6280

HOST MISSION IN JS (CONT'D)

STAFF:

AMBASSADOR.....FRANCISCO AUGUSTO LORA  
MINISTER COUNSELOR  
(ECONOMIC AFFAIRS)..PEDRO R. ESPILLAT  
FIRST SECRETARY.....FRANCISCO LORA  
DEFENSE, NAVAL,  
MILITARY AND  
AIR ATTACHE.....COL. JOAQUIN A. NADAL LLUBERES

US MISSION TO DOMINICAN REPUBLIC

EMBASSY:

CORNER OF CALLE CESAR NICOLAS PENSON AND  
CALLE LEOPOLDO NAVARRO, APO MIAMI 34041  
PHONE: 682-2171. TE'EX: 3660013

STAFF:

AMB.....ROBERT L. YOST  
DCM.....JAMES L. TULL  
ECO/COM.....MICHAEL GOLDMAN  
COM.....HELEN B. LANE  
POL.....JOHN F. KING  
CON.....LARRY E. LANE  
ADM.....CARLOS M. YORDAN  
RSO.....ARTHUR W. JONES  
AGR.....ROBERT ANLAUF  
AID.....PHILIP P. SCHWAB  
PAO.....HOLLEY MACK BELL

US PRESENCE

	1975
OFFICIAL TOTAL*	13,794

US PRESENCE (CONT'D)

US GOVT PSNL (NOT DOD)	113
MILITARY ATTACHES, ADVISORY GROUP AND OTHER DOD ELEMENTS IN DIP. MISSIONS	23
MIL. FORCES (INCL. CIVS)	0
PEACE CORPS	57
OTHER (INCL. INDIRECT CONTRACT WORKERS)	1,700
DEPENDENTS	121
EST. PRIVATE TOTAL	11,800
RESIDENT BUSINESSMEN	650
STUDENTS	875
MISSIONARIES/CLERGY	175
DEPENDENTS OF ABOVE	2,150
OTHERS	7,950

\* INCLUDES TOURISTS

TREATIES AND AGREEMENTS

WITH US:

AGRICULTURAL COMMODITIES  
AGRICULTURAL DEVELOPMENT  
AIR TRANSPORT  
MILITARY AIRCRAFT TRANSIT  
TECHNICAL SERVICES FOR EQUIPMENT INSTALLATIONS AT DOMINICAN  
AIRPORTS  
DUTY FREE ENTRY AND IMPORTATIONS FOR EMBASSY EMPLOYEES  
ECONOMIC, TECHNICAL AND RELATED ASSISTANCE  
EXTRADITION  
INVESTMENT GUARANTIES  
LABOR, WORKMENS COMPENSATION  
MAPPING  
MILITARY ASSISTANCE  
PEACE CORPS  
RADIO COMMUNICATIONS  
BETWEEN AMATEUR STATIONS  
RECIPROCAL GRANTING OF AUTHORIZATIONS TO PERMIT LICENSED  
AMATEURS TO OPERATE STATIONS IN OTHER COUNTRY

TREATIES AND AGREEMENTS (CONT'D)

VISAS, PERIOD OF VALIDITY, FEES FOR NON-IMMIGRANTS  
WEATHER STATIONS, COOPERATIVE PROGRAM FOR METEOROLOGICAL  
OBSERVATIONS

WITH OTHERS:

NONE THAT AFFECT RELATIONS WITH US

MULTILATERAL:

UN AND RELATED AGENCIES; OAS; INTELSAT; INTERAMERICAN DEVELOPMENT  
BANK, INTERNATIONAL FINANCE CORPORATION, INTERNATIONAL  
DEVELOPMENT ASSOCIATION, INTERNATIONAL COURT OF JUSTICE, GATT.

TRAVEL AND VISA INFORMATION

PASSPORT OR TOURIST CARD REQUIRED. TOURIST CARD, VALID 15 DAYS,  
CAN BE EXTENDED 45 DAYS, \$2; PROOF OF CITIZENSHIP REQUIRED. VISA, NO  
CHARGE. CHECK EMBASSY, CONSULATE FOR SPECIFIC REQUIREMENT.

CONSULATES

CONSULATES IN ALABAMA, CALIFORNIA, CONNECTICUT, DC, FLORIDA,  
GEORGIA, HAWAII, ILLINOIS, INDIANA, LOUISIANA, MARYLAND, MASSACHU-  
SETTS, MICHIGAN, MINNESOTA, MISSOURI, MONTANA, NEW MEXICO, NEW YORK,  
NORTH CAROLINA, OHIO, OREGON, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND,  
TENNESSEE, TEXAS, VIRGIN ISLANDS, VIRGINIA, WASHINGTON AND WISCONSIN.  
CONSULT STATE DEPT. PUBLICATION, FOREIGN CONSULAR OFFICES IN THE  
UNITED STATES 1977, FOR LOCATION AND STAFF. SEE ALSO HOST MISSION.

HEALTH

SEE PERSONAL ENTRY REQUIREMENTS

TIME ZONES

EST + 1 HR; GMT - 5

## NATIONAL GOVERNMENT

PRESENT CONSTITUTION (ENACTED 1966) ESTABLISHED DOMINICAN REPUBLIC AS REPRESENTATIVE DEMOCRACY WITH POWER DIVIDED AMONG EXECUTIVE, LEGISLATIVE AND JUDICIAL BRANCHES. IN PRACTICE, GOVERNMENT IS CHARACTERIZED BY EXTRAORDINARY CONCENTRATION OF POWER IN THE PRESIDENCY AND GENERAL WEAKNESS AND LACK OF LEGITIMACY OF INSTITUTIONS: HISTORICALLY, INSTITUTIONS OFTEN CHANGED BUT CONDITIONS REMAINED THE SAME. TRADITION OF AUTHORITARIAN RULE, PUNCTUATED BY BRIEF INEFFECTUAL IDEALIST REGIMES, WAS EMBODIED IN SERIES OF "STRONG MAN" LEADERS, RAFAEL LEONIDAS TRUJILLO ITS CULMINATION. (AS IN MANY LATIN AMERICAN COUNTRIES IDEAL LEADER IS DOMINANT, DRAMATIC MALE, PATRON OR CAUDILLO, WHO RULES THROUGH PERSONAL POWER RATHER THAN CONSENSUS.)

## ELECTED OFFICES

PRESIDENT AND HIS CHOSEN VICE-PRESIDENT ARE DIRECTLY ELECTED TO 4-YEAR RENEWABLE TERMS; PRESIDENT APPOINTS HIS CABINET\* AND MANY LOCAL OFFICIALS, PROMULGATES LAWS AND ACTS AS COMMANDER OF ARMED FORCES.

LEGISLATIVE POWER IS ASSIGNED TO BICAMERAL CONGRESS. 27 SENATORS REPRESENT 26 PROVINCES AND NATIONAL DISTRICT; 91 MEMBERS OF CHAMBER OF DEPUTIES ARE ELECTED ACCORDING TO PROVINCIAL POPULATION: 1 MEMBER FOR EACH 50,000 INHABITANTS (OR FRACTION OVER 25,000).

NINE MEMBERS OF SUPREME COURT, ELECTED BY SENATE, CONSTITUTE CHECK ON EXECUTIVE AND LEGISLATIVE POWERS; ALSO HEAR APPEALS FROM LOWER COURTS.

\* 12 SECRETARIES OF STATE AND ATTORNEY GENERAL. 14 AUTONOMOUS AGENCIES ARE SUPERVISED BY EXECUTIVE BRANCH.

## REGIONAL ORGANIZATION

26 PROVINCES AND NATIONAL DISTRICT SURROUNDING CAPITAL ARE ADMINISTERED BY GOVERNORS APPOINTED BY PRESIDENT. PROVINCES ARE SUBDIVIDED INTO EITHER MUNICIPALITIES (77) OR MUNICIPAL

REGIONAL ORGANIZATION (CONT'D)

DISTRICTS (20), GOVERNED BY MAYORS AND COMMISSIONERS RESPECTIVELY. IN BOTH CASES, ELECTED MUNICIPAL COUNCILS OF AT LEAST 5 MEMBERS ASSIST ADMINISTRATORS. MUNICIPALITIES, WHICH CONSIST OF CENTRAL TOWNS AND THEIR OUTLYING VILLAGES, ARE SUBDIVIDED INTO SECTIONS AND WARDS, GOVERNED BY FIRST AND SECOND MAGISTRATES APPOINTED BY MAYORS FROM LIST NOMINATED BY RESIDENTS OF SECTOR/WARD.

PROVINCES

PROVINCES -----	PROVINCIAL CAPITALS -----
MONTECRISTI.....	MONTE CRISTI
DAJABON.....	DAJABON
SANTIAGO RODRIGUEZ.....	SABANETA
LA ESTRELLETA.....	ELIAS PINA
INDEPENDENCIA.....	JIMANI
PEDERNALES.....	PEDERNALES
BARAHONA.....	BARAHONA
BAHORUCO.....	NEIBA
SAN JUAN.....	SAN JUAN
SANTIAGO.....	SANTIAGO DE LOS CABALLEROS
VALVERDE.....	MAO
PUERTO PLATA.....	PUERTO PLATA
ESPAILLAT.....	MOCA
SALCEDO.....	SALCEDO
LA VEGA.....	LA VEGA
AZUA.....	AZUA
PERAVIA.....	BANI
SAN CRISTOBAL.....	SAN CRISTOBAL
SANCHEZ RAMIREZ.....	COTUI
DUARTE.....	SAN FRANCISCO DE MACORIS
MARIA TRINIDAD SANCHEZ.....	NAGUA
SAMANA.....	SAMANA
SAN PEDRO DE MACORIS.....	SAN PEDRO DE MACORIS
EL SEIBO.....	EL SEIBO
LA ROMANA.....	LA ROMANA
LA ALTAGRACIA.....	HIGUEY
DISTRITO NACIONAL.....	SANTO DOMINGO (ALSO NATIONAL CAPITAL)

KEY LEADERS  
(AS OF DECEMBER 1979)

PRESIDENT.....GUZMAN FERNANDEZ (SILVESTRE)  
ANTONIO  
VICE PRESIDENT.....MAJLUTA AZAR, JACOBO  
SEC. OF STATE OF AGRICULTURE.....MEJIA, HIPOLITO  
SEC. OF STATE OF ARMED FORCES.....VALDEZ HILARLO, RAFAEL  
ANDRIANO, MAJ. GEN.  
SEC. OF STATE OF EDUCATION, FINE  
ARTS & PUBLIC WORSHIP.....PORELLO REYNOSA, PEDRO MANUEL  
SEC. OF STATE OF FINANCE.....BAEZ ORTIZ, BOLIVAR  
SEC. OF STATE OF FOREIGN RELATIONS.....JIMENEZ REYES, RAMON EMILIO,  
VADM.  
SEC. OF STATE OF INDUSTRY & COMMERCE...TAVARES ESPAILLAT, MANUEL  
ENRIQUE  
SEC. OF STATE OF INTERIOR & POLICE.....SANCHEZ BARET, VICENTE  
SEC. OF STATE OF LABOR.....ESTRELLA SADHALA, CESAR  
SEC. OF STATE OF PUBLIC HEALTH &  
SOCIAL WELFARE.....RODRIGUEZ SOLDEVILLA, JOSE, DR.  
SEC. OF STATE OF PUBLIC WORKS &  
COMMUNICATIONS.....COROMINAS PEPIN, RAFAEL  
SEC. OF STATE OF SPORTS, PHYSICAL  
EDUCATION & RECREATION.....DE LA ROSA, JESUS  
SEC. OF STATE OF THE  
PRESIDENCY.....HERNANDEZ, JOSE M.  
TECHNICAL MIN. OF THE PRESIDENCY.....ALVAREZ DUGAN, JAIME  
ATTORNEY GENERAL.....MEJIA Y MEJIA, BIENVENIDO

1978 ELECTION

AFTER REPEATED INTERRUPTIONS OF THE VOTE COUNTING BY THE MILITARY ANTONIO GUZMAN FERNANDEZ FINALLY SWORN IN AS PRESIDENT ON AUGUST 16, 1978; FIRST PEACEFUL TRANSFER OF POWER IN DOMINICAN REPUBLIC BETWEEN CONSTITUTIONALLY ELECTED GOVERNMENTS IN 100 YEARS. TO DATE, GUZMAN GENERALLY GIVEN CREDIT FOR EFFORTS TO DEPOLITICIZE THE MILITARY, RESPECT FOR HUMAN RIGHTS, AND SUCCESSFUL REPAYMENT OF MOST OF PRECEDING GOVERNMENT'S DEBTS. BUT INITIAL WAVE OF POPULAR SUPPORT EBBING IN THE FACE OF ECONOMIC DIFFICULTIES; GROWING OPPOSITION FROM LABOR UNIONS AND WORKERS GENERALLY OVER GOVERNMENT IMPOSED AUSTERITY MEASURES.

## HOST DISASTER PLAN

CIVIL DEFENSE ORGANIZATION UNDER SUPREME AUTHORITY OF PRESIDENT WAS MANDATED (BY LAW OF JUNE 17, 1966) TO PREPARE DISASTER PLAN AND TO COORDINATE DISASTER ASSISTANCE. 7 MEMBER DIRECTIVE COUNCIL UNDER EXECUTIVE DIRECTOR SUPERVISES ACTIVITIES OF COMMITTEE MEMBERS AND ACTS AS LIAISON BETWEEN COMMITTEE, VOLAGS AND GOVERNMENT AGENCIES. LAW PROVIDES FOR NATIONAL AND PROVINCIAL REPRESENTATION.

CIVIL DEFENSE ISSUES PUBLIC WARNINGS, PROVIDES TRANSPORTATION, SHELTER, AIDS COMMUNICATION, SUPPLIES FOODSTUFFS AND MEDICAL ASSISTANCE THROUGH LOCAL AND PROVINCIAL COMMITTEES.

## US PLAN

NO MISSION PLAN REQUESTED BY OFDA.

## CONTACT LIST

FOLLOWING GROUPS WORK CLOSELY WITH COMMITTEE IN DISASTER RELIEF ACTIVITIES:

THE RED CROSS: DOMINICAN RED CROSS, APARTADO POSTAL 1293, CALLE  
-----  
JUAN ENRIQUE DUNANT, ENSANCHE MIRAFLORES, SANTO DOMINGO, CABLE:  
CRUZROJA DOMINICANA, SANTO DOMINGO TEL: 23793

CARITAS: APARTADO 254, SANTO DOMINGO CABLE: CARITAS DOMINICANA  
-----  
TEL: 565-7746

CRS: CALLE 51 ESQ. CALLE 10 APARTADO 1457, SANTO DOMINGO CABLE:  
---  
CATIDOM TELEX: 346-J034 (BAEZ & RANICK, AGENTS) TEL: 566-7776

WCC: ECUMENICAL ACTION AND PROJECT PLANNING, APARTADO POSTAL  
---  
252-2 SANTO DOMINGO

CONTACT LIST (CONT'D)

UNDP: AVENIDA ANACAONA NO I, SANTO DOMINGO. CABLE: UNDEVPRO  
----  
SANTO DOMINGO TELEX: 346-0015 TEL: 533-6111

RADIO OPERATORS

HAM RADIO OPERATORS: SANTO DOMINGO: HOWARD L. SHOEMAKE HI8XHS  
KENNETH H. STEPHENS HI2KEN  
RONALD WILSON HI2RON

PREPAREDNESS SEMINAR

IN 1973, SRA. ISABELA TEZANOS, SUBDIRECTOR OF CIVIL DEFENSE IN  
SANTO DOMINGO, ATTENDED OFDA SEMINAR.

FOOD SUPPLIES

FOLLOWING FOODS ARE CLASSED AS ACCEPTABLE BY CARE FOR USE IN  
DISASTER SITUATIONS:

ARTICLE OF DIET -----	PREFERRED ITEM -----	ACCEPTABLE ALTERNATIVES (MORE THAN ONE) -----
BASIC	RICE	WHEAT FLOUR, MAIZE, CASSAVA
SECONDARY	BEANS	DRIED FISH, MILKPOWDER, OIL

DISASTER TYPES

STORM, HURRICANE, DROUGHT, CIVIL STRIFE, EARTHQUAKE, FIRE

US VOLAGS

<u>AGENCY</u>	<u>PERSONNEL NO INTL/LOCAL</u>	<u>PROGRAMS</u>
AFL-CIO AMERICAN INSTITUTE FOR FREE LABOR DEVELOPMENT (AIFLD)	1/-	MED & PH; CD; C, H, P; COOPS; ED
BAPTIST WORLD RELIEF	NA	MED & PH
BROTHER'S BROTHER FOUNDATION	17/35	EQUIP & MAT AID, MED & PH
CARE	4/40	NUTR; CD; H, P; ED; FOOD & AGR; MED & PH
CATHOLIC MEDICAL MISSION BOARD	NA	EQUIP & MAT AID; MED & PH
CATHOLIC RELIEF SERVICES, U.S.C.C. LA VEGA	2/5	EQUIP & MAT AID; FOOD & AGR, MED & PH; SW; COMMUNICATIONS; CD; C, H, P; COOPS, NUTR
CHRISTIAN MEDICAL SOCIETY MEDICAL GROUP MISSIONS	6/-	MED & PH
CHURCH WORLD SERVICE	1/32	CD, NUTR, PUB & BUS ADMIN
COMPASSION	1/-	SW
CREDIT UNION NATIONAL ASSOCIATION	NA	COOPS
DIRECT RELIEF FOUNDATION	NA	EQUIP & MAT AID, MED & PH
THE EPISCOPAL CHURCH OF THE U.S.	NA	ED, MED & PH
FORD FOUNDATION	NA	FOOD & AGR

US VOLAGS (CONT'D)

FREE METHODIST CHURCH OF NORTH AMERICA, GENERAL MISSIONARY BOARD	7/47	ED, MED & PH
GOODWILL INDUSTRIES	3/12	SW
HEIFER PROJECT INTERNATIONAL	6/-	FOOD & AGR
INTERMEDIA	NA	COMMUNICATIONS
INTERNATIONAL EXECUTIVE SERVICE CORPS	1/-	PUB & BUS ADMIN
MEDICAL ASSISTANCE PROGRAMS	NA	EQUIP & MAT AID; MED & PH
MISSIONARY CHURCH DAJABON	1/-	ED, MED & PH
NATIONAL ASSOCIATION OF THE PARTNERS OF THE ALLIANCE	NA	COMMUNICATIONS, CD, ED, FOOD & AGR, MED & PH
NEW EYES FOR THE NEEDY	NA	EQUIP & NAT AID
PAN AMERICAN DEVELOPMENT FOUNDATION	NA	COOPS, ED, EQUIP & MAT AID
PLANNED PARENTHOOD FEDERATION OF AMERICA	NA	POP & FAM
THE POPULATION COUNCIL	NA	POP & FAM
REDEMPTORISTS, BALTIMORE PROVINCE SAN JUAN, LAS MATAS	8/6	CD, ED, FOOD & AGR
SALESIANS OF ST. JOHN BOSCO	58/58	ED, FOOD & AGR, MED & PH, SW
SAVE THE CHILDREN FEDERATION LOMA DE CABRERA	0/4	MED & PH, NUTR, POP & FAM, SW, WOMEN, YOUTH, COMMUNICATIONS, CD, COOPS, ECO & DEV, ED, FOOD & AGR

US VOLAGS (CONT'D)

SOUTHERN BAPTIST CONVENTION	5/39	ED, MED & PH
UNEVANGELIZED FIELDS MISSION	12/5	ED
VITA VOLUNTEERS IN TECHNICAL ASSISTANCE VILLA MELLA, BANI	2/190	ED, FOOD & AGR

KEY:

CD..... COMMUNITY DEVELOPMENT  
C. H. P..... CONSTRUCTION, HOUSING AND PLANNING  
COOPS & LOANS..... COOPERATIVES, CREDIT UNIONS & LOANS  
EC & DEV PL..... ECONOMIC & DEVELOPMENT PLANNING  
ED..... EDUCATION  
EQUIP & MAT AID..... EQUIPMENT & MATERIAL AID  
FOOD PROD & AGR..... FOOD PRODUCTION & AGRICULTURE  
IND DEV..... INDUSTRIAL DEVELOPMENT  
MED & PH..... MEDICINE & PUBLIC HEALTH  
POP & FAM SERV..... POPULATION & FAMILY SERVICES  
P & BUS ADMIN..... PUBLIC & BUSINESS ADMINISTRATION  
SW..... SOCIAL WELFARE

HURRICANE DAVID

HURRICANE DAVID STRUCK COUNTRY AUGUST 31, 1979 CAUSING DAMAGE NATIONWIDE, THOUGH PARTICULARLY TO AREAS WEST, SOUTHWEST AND NORTHWEST OF SANTO DOMINGO. VICTIMS INCLUDE: 1,380 DEAD; OVER 4,000 INJURED; 105,000 DISPLACED PERSONS; 200,000 HOMELESS; 1,158,218 PEOPLE ON RELIEF. AGRICULTURAL LOSSES ESTIMATED AT \$125 MILLION; TOTAL DAMAGE OVER \$1 BILLION.

GODR PLAYED AN ACTIVE ROLE IN MOBILIZING LOCAL RELIEF EFFORTS AND COORDINATING DISASTER ASSISTANCE FROM INTERNATIONAL SOURCES.

## NATIONAL POPULATION

POPULATION DOUBLED BETWEEN 1950 AND 1970. 1970 CENSUS ARRIVED AT AN ENUMERATED POPULATION OF 4,006,405; IN JANUARY 1978, ESTIMATED POPULATION WAS 5,051,000. ANNUAL RATE OF NATURAL INCREASE IN LATE SIXTIES AND EARLY SEVENTIES WAS 3-3.6 PERCENT, AMONG WORLD'S HIGHEST, BUT EMIGRATION KEPT AVERAGE GROWTH RATE SLIGHTLY BELOW 3% PER YEAR. 48% OF POPULATION IS UNDER 15 YEARS OF AGE, RESULTING IN HIGH DEPENDENCY RATIO, 1.04, TWICE THAT TYPICAL OF DEVELOPED COUNTRIES. SIXTY PERCENT OF POPULATION IS RURAL: BIRTH, DEATH AND INFANT MORTALITY RATES ARE HIGHER IN COUNTRYSIDE.

EVEN IF A MODERATE LOWERING OF THE BIRTH RATE IS ASSUMED, POPULATION PROJECTIONS FOR YEAR 2000 POINT TO AT LEAST DOUBLE THE PRESENT TOTAL (WITH DROP IN BIRTH RATE TO 73% OF 1970 VALUE BY 1980 AND 47% OF 1970 VALUE BY 2000) OR, WITH NO CHANGE IN BIRTH RATE, TO 12.3 MILLION. IN MID-1970'S, ONLY 6.5 PERCENT OF DR'S FERTILE WOMEN PRACTICED CONTRACEPTION. PRESENT POPULATION CONTROL PROJECTS AIM AT TRIPLING EFFECTIVENESS OF PRESENT PROGRAM THROUGH DEVELOPMENT OF EFFECTIVE HEALTH CARE SERVICE SYSTEM ORIENTED TOWARD PREVENTIVE COMMUNITY-CENTERED MEDICINE. IBRD IS COOPERATING WITH DOMINICAN HEALTH CARE AND FAMILY PLANNING AGENCIES IN THIS EFFORT, NAMELY:

CONAPOFA - NATIONAL COUNCIL FOR FAMILY PLANNING  
IDSS - DOMINICAN SOCIAL SECURITY INSTITUTE  
CEA - STATE SUGAR COUNCIL  
NATIONAL POLICE AND ARMED FORCES  
ADPBF - DOMINICAN ASSOCIATION FOR FAMILY WELFARE

## REGIONAL DISTRIBUTION

POPULATION DISTRIBUTION IS EXTREMELY IRREGULAR. IN 1970, OVER HALF OF TOTAL POPULATION LIVED IN FOUR PROVINCES: DUARTE, SAN CRISTOBAL, SANTIAGO AND LA VEGA AND IN NATIONAL DISTRICT (20.4% IN LAST); 26.9% OF LAND AREA CONTAINED 50.5% OF POPULATION. IN CONTRAST, THE PROVINCES WITH THE LOWEST POPULATION DENSITIES, ALONG THE HAITIAN BORDER, IN THE SOUTH CENTRAL SIERRA DE BAHORUCO AND IN THE FAR SOUTHEAST, HAD THE LOWEST SOCIO-ECONOMIC CONDITIONS. DENSITIES ARE HIGHEST IN THE CARIBBEAN COASTAL PLAIN FROM SANTO DOMINGO EASTWARD, AND IN THE FERTILE CIBAO VALLEY IN THE NORTH. (REGIONAL DISTRIBUTION: CIBAO: 44.9%, NATIONAL DISTRICT 20.4%, SOUTH: 25.2% AND EAST: 9.5%.) AVAILABILITY OF EMPLOYMENT, IMPROVED SANITATION AND HEALTH FACILITIES, AND EDUCATION ARE CLOSELY CORRELATED WITH POPULATION DENSITY.

POPULATION BY PROVINCE (CONT'D)

SAN JUAN	190,905	3,561.07	53.6
SAN PEDRO DE MACORIS	105,405	1,165.78	90.4
SANCHEZ RAMIREZ	106,775	1,174.33	90.9
SANTIAGO	387,255	3,121.93	124.0
SANTIAGO RODRIGUEZ	47,490	1,020.22	46.5
(EL) SEIBO	132,480	2,989.47	44.3
VALVERDE	75,250	569.56	132.1
(LA) VEGA	293,730	3,377.09	87.0

URBAN AREAS AS OF 1975

SANTO DOMINGO, D.N.	922,528
SANTIAGO DE LOS CABALLEROS	209,179
SAN PEDRO DE MACORIS	61,994
SAN FRANCISCO DE MACORIS	58,174
BARAHONA	51,109
LA ROMANA	47,382
SAN FELIPE DE PUERTO PLATA	42,178
SAN JUAN	41,697
CONCEPCION DE LA VEGA	39,893

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## HEALTH SECTOR OVERVIEW

ENTERITIS AND OTHER DIARRHEAL DISEASES ACCOUNT FOR 48% OF ALL INFANT DEATHS AND ARE AMONG THE TWO HIGHEST CAUSES OF DEATH IN OLDER CHILDREN AND ADULTS. OVER 80% OF THE RURAL POPULATION HAVE INTESTINAL PARASITES: HELMINTHIASIS, WHICH AFFECTS OVER ONE MILLION DOMINICANS, EXACERBATES EFFECTS OF CHRONIC MALNUTRITION. POLLUTED WATER SUPPLIES, POOR FOOD HANDLING AND INADEQUATE TO NON-EXISTENT SEWAGE FACILITIES ARE SOURCES OF THIS SPECTRUM OF GASTROINTESTINAL DISEASE; BECAUSE LARGE-SCALE CHANGES IN THESE AREAS ARE NOT EXPECTED, HIGH PREVALENCES OF THESE ILLNESSES WILL PROBABLY PERSIST. MASSIVE OUTBREAK OF TYPHOID FEVER IN 1972 (1,186 REPORTED CASES) IS ILLUSTRATIVE.

CHILDHOOD DISEASES (MEASLES, WHOOPING COUGH, DIPHTHERIA), TUBERCULOSIS AND VENEREAL DISEASES ARE MAJOR COMMUNICABLE DISEASE PROBLEMS: INCREASING MIGRATION TO URBAN AREAS, IN CONTEXT OF INEFFECTIVE VACCINATION PROGRAMS, OVERCROWDED URBAN HOUSING AND HIGH LEVELS OF URBAN (AND RURAL) UNEMPLOYMENT, IS A MAJOR FACTOR IN THEIR PERPETUATION.

DENGUE, FILARIASIS AND MALARIA ARE ENDEMIC TO HISPANIOLA; WITHIN DOMINICAN REPUBLIC, DENGUE IS FREQUENTLY ENCOUNTERED IN CHILDREN; FILARIASIS IS MOST COMMON IN BLACK COASTAL POPULATIONS, WHILE MALARIA, NOW LARGELY UNDER CONTROL, IS MOST COMMON IN HUMID NORTHEAST. HIGH INCIDENCE OF MALARIA IN HAITI AND MIGRATION OF HAITIAN SEASONAL WORKERS ACROSS BORDER ARE CONSTANT THREAT TO CONTROL OF THIS DISEASE.

## VITAL STATISTICS

BIRTHS/THOUSAND POPULATION, 1973	46
DEATHS/THOUSAND POPULATION, 1973	14
INFANT MORTALITY/THOUSAND LIVE BIRTHS, 1974	104 1/
LIFE EXPECTANCY AT BIRTH, 1974	52-55 2/

### AVERAGE NUMBER OF LIVING CHILDREN PER FAMILY

URBAN - 5  
RURAL - 8

1/ IN RURAL AREAS, 130  
2/ 52 FOR MALES, 55 FOR FEMALES

## HEALTH FACILITIES

EFFECTIVE OPERATION OF HEALTH SERVICES IS RESTRICTED BY UNEVEN DISTRIBUTION SYSTEM AND UTILIZATION PATTERN AND ADMINISTRATIVE INEFFICIENCIES. MAJORITY OF PUBLIC HOSPITALS ARE LOCATED IN URBAN AREAS: OVER 60% OF TOTAL BED CAPACITY IN SANTIAGO AND SANTO DOMINGO (1971). AVAILABILITY OF MANPOWER AND EQUIPMENT IS ALSO GREATER IN CITIES: 200 PERIPHERAL CLINICS, WHICH NOW FUNCTION MAINLY AS IMMUNIZATION AND FIRST AID CENTERS, WERE INTENDED TO PROVIDE ALL HEALTH SERVICES IN RURAL AREAS. SHORTAGE OF PERSONNEL AND EQUIPMENT RESPONSIBLE FOR RESTRICTED FUNCTION.\*

SECRETARIAT OF STATE OF PUBLIC HEALTH AND SOCIAL ASSISTANCE (SESPAS) SHOULD PROVIDE HEALTH CARE TO TWO-THIRDS OF POPULATION (LOW-INCOME FAMILIES, PERSONS NOT IN ARMED SERVICES OR ELIGIBLE FOR SOCIAL SECURITY) BUT IN ACTUALITY SERVES ABOUT 37% OF POPULATION. DOMINICAN SOCIAL SECURITY INSTITUTE (IDSS), STATE SUGAR COUNCIL (CEA) AND ARMED FORCES PROVIDE CARE FOR ANOTHER 15% OF POPULATION, WHILE PRIVATE SECTOR CARES FOR ABOUT 17%. REMAINING 30%, MOSTLY LOW-INCOME RURAL FAMILIES, RECEIVES NO REGULAR MEDICAL CARE.

HEALTH SERVICES PROVIDED BY SESPAS ARE HOSPITAL-ORIENTED: OVER 80% OF 1972-73 EXPENDITURES WERE FOR CURATIVE SERVICES. PLANS TO SHIFT EMPHASIS TO PREVENTIVE CARE PROVIDED ON COMMUNITY BASIS WERE UNDER DISCUSSION IN MID 1970'S. MEANWHILE, HOSPITAL CONDITIONS WERE PROBABLY ABOVE AVERAGE FOR LATIN AMERICA, THOUGH INPATIENT CARE LEVELS WERE STILL LESS THAN ADEQUATE. LACK OF BUILDING MAINTENANCE, WATER SHUTDOWNS AND ELECTRICITY SHORTAGES ARE COMMON. PATIENTS WITH COMMUNICABLE DISEASES ARE INADEQUATELY ISOLATED, SANITATION IS POOR, MEDICAL, NURSING AND TECHNICAL STAFF HAVE LIMITED HOURS, INFORMATION SYSTEMS ARE POORLY MAINTAINED AND SUPPLIES ARE OFTEN INSUFFICIENT OR IN POOR CONDITION.

\* DECISIONS ON LOCATION OF NEW HEALTH CARE CENTERS OFTEN BASED PURELY ON POLITICAL CONSIDERATIONS.

GODR OPERATED FACILITIES

		SESPAS*					
REGION	PROVINCE	HE	HG	SC	CR	CS	SUB-TOTAL
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NUCLEO	FEDERAL DISTRICT	7	5	4	3	1	20
CENTRAL	SAN CRISTOBAL	1	1	4	7	-	13
	SUB-TOTAL	8	6	8	10	1	33
I	PERAVIA	-	2	-	4	-	6
	SAN JUAN	-	2	-	4	-	6
	LA ESTRELLETA	-	1	2	3	-	6
	AZUA	-	1	2	1	-	4
	SUB-TOTAL	-	6	5	11	-	22
II	SANTIAGO	1	1	4	7	1	14
	ESPAILLAT	-	2	-	4	-	6
	MONTE CRISTI	-	1	3	4	-	8
	DAJABON	-	2	1	2	-	5
	PUERTO PLATA	-	1	4	9	1	15
	VALVERDE	-	1	-	4	-	5
	SANTIAGO RODRIGUEZ	-	1	1	2	-	4
	SUB-TOTAL	1	9	13	32	2	57

GODR OPERATED FACILITIES (CONT'D)

III	LA VEGA	-	3	1	6	-	10
	SANCHEZ RAMIREZ	-	1	2	1	-	4
	DUARTE	-	1	3	6	-	10
	MARIA TRINIDAD SANCHEZ	-	2	1	2	-	5
	SAMANA	-	2	-	1	-	3
	SALCEDO	-	1	2	1	-	4
		--	--	--	--	--	--
	SUB-TOTAL	-	10	9	17	-	36
IV	BARAHONA	-	1	2	5	-	8
	INDEPENDENCIA	-	1	2	2	-	5
	PEDERNALES	-	1	-	4	-	5
	BAHORUCO	-	2	-	2	-	4
		--	--	--	--	--	--
	SUB-TOTAL	-	5	4	13	-	22
V	SAN PEDRO DE MACORIS	-	2	2	2	1	7
	LA ALTAGRACIA	-	1	1	1	-	3
	LA ROMANA	-	1	1	1	1	4
	EL SEIBO	-	2	2	2	-	6
		--	--	--	--	--	--
	SUB-TOTAL	-	6	6	6	2	20
	GRAND TOTAL	9	42	45	89	5	190

\* DATA FROM SURVEY COMPLETED JANUARY 1975, BY SESPAS. IN ADDITION TO THE FACILITIES SHOWN HERE, THERE ARE 54 MEDICAL DISPENSARIES AS FOLLOWS: 5 IN NUCLEO CENTRAL, 6 IN REGION I, 9 IN REGION II, 15 IN REGION III, 12 IN REGION IV, AND 7 IN REGION V.

GODR OPERATED FACILITIES (CONT'D)

REGION	PROVINCE	IDSS*				SUB-TOTAL
		HA	HB	HC	PC	
NUCLEO	FEDERAL DISTRICT	1	-	-	7	8
CENTRAL	SAN CRISTOBAL	-	1	2	-	3
	SUB-TOTAL	1	1	2	7	11
I	PERAVIA	-	-	-	1	1
	SAN JUAN	-	-	-	1	1
	LA ESTRELLETA	-	-	-	-	-
	AZUA	-	-	-	1	1
	SUB-TOTAL	-	-	-	3	3
II	SANTIAGO	-	1	-	1	2
	ESPAILLAT	-	1	-	1	1
	MONTE CRISTI	-	-	-	1	1
	DAJABON	-	-	-	-	-
	PUERTO PLATA	-	-	1	1	2
	VALVERDE	-	-	1	-	1
	SANTIAGO RODRIGUEZ	-	-	-	-	-
	SUB-TOTAL	-	1	2	4	7

GODR OPERATED FACILITIES (CONT'D)

III	LA VEGA	-	-	1	1	2
	SANCHEZ RAMIREZ	-	-	1	-	1
	DUARTE	-	-	1	1	1
	MARIA TRINIDAD SANCHEZ	-	-	-	-	1
	SAMANA	-	-	-	-	-
	SALCEDO	-	-	-	-	-
	SUB-TOTAL	-	-	3	2	5
IV	BARAHONA	-	-	1	1	2
	INDEPENDENCIA	-	-	-	-	-
	PEDERNALES	-	-	-	-	-
	BAHORUCO	-	-	-	-	-
	SUB-TOTAL	-	-	1	1	2
V	SAN PEDRO DE MACORIS	-	-	1	1	2
	LA ALTAGRACIA	-	-	-	-	-
	LA ROMANA	-	1	-	-	1
	EL SEIBO	-	-	-	-	-
	SUB-TOTAL	-	1	1	1	3
	GRAND TOTAL	1	3	9	18	31

\* DATA FROM PLAN DESARROLLO DE LA SEGURIDAD SOCIAL, 1974-1978 AND  
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 DIAGNOSTICO (DE LOS SERVICIOS ASISTENCIALES ACTUALES DEL IDSS Y  
 -----  
 SU POSIBLE REORGANIZACION), BY ARQ. JULIO ALFREDO NADAL. IN

CASES OF INCONSISTENT DATA, THE LATTER SOURCE WAS USED. IN ADDITION TO THE FACILITIES SHOWN HERE, THERE ARE 122 CONSULTORIOS AS FOLLOWS: 40 IN NUCLEO CENTRAL, 5 IN REGION I, 23 IN REGION II, 18 IN REGION III, 10 IN REGION IV, AND 26 IN REGION V.

KEY: SESPAS

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HE: HOSPITAL ESPECIALIZADO/SPECIALIZED HOSPITAL  
HG: HOSPITAL GENERAL AND HOSPITAL INTEGRADO/GENERAL AND INTEGRATED HOSPITALS  
SC: SUB-CENTRO SANITARIO/HEALTH SUB-CENTER  
CR: CLINICA RURAL/RURAL CLINIC  
CS: CENTRO SANITARIO/HEALTH CENTER

IDSS

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HA: HOSPITAL CLASS "A" FACILITIES FOR SPECIALIZED MEDICINE, RESEARCH AND GENERAL MEDICINE  
HB: HOSPITAL CLASS "B" FACILITIES FOR GENERAL MEDICINE, WITH NO LESS THAN 100 BEDS  
HC: HOSPITAL CLASS "C" FACILITIES FOR GENERAL MEDICINE, WITH NO MORE THAN 100 BEDS  
PC: POLYCLINIC OUTPATIENT FACILITIES (THOSE IN SANTO DOMINGO HAVE A FEW BEDS)

HEALTH PERSONNEL

OVERPRODUCTION OF PHYSICIANS RELATIVE TO NEEDS OF PRESENT HEALTH CARE SYSTEM\*, SHORTAGE OF NURSING AUXILIARIES, REGISTERED NURSES AND NURSING TUTORS; POOR GEOGRAPHIC DISTRIBUTION OF HEALTH PERSONNEL, WITH HEAVY CONCENTRATION IN URBAN HOSPITAL SERVICE, AND LOW GOVERNMENT PAY SCALES FOR HEALTH WORKERS ARE MAJOR DIFFICULTIES CONFRONTING DOMINICAN HEALTH CARE.

HEALTH PERSONNEL (CONT'D)

HIGH PRESTIGE AND RELATIVELY HIGH SALARY LEVELS FOR PHYSICIANS ENSURE LARGE RATIO OF MD'S TO OTHER HEALTH PROFESSIONALS, THOUGH PHYSICIAN/POPULATION RATION IS LOWER THAN LATIN AMERICAN AVERAGE. OVER TWO-THIRDS OF ALL PHYSICIANS ARE GENERAL PRACTITIONERS; THE REMAINDER ARE CLASSIFIED AS SPECIALISTS, BUT SPECIALTY INTERNSHIPS AND BOARD CERTIFICATION PROGRAMS DO NOT EXIST IN COUNTRY AND MOST "SPECIALISTS" ARE SELF-PROCLAIMED.

TRAINED NURSING PERSONNEL ARE IN EXTREMELY SHORT SUPPLY: ONE GRADUATE NURSE FOR EVERY 6 PHYSICIANS. MOST NURSES ARE LOCATED IN SANTO DOMINGO AREA AND HOLD ADMINISTRATIVE POSITIONS, DIRECT CARE BEING DELEGATED TO PRACTICAL AND AUXILIARY NURSES, WHO ARE MORE COMMONLY AVAILABLE.

OVERALL RATIO OF TECHNICIANS TO PHYSICIANS IS 0.8 TO 1.

\* LARGE SCALE MIGRATION OF PHYSICIANS DUE TO LACK OF OPPORTUNITY IN COUNTRY CONSTITUTES CONSIDERABLE RESOURCE DRAIN, ESTIMATED AT OVER 50% OF ALL MEDICAL SCHOOL GRADUATES IN 1960-70 PERIOD.

DISTRIBUTION OF HEALTH PERSONNEL

MANPOWER TYPE	REGIONS						TOTAL
	I	II	III	IV	V	UNKNOWN	
PHYSICIANS	1,151	312	197	92	116		1,868
DENTISTS	234	86	48	23	27	98	516
PHARMACISTS	402	146	98	59	68	302	1,065
MED TECHS 1/	173	22	16	14	11		236
GRADUATE NURSES	182	57	36	23	19		317
AUXILIARY AND PRACTICAL NURSES	1,359	851	377	245	180		3,012

DISTRIBUTION OF HEALTH PERSONNEL (CONT'D)

LAB TECHS 2/	269	71	52	27	21			440
VETERINARIANS								150
SANITATION ENGINEERS								21
HEALTH OFFICERS								78
HEALTH EDUCATORS								25
SOCIAL WORKERS								77
AUXILIARY NUTRITIONISTS								18

1/ MEDICAL TECHNOLOGISTS HAVE UNIVERSITY DEGREE

2/ LABORATORY TECHNICIANS DO NOT HAVE UNIVERSITY DEGREE

DIET: MDR/RDA

CALORIES: 2255

CARBOHYDR	PROTEIN	FAT	CALC	PHOS	IRON	SODIUM	POT	VIT-A
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254G	46G	113G	800MG	800MG	14MG	-	-	-

FOOD AND DRINK

STARCHES: RICE, PLANTAINS, CORN, YUCCA (CASSAVA), SWEET AND WHITE POTATOES, YAUTIA (TARO) IN RURAL AND WORKING CLASS URBAN HOMES; WHEAT BREAD AND PASTA MORE IMPORTANT IN LARGE CITIES

VEGETABLES: ONIONS, TOMATOES, PEAS, GARLIC, RED PEPPERS, OKRA

FRUITS: BANANAS, AVOCADOES, MANGOES, GUAVAS, PINEAPPLE, SAPODILLA; CITRUS RARELY EATEN BY MAJORITY

## FOOD AND DRINK (CONT'D)

MEAT: BEEF PREFERRED; GOAT AND PORK ALSO USED, CURED MEATS (HAM, SAUSAGE) ARE LUXURY FOODS

POULTRY: CHICKEN; OCCASIONALLY PIGEON, DUCK, TURKEY

FAT: COCONUT, PEANUT, SOYBEAN OIL

MILK: COWS, GOATS; HOMEMADE WHITE CHEESE

LEGUMES: KIDNEY BEANS, PIGEON PEAS

OTHER: SUGARCANE

FISH: SALT COD, RED HERRING; FRESH FISH RARELY USED EXCEPT ON COAST OR BY UPPER CLASSES

BEVERAGES: COFFEE, BEER, RUM, FRUIT JUICES, COCONUT WATER, CHOCOLATE, MADE WITH WATER, AND A MIXTURE OF SWEET POTATO OR PLANTAIN AND MILK

CHILDREN'S DIET: PLANTAIN IS PRINCIPAL WEANING FOOD

## MEALS

MORNING: YUCCA OR PLANTAINS BOILED OR FRIED; CHEESE, BREAD, EGGS IF AVAILABLE

NOON: RICE, BEANS; FRESH VEGETABLES AND MEAT OR POULTRY IF AVAILABLE

EVENING: YUCCA, PLANTAINS, POSSIBLY SALT COD, PASTA AND SOUP

NOTE - STANDARD DISH IS SANCOCHO, SOUP/STEW MADE OF WHATEVER IS AT HAND: TUBERS, GREENS, MEAT, IF AVAILABLE

## NUTRITION

DEFICIT OF CALORIES (POOR AVERAGED 1,062 CALORIES/PERSON/DAY. MIDDLE CLASS, 2,301 CALS/PERSON/DAY FOR NATIONAL AVERAGE OF 1,634 IN 1969). IN THAT YEAR, GODR STUDY INDICATED THAT CALORIC CONSUMPTION WAS 79% OF STANDARD NORMAL NEEDS, PROTEIN, 82%; CALCIUM, 63%; IRON, 79%; VITAMIN A, 5%; THIAMIN, 86%; RIBOFLAVIN, 55%; NIACIN, 94%; PYRIDOXINE, 54% AND FOLIC ACID, 37%. ONLY 15% OF SAMPLE HAD REASONABLY SATISFACTORY DIET AND EVEN THESE DID NOT CONSUME RECOMMENDED AMOUNTS OF SEVERAL VITAMINS AND MINERALS. 70% OF SAMPLE HAD INADEQUATE LEVELS OF ONE OR MORE ESSENTIAL NUTRIENTS; DIETS OF LOWEST 15% WERE BARELY ADEQUATE TO SUSTAIN MINIMAL ACTIVITY LEVELS.

## UTENSILS

IN URBAN AREAS, FOOD IS COOKED INSIDE THE HOUSE ON STOVES (KEROSENE, PROPANE GAS OR CHARCOAL-FUELED); IN RURAL AREAS, COOKING IS DONE OUTDOORS ON CLAY OR STONE HEARTH. WOOD AND CHARCOAL ARE USUAL RURAL FUELS. EARTHENWARE, CAST IRON AND ALUMINUM POTS (2-5 GAL CAPACITY) AND PANS (6-12" DIAMETER) ARE USED FOR COOKING.

PLASTIC OR POTTERY PLATES AND CUPS AND STEEL SPOONS ARE STANDARD EATING UTENSILS.

## HOUSING

### RURAL

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TYPICAL RURAL DWELLING IS THE BOHIO, A RECTANGULAR 2-ROOM BUILDING WITH GABLED ROOF; WALLS MADE OF PALM PLANKS, YAGUA (ROYAL PALM FRONDS) OR STICKS WOVEN TOGETHER WITH STRING, WIRE OR VINES, OFTEN PLASTERED WITH MUD; ROOFS MADE OF PALM BARK OR LEAF OR BANANA LEAVES, OCCASIONALLY METAL; FLOORS USUALLY EARTHEN.

BETTER QUALITY RURAL HOUSING IS USUALLY OF CEMENT OR CONCRETE BLOCK WITH METAL, SHINGLE OR TILE ROOFS. CEMENT OR WOOD FLOORING POSSIBLE BUT NOT USUAL. MORE WINDOWS THAN IN TYPICAL LATIN AMERICAN HOUSE, THOUGH THEY ARE SELDOM OPENED. ELECTRICITY, PIPED WATER AND INDOOR PLUMBING ARE RARE: OUTDOOR LATRINES AND USE OF SPRINGS AND STREAMS FOR WASHING ARE THE NORM. WATER IS CARRIED IN CANS FROM COMMON SOURCES, VIRTUALLY ALL OF WHICH ARE CONTAMINATED.

## URBAN

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HOUSING SCARCITY, WORST IN SANTO DOMINGO, AROUND WHICH EXTENSIVE SQUATTER COMMUNITIES OF MAKESHIFT SHACKS HAVE GROWN. OLDER LOWER CLASS HOUSING IS TYPIFIED BY CASAS DE VECINDAD, TENEMENTS WITH COMMUNAL SANITARY FACILITIES, BUT WITHOUT KITCHENS OR BATHROOMS.

AS OF 1969, PAHO ESTIMATED THAT 32% OF POPULATION LIVED IN HOUSING WITH EASILY ACCESSIBLE OUTDOOR PIPED WATER CONNECTIONS AND 12.4% IN DWELLINGS WITH SEWER CONNECTIONS. (MOST WATER AND ALL SEWERAGE CONNECTIONS LOCATED IN URBAN AREAS.) ELECTRICITY GENERALLY LIMITED TO URBAN AREAS; KEROSENE LAMPS USED IN COUNTRYSIDE. LARGE PERCENTAGE OF PERSONS LIVING IN HOUSES OF 10 OR MORE RESIDENTS INDICATES HIGH DENSITY OF URBAN MARGINS AND REFLECTS PREFERENCE IN LOWER CLASSES FOR RESIDENTIAL UNIT COMPRISING 2 OR MORE RELATED NUCLEAR FAMILIES.

## HOUSING DEFICIT

RAPID POPULATION GROWTH AND INCREASING RURAL-URBAN MIGRATION HAVE CREATED CONSIDERABLE SHORTAGE OF HOUSING, ESTIMATED AT 450,000 UNITS IN 1973, WITH 30,000 NEW UNITS NEEDED ANNUALLY MERELY TO MAINTAIN STATUS QUO. (ACTUAL NUMBER OF UNITS BUILT PER YEAR AVERAGED 4200.) NATIONAL HOUSING INSTITUTE (INVI) AND NATIONAL HOUSING BANK (BVN) ARE CHARGED WITH ALLEVIATING PROBLEM. IDB LOANS FOR HOUSING HAVE BEEN ADVANCED AND 1973 HOUSING EXPENDITURES IN NATIONAL BUDGET TOTALLED 5.9%.

## OVERVIEW OF ECONOMY

PRODUCTIVE LAND (FERTILE SOILS AND MINERAL WEALTH) WITH SCENIC AND RECREATIONAL TOURISM POTENTIAL, MILD CLIMATE WITH SUFFICIENT RAINFALL, GOOD PHYSICAL INFRASTRUCTURE, LARGE LABOR SUPPLY AND LOCATION NEAR US AND ON MAJOR TRADE ROUTES ENHANCE COUNTRY'S ECONOMIC POTENTIAL; SMALL SIZE AND POPULATION, LACK OF SKILLED WORKERS, MANAGERS AND TECHNICIANS AND LIMITED NATURAL RESOURCES (E.G., AS YET NO DOMESTIC FUEL SOURCES OTHER THAN WOOD/CHARCOAL) LIMIT IT. PRESENT PER CAPITA GNP (US \$650 IN 1974) IS WELL BELOW AVERAGE FOR SAME YEAR (US \$950-960) IN CENTRAL AND SOUTH AMERICA. MOST WEALTH IS CONTROLLED BY SMALL ELITE AND MOST OF RURAL POPULATION EXISTS OUTSIDE MONEY ECONOMY. AGRICULTURE, IN PARTICULAR, SUGAR PRODUCTION, DOMINATES ECONOMY: FLUCTUATIONS IN WORLD SUGAR MARKET AND IMPORTERS' QUOTAS HAVE HAD ENORMOUS PAST IMPACTS ON DOMINICAN AFFAIRS; HOWEVER, FOOD CROPS, GROWN ON POORER LAND WITH TRADITIONAL PRACTICES, ARE USUALLY PRODUCED IN INSUFFICIENT QUANTITY, NECESSITATING IMPORTS. (IN CONTRAST, EXPORT CROPS, SUGAR, COFFEE, CACAO, PREEMPT BEST LAND, BENEFIT FROM MODERN INPUTS AND TECHNIQUES.)

INDUSTRY, MUCH OF IT STATE-CONTROLLED, WITH SUGAR REFINING A MAJOR ACTIVITY, HAS EXPANDED CONSIDERABLY IN RECENT YEARS, THOUGH LITTLE HEAVY INDUSTRY EXISTS AND MANY MANUFACTURED GOODS MUST BE IMPORTED. (NICKEL REFINING, OIL REFINING, AGRICULTURAL COMMODITY PROCESSING, BREWING, FLOUR MILLING, CEMENT PRODUCTION ARE IMPORTANT INDUSTRIES.) MINING OF NICKEL, BAUXITE, GOLD AND SILVER PROVIDES SECOND MOST IMPORTANT CLASS OF EXPORTS. BOTH ABOVE SECTORS ARE CAPITAL INTENSIVE AND PROVIDE RELATIVELY FEW EMPLOYMENT OPPORTUNITIES. SIMILARLY, TOURISM, NOW UNDERGOING RAPID DEVELOPMENT, LACKS COMPREHENSIVE DEVELOPMENT PLANNING WHICH COULD REDUCE PRESENT HIGH LEVELS OF CAPITAL INTENSIVE DEVELOPMENT AND OF IMPORTED OPERATING SUPPLIES.

UNEMPLOYMENT AND, PARTICULARLY IN AGRICULTURE, UNDEREMPLOYMENT, ARE FAR TOO COMMON IN BOTH URBAN AND RURAL AREAS, VARYING FROM 20% UNEMPLOYMENT AND 60% UNDEREMPLOYMENT IN SANTO DOMINGO TO 40% UNEMPLOYMENT IN AGRICULTURAL LABOR FORCE. MIGRATION OF RURAL POOR TO CITIES FEEDS URBAN UNEMPLOYMENT, BUT RATE OF INCREASE OF RURAL EMPLOYMENT (0.7%/YEAR) IS FAR BELOW RATE OF ENTRY INTO LABOR FORCE. INCOME DISTRIBUTION APPEARS TO HAVE BECOME INCREASINGLY SKEWED IN RECENT YEARS, INCOMES IN MODERN SECTOR INCREASING, IN TRADITIONAL SECTOR DECLINING, WHILE REAL WAGES ALSO FELL IN PUBLIC SECTOR. INSUFFICIENT PUBLIC SECTOR SALARIES ARE INDICATIVE OF MAJOR

## OVERVIEW OF ECONOMY (CONT'D)

PROBLEM CONFRONTING ECONOMIC PLANNERS: INADEQUATE MAINTENANCE OF INFRASTRUCTURE SYSTEMS (TRANSPORTATION, IRRIGATION, POWER PLANTS, PUBLIC HEALTH FACILITIES). INSUFFICIENT AGRICULTURAL INCENTIVES AND INPUTS IN INEFFECTIVE SOCIAL WELFARE PROGRAMS DETRACT FROM EXTENSIVE GOVERNMENT INVESTMENTS.

## UPDATE

DURING 1970-74 PERIOD, DOMINICAN ECONOMY EXPANDED RAPIDLY (AVERAGE ANNUAL GROWTH RATE WAS 11%) DUE TO LARGE INFLOW OF PRIVATE CAPITAL INTO MINING, MANUFACTURING AND AGRICULTURE, TO RAPID EXPORT GROWTH AND TO A DYNAMIC PUBLIC INVESTMENT PROGRAM. MINING (NOTABLY FALCONBRIDGE FERRO-NICKEL PLANT), INDUSTRY (INCLUDING SUGAR REFINING), CONSTRUCTION AND SERVICES ACCOUNTED FOR MOST IMPORT GROWTH. TOURISM ALSO EXPANDED CONSIDERABLY. GROWTH IN TOTAL AGRICULTURAL PRODUCTION WAS SLOWER SINCE INCREASES IN EXPORT CROPS (SUGAR, COFFEE, COCOA, TOBACCO) WERE COUNTER-BALANCED BY SLOW GROWTH IN FOOD CROPS.

1975 SUGAR PRICES WERE NOT AS HIGH AS HAD BEEN ANTICIPATED; AS A RESULT, RESERVE BUILD-UP WAS LESS THAN HAD BEEN PREDICTED. IN ADDITION, 1975'S SEVERE DROUGHT LOWERED QUANTITY OF SUGAR EXPORTS WHILE INCREASING LEVELS OF FOOD IMPORTS. VOLUME OF BAUXITE AND FERRONICKEL EXPORTS ALSO DROPPED BECAUSE OF WEAK FOREIGN DEMAND, THOUGH DROP WAS OFFSET BY START OF GOLD AND SILVER EXPORTS FROM NEWLY OPENED ROSARIO MINE. OVERALL, GDP INCREASED 4.7% IN CONSTANT PRICES IN 1975. 1976 GAINS, ABOUT 3% OVER 1975, WERE MODEST. GOOD WEATHER LEAD TO RECOVERY IN AGRICULTURE AND STOCKRAISING. INCREASED PRICES FOR GOLD AND COFFEE AND HIGHER EARNINGS FROM TOURISM WERE OFFSET BY HIGHER PRICES FOR PETROLEUM AND BY WITHOLDING OF SUGAR SALES IN EARLY 1976 FOLLOWED BY DRASTIC DROP IN WORLD SUGAR PRICES. SERIOUS BALANCE OF PAYMENTS PROBLEMS WERE MITIGATED ONLY BY LOANS FROM FOREIGN SUPPLIERS. HIGHER SUGAR OUTPUT AND INCREASED MEAT PRODUCTION ARE EXPECTED IN 1977, BUT IMPORTS OF FOOD GRAINS, OILSEEDS AND EDIBLE OILS ARE EXPECTED TO CONTINUE.

1975 GNP

	<u>US \$ MILLION</u>	<u>PERCENT</u>
GNP AT MARKET PRICES	3517	100.0
GROSS DOMESTIC INVESTMENT	808	23.0
GROSS NATIONAL SAVING	632	18.0
CURRENT ACCOUNT BALANCE	-176	-5.0
EXPORTS OF GOODS, NFS	998	28.4
IMPORTS OF GOODS, NFS	1081	30.7

GDP  
(AT CONSTANT PRICES)

	<u>1960</u>	<u>1970</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
<u>CONSUMPTION</u>	<u>620.6</u>	<u>1142.5</u>	<u>1383.7</u>	<u>1519.6</u>	<u>1573.4</u>
PRIVATE	529.6	1018.0	1268.7	1352.8	1443.2
PUBLIC	91.0	124.5	115.0	166.8	130.2
<u>GROSS DOMESTIC INVESTMENT</u>	<u>76.5</u>	<u>239.1</u>	<u>416.3</u>	<u>481.8</u>	<u>533.3</u>
FIXED INVESTMENT	67.3	218.3	406.2	458.0	523.9
PUBLIC	(34.9)	(66.7)	(134.9)	(162.9)	180.4
PRIVATE	(32.4)	(151.6)	(271.3)	(295.1)	343.5
CHANGE IN STOCKS	9.2	20.7	10.1	23.8	9.4
EXPORT OF GOODS AND NFS	188.7	202.4	365.0	380.9	370.7

GDP (CONT'D)

IMPORT OF GOODS AND NFS	110.2	311.5	392.9	477.4	475.0
NET EXPORT OF GOODS AND NFS	78.5	-109.1	-27.9	-96.5	-104.3
-----					
GROSS DOMESTIC PRODUCT AT MARKET PRICE	775.6	1272.5	1772.1	1904.9	2002.4
-----					
NET FACTOR PAYMENTS ABROAD (-)	9.0	22.1	53.4	46.8	43.7
-----					
GROSS NATIONAL PRODUCT AT MARKET PRICE	766.6	1250.4	1718.7	1858.1	1958.7
-----					
GROWTH RATE OF GNP (PERCENT)	-	10.6	11.4	8.1	5.4

IMPORTS

1970-74 INCREASES IN IMPORTS WERE LARGELY IN CONSUMER GOODS, NOTABLY FOOD, BEVERAGES AND AUTOMOBILES. FUELS, CAPITAL GOODS AND INTERMEDIATE PRODUCTS WERE ALSO IMPORTANT. PAYMENTS FOR FREIGHT ON IMPORTS ROSE NEARLY 5-FOLD BETWEEN 1970 AND 1974 BECAUSE OF INCREASED FUEL COSTS AND VOLUME OF MERCHANDISE IMPORTS. GOVERNMENT HAS ATTEMPTED TO RESTRICT IMPORT GROWTH THROUGH HIGHER DUTIES ON AUTOMOBILES, MORE SELECTIVE CREDIT POLICIES, LIMITS ON AVAILABILITY OF FOREIGN EXCHANGE AT OFFICIAL RATES FOR CERTAIN MERCHANDISE IMPORTS AND BY MONITORING ALL PUBLIC AND PRIVATE EXTERNAL OBLIGATIONS. HOWEVER, RISE IN DOMESTIC PRICES OF BASIC FOODSTUFFS HAS PUSHED PRICES OF LOCALLY PRODUCED RICE, CORN, SOYBEAN OIL AND PEANUT OIL ABOVE THOSE OF IMPORTED COMMODITIES. IMPORTS OF RICE AND VEGETABLE OIL HAVE GROWN RAPIDLY AS LOCAL PRODUCTION FAILED TO KEEP PACE WITH DEMAND.

## IMPORTS (CONT'D)

IMPORTS (DR \$ MILLIONS)	1970	1974	INCREASE IN MILLIONS OF DR\$	COMPOSITION PERCENT OF INCREASE
TOTAL	295.8	818.8	523.0	100.0
CONSUMER GOODS	76.9	225.1	148.2	28.4
FOOD AND BEVERAGES	44.3	133.7	89.4	17.1
OTHERS	32.6	91.4	58.8	11.3
(AUTOMOBILES)	(15.7)	(47.0)	(31.3)	(6.0)
FUELS	19.3	155.0	135.7	25.9
INTERMEDIATE AND PRIMARY GOODS	105.4	239.5	134.1	25.6
CAPITAL GOODS	94.2	199.2	105.0	20.1

SEE ALSO AGRICULTURAL IMPORTS

NOTE - OFFICIAL IMPORT STATISTICS FOR 1970-74 MAY BE UNDERSTATED AS MUCH AS 10%, POSSIBLY BECAUSE OF SMUGGLING AND UNDERINVOICING IMPORTS WITH "OWN EXCHANGE", ACCORDING TO RECENT IBRD REPORT.

## EXPORTS

SUGAR EXPORTS HAVE INCREASED ABOUT 1% ANNUALLY FROM 892,000 MT IN 1960-62 TO 1 MILLION MT IN 1973-75. A DECADE AGO OVER 90% OF DOMINICAN SUGAR EXPORTS WENT TO US, BUT SINCE EXPIRATION OF US SUGAR ACT IN 1974, MARKET HAS BEEN DIVERSIFIED TO INCLUDE PORTUGAL, ITALY, SWEDEN AND IRAN. SUGAR EXPORT PRICES, BELOW CARIBBEAN

EXPORTS (CONT'D)

AVERAGE IN 1973-74, WERE ABOVE WORLD AVERAGE IN 1975 AND 1976. IN 1975, WORLD-WIDE RECESSION LOWERED DEMAND FOR MINERAL EXPORTS (BAUXITE AND FERRONICKEL). 1975 DROUGHT REDUCED VOLUME OF AGRICULTURAL EXPORTS, THOUGH IMPROVED COFFEE AND COCOA PRICES PARTIALLY COMPENSATED FOR LOWERED QUANTITIES.

	AV 1974-76		1976	
	US\$ MLN	PER-CENT	US\$ MLN	PER-CENT
SUGAR*	410.9	54.9	290.0	40.5
FERRONICKEL	102.0	13.6	110.8	15.5
COFFEE	63.2	8.4	100.8	14.1
TOBACCO*	38.3	5.1	39.9	5.6
COCOA*	42.3	5.7	49.9	7.0
BAUXITE	16.7	2.2	15.5	2.2
RED MEAT	7.3	1.0	8.2	1.1
ALL OTHER COMMODITIES	68.5	9.1	101.3	14.0
TOTAL	749.2	100.0	716.4	100.0

SEE ALSO AGRICULTURAL EXPORTS

\* INCLUDES BY-PRODUCTS

## OVERVIEW OF AGRICULTURE

AGRICULTURE ACCOUNTS DIRECTLY FOR ONE-FIFTH OF DR'S GDP AND TWO-THIRDS OF TOTAL EXPORT REVENUES; SECTOR EMPLOYS 6 OUT OF 10 DOMINICANS. TOTAL AGRICULTURAL PRODUCTION HAS INCREASED AT AN AVERAGE RATE OF 2.5%/YEAR SINCE 1960, MOSTLY BY EXPANDING AREA UNDER CULTIVATION; CONTINUED GROWTH MUST COME FROM IMPROVED YIELDS PER UNIT OF LAND. INCREASED PRODUCTION OF FOOD, EXPORT AND INDUSTRIAL CROPS IS A PREREQUISITE FOR ECONOMIC GROWTH AND SOCIAL PROGRESS. THOUGH NEARLY ALL ARABLE LAND IS ALREADY DIVIDED INTO FARMS, MUCH IS UNDERUTILIZED. GOVERNMENT HOLDINGS, 9% OF TOTAL FARMLAND, ARE LARGELY UNPRODUCTIVE; BOTH VERY LARGE AND VERY SMALL HOLDINGS ARE LIKELY TO BE UNDERUTILIZED AND FEW MIDDLE-SIZED FARMS EXIST. ABOUT HALF OF ALL FARMLAND IS IN IMPROVED PASTURES; WITH IMPROVED MANAGEMENT, STOCKING RATES COULD BE DOUBLED OR TRIPLED. SECTOR HAS SMALL MODERN COMMERCIAL COMPONENT, BUT MAJORITY OF FARMS ARE MINIFUNDIA WORKED BY HAND LABOR. FERTILIZERS, PESTICIDES AND HERBICIDES ARE USED ONLY BY COMMERCIAL FARMS AND THOSE FEW SMALL FARMS ORGANIZED INTO COOPERATIVES. CREDIT IS USUALLY ONLY AVAILABLE TO SMALL FARMER THOUGH LOCAL MILLS OR BUYERS WHO EXTEND IT IN EXCHANGE FOR LIEN ON CROP. THUS, GOVERNMENT PRICE INCENTIVES SELDOM REACH SMALL FARMER.

YEAR ROUND GROWING SEASON, GENERALLY SUFFICIENT RAINFALL AND/OR IRRIGATION SOURCES AND FERTILE SOILS PERMIT CULTIVATION OF A WIDE RANGE OF CROPS. EVEN ON SUBSISTENCE LEVEL, BEST SOILS ARE RESERVED FOR COMMERCIAL CROPS: SUGAR, COFFEE, CACAO AND TOBACCO. SUGAR, BY FAR THE MOST IMPORTANT CASH CROP, OCCUPIED 43% OF ARABLE LAND IN 1975. CARIBBEAN COASTAL PLAIN EAST OF CAPITAL IS MAJOR CENTER OF CULTIVATION. LARGE ESTATES, MOST STATE-OWNED, PRODUCE 75-80% OF CROP. (IN CONTRAST, 2% OF ARABLE LAND WAS DEVOTED TO ROOTS AND TUBERS, MAJOR SUBSISTENCE CROP, IN 1975.) COFFEE, SECOND EXPORT CROP, IS GROWN ON SMALL FARMS USING TRADITIONAL TECHNIQUES. YIELDS ARE LOW. SLOPES (1,000-3,000') OF CIBAO VALLEY, SE CORDILLERA CENTRAL AND NE SIERRA DE BAHORUCO ARE CENTERS OF CULTIVATION. RED BEANS, YUCCA (CASSAVA), SWEET POTATOES, YAUTIA (TARO), WHITE POTATOES AND PIGEON PEAS, ALL IMPORTANT SUBSISTENCE CROPS, ARE GROWN THROUGHOUT COUNTRY, WHILE RICE IS GROWN ON IRRIGATED LAND IN WESTERN CIBAO VALLEY AND YUNA RIVER BASIN, BANANAS AND PLANTAINS IN NW AND CORN IN LUPERON AREA OF PUERTO PLATA PROVINCE.

COCONUTS AND PEANUTS ARE MAJOR DOMESTIC SOURCES OF EDIBLE OILS, BUT IMPORTED SOYBEAN OIL IS MOST FREQUENTLY USED TYPE.

## AGRICULTURE (CONT'D)

TRADITIONAL PRACTICES PREDOMINATE IN LIVESTOCK SECTOR; CATTLE,\* 1.5 MILLION HEAD IN 1973, SWINE, 780,000, AND GOATS ARE GENERALLY RAISED IN SMALL NUMBERS ON SUBSISTENCE FARMS, THOUGH LARGE CATTLE AND SWINE FARMS DO EXIST. HIGH MORTALITY RATES AND LOW BIRTH RATES, DUE TO DISEASE AND/OR POOR NUTRITION, LIMIT GROWTH OF NATIONAL HERD.

LAND REFORM, WATER USE, IMPROVED MARKETING AND AVAILABILITY OF CREDIT ARE MAJOR FACTORS NEEDED FOR PROGRESS IN SECTOR. IBRD SUGGESTIONS FOR INCREASING PRODUCTIVITY INCLUDE:

- ... IMPROVING COORDINATION BETWEEN GODR AGENCIES ACTIVE IN SECTOR, ESPECIALLY WATER RESOURCES
- ... EXEMPTION OF MEDIUM-SCALE PRODUCERS WHO PRACTICE EFFICIENT LAND USE FROM LAND REFORM PROGRESS
- ... IMPROVING CROP MARKETING MECHANISMS
- ... EXTENDING CREDIT TO SMALL-SCALE FARMERS
- ... REVISION OF WATER PLANNING TO FOCUS ON UPGRADING EXISTING FACILITIES (RATHER THAN CONSTRUCTING LARGE NEW ONES) AND IMPROVING MAINTENANCE
- ... MATCHING CROPS TO SOILS IN IRRIGATED AREAS

\* 30% BEEF, 35% DAIRY, 10% DRAFT, REMAINDER MULTIPURPOSE ANIMALS

## FOOD DEFICIT

ANNUAL AVERAGE GROWTH RATE OF FOOD PRODUCTION (4.2% SINCE 1960) HAS EXCEEDED POPULATION GROWTH RATE, BUT LARGE NUTRITIONAL DEFICIT PERSISTS. TOTAL PRODUCTION OF FOOD CROPS IS ABOUT 260,000 TONS (NUTRITIONAL EQUIVALENT OF MILLED RICE) ANNUALLY, WHILE REQUIREMENTS FOR ADEQUATE DIET TOTAL 620,000 TONS. IMPORTS ADD 260,000 TONS PER YEAR, LEAVING GAP OF 100,000 TONS. IMPACT ON INDIVIDUAL NUTRITION: AVERAGE PEASANT CONSUMES 71% OF CALORIC REQUIREMENT AND 73% OF PROTEIN NEEDS. ACHIEVEMENT OF PRODUCTION LEVELS FOR FOOD CROPS ATTAINED IN OTHER LATIN AMERICAN COUNTRIES COULD BRING NATIONAL FOOD SELF-SUFFICIENCY BY 1990.

PLANTING AND HARVESTING DATES

COMMODITY -----	PLANTING SEASON -----	HARVESTING SEASON -----
BEVERAGES:		
CACAO:		
MAIN SPRING CROP.....	----	MARCH-JUNE
INTERMEDIATE WINTER CROP.....	----	OCTOBER-FEBRUARY
COFFEE:		
LOWLANDS.....	OCTOBER-MARCH (SEEDLINGS TRANSPLANTED TO FIELD)	AUGUST-OCTOBER
985-3,000 FEET.....		OCTOBER-DECEMBER
OVER 3,000 FEET.....		NOVEMBER-MARCH
CEREALS AND GRAINS:		
CORN:		
FIRST CROP.....	MARCH-APRIL.....	JUNE-JULY
SECOND CROP.....	AUGUST-SEPTEMBER.....	DECEMBER
RICE*.....	APRIL-AUGUST.....	SEPTEMBER-MARCH
FEEDSTUFFS:		
GRAIN SORGHUM.....	NOVEMBER.....	MARCH
FIBERS:		
COTTON.....	AUGUST-SEPTEMBER.....	BEGINS DECEMBER
FRUITS:		
BANANAS (TRANSPLANTING)	----	MAY- FEBRUARY
CITRUS.....	----	THROUGHOUT YEAR
PINEAPPLES.....	----	APRIL-OCTOBER
PLANTAINS.....	----	THROUGHOUT YEAR
OILSEEDS:		
PEANUTS.....	APRIL-MAY.....	OCTOBER-JANUARY
SESAME:		
LOWLANDS.....	APRIL-MAY.....	AUGUST
UPLANDS.....	AUGUST-SEPTEMBER.....	DECEMBER
SUGARCANE:		
PRINCIPAL CROP (SOUTHERN SECTION)	MARCH-OCTOBER.....	JANUARY-JUNE
SECONDARY CROP (NORTHERN SECTION)	"	JUNE-SEPTEMBER

PLANTING AND HARVESTING DATES (CONT'D)

TOBACCO:

SEED..... SEPTEMBER..... ---  
 PLANTS SET OUT..... NOVEMBER-JANUARY..... MAY-AUGUST

VEGETABLES:

BEANS:

LOWLAND..... OCTOBER-DECEMBER..... JANUARY-MARCH  
 MOUNTAINS..... MAY-SEPTEMBER..... JULY-NOVEMBER

POTATOES:

LOWLAND..... NOVEMBER-JANUARY..... FEBRUARY-APRIL  
 MOUNTAINS..... APRIL-JULY..... JULY-SEPTEMBER

YUCCA:

LOWLAND..... JANUARY-MAY, AUGUST-JUNE  
 AUGUST-OCTOBER

MOUNTAINS..... JUNE-JULY..... AUGUST-JUNE

CHICKPEAS..... THROUGHOUT YEAR..... THROUGHOUT YEAR

SWEET POTATOES..... SEPTEMBER-JANUARY\*\*..... FEBRUARY-MARCH\*\*

\* SMALL QUANTITIES OF RICE ARE BOTH PLANTED AND HARVESTED DURING EVERY MONTH OF THE YEAR.

\*\* HEAVIEST PLANTING AND HARVESTING TAKES PLACE DURING THESE MONTHS.

IMPORTS

1976 AGRICULTURAL IMPORTS EXCEEDED 1975 LEVELS; 1975 DROUGHT WAS PARTIALLY RESPONSIBLE FOR INCREASED PURCHASES OF WHEAT, FEED GRAINS, SOYBEANS AND VEGETABLE PRODUCTS. DEMAND FOR WHEAT, CORN AND SOYBEANS IS EXPECTED TO CONTINUE DESPITE GOVERNMENT CONTROL EFFORTS. RICE IMPORTS WILL BE NEEDED TO IMPROVE RESERVE STOCKS, IF NOT TO SUPPLEMENT DOMESTIC PRODUCTION. IMPORTS OF SOYBEANS FOR EDIBLE OIL AND PROTEIN MEAL WILL PROBABLY CONTINUE.

PRINCIPAL AGRICULTURAL IMPORTS BY VOLUME (MT)

	1960	1970	1974	1975	1976
RICE	-	-	70,301	49,509	49,200

IMPORTS (CONT'D)

WHEAT	29,387	49,881	86,472	99,372	149,985
CORN	-	7,436	66,499	54,510	60,000
TOBACCO	264	702	3,335	1,206	1,210
RED BEANS	-	6,959	1,932	9,070	5,445

AVERAGE UNIT PRICE (US\$)

RICE	-	-	575	388	427
WHEAT	69	75	252	406	365
CORN	-	75	148	167	168
TOBACCO	1,773	2,507	2,745	N.D.	N.D.
RED BEANS	-	153	739	818	749

EXPORTS

1976 EXPORTS OF AGRICULTURAL ORIGIN TOTALLED NEARLY US \$500 MILLION, OFF \$200 MILLION FROM 1975. SINCE 1974, DECLINES IN EXPORTS OF SUGAR, COCOA, TOBACCO, YUCCA, BEEF AND TOMATO PASTE HAVE NOT BEEN MATCHED BY INCREASING EXPORTS OF COFFEE, PROCESSED COCONUT, PLANTAINS, PEPPERS AND CANNED PEAS. SUGAR IS BY FAR THE MOST IMPORTANT EXPORT, CONSTITUTING 40-60% OF TOTAL EXPORT VALUE. LIMITED PROCESSING CAPABILITY AND FALLING YIELDS/CULTIVATED HECTARE RESTRICT EXPANSION OF PRODUCTION. INCREASING DOMESTIC DEMAND LIMITS EXPORT LEVELS. VALUE OF COFFEE EXPORTS HAS INCREASED TREMENDOUSLY, BUT VOLUME HAS NOT. THIRD LARGEST AGRICULTURAL EXPORT, COCOA, REBOUNDED FROM 1975 LOW TO 1974 LEVELS.

SUGAR EXPORTS IN MILLION \$

	1970	1973	1974	1975	1976
AGRICULTURAL PRODUCTS (PROCESSED AND UN- PROCESSED)					
SUGAR AND BY-PRODUCTS	115.9	205.8	348.1	594.5	290.0

VOLUME (1,000 MT)

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	792.8	1,038.4	1,024.2	946.8	NA
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OTHER AGRICULTURAL EXPORTS BY VOLUME (MT)

	<u>1960</u>	<u>1970</u>	<u>1974</u>	<u>1975</u>
CACAO	26,129	34,389	26,560	25,725
COFFEE	29,239	26,935	35,864	44,535
TOBACCO	15,194	19,535	42,326	31,847
BEEF	-	3,428	6,660	3,796
TARO (YAUTIA)	273	7,122	10,146	9,522
BANANA	180,383	3,609	27,580	23,906
DRY COCONUTS	4,730	7,566	3,842	7,378

AVERAGE UNIT PRICE (US\$)

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CACAO	534	557	1,669	1,132
COFFEE	772	1,023	1,264	1,364

OTHER AGRICULTURAL EXPORTS (CONT'D)

TOBACCO	443	714	922	1,095
BEEF	-	989	1,408	1,224
TARO (YAUTIA)	70	89	172	183
BANANAS	62	86	55	61
DRY COCONUTS	73	96	208	217

\* EXCLUDING SUGAR AND PRODUCTS

## CLIMATE

DESPITE ITS LOCATION, 3 TO 5 DEGREES SOUTH OF TROPIC OF CANCER, DOMINICAN REPUBLIC HAS PLEASANTLY WARM MARITIME CLIMATE DUE TO INFLUENCE OF SURROUNDING OCEAN, TRADE WINDS AND HISPANIOLA'S MOUNTAINOUS NATURE. LATTER CHARACTERISTIC IS RESPONSIBLE FOR VARIETY OF MICROCLIMATES ENCOUNTERED WITHIN ITS 19,000 SQ MI AREA. AVERAGE ANNUAL TEMPERATURES DIFFER PRIMARILY WITH ELEVATION: LOWLANDS AVERAGE 78 DEGREES FAHRENHEIT, FOOTHILLS (1-2,000') 75 DEGREES F, WHILE FROSTS ARE COMMON IN COOL SEASON ABOVE 3,600'. CAPITAL CITY ON CARIBBEAN COASTAL PLAIN HAS SUMMER MAXIMA AROUND 90 DEGREES F, BUT TRADES BRING COOLER NIGHTS; WINTER MAXIMA AVERAGE 71 DEGREES F, SEASONAL VARIATION IS ABOUT 5-8 DEGREES F. RAINFALL IS HEAVIEST IN NORTH AND EAST, DIMINISHING TO SOUTH AND WEST AS MOISTURE-LADEN TRADES PASS OVER SERIES OF MOUNTAIN RANGES. THE SAMANA PENINSULA AT THE ISLAND'S NE EXTREMITY AVERAGES 100" ANNUALLY AT ITS EASTERN TIP AND 75" WHERE IT MEETS MAIN LAND MASS. ON NORTH COAST, PUERTO PLATA RECEIVES 70", BUT MONTE CRISTI ONLY 30". IN CIBAO VALLEY, RANGE IS FROM 66" AT LA VEGA TO 40" AT SANTIAGO DE LOS CABALLEROS. HEAVIEST MEASURED PRECIPITATION, 110", OCCURS ON NE SLOPE OF CORDILLERA ORIENTAL. ON THE SOUTH SIDE OF THE SAME RANGE, PRECIPITATION AT EL SEIBO AVERAGES 61"/YEAR. LOWEST RAINFALL AVERAGES, 24" ANNUALLY, ARE FOUND IN PARTS OF NEIBA VALLEY. EFFECTS OF MODERATE RAINFALL ALONG HAITIAN BORDER ARE NEGATED BY EXTREME POROSITY OF SOILS AND HIGH RATES OF EVAPORATION. MOST PARTS OF THE COUNTRY EXPERIENCE TWO FAIRLY WELL-DEFINED RAINY SEASONS IN LATE SPRING AND FALL. EXCEPTIONS INCLUDE NORTH COAST BETWEEN PUERTO PLATA AND LUPERON, WHERE RAINFALL IS LOWEST IN SUMMER AND HIGHEST IN NOVEMBER AND DECEMBER, AND THE VICINITY OF LAKE ENRIQUILLO, WHERE 3 PEAKS OCCUR IN JANUARY, MAY AND OCTOBER. SANTO DOMINGO RECEIVES 2/3 RDS OF ITS PRECIPITATION BETWEEN MAY AND NOVEMBER, BUT HUMIDITY IS HIGH YEAR-ROUND.

TROPICAL WEATHER DISTURBANCES ARE COMMON JUNE THROUGH NOVEMBER; FREQUENT SQUALLS WITH WIND VELOCITIES OF 30-45 MPH. HURRICANES SELDOM OCCUR BEFORE AUGUST. TRACKS OF MAXIMUM INTENSITY PASS TO EAST AND WEST OF ISLAND, BUT CARIBBEAN COAST HAS SUFFERED CONSIDERABLE DAMAGE IN PAST YEARS.

### TEMPERATURES\*

LOCATION	ALTITUDE IN METERS	AUG	JAN	VARIATION
AZUA	81	28.5	25.0	3.5

TEMPERATURES (CONT'D)

BAYAGUANA	52	28.2	24.6	3.6
BONAO	172	27.3	22.7	4.6
CONSTANZA	1,234	19.2	15.5	3.7
LA ROMANA	5	27.7	24.0	3.7
MONTE CRISTI	15	28.3	23.8	4.5
MONTE PLATA	49	26.1	21.8	4.3
POLO	1,200	23.0	19.5	3.5
SANTO DOMINGO	14	27.1	24.0	3.1
SAN JUAN	409	26.4	21.5	4.9
SANTIAGO	222	28.3	23.5	4.8
VILLA RIVA	27	27.6	24.3	3.3
PUERTO PLATA	6	26.7	22.4	4.3

\* IN MEAN DEGREES CENTIGRADE

NOTE: AUGUST IS WARMEST MONTH; JANUARY, COOLEST.

RAINFALL

ZONE -----	ANNUAL RAINFALL (MM) -----
SIERRA DE BAHORUCO	750-2,000
AZUA, BANI, SAN CRISTOBAL	750-2,250
OZAMA RIVER BASIN	1,400-2,250
SAN PEDRO DE MACORIS AND LA ROMANA	1,000-2,250

## RAINFALL (CONT'D)

HIGUEY	1,000-1,750
MICHES AND SABANA DEL MAR	2,000-2,700
SAMANA PENINSULA	
NORTHERN COASTAL ZONE	1,000-2,300
YUNA RIVER BASIN	1,170-2,250
YAQUE DEL NORTE RIVER BASIN	500-2,000
DAJABON RIVER BASIN	750-2,000
YAQUE DEL SUR RIVER BASIN	700-1,500
LAKE ENRIQUILLO BASIN	600-1,200
ARTIBONITO RIVER BASIN	1,200-2,000

## LANDFORMS

THE DOMINICAN REPUBLIC OCCUPIES THE EASTERN TWO-THIRDS (19,000 SQ MI) OF THE CARIBBEAN ISLAND OF HISPANIOLA, WHICH IT SHARES WITH HAITI, AND INCLUDES THE SMALLER OFFSHORE ISLANDS OF BEATA, CATALINA, SAONA, ALTO VELO AND CATALINITA. BOUNDED ON THE NORTH BY THE ATLANTIC OCEAN AND ON THE SOUTH BY THE CARIBBEAN, IT IS SEPARATED ON THE EAST FROM PUERTO RICO BY THE WINDWARD PASSAGE. THE 193-MILE LONG WESTERN BORDER WITH HAITI IS ONLY SHARED LAND FRONTIER. MAJOR GEOLOGICAL FEATURES ARE COMMON TO ENTIRE ISLAND: ALTERNATING EAST-WEST FAULTED MOUNTAIN BLOCKS AND TROUGHS. DR'S DISCONTINUOUS ATLANTIC COASTLINE IS FLANKED BY LOW (SELDOM OVER 2,000') NORTHERN CORDILLERA, WHICH DESCENDS INTO CIBAO-YUNGA TROUGH (VEGA REAL IN EAST, PLAINE DU NORD IN WEST). SOUTH OF THIS FERTILE VALLEY RISES THE CENTRAL CORDILLERA, THE ISLAND'S WIDE MOUNTAINOUS SPINE (SIERRA DE OCA IN DR, MASSIF DU NORD IN HAITI) AND ONE-THIRD OF ITS AREA; SOUTH OF IT, A SERIES OF RIDGES AND BASINS: THE PLAINE CENTRAL, AZUA LOWLAND, ARTIBONITE VALLEY, ENRIQUILLO BASIN AND PLAINE DU CUL-DE-SAC, ARE BOUNDED BY THE MASSIFS DE LA HOTTE AND DE LA SELLE IN HAITI AND THE SIERRA DE BAHORUCO IN DR. DR'S SEIBO COASTAL PLAIN IN SOUTHEAST IS RECENT ALLUVIAL DEPOSIT.

## LOWLANDS

MAJOR LOWLANDS CONSTITUTE APPROXIMATELY 25% OF DR'S LAND AREA, BUT ARE PRIMARY FOCI OF AGRICULTURAL PRODUCTION AND SETTLEMENT.

CIBAO VALLEY, 2,000 SQ MI IN AREA, 140 MI LONG AND 9-28 MI WIDE, AND ITS EASTWARD EXTENSION, THE VEGA REAL, CONSTITUTE AGRICULTURAL HEARTLAND BECAUSE OF FERTILE SOILS AND ABUNDANT WATER. MAJOR CITY, SANTIAGO DE LOS CABALLEROS, IS CENTER OF LANDED ELITE.

CARIBBEAN COASTAL PLAIN, 1,100 SQ MI IN AREA, IS CENTER OF SUGAR AND CATTLE INDUSTRIES.

SAN JUAN VALLEY, WHICH CONTINUES INTO HAITI AS CENTRAL PLATEAU, IS 700 SQ MI IN AREA, 70 MI LONG AND 30 MI WIDE AT HAITIAN BORDER, BUT ONLY 5 MI WIDE AT CARIBBEAN END.

NEIBA VALLEY, ENRIQUILLO BASIN, CONTINUING IN HAITI AS CUL-DE-SAC, WAS ONCE A STRAIT OF THE CARIBBEAN SEPARATING SIERRA DE BAHORUCO FROM REST OF ISLAND. NOW AN ARID, BELOW-SEA-LEVEL VALLEY WITH POOR SOILS, ENCLOSING SALT LAKE AT DEEPEST POINT.

OTHER SMALLER DISCONTINUOUS LOWLANDS, SOME OF CONSIDERABLE AGRICULTURAL POTENTIAL, EXIST ON NORTH COAST AND IN VALLEYS OF CENTRAL CORDILLERA.

## LAND USE

CLASS	SQ KM	PERCENT	PRODUCTION CAPACITY
-----	-----	-----	-----
I	537	1.1	EXCELLENT FOR CULTIVATION
II	2,350	4.9	VERY GOOD FOR CULTIVATION
III	3,122	6.6	GOOD FOR CULTIVATION
IV	3,639	7.7	LIMITED OR MARGINAL FOR CULTIVATION
V	6,071	12.7	PASTURE - NO EROSION HAZARD
VI	5,611	11.8	PASTURE - EROSION HAZARD

LAND USE (CONT'D)

VII	25,161	52.7	FOREST
VIII	<u>1,202</u>	<u>2.5</u>	WILDLIFE
	-----	----	
TOTAL	47,693	100.0	

SOURCE: NATIONAL PLANNING OFFICE

ACTUAL LAND USE

ACCURACY OF LAND USE DATA NOW AVAILABLE IS SUSPECT, BECAUSE IT IS BASED IN PART ON 1960 SURVEY CONDUCTED DURING TRUJILLO ERA. (DURING THAT TIME, RECORDS WERE MANIPULATED BY TRUJILLO FAMILY TO CONCEAL ITS LAND SEIZURES; AT ONE POINT, FAMILY OWNED 60% OF ALL FARM LAND.) AT PRESENT, STATE IS LARGEST LANDOWNER AND LAND DISTRIBUTION PROGRAMS ARE SOME YEARS BEHIND SCHEDULE. ACCORDING TO 1970 CENSUS, TOTAL LAND AREA OF 12 MILLION ACRES COMPRISED 1.6 MILLION ACRES PLANTED IN CROPS, 2 MILLION ACRES OF PASTURELAND, 1.9 ACRES FALLOW FARMLAND, THE REST WOODED, UNDERDEVELOPED OR WASTELAND. FARMLAND IS DIVIDED INTO SMALL NUMBER OF VERY LARGE ESTATES PRODUCING CASH CROPS (2% OF FARMS ENCOMPASSING OVER HALF THE TOTAL FARMLAND) AND LARGE NUMBER OF SMALL SUBSISTENCE FARMS (75% OF FARMS CONSTITUTE 14% OF FARMLAND), SOMEWHAT OVER HALF OF WHICH ARE OWNER-OPERATED. DESPITE HIGH RATIO OF POPULATION TO ARABLE LAND, SUBSTANTIAL INCREASES IN PRODUCTION WOULD BE POSSIBLE WITH IMPROVED LAND USE. SOME LAND NOW USED FOR GRAZING IS BETTER SUITED TO CULTIVATION, AND IRRIGATED LAND NOW UNDER SUGARCANE COULD BETTER BE PLANTED IN CROPS WITH HIGHER EMPLOYMENT EFFECTS.

WATERWAYS

OF 108 INDEPENDENT RIVER SYSTEMS IN COUNTRY, ONLY FIVE ARE CLASSIFIED AS LARGE: THE ARTIBONITO, YUNA, AZUA, YAQUE DEL NORTE AND YAQUE DEL SUR. ONLY TWO RIVERS OF THE CARIBBEAN COASTAL PLAIN, THE OZAMA, ON WHICH SANTO DOMINGO IS LOCATED, AND THE MACORIS, ARE IMPORTANT FOR TRANSPORTATION; BOTH ARE NAVIGABLE FOR SEVERAL MILES AND ARE USED FOR SUGAR TRANSPORTATION.

IN GENERAL, RIVERS ARE SHALLOW, WITH FLOW VARYING CONSIDERABLY ACCORDING TO SEASON. MAJOR RIVERS FLOW ALONG THE FLOORS OF LARGER VALLEYS: THE CIBAO PLAIN IS DRAINED BY YAQUE DEL NORTE IN THE WEST AND THE YUNA IN THE EAST; THE SAN JUAN VALLEY IS DRAINED BY THE YAQUE DEL SUR IN THE EAST AND BY THE MACASIN RIVER, A TRIBUTARY OF THE ARTIBONITO, IN THE WEST. IRRIGATION, PARTICULARLY OF THE ARID WESTERN PORTIONS OF BOTH PLAINS, IS THE PRIMARY USE OF RIVERS. HYDROELECTRIC POWER IS GROWING IN IMPORTANCE: TAVERA DAM ON THE YAQUE DEL NORTE, CAPACITY 60,000 KW, AND VALDESIA DAM ON THE NIZAO, CAPACITY 50,000 KW, WILL BE FOLLOWED BY 7.5 MI SABANETA COMPLEX, BEGUN IN 1974; 4 OTHER DAM PROJECTS ARE UNDER WAY.

#### SHORELINE

HISPANIOLA IS ENCIRCLED BY A SHALLOW COASTAL PLATFORM SURFACING IN PLACES AS NUMEROUS ROCKY ISLETS\* AND SERVING AS A BASE FOR EXTENSIVE CORAL REEFS. THUS NAVIGATION, ESPECIALLY IN ATLANTIC WATERS EAST OF MONTE CRISTI, CAN BE HAZARDOUS. EXTENT OF PLATFORM VARIES FROM A FEW HUNDRED YARDS TO 30 MILES; MAXIMUM DEPTH 200'.

CARIBBEAN COAST IS BETTER SUITED TO PORT DEVELOPMENT: SUBMARINE SHELF IS LOWER THAN ON NORTH COAST AND REEFS AND ISLETS FEWER. MAJORITY OF PORTS LOCATED THERE; BEST ON ESTUARIES OF MAJOR RIVERS.

\* NONE OF DOMINICAN REPUBLIC'S ISLANDS IS OF ECONOMIC SIGNIFICANCE.

#### MOUNTAINS

HISPANIOLA'S MOUNTAIN SYSTEMS SHOULD BE VISUALIZED AS SECTION OF GREATER ANTILLEAN CHAIN, INCLUDING SOUTHEAST CUBA, JAMAICA, PUERTO RICO AND THE VIRGIN ISLANDS, AN EAST-WEST TRENDING COMPLEX OF STRONGLY FOLDED, DEEPLY DISSECTED BLOCK MOUNTAINS LINKED TECTONICALLY WITH EASTERN FLANKS OF YUCATAN PENINSULA AND THE E-W TRENDING MOUNTAINS OF HONDURAS AND NICARAGUA. RANGES ARE PARALLELED BY GREAT SUBMARINE TRENCHES; HIGHEST POINT IN WEST INDIES, DR'S PICO DUARTE, IS 10,400' ABOVE SEA LEVEL, BUT OVER 6 MILES ABOVE SEA FLOOR IN NEARBY PUERTO RICO TRENCH.

DR'S FOUR PRINCIPAL RANGES RUN SE-NW ACROSS HISPANIOLA. IN THE SOUTH, THE SIERRA DE BAHORUCO, CRESTS AVERAGING 3-4,000', WITH PEAKS UP TO 6,000', IS AN EXTENSION OF HAITI'S MASSIF DE LA SELLE. PARALLEL TO THE SIERRA DE BAHORUCO AND SOMEWHAT NORTH OF IT, THE SIERRA DE NEIBA REACHES SIMILAR HEIGHTS. HIGHEST RANGE AND PRINCIPAL WATERSHED OF ISLAND, THE CORDILLERA CENTRAL, KNOWN AS MASSIF DU NORD IN HAITI, DIVIDES HISPANIOLA E-W AND CONSTITUTES 1/3 OF ITS TOTAL LAND MASS. CRESTS AVERAGE BETWEEN 5,000' AND 8,000', WITH INDIVIDUAL PEAKS OVER 10,000'. HIGH RAINFALL HAS ERODED MAZE OF CANYONS WHICH IN MANY AREAS MAKE TRANSIT DIFFICULT TO IMPOSSIBLE. CORDILLERA CENTRAL BREAKS UP INTO SEVERAL SMALLER RANGES WHICH EXTEND EASTWARD; ONE, CORDILLERA ORIENTAL, TO CARIBDEAN. WESTERN SLOPES OF CORDILLERA CENTRAL ARE LARGELY DEFORESTED AND MUCH ERODED. CORDILLERA SEPTENTRIONAL PARALLELS ATLANTIC COAST. CRESTS AVERAGE 4,000'. SIMILAR BUT LOWER HILLS OF SAMANA PENINSULA ARE SEPARATED FROM IT BY SWAMPS AT MOUTH OF YUNA RIVER.

ALL RANGES ARE RUGGED AND PRECIPITOUS, WITH SLOPES UP TO 40%; THEY CONSTITUTE FORMIDABLE BARRIERS TO COMMUNICATION. VALLEYS WITHIN RANGES AND ISOLATED COASTAL PLAINS, ESPECIALLY ON ATLANTIC, ARE LARGELY CUT OFF FROM MAJOR POPULATION CENTERS, TRADE AND SOCIAL SERVICES.

#### SEISMICITY

ENTIRE ISLAND OF HISPANIOLA LIES WITHIN THE CARIBBEAN EARTHQUAKE ZONE. BETWEEN 1900 AND 1960 SHALLOW EARTHQUAKES OCCURRED IN THE CIBAO VALLEY AND THE CARIBBEAN COASTAL PLAIN AND, FREQUENTLY, IN THE WINDWARD PASSAGE AND ALONG THE NE COAST OF DR. WINDWARD PASSAGE WAS ALSO SITE OF DEEP EARTHQUAKES DURING THIS PERIOD. SCATTERED AREAS IN CORDILLERA CENTRAL AND ALONG EXTREME EASTERN COASTAL PLAIN ARE ALSO VULNERABLE. AZUA, SAN JOSE DE OCOA AND SANTO DOMINGO HAVE ALL SUFFERED CONSIDERABLE EARTHQUAKE DAMAGE IN PAST; MOST RECENTLY, IN 1971, CEMENT PLANT NEAR SANTO DOMINGO WAS SERIOUSLY DAMAGED, NECESSITATING HEAVY IMPORTS.

COAST BETWEEN BANI AND BARAHONA, AS WELL AS IN VICINITY OF SANTO DOMINGO AND OF NAGUA ARE PARTICULARLY VULNERABLE TO TSUNAMIS GENERATED BY QUAKES WITH EPICENTERS IN EASTERN ATLANTIC. LISBON EARTHQUAKE OF 1755 GENERATED 35' WAVES THAT REACHED WEST INDIES 12 HOURS AFTER INITIAL SHOCK.

## ROAD NETWORK

ROAD NETWORK IS DENSEST IN COUNTRY'S CENTER ALONG AXIS JOINING SANTO DOMINGO AND SANTIAGO AND IN EASTERN SUGAR-PRODUCING AREA. SHORT DISTANCES -- AVERAGE HAUL IS 125 KM -- FAVOR ROAD TRANSPORT OVER OTHER MODES: AN ESTIMATED 95% OF ALL INTERNAL TRAFFIC MOVES BY ROAD.

NO PRECISE ROAD INVENTORY OR ADMINISTRATIVE CLASSIFICATION OF ROADS EXISTS, BUT, AS OF MID-1976, NETWORK COMPRISED APPROXIMATELY 5,500 KM OF PRIMARY PAVED ROAD, 4,000 KM SECONDARY ROAD (GRAVEL AND IMPROVED EARTH) AND 1,200 KM FARM-TO-MARKET EARTHEN ROADS. MAJOR HIGHWAYS INCLUDE: THE DUARTE HIGHWAY, WHICH RUNS FROM THE CAPITAL THROUGH THE CIBAO VALLEY TO MONTE CRISTI ON THE NORTHWEST COAST; THE SANCHEZ HIGHWAY, FROM SANTO DOMINGO TO BARAHONA ON THE SOUTHWEST COAST, VIA AZUA; AND THE MELLA HIGHWAY FROM SANTO DOMINGO TO SAN PEDRO DE MACORIS ON THE SOUTHEAST COAST. OTHER PRIMARY ROADS EXTEND SANCHEZ HIGHWAY TO HAITIAN BORDER VIA SAN JUAN AND ELIAS PINA AND ULTIMATELY TO PORT-AU-PRINCE; AND CONNECT SAN PEDRO DE MACORIS WITH HATO MAJOR, HIGUEY AND BOCA DE YUNA. ANOTHER PAVED ROAD FROM SAN FRANCISCO DE MACORIS FOLLOWS NORTH COAST FROM NAGUA TO PUERTO PLATA, THEN LOOPS BACK TO DUARTE HIGHWAY. CONNECTIONS BETWEEN URBAN CENTERS ARE ADEQUATE, BUT RURAL COMMUNITIES AND HIGHLANDS ARE NOT WELL SERVED BY ROAD SYSTEM. CORDILLERA CENTRAL AND SIERRA DE BAHORUCO, PARTICULARLY, ARE ISOLATED. FARM TO MARKET ROADS SHOULD BE OF HIGHEST PRIORITY IN SECTOR DEVELOPMENT.

MAINTENANCE OF ROAD SYSTEM IS GENERALLY INADEQUATE. MAINTENANCE BUDGET IS INSUFFICIENT, ABOUT HALF WHAT IS NEEDED; EQUIPMENT AND WORKSHOPS NEED REHABILITATION/REPLACEMENT. SKILLED WORKERS AND MANAGERS ARE IN SHORT SUPPLY BECAUSE JOB TRAINING, PROCEDURES AND STANDARDS ARE POORLY DEVELOPED; MOREOVER, GOVERNMENT SALARIES ARE NOT COMPETITIVE WITH THOSE IN PRIVATE SECTOR. AN IBRD HIGHWAY MAINTENANCE PROGRAM BEGUN IN 1976 IS ATTEMPTING TO ADDRESS THE PROBLEM.

## VEHICLES

TOTAL VEHICLE FLEET, 94,165 IN 1974, INCLUDED 22,600 TAXIS, 15,000 PICKUPS, 2,050 BUSES (ALMOST ALL OF WHICH WERE USED FOR PUBLIC TRANSPORT IN SANTO DOMINGO AND SANTIAGO); MOST INTER-CITY PASSENGER TRANSPORT MOVED BY PRIVATE OR PUBLIC AUTOMOBILES. CARS AND SMALL VEHICLES MAKE UP OVER 85% OF TRAFFIC ON MAIN ROADS; SMALL PICKUPS AND VANS OF LESS THAN 1 TON CAPACITY CONSTITUTE 50% OF THIS TRAFFIC. CUSTOMS DUTY ON JEEPS AND LIGHT TRUCKS IS CONSIDERABLY LESS (25%) THAN THAT ON TRUCKS (36%) OR BUSES (70%).

## SURFACE MILES

FROM ----	TO --	KM --
SANTO DOMINGO	BARAHONA	193
	SAN PEDRO DE MACORIS	75
	LA VEGA	125
LA VEGA	JOSE E. BISONO	55
JOSE E. BISONO	MONTE CRISTI	83

## RAILROADS

RAILROADS ARE NOT SIGNIFICANT TRANSPORT MODE. GOVERNMENT OWNS AND OPERATES 112 KM OF 1 METER GAUGE LINE BETWEEN LA VEGA AND PUERTO SANCHEZ ON NE COAST. SUGAR COMPANIES OWN AND OPERATE ABOUT 1,600 KM OF SHORT LINES, MOST IN POOR CONDITION; 100 KM OF 1.6 METER GAUGE LINE RUNNING NORTH, FROM HAINA, NEAR SANTO DOMINGO, CAN SERVE AS AN EXAMPLE. NEITHER RAIL SYSTEM OPERATES ON A REGULAR SCHEDULE OR CARRIES PASSENGERS.

## RAIL CARRIERS

FERROCARRILES UNIDOS DOMINICANOS: SANTO DOMINGO; GOVERNMENT RAILWAY.

SANCHEZ-LA VEGA SECTION: SANCHEZ; 100 KM.

## PORTS

SANTO DOMINGO, WHICH HAS 3 HARBORS: HAINA, STO. DOMINGO AND PUERTO ANDRES, IS THE PRINCIPAL PORT, HANDLING 90% OF ALL IMPORTS AND 20% OF ALL EXPORTS. PEDERNALES, A SPECIALIZED PORT

PORTS (CONT'D)

FOR MINERALS IN THE SW, PROCESSES 45% OF TOTAL EXPORTS: ON THE NORTH COAST, PUERTO PLATA IS BEING IMPROVED AND IS EXPECTED TO BE THE TERMINAL FOR AGRICULTURAL EXPORTS FROM THE CIBAO. LA ROMANA, BOCA CHICA, SAN PEDRO DE MACORIS AND BARAHONA ARE THE MORE IMPORTANT OF THE COUNTRY'S OTHER 17 PORTS.

GENERALLY, PORTS ARE HANDICAPPED BY OBSOLETE EQUIPMENT AND RELIANCE ON UNSKILLED AND SEMI-SKILLED LABOR. ALSO, LARGE NUMBER OF PORTS RELATIVE TO AMOUNTS OF CARGO HANDLED RESULTS IN DUPLICATION OF EQUIPMENT AND FACILITIES AT THE EXPENSE OF NEW IMPROVEMENTS.

BARAHONA

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LAT. 18 DEGREES 12' N; LONG. 71 DEGREES 05' W

ACCOMODATION--CHANNEL DREDGED TO 35 FT. WAREHOUSES AND WATER AVAILABLE

SHIPREPAIRS--MINOR REPAIRS ONLY

TOWAGE--TUGS AVAILABLE

BOCA CHICA

-----

LAT. 18 DEGREES 27' N; LONG. 69 DEGREES 36' W

ACCOMODATION--CANAL DREDGED TO 35 FT, DOCK TO 24 FT. ONE WAREHOUSE, ELECTRICITY, WATER (BRACKISH)

SHIPREPAIRS--MINOR REPAIRS ONLY

HAINA

-----

LAT. 18 DEGREES 25' N; LONG. 70 DEGREES 01' W

ACCOMODATION--ENTRANCE CHANNEL DREDGED TO 35 FT HARBOR PROTECTED

BY BREAKWATERS. BULK SUGAR LOADING INSTALLATIONS ON W BANK WHARVES. FOUR DOCKSIDE WAREHOUSES, EACH 420 FT LONG, WITH FULLY MECHANIZED HANDLING. SHIP OF 8,500 TONS CAN BE LOADED AND PUT TO SEA WITHIN 24 HOURS OF ARRIVAL. DRAFT LIMITED TO 29 FT.

SHIPREPAIRS--ON E SIDE OF HARBOR ARE THE NAVAL DOCKYARDS WHERE SOME REPAIRS CAN BE CARRIED OUT.

PUERTO PLATA  
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LAT. 19 DEGREES 48' N; LONG. 70 DEGREES 41' W

ACCOMODATION--DEPTH AT ENTRANCE, 42 FT DEPTH ON BAR, 37 FT. HIGH WATER 34 FT LOW WATER DEPTH IN HARBOR, 30 FT TO 35 FT ONE WHARF, 30 FT ALONGSIDE PIER, 800 FT LONG, 120 FT WIDE. FACILITIES INCLUDE WATER, ELECTRICITY, CRANES, WAREHOUSES.

SHIPREPAIRS--MINOR REPAIRS ONLY

TOWAGE--SMALL TUGS AVAILABLE

PILOTAGE--COMPULSORY

SAN PEDRO (SAN PEDRO DE MACORIS)  
-----

LAT. 18 DEGREES 26' N; LONG 69 DEGREES 19' W ON THE RIVER  
HIGUAMO

ACCOMODATION--CHANNEL 500 FT WIDE, 35-40 FT DEEP; RISE AND FALL OF TIDE ABOUT ONE FOOT; MAXIMUM PERMITTED DRAFT, 26 FT. TOTAL LENGTH OF WHARF IS 2,500 FT; ACCOMODATES 5 OR 6 LARGE VESSELS OF FROM 8,000 TO 10,000 TONS DEAD WEIGHT.

TWO WAREHOUSES, OPERATIONS USUALLY BY SHIPS GEAR. SMALL TUG TO ASSIST IN DOCKING AND UNDOCKING. OTHER LIGHTERS AND TUGS AVAILABLE BY ARRANGEMENT. WATER AND PROVISIONS OBTAINABLE.

SHIPREPAIRS--MINOR REPAIRS ONLY

SANTO DOMINGO  
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LAT. 18 DEGREES 28' N; LONG. 69 DEGREES 53' W LOCATED AT MOUTH OF OZAMA RIVER.

ACCOMODATION--HARBOR MAY BE ENTERED BY DAY OR NIGHT WITHOUT DIFFICULTY EXCEPT DURING SWELL OR PERIODS WHEN RIVER CURRENT IS EXCEPTIONALLY HEAVY. VESSELS ANCHORING ON ROADS MUST WAIT FOR HARBOR PILOT TO ASSIGN ANCHORAGE. CHANNEL DREDGED TO 35 FT. VESSELS DRAWING UP TO 30 FT 9 IN CAN ANCHOR ON ROADS. SEVEN BERTHS FOR VESSELS UP TO 600 FT LENGTH IN DEPTHS VARYING BETWEEN 18 FT AND 28 FT. NO HEAVY-LIFT FACILITIES; SOME SHORE CRANES BUT SHIP'S GEAR NORMALLY USED FOR LOADING/DISCHARGING. WAREHOUSES AVAILABLE. ON E BANK OF RIVER IS A BUNKERING BERTH FOR VESSELS UP TO 30 FT DRAFT. PROVISIONS AND WATER AVAILABLE.

QUARANTINE--VACCINATION CERTIFICATES NOT MORE THAN THREE YEARS OLD FOR CREW. RATGUARDS MUST BE AFFIXED ALONGSIDE. FUMIGATION CERTIFICATE (SIX MONTHS) MAY ALSO BE REQUIRED. PRATIQUE GRANTED ALONGSIDE.

SHIPREPAIRS--MINOR REPAIRS ONLY

TOWAGE & PILOTAGE--COMPULSORY

SHIPPING COMPANIES

FLOTA MERCANTE DOMINICANA (MERCHANT FLEET): SANTO DOMINGO; PRIVATELY OWNED; 7,630 G.R.T.; REGULAR CARGO AND LIMITED PASSENGER SERVICES BETWEEN NEW YORK, HALIFAX, HAMILTON, KINGSTON AND THE DOMINICAN REPUBLIC.

ALCOA STEAMSHIP COMPANY INC.: SANTO DOMINGO; REGULAR SERVICE FROM MOBILE, ALA, NEW ORLEANS, LA AND HOUSTON, TEX; AGENTS FOR CIA. TRANSATLANTICA ESPANOLA SA, MADRID, WITH SERVICE FROM FRANCE, ITALY, SPAIN AND PORTUGAL.

BAEZ & RANNICK, SA: SANTO DOMINGO; AGENTS

FREDERIC SCHAD C POR A: SANTO DOMINGO; AGENTS

SEVERAL SHIPS OF THE EUROPEAN LINES CALL AT SANTO DOMINGO.

AIRPORTS

ONE INTERNATIONAL AIRPORT, LAS AMERICAS, 24 KILOMETERS EAST OF SANTO DOMINGO, CAN ACCOMODATE JUMBO JETS. ON THE NORTH COAST AT PUERTO PLATA, ANOTHER INTERNATIONAL AIRPORT NOW UNDER CONSTRUCTION IS SCHEDULED FOR COMPLETION IN 1978. DOMESTIC AIR TRANSPORT IS SERVED BY SIXTEEN LOCAL AIRPORTS\*, OUT OF A TOTAL 44 FUNCTIONING AIRSTRIPS, AND 1 SEAPLANE STATION.

INTERNATIONAL AIR TRAFFIC IS INCREASING RAPIDLY (60,000 PASSENGERS IN 1973) DUE IN PART TO DEVELOPMENT OF TOURISM. CONNECTIONS TO USA, VENEZUELA, CURACAO AND SPAIN ARE AVAILABLE. DOMESTIC TRAFFIC, IN CONTRAST, IS LIMITED (25,000 PASSENGERS IN 1972), BUT AIR TRANSPORT IS NECESSARY BECAUSE SOME REGIONS ARE POORLY SERVED BY ROAD SYSTEM.

\* PEPILLO SALCEDO, PUERTO PLATA, SANTIAGO, CONSTANZA, BARAHONA, SANTO DOMINGO, LA ROMANA, HIGUEY AND PEDERNALES ARE MOST IMPORTANT.

AERODROMES

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.

LOCATION COORDINATES	ELEVATION M/ TEMP C	-----RUNWAY CHARACTERISTICS-----				AIRCRAFT/ STRENGTH (1000 KG)	FUEL/ OCTANE
		NR/TYPE	SLOPE %	AIRCRAFT/ LENGTH M	CL		
SANTO DOMINGO DE LAS AMERICAS INTL	17 28.6	17/35 PA-I	--	DC8-63 3353	A	DC8-63 AUW 130	100JX

18 25' 57" N  
69 40' 14" W

REMARKS: ALTERNATE AERODROMES: KINGSTON/NORMAN MANLEY INTL, MONTEGO BAY/SANGSTER INTL, PORT-AU-PRINCE/PRESIDENT DUVALIER INTL, ST. CROIX/ALEXANDER HAMILTON, SAN JUAN/PUERTO RICO INTL.

AIDS: LSA 35, LR, LTX, LB, LO, MD, MC, MT, MTX, MO. RADIO FACILITIES WITH VOICE AVAILABILITY, ROTATING OR CODE LIGHT, FIELD LIGHTING (RUNWAY). LONGEST RUNWAY 11,000' HARD SURFACED.

AIDS:

B	- ROTATING OR CODE LIGHT
D	- RUNWAY DESIGNATION MARKING
L	- FIELD LIGHTING
LO	- OBSTRUCTION LIGHTING
LR	- RUNWAY EDGE, THRESHOLD AND RUNWAY AND LIGHTING
LTX	- TAXIWAY LIGHTING
MC	- RUNWAY CENTER LINE MARKING
MO	- OBSTRUCTION MARKING
MTX	- TAXIWAY CENTER LINE AND HOLDING POSITION MARKINGS
SA	- SIMPLE APPROACH LIGHTING

PERSONAL ENTRY REQUIREMENTS

PASSPORT: PASSPORT WITH CURRENTLY VALID VISA RECOMMENDED. HOWEVER, US CITIZENS MAY ENTER WITH TOURIST CARDS OBTAINABLE FROM IMMIGRATION AUTHORITIES AT AIRPORT OF ENTRY. TO OBTAIN TOURIST CARD, US PASSPORT, BIRTH CERTIFICATE OR OTHER DOCUMENT WHICH INDICATES THAT THE PERSON IS A US CITIZEN IS REQUIRED, AS WELL AS A ROUND-TRIP TICKET.

VISA: NOT REQUIRED IF ENTRY TO BE MADE WITH TOURIST CARD. TOURIST CARDS VALID FOR 60 DAYS MAX. OCCASIONALLY, AT DISCRETION OF AIRPORT INSPECTOR DE MIGRACION, CARDS ARE ISSUED FOR 15 OR 30 DAYS BUT ARE EXTENDABLE TO 60 DAYS AT DIRECCION GENERAL DE MIGRACION.

HEALTH: SMALLPOX REQUIRED

AIRCRAFT ENTRY REQUIREMENTS

PRIVATE AIRCRAFT OVERFLYING TERRITORY OR LANDING AT DE LAS AMERICAS INTERNATIONAL AIRPORT ARE REQUIRED TO FILE A FLIGHT PLAN ONLY. ALL COMMERCIAL AIRCRAFT, EXCEPT SCHEDULED, MUST REQUEST PERMISSION TO

AIRCRAFT ENTRY REQUIREMENTS (CONT'D)

LAND OR OVERFLY AT LEAST 72 WORKING HOURS PRIOR TO DEPARTURE. PERMISSION MUST BE REQUESTED BY MAIL: DIRECTOR GENERAL DE AERONAUTICA CIVIL, AERONAUTICA CIVIL, TERCUA PLANTA, EDIFICIO DE TELECOMUNICACIONES, CABLE ISABEL LA CATOLICA, SANTO DOMINGO, DOMINICAN REPUBLIC; CABLE: DIRACIV, SANTO DOMINGO, TELEX: ITT 3400 100 DIRACIV, AND SHOULD PROVIDE FOR A PREPAID REPLY.

THE APPLICATION FOR APPROVAL TO LAND OR OVERFLY THE DOMINICAN REPUBLIC MUST INCLUDE: TYPE OF AIRCRAFT, REGISTRATION NUMBER OF AIRCRAFT, COLOR OF AIRCRAFT, DEPARTURE POINT AND DESTINATION, PILOT'S NAME.

SPECIAL NOTICES  
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FLIGHTS ON THE ROUTE SANTO DOMINGO-PORT-AU-PRINCE MAY CROSS THE DOMINICAN-HAITIAN BORDER FLYING AT 10,000 FT. FLIGHTS BELOW THIS ALTITUDE SHOULD AVOID THE BORDER AND FLY BY ROUTE G-2.

PROHIBITED AREAS:

1. NATIONAL PALACE GROUNDS ZONE--LIMITED BY A CIRCLE OF 200 METERS RADIUS CENTERED AT 18 DEGREES 28'13"N, 69 DEGREES 53'37"W.

2. SAN ISIDRO AFB--LIMITED BY A CIRCLE OF 5 STATUTE MILE RADIUS CENTERED AT 18 DEGREES 31'13"N, 69 DEGREES 45'28"W. AIRCRAFT ON APPROACH WILL BE PERMITTED TO FLY IN ACCORDANCE WITH IFR INTO THE AREA MAINTAINING MIN. HEIGHT OF 2500', AND OVERFLY THE ZONE AT A MINIMUM HEIGHT OF 7000'.

3. LAS CALDERAS NAVAL BASE ZONE--LIMITED BY A RECTANGLE WITHIN 18 DEGREES 08'00"N, 70 DEGREES 27'00"W; 18 DEGREES 15'00"N, 70 DEGREES 37'00"W. AIRCRAFT ARE PERMITTED TO OVERFLY THE ZONE AT A MINIMUM HEIGHT OF 7000'.

4. CHEMICAL FACTORY ZONE--LIMITED BY A CIRCLE OF 1 STATUTE MILE RADIUS CENTERED AT 18 DEGREES 30'48"N, 69 DEGREES 54'34"W.

5. AMMUNITION DEPOT--LIMITED BY A CIRCLE 0.6 NAUTICAL MILES IN RADIUS CENTERED AT 18 DEGREES 29'40"N, 69 DEGREES 57'17"W.

6. PRESIDENTIAL HELIPORT--18 DEGREES 29'29 N, 69 DEGREES 58'03"W; 18 DEGREES 29'35"N, 69 DEGREES 59'07"W; 18 DEGREES 27'29"N, 69 DEGREES 58'20"W, 18 DEGREES 27'36"N, 69 DEGREES 59'28"W.

FEES: A FEE OF 15 PESOS IS CHARGED FOR EACH OVERFLIGHT THROUGH THE SANTO DOMINGO FIR AND 3.50 PESOS IS CHARGED FOR EACH LANDING AT DE LAS AMERICAS INTL AIRPORT. (THE FOLLOWING AIRCRAFT ARE EXEMPT FROM THESE CHARGES: STATE AND MILITARY AIRCRAFT, AIRCRAFT ON TEST, TRAINING OR SEARCH AND RESCUE FLIGHTS AUTHORIZED BY APPROPRIATE AUTHORITY, AIRCRAFT RETURNING BECAUSE OF MECHANICAL DIFFICULTIES OR ADVERSE WEATHER CONDITIONS, AND TOURIST, AIR CLUB OR SCHOOL AIRCRAFT RECOGNIZED BY THE DIRECTORATE GENERAL OF CIVIL AVIATION.

#### AIRLINES

##### DOMESTIC

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CDA--COMPANIA DOMINICANA DE AVIACION: SANTO DOMINGO; OPERATES ON INTERNATIONAL ROUTES CONNECTING SANTO DOMINGO WITH SAN JUAN (PUERTO RICO), MIAMI, NEW YORK, CURACAO (NETHERLANDS ANTILLES) AND CARACAS (VENEZUELA); FLEET: 2 BOEING 727, 1 DC-6B, 1 DC-4, 1 DC-3, 1 C-46.

ALAS DEL CARIBE, C. POR A.: SANTO DOMINGO; INTERNAL ROUTES.

##### FOREIGN

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AEROCONDOR, A.L.M. (NETHERLANDS ANTILLES), AMERICAN AIRLINES, EASTERN AIRLINES, IBERIA, PAN AMERICAN, PRINAIR AND VIASA (VENEZUELA).

AIR DISTANCES

FROM: -----	TO: ---	ST MI -----
SANTO DOMINGO	BARRANQUILLA	622
	CARACAS	570
	KINGSTON	469
	MADRID	4155
	MIAMI INT'L	847
	NASSAU	677
	NEW ORLEANS INT'L	1518
	NEW YORK (JFK)	1552
	PANAMA (TOCUMEN)	916
	PARAMAIBO (ZANDERY)	1324
	SAN JUAN (ISLA GRANDE)	234
	SAO PAULO	3292
	WASHINGTON INT'L	1477
	WILLEMSTADT	433

## ELECTRIC POWER

ALL MAJOR POPULATION CENTERS HAVE ELECTRICAL SERVICE AND ARE INTERCONNECTED BY NETWORK OF 66 KV AND 33 KV TRANSMISSION LINES. MEDIUM VOLTAGE CIRCUITS ARE EITHER 12,500 V OR 4,160 V\* AND SERVE 120/240 V 60 HZ SECONDARIES. WHEN FIRST 116 MW THERMAL UNIT IS INSTALLED AT ISABELA IN 1979, INSTALLATION OF PLANNED 132 KV TRANSMISSION SYSTEM CONNECTING MAJOR LOAD CENTERS AND POWER PLANTS WILL BEGIN. 1974-75 TRANSMISSION AND DISTRIBUTION LOSSES AND STATION USAGE RAN ABOUT 27.4% OF GROSS GENERATED. REDUCTION OF THIS RATHER HIGH RATE TO 20% BY 1984 IS PROJECTED.

1976 SAW SEVERE ELECTRIC POWER RATIONING BECAUSE OF DELAYS IN INSTALLATION OF ADDITIONAL UNITS, POOR MAINTENANCE OF EXISTING THERMAL UNITS AND EXCESSIVE DRAWDOWN OF HYDROPOWER RESERVOIRS AT TRAVERA AND VALDESIA TO PROVIDE WATER FOR IRRIGATION. (E.G., VALDESIA WAS PRODUCING 17 MW OUT OF 54 MW CAPACITY.) CAPABILITY OF SYSTEM WAS REDUCED FROM NOMINAL CAPACITY OF 470 MW TO 220 MW, WELL BELOW RECENT DEMAND OF 340 MW. RECENT START OF OPERATIONS OF HUNA UNITS 3 AND 4, REPAIR OF DAMAGED UNITS AND (PREDICTED) RESTORATION OF WATER LEVELS IN HYDRO RESERVOIRS SHOULD HAVE IMPROVED SITUATION, INCREASING CAPACITY TO 480 MW, ADEQUATE FOR FUTURE DEMAND OF 390 MW.

DESPITE ABUNDANT HYDROPOWER POTENTIAL, MOST POWER PLANTS ARE FUELED BY IMPORTED OIL. ALL PRODUCTION, DISTRIBUTION AND MARKETING, EXCEPT FOR SUGAR MILLS AND FALCONBRIDGE NICKEL PLANT INDUSTRIAL USE IS HANDLED BY GOVERNMENT'S DOMINICAN ELECTRICITY CORPORATION (CDE). 1975 TOTAL SALES AVERAGED 235 KWH PER CAPITA; ADDITION OF SELF-PRODUCERS GENERATION WOULD DOUBLE AVERAGE CONSUMPTION. AVERAGE CONSUMPTION PER HOUSEHOLD CONNECTED WAS 545 KWH PER MONTH. RURAL ELECTRIFICATION PROGRAM PLANS TO EXTEND SYSTEM TO SERVE 20,000 ADDITIONAL CUSTOMERS IN 160 POPULATION CENTERS.

\* PLANS CALL FOR UPGRADING 4.16 KV CIRCUITS TO 12.5 KV.

### CONSUMPTION IN MWH

	1970 ----	1971 ----	1974 ----	1975 ----	PROJECTED 1976 ----
RESIDENTIAL	263,621	296,787	415,786	450,000	470,000
COMMERCIAL	87,030	97,170	139,960	153,000	159,000

CONSUMPTION IN MWH (CONT'D)

INDUSTRIAL	243,843	280,923	419,270	430,000	445,000
PUBLIC ADMIN- ISTRATION	71,847	77,444	102,002	117,000	120,000
PUBLIC LIGHTING	18,035	18,359	19,987	20,000	20,000

CONSUMPTION OF

-----  
ELECTRICITY  
-----

DISTRIBUTED BY  
-----

CDE	684,376	770,683	1,097,006	1,171,000	1,220,000
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PRODUCTION - MWH  
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THERMOELECTRIC	822,397	920,021	1,300,000	1,410,000	1,380,000
HYDROELECTRIC	82,231	67,027	69,000	54,000	70,000
DIESEL UNITS	8,300	5,631	21,000	30,000	30,000

PRODUCTION OF

-----  
ELECTRICITY BY  
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CDE	912,928	992,681	1,390,000	1,494,000	1,480,000
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INSTALLED CAPACITY - MW  
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DOMINICAN ELEC- TRICITY CORP.	255.8	255.8	417.8	471.8	551.8
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CAPACITY (MW)

AS OF 12/13/75

YEAR OF INSTALLATION	PLANT AND UNIT	NORMAL CAPABILITY	PRESENT CAPABILITY
-----	-----	-----	-----
1948	LA MARINA #4	7.5	4.0
1954	" 5	12.6	6.0
1956	" 6	12.6	6.0
1959	" 7	12.6	0
1964	" 8	26.5	10.0
1968	HAINA #1	54.0	30.0
1970	" 2	54.0	40.0
1966	PUERTA PLATA #1	26.5	24.0
	TOTAL STEAM	206.3	120.0 A/
	-----	-----	-----
1959	JIMENDA	8.0	8.0
1966	LAS DAMAS	7.5	7.5
1973	TAVERA 1 & 2	80.0	20.0 B/
1975	VALDESIA 1 & 2	54.0	38.4 C/
	TOTAL HYDRO	149.5	73.9
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1974	SAN PEDRO DE MACORIS GT	28.3	28.3
1974	BARAHONA GT	28.3	26.0

1974	TIMBEQUE 1 GT	21.0	20.0
1974	TIMBEQUE 2 GT	21.0	20.0
	TOTAL GAS		
	-----		
	TURBINES	98.6	94.3
	-----		
VARIOUS	TOTAL DIESEL UNITS	17.4	11.8 A/
(LESS THAN	-----		
20 YEARS OF AGE)	TOTAL	471.8 MW	300.0 MW
	-----		

A/ DERATED BECAUSE OF LACK OF MAINTENANCE  
 B/ LACK OF WATER TO MEET IRRIGATION AND POWER REQUIREMENT  
 C/ CAPABILITY AT LOW RESERVOIR LEVEL

#### RADIO NETWORK

DIRRECCION GENERAL DE TELECOMUNICACIONES: SANTO DOMINGO; GOVERNMENT SUPERVISORY BODY.

EXTENSIVE RADIO AND TELEVISION SYSTEMS ARE POTENTIALLY AN EXCELLENT MEANS OF COMMUNICATING WITH RURAL POPULATIONS. BY 1976 THERE WERE 600,000 RADIO RECEIVERS AND 110 AM AND 31 FM STATIONS IN COUNTRY\*. CHEAP AND READILY AVAILABLE JAPANESE TRANSISTOR RADIOS WERE WIDELY DISTRIBUTED BY LATE 1960'S; IN THE COUNTRYSIDE THESE OFTEN SERVED AS NUCLEI FOR GATHERINGS OF 40-50 PEOPLE ON OCCASSION OF MAJOR POLITICAL BROADCAST. AMONG MOST IMPORTANT STATIONS BROADCASTING FROM CAPITAL IN 1970'S WERE RADIO UNIVERSAL, RADIO MIL, RADIO QUISQUEYA INTERNATIONAL (AT 50 KW, ITS TRANSMITTER WAS COUNTRY'S MOST POWERFUL) AND BROADCASTING NACIONAL. TRANSMITTERS OF 10, 5, AND 1 KW CAPACITIES ARE USUAL.

\* IN 1975, OF 130 STATIONS BROADCASTING ON MEDIUM WAVE BAND, APPROXIMATELY 12 WERE EQUIPPED FOR SHORTWAVE TRANSMISSION.

## TELEPHONE SYSTEM

RELATIVELY EFFICIENT DOMESTIC SYSTEM IS BASED ON ISLANDWIDE RADIO RELAY NETWORK; LARGER CITIES HAVE AUTOMATIC EXCHANGES AND ABOUT 90% OF TELEPHONES ARE ON AUTOMATIC DIAL SYSTEM. MOST URBAN AREAS ARE CONNECTED BY TELEPHONE AND TELEGRAPH LINES, THOUGH MAJORITY OF TELEPHONES, WHICH TOTAL 115,000, ARE IN CAPITAL. INTERNATIONAL CABLE SERVICE IS PROVIDED BY ALL AMERICAN CABLES AND RCA; GOVERNMENT HAS RADIOTELEGRAPH CONNECTIONS WITH CUBA, MEXICO, NICARAGUA AND NEW YORK CITY; RADIOTELEPHONE CONNECTIONS ARE AVAILABLE TO MIAMI.

## TELEVISION

BECAUSE OF INITIAL COST OF SET, UTILITY OF TELEVISION AS MEANS OF COMMUNICATION IS LIMITED TO UPPER CLASS AUDIENCE. 11 TELEVISION STATIONS ORIGINATE IN SANTO DOMINGO AND SEVERAL HAVE RELAY STATIONS IN OTHER LARGE URBAN AREAS. IN 1972, 75% OF POPULATION LIVED WITHIN PRIMARY RECEPTION AREA OF DOMINICAN CHANNELS, BUT ONLY 25% WATCHED TELEVISION. ESTIMATES OF TOTAL NUMBER OF TV RECEIVERS RANGE BETWEEN 150,000 AND 160,000.

TELEVISION DOMINICANA: SANTO DOMINGO; GOVERNMENT STATION; 2 CHANNELS, 2 RELAY STATIONS

RAHINTEL TELEVISION: SANTO DOMINGO; COMMERCIAL STATION

COLOR-VISION: SANTO DOMINGO; COMMERCIAL STATION; 2 CHANNELS

TELE-INDE: SANTO DOMINGO; COMMERCIAL STATION

TELESISTEMA CANAL II: EL VERGEL 88

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